GEI Consultants

Geotechnical
Environmental and
Water Resources
Engineering

FINAL
Remedial Investigation Report

Clifton Former MGP Site
Operable Unit 2 (OU-2)

Staten Island, New York
AOC Index No.: D2-0001-98-04
Site No.: 2-43-023

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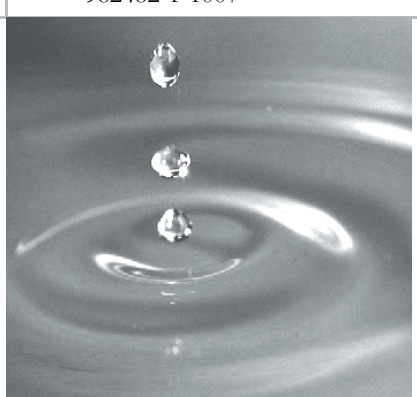

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Abbreviations and Acronyms

AOC	Administrative Order on Consent
BCF	Bioconcentration Factors
BTEX	Benzene, Toluene, Ethylbenzene, Xylene
CCMP	Comprehensive Conservation and Management Plan
COCs	Contaminants Of Concern
COPECs	Chemicals Of Potential Ecological Concern
COPCs	Chemicals of Potential Concern
CPAH	Total Carcinogenic PAHs
CRSM	Conceptual Risk System Model
DNAPL	Dense Non-Aqueous Phase Liquid
DO	Dissolved Oxygen
EPA	United States Environmental Protection Agency
EPCs	Exposure Point Concentrations
FWIA	Fish and Wildlife Impacts Analysis
HASP	Health and Safety Plan
IRM	Intermediate Remedial Measure
MGP	Manufactured Gas Plant
MSDS	Material Safety Data Sheets
NAPL	Non-aqueous Phase Liquids
NAVD	National Astronomic Vertical Datum
NGVD	National Geodetic Vertical Datum
NOAELs	No Observed Adverse Effect Levels
NWI	National Wetland Inventory
NYSDEC	New York State Department of Environmental Conservation
NYSDOH	New York State Department of Health
OU	Operable Unit
ORP	Oxidation/Reduction Potential
OSHA	Occupational Safety & Health Administration
OVA	Organic Vapor Analyzer
PAHs	Polycyclic Aromatic Hydrocarbons
PCBs	Polychlorinated Biphenyls
PID	Photoionization Detector
PVC	Polyvinyl chloride
QHEA	Qualitative Human Exposure Assessment
RCRA	Resource Conservation and Recovery Act
RI	Remedial Investigation

Abbreviations and Acronyms (cont.)

ROW	Right of Way
RSCOs	Recommended Soil Cleanup Objectives
RSRs	Remediation Standard Regulations
SCGs	Standards, Criteria Or Guidance
SVOC	Semivolatile Organic Compound
TAGM	Technical Adminstrative Guidance Memorandum
TAL/TCL	Target Compound List/Target Analyte List
TCLP	Toxic Characteristic Leaching Procedure
TCN	Total Cyanide
TDS	Total Dissolved Solids
TOC	Total Organic Carbon
TOGs	Technical and Operational Guidance Series
TPAH	Total PAH
UCL	Upper Confidence Limit
USGS	United States Geological Survey
UST	Underground Storage Tank
VOC	Volatile Organic Compound

MEASUREMENTS

bgs	Below Ground Surface
ID	Inner Diameter
MMCF	Million Cubic Feet
ppb	Parts Per Billion
ppm	Parts Per Million
ug/m	Microgram per meter

Glossary

This section includes key definitions and common terms used throughout this document and throughout documents pertaining to the New York State Department of Environmental Conservation (NYSDEC) Division of Environmental Remediation's (DER) remedial program. The purpose of the glossary is to give the reader a better understanding of the fundamental concepts discussed in this document. Additional information on these and other terms applicable to this document may be found in the NYSDEC guidance document DER-10, available at http://www.dec.state.ny.us/website/der/guidance/der10dr.pdf.

Key Definitions

"Manufactured Gas Plant (MGP)" was an industrial facility that produced gas for cooking and lighting of residences and for use by businesses. Gas was produced through a variety of processes that heated coal or oil and drew off the gas, which was stored for distribution to customers. The operation also produced useful byproducts as well as waste materials. MGPs were common in the era before pipelines and distribution systems brought natural gas directly to homes and businesses from fields hundreds or thousands of miles away. The process of manufacturing gas through heating coal or oil and storing the gas in large holders was managed under environmental regulations and standards very different than those in place today, as many of the plants operated as early as the 1850's, and most were shut down and dismantled in the 1950's and 1960's.

"Manufactured Gas Plant site (MGP site)" is the actual property on which an MGP was located, as well as any area, on or off that property, that may have been impacted by its operation. The impact may have occurred through the discharge, spillage, leakage or disposal of material during operations on the property or by the subsurface migration of chemical constituents to adjacent and nearby areas.

"MGP Tar" was a byproduct of the production of gas, and is frequently found on or near former MGP sites. Tars range in consistency from maple syrup to taffy-like and are similar in chemical composition to heating oil or driveway sealer. It may also be referred to as "source material" because many of the chemical constituents related to an MGP site are products of the dissolution or decomposition of tar.

"Chemical Constituent" or **"Contaminant"** is a chemical that is either present in an environment where it does not belong or is present at levels that might cause harmful (adverse) health effects A chemical constituent may be present in soil or groundwater at an MGP Site and is the result of the breakdown or dissolution of a material. A chemical constituent may or may not be considered hazardous, depending on its known or suspected effect on human health, flora or fauna. Many chemical constituents of MGP-related material are known to be harmless. The source of a chemical constituent may be from the site, off-site sources or background.

"Hazardous Waste" is a material whether deliberately or inadvertently disposed of in the environment that is known or suspected under regulatory standards to cause a risk of harm to human health, flora or fauna if there is exposure to the material. Not all MGP materials are hazardous waste. Both USEPA and NYSDEC define Hazardous Wastes to be wastes that are characteristically hazardous as determined through specific laboratory testing for ignitability, corrosivity, reactivity, and toxicity. These and other wastes that are generated through non-specific sources and through specific industrial sources [so-called "listed wastes"] are documented in the Federal register and in 6 NYCRR Part 371.

"Remediation" is an action, or combination of actions designed to eliminate or reduce the risk associated with exposure or possible exposure to chemical constituents that may pose a risk to people or the environment. Remediation can include removal, reduction, treatment, covering or encapsulation of chemical constituents, or any other process, technology or measure that reduces the potential for exposure to levels deemed protective of human health and the environment according to regulatory standards. Remediation does NOT require "clean-up" or removal of all chemical constituents.

"Interim Remedial Measure (IRM)" is an action or actions of limited scope designed to reduce the potential for exposure to chemical constituents. It can be implemented without extensive investigation and evaluation at any time during the process before a comprehensive Remedial Action Plan can be put in place.

"Remedial Action Plan (RAP)" is a comprehensive program of remediation actions, selected and approved by the NYSDEC, to achieve reduction of potential exposures associated with a former MGP site to levels that are protective of human health and the environment according to regulatory standards.

"Remedial Investigation (RI)" is a comprehensive study of the nature and extent of the environmental impacts of former MGP operations. It is conducted to the requirements of a detailed Work Plan approved by the NYSDEC, which describes the scope of the investigation, the boundaries of where it is to be conducted, how it is to be conducted, how the data are to be produced and analyzed and how the Remedial Investigation Report is to be organized and presented. The purpose of a Remedial Investigation is to provide a sufficient understanding of the impacts of a former MGP site to ensure that a Remedial Action Plan or Interim Remedial Measures are appropriate to the conditions and act to protect human health and the environment according to regulatory standards. A Supplemental Remedial Investigation may be conducted to expand or further refine data and analysis produced under the Remedial Investigation Work Plan.

Common Terms

"Airborne Particulates" are the total suspended particulate matter found in the atmosphere as solid particles or liquid droplets. Sources of airborne particulates include: dust, emissions from industrial processes, combustion products from the burning of wood and coal, and combustion products associated with motor vehicle or other engine exhausts.

"Analyte" is a term used for a specific chemical submitted for laboratory analysis.

"Analytical Services Protocol (ASP)" means the New York State Department of Health's (NYSDOH's) compendium of approved EPA and other laboratory methods for sample preparation and analysis and data handling procedures.

"Aquifer" is generally known as an underground water-bearing soil or rock formation.

"Area of Concern" means any existing or former location where contaminants are or were known or suspected to have been discharged, generated, manufactured, refined, transported, stored, handled, treated, disposed, or where these contaminants have or may have migrated.

"Biota" means all the plant and animal life of a particular region.

"Blebs" means observed discrete sphericals or very fine droplets of NAPL/tar within a soil or groundwater sample matrix that may not otherwise be visibly contaminated. The blebs can be from various sources including MGP and non-MGP (e.g. petroleum) sources, depending on their characteristics. Typically, blebs are residual contamination. See **"MGP Tar"** and **"NAPL"** for more details.

"Brownfields" are abandoned, idled, or under-used properties where expansion or redevelopment is complicated by real or perceived environmental contamination, usually related to a prior use. They typically are former industrial or commercial properties where operations may have resulted in environmental contamination.

"BTEX" is an acronym for benzene, toluene, ethylbenzene and xylenes. This group of volatile organic compounds is most frequently found in soil and groundwater associated with petroleum fuels such as gasoline and fuel oil, but is also associated with former Manufactured Gas Plant (MGP) operations. See **"Hydrocarbons"** and **"Volatile Organic Compounds"** for more details.

"CERCLA" means the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), commonly known as the federal Superfund law. This law is applied by the United States Environmental Protection Agency. Most MGP sites in New York are under the direction of the NYSDEC).

"Coated" is used to when some soil grains are covered by NAPL/tar/petroleum and there is not sufficient free-phase material to fill all the pore spaces between the soil grains.

"Conceptual Site Model" is a general representation of a site describing potential contaminant releases, exposure media, the potential receptors, and the complete exposure pathways to the receptors.

"Confining Layer" is a geologic formation that consists of soils or rock with low permeability that inhibits the flow of water. The "confining layer" acts to keep the contaminated groundwater in a definable area.

"Consent Order" A court enforceable agreement between the NYSDEC and KeySpan, sometimes referred to as an Order on Consent.

"Containment" means actions to limit or prevent discharges or the spread of contamination.

"Contaminant of Concern" – A contaminant identified as contributing to overall cancer or noncancer risk above a specified threshold (e.g. greater than 1.0 to the receptor Hazard Index) or at concentrations indicating potential health risks (i.e. greater than nuisance or risk-based concentrations).

"Contaminant of Potential Concern" is a contaminant chosen based on its occurrence, distribution, fate, mobility, and persistence in the environment and its potential for contact to people.

"Contaminant of Potential Ecological Concern" is any contaminant that is shown to pose possible risk to a flora or fauna.

"Contract Laboratory Program (CLP)" is a program of chemical analytical services developed by the United States Environmental Protection Agency (EPA) to support the federal Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), which is used to guide the analysis of materials produced in a Remedial Investigation.

"Data Usability Summary Report, (DUSR)" is a document that provides a thorough evaluation of the analytical data to determine whether or not the data, as presented, meets the site/project specific criteria for data quality and use.

"De minimis Risk" is risk that is negligible and too small to be of societal concern, which can also mean 'virtually safe'.

"DER" is the Division of Environmental Remediation of the NYSDEC.

"DER-10 Technical Guidance for Site Investigation and Remediation (DER-10)" is a guidance document developed by the DER, with assistance from the New York State Department of Health (NYSDOH) and the NYSDEC Division of Fish, Wildlife and Marine Resources, to allow anyone seeking to investigate or remediate a potentially contaminated site in New York State to anticipate the basic scope of the work required. The guidance is intended to facilitate consistent, accurate, efficient and timely completion of remedial projects and contains the minimum technical activities normally accepted for projects where DER oversight, approval or acceptance is sought or mandated by law. DER will, however, determine the acceptable minimum technical activities for a particular site upon consideration of all the facts and circumstances of such site under the authority of applicable laws and regulations.

"Discharge" means both unintentional and intentional spilling, leaking, pumping, pouring, emitting, emptying, or dumping of waste into or on any land, water or air.

"DNAPL" or a "Dense Non-Aqueous Phase Liquid" is a liquid that tends to exist as a separate phase or layer in water, and has a specific gravity or density greater than water (the greater density causes DNAPL to "sink" in water). DNAPL does not readily mix with water. DNAPL has the potential to sink through a soil formation until it encounters a confining layer. Unlike LNAPLs, DNAPLs may flow down the slope of a geological formation independent of the direction of groundwater flow.

"Endangered species, threatened species and species of special concern" means those species listed by the NYSDEC as provided in 6NYCRR Part 182. Animals, birds, fish, plants, or other living organisms threatened with extinction by anthropogenic (man-caused) or other natural changes in their environment. All plants and animals in these categories need special protection to prevent their extinction, or significant reduction in population. Protections include preventing hunting or capture, provision of habitats or removal of threats to the environment necessary to the survival of the species.

"Engineering Control" means any physical barrier or method employed to actively or passively contain, stabilize, or monitor contaminants, restrict the movement of contaminants

to ensure the long-term effectiveness of a remedial program, or eliminate potential exposure pathways to contaminants. Engineering controls include, but are not limited to, pavement, caps, covers, subsurface barriers, vapor barriers, slurry walls, building ventilation systems, fences, access controls, provision of alternative water supplies via connection to an existing public water supply, adding treatment technologies to such water supplies, and installing filtration devices on private water supplies. Engineering controls are used in conjunction with institutional controls, to ensure that the engineering controls remain effective. See "Institutional Controls" for more information.

"Exposure Assessment (EA)" is an evaluation, undertaken as part of a Remedial Investigation, to identify the exposure setting, exposure pathways, and evaluate the fate and transport of the contaminants. The assessment will identify potential risks for specific potential receptors based on complete pathways of exposure to contaminant levels exceeding default "screening criteria," such as the NYSDEC-recommended soil cleanup objectives (RSCOs) and drinking water standards.

"Exposure Pathway" means the route through which humans or animals may come into contact with a contaminant. The five elements of an exposure pathway are: 1) the source of contamination; 2) the environmental media and transport mechanisms (how the contaminant moves); 3) the point of exposure; 4) the route of exposure; and 5) the receptor population. Evaluation of an exposure pathway considers past, present, and future events.

"Exposure Point" is a location of potential contact between a chemical or physical agent and an organism (surface soil, drinking water tap).

"Exposure Point Concentration" is the value representing a conservative estimate of the chemical concentration available from a particular route of exposure.

"Exposure Route" is the method of contact for a chemical or physical agent to an organism (inhalation, ingestion, dermal contact).

"Feasibility Study (FS)" is a study undertaken to develop and evaluate potential remediation alternatives for a site. The term also refers to the report that describes the results of the study.

"Fish and Wildlife Resources" means biota (animals and plants) and the habitats (natural or man-made) which support them.

"Free Product" means an immiscible (non-mixable) or non-aqueous phase liquid (NAPL) existing at the surface or in the subsurface in a potentially mobile state.

"**FWIA"** stands for Fish and Wildlife Impact Analysis. The site-specific analysis will identify the fish and wildlife resources that presently exist and that existed before contaminant introduction at the site in question, and the completed FWRIA will guide the Division of Fish and Wildlife in deciding when, where, and to what extent remediation is warranted for the protection of biotic resources. This analysis conformed with NSYDEC's 1994 publication *Fish and Wildlife Impact Analysis for Hazardous Waste Sites.*

"Groundwater" is water below the land surface in a saturated zone of soil or rock. This includes perched water separated from the main body of groundwater by an unsaturated zone.

"Hydraulic Gradient" is the direction of groundwater flow due to changes in the depth of the water table. The terms "upgradient" and "downgradient" are typically used when referencing groundwater, similar to the use of upstream and downstream when referencing rivers and streams. Hydraulic gradient is equal to the difference in head (pressure) measured at two points (usually wells) divided by the distance separating the two points. Hydraulic Gradient can be thought of as the slope of the water table or "rise over run". The dimensions of head and distance are both lengths, therefore the gradient is expressed as a dimensionless ratio (L/L).

"Hydrocarbons" are chemical compounds that consist of carbon and hydrogen, such as petroleum, natural gas and coal.

"Injury" means an observable (i.e., qualitative) or measurable (i.e., quantitative) adverse change in a natural resource or any impairment of a human or ecological service provided by that resource relative to baseline, reference, or control conditions.

"Institutional Control" means any non-physical means of enforcing a restriction on the use of real property that limits human or environmental exposure, restricts the use of groundwater, provides notice to potential owners, operators, or members of the public, or prevents actions that would interfere with the effectiveness of a remedial program or with the effectiveness and/or integrity of operation, maintenance, or monitoring activities. Institutional controls apply when contaminants remain at a site at levels above the SCGs (see definition), which would allow unrestricted human use of the property. Institutional controls may include, without limitation, restrictions on the use of structures, land and groundwater as well as deed notices and covenants.

"Light Non-aqueous Phase Liquid (LNAPL)" means a liquid which remains as a separate phase or layer and has a specific gravity less than water. LNAPL does not readily mix with water. Because LNAPLs are less dense than water, they tend to float on top of the water table.

"Method detection limit (MDL)" means the minimum concentration of a substance that can be measured and reported with a 99 percent confidence that the substance is present, determined from the analysis of a sample by specific means (instruments, chemicals, technicians).

"NAPL" or "Non-Aqueous Phase Liquid" means a liquid which remains as a separate phase or layer in the environment. See the definitions for DNAPL and LNAPL.

"NYSDEC" is the New York State Department of Environmental Conservation which has statutory authority to enforce State environmental regulations, and to protect the environment.

"NYSDOH" is the New York State Department of Health. The NYSDOH works with the NYSDEC with its environmental program by reviewing project documents and details to ensure the protection of health.
"Operable Unit" is a portion of a site that is addressed separately from the rest to allow for more efficient management or a more timely response.

"PAH" means polycyclic aromatic hydrocarbon. They are a series of related organic compounds that have more than one aromatic ring. For example, naphthalene, a common PAH found in gasoline and petroleum mixtures, is comprised of two aromatic rings. Many PAH's are byproducts of combustion, or heating of fossil fuels, including coal, oil, and gasoline.

"Petroleum" or "Oil" is defined by Article 12 Section 172 of the NYS Navigation Law as oil or petroleum of any kind and in any form including but not limited to oil, petroleum, fuel oil, oil sludge, oil refuse, oil mixed with other wastes and crude oils, gasoline and kerosene. For purposes of this glossary, oil includes mineral oils or any other oil for which an investigation and/or remediation is determined necessary by the DER, to address a spill or discharge or any disposal impacting public health or the environment.

"Purifier Material" is usually comprised of wood chips or granular material from the gas purifier operation typically used at former MGP sites. The purifier material would remove impurities which otherwise would corrode the gas piping, stoves, and lighting fixtures where the gas was burned. Purifier material may contain sulfur or cyanide compounds.

"Quality Assurance" is the total integrated program for assuring the reliability of the monitoring and measurement data on which the analysis, findings and conclusions of a Remedial Investigation or performance of a remedial measure are based. It includes a system for integrating the quality planning, quality assessment and quality improvement efforts to meet data end-use requirements. A "Quality Assurance Project Plan (QAPP)" is a document

which presents in specific terms the policies, organization, objectives, functional activities and specific quality assurance/quality control activities designed to achieve the data quality goals or objectives of a specific project or operation.

"Quality Control" means the routine application of procedures for attaining prescribed standards of performance in the monitoring and measurement process.

"QHEA" stands for Qualitative Human Exposure Assessment. A qualitative exposure assessment is defined by the NYSDOH as characterizing the exposure setting (including the physical environment and potentially exposed human populations), identifying exposure pathways, and evaluating contaminant fate and transport. An exposure pathway describes the means by which an individual may be exposed to contaminants originating from a site. Performing the assessment assists the NYSDOH in evaluating whether there are any potential populations exposed to materials related to a site. The QHEA is prepared to meet the NYSDOH's requirements identified in Appendix 3B of the NYSDEC's 2002 .*Draft Technical Guidance for Site Investigation and Remediation*

The QHEA was performed to meet the requirements identified in the NYSDOH's November 9, 2000 guidance memorandum titled *New York State Department of Health, Qualitative Human Health Exposure Assessment (NYSDEC, 2002).*

"RCRA" means the federal Resource, Conservation and Recovery Act of 1976. This is a federal law that authorizes the EPA to set standards for companies producing, handling, transporting, storing, and disposing of hazardous waste; and established a regulatory system to track hazardous substances from generation to disposal. The law requires safe and secure procedures to be used in treating, transporting, storing and disposing of hazardous substances. The Act is designed to prevent the creation of new, uncontrolled hazardous waste sites.

"Receptor" means any humans or biota which are, or may be expected to be, or have been, exposed to or affected by a contaminant from a site.

"Risk" is the probability that a chemical, biological, or physical agent will cause harm or injury under specified conditions.

"Sediment" means soils or organic material in water, as found in lakes, rivers, streams and other water bodies and in, or in close proximity to, wetland areas. Material found in enclosed sumps, sewers or piping systems not accessible to fish and wildlife and not forming any benthic or aquatic habitat are not considered sediments for the purpose of comparison to the NYSDEC Technical Guidance for Screening Contaminated Sediment.

"Semivolatile Organic Compounds" is a general term for a class of organic compounds that volatilize relatively slowly at standard temperature (20 degrees Celsius) and pressure (1 atm). Examples of semivolatile organic compounds include naphthalene, benzo(a)pyrene, and fluorine. They are amenable to analysis by extraction of the compound from the sample with an organic solvent. Semi-volatiles are those target compounds identified in the statement of work in the current version of the EPA Contract Laboratory Program.

"Sheen" is iridescence (shininess) observed within a soil sample or on the surface of a water sample. A field test for sheen is to put a soil sample in a jar of water and shake the sample (jar shake test), then observe the presence/absence of sheen on the surface of the water in the jar. When evaluated in the field in conjunction with a sample's odor, or other physical characteristics, the origin of the sheen can be estimated (i.e. hydrocarbon sheen, bacterial sheen, etc.).

"Soil Vapor" or **"Soil Gas"** refers to the air and other gases found in the pore spaces of soils above the water table. (Below the water table, these pore spaces are filled with water).

"Stained" is when a soil sample exhibits a discoloration not associated with natural processes. The color of the observed stain is used and if the characteristics of the staining material are discernible, they are also noted (i.e., tar-stained or petroleum-stained).

"Surface Soil Sample" is a representative sample of the unconsolidated mineral and/or organic matter collected from a site to a depth of two inches below ground surface (excluding vegetative, stone, asphalt, or concrete surface cover) for evaluating public health exposure; or, to a depth of six inches below ground surface for garden soils or a fish and wildlife resources impact analysis.

"Target Analyte List (TAL)" is the list of inorganic compounds/elements designated for analysis as contained in the version of the EPA Contract Laboratory Program Statement of Work for Inorganic Analysis, Multi-Media, Multi-Concentration in effect as of the date on which the laboratory is performing the analysis.

"Technical and Operational Guidance Memorandum (TOGs)" are memos providing information, explanation and technical detail for the NYSDEC Division of Water program. The TOGs memos may be used as the basis for SCGs related State Pollutant Discharge Elimination Permits (SPDES), groundwater, water quantity, and other technical and administrative subjects.

"Toxicity Assessment" is a field study, laboratory study and/or literature review conducted to determine the concentration at which a contaminant becomes toxic to an individual or an organism. A contaminant is considered toxic if it causes death, morbidity or sub-lethal

effects on growth, reproduction, behavior or physiology of an organism, whether through direct or indirect toxicity or through bioaccumulation.

"Underground Storage Tank (UST)" means any tank or other vessel which is completely covered with earth or other backfill substance. Tanks in subterranean vaults accessible for inspections are not considered underground storage tanks.

"USEPA" stands for the United States Environmental Protection Agency. The EPA leads the nation's environmental science, research, education and assessment efforts. They develop and enforce regulations, offer financial assistance, perform environmental research, sponsor voluntary partnerships and programs, and further environmental education.

"Volatile Organic Compounds" is a general term for a group of organic (carbon-based) compounds that evaporate at room temperature and normal atmospheric pressure. Examples of volatile organic compounds include benzene, toluene, and ethylbenzene. They are amenable to analysis by the purge and trap technique. Analysis of volatile organics means the analysis of a sample for either those priority pollutants listed as amenable for analysis using EPA method 624 or those target compounds identified as volatiles in the version of EPA "Contract Laboratory Program Statement of Work for Organics Analysis, Multi-Media, Multi-Concentration" in effect as of the date on which the laboratory performed the analysis.

"Waters" means all lakes, bays, sounds, ponds, impounding reservoirs, groundwater, springs, wells, rivers, streams, creeks, estuaries, marshes, inlets, canals, the Atlantic Ocean within the territorial limits of the State of New York, and all other bodies of water, natural or artificial, inland or coastal, fresh or salt, public or private, which are wholly or partially within or bordering the State or within its jurisdiction.

"Wetland" means a lowland area, such as a marsh or a swamp that is saturated with moisture. The NYSDEC regulates how different types of wetlands are classified and the activities that can occur within and adjacent to wetlands.

Executive Summary

On behalf of KeySpan Corporation (KeySpan), GEI Consultants, Inc. (GEI) conducted a remedial investigation (RI) and prepared this RI report which addresses environmental conditions at and adjacent to the former manufactured gas plant (MGP) located at 25 and 40 Willow Avenue in the neighborhood of Clifton, Staten Island, New York. The focus of this report is on the property located at 25 Willow Avenue and surrounding properties (Operable Unit 2 [OU-2]). A previous RI report focused on the 40 Willow Avenue property (*Final Remedial Investigation Report Clifton Former MGP Site Operable Unit 1*, GEI and VHB, July 1, 2004). The RI was performed in accordance with an Administrative Order on Consent (Index No. D2-0001-98-04) (AOC), the November 9, 1998 approved RI work plan, and the July 26, 1999, November 28, 1999, October 9, 2001, May 15, 2002, and November 4, 2002 approved RI work plan addenda.

The following is a summary of the principal conclusions of the RI:

- The chemicals encountered within soils and groundwater at OU-2 are consistent with those expected at former MGP sites. Other site operations, including former petroleum storage, have also contributed to the chemicals encountered in on-site soils and groundwater.
- Chemicals from OU-2 have not impacted potable water supplies in the area. Potable water is supplied by the New York City water system.
- There is no indication that the chemicals detected on the site adversely impact fish and wildlife in the area.
- There is no indication that persons working on or visiting the portions of OU-2 not situated at the 25 Willow Avenue parcel are being exposed to site-related chemicals, although chemicals have been detected at off-site locations.
- Soil vapor sampling beneath the building located at 25 Willow Avenue demonstrated that soil vapor concentrations are de minimus and, as such, pose an insignificant human health exposure to any potential workers who may occupy the 25 Willow Avenue building. The building is currently unoccupied and will eventually be demolished.

The RI investigation activities and findings are summarized below.

The RI was implemented in eight rounds of field work completed between February 1999 and December 2004. An investigation of soil conditions and soil vapor concentrations at the One Edgewater Street parcel is currently being performed [Round 8 of the RI]. Findings

from this investigation will be submitted as a Supplemental RI Report following completion of the work.

The scope of the RI included the completion of exploratory test pits, soil borings, groundwater monitoring wells, piezometers, and surface-soil, soil vapor, and storm sewer sampling at the 25 and 40 Willow Street parcels and adjacent properties. The parcels have been separated into two operable units as the site progresses towards remedial action. Operable Unit 2 (OU-2) is the focus of this report and includes the following parcels: 25 Willow Avenue, adjacent parcels located to the northwest on Greenfield Avenue, railroad embankment and active railroad ROW, and a small triangular shaped parcel located between Bay Street and Edgewater Street. OU-2 also encompasses the rights of way (ROWs) of Willow Avenue, Edgewater Street and Bay Street adjacent to the 25 Willow Avenue parcel, as well as the property located at One Edgewater Street [currently being investigated].

The scope of the RI completed at OU-2 included nine exploratory test pits, drilling of 46 subsurface-soil borings, drilling and installation of 18 groundwater monitoring wells, installation of two piezometers, sampling of three storm sewer locations and the sampling of 10 background surface-soil locations. One hundred and fourteen subsurface-soil samples, 10 surface-soil samples, 19 groundwater samples, and three storm sewer samples were chemically analyzed to evaluate the environmental conditions within OU-2. Twelve soil vapor samples were also collected from beneath the building at 25 Willow Avenue.

The 25 Willow Avenue parcel is triangular in shape. It encompasses approximately 3.53 acres on the northwestern corner of Bay Street and Willow Avenue. It is bordered on the northwest by a wooded railroad embankment and active railroad ROW, on the northeast by Bay Street, and on the south by Willow Avenue. The 25 Willow Avenue parcel includes a large rectangular commercial building that is currently unoccupied and recently was used for the preparation and repair of new cars. With the exception of a small strip of landscaping along Bay Street, the remainder of the parcel is covered by a parking lot. The 25 Willow Avenue parcel was the site of former tar handling structures associated with the gas production area of the former Clifton MGP. The former MGP is set in an urban residential/commercial area of Staten Island. KeySpan currently owns the parcel. Commercial parcels are located on Greenfield Avenue, an active railroad embankment and an active railroad ROW to the northwest, and a vacant lot (utilized for parking) is located between Bay and Edgewater Streets to the northeast.

Construction of the former MGP began circa 1850 and the plant began production in April of 1857. Throughout the operating life of the plant, most of the operations were located on the 25 Willow Avenue parcel (Staten Island Gas Light/Richmond County Gas Light Company). Sometime prior to 1917, the plant expanded to the 40 Willow Avenue parcel with the

addition of Relief Holder No. 2. Between 1937 and 1950, minor expansions occurred on both parcels. The MGP was demolished in 1959.

The geological setting has OU-2 located atop glacial deposits, including ground moraine, terminal moraine, and glacial outwash materials. The Manhattan Schist (bedrock) underlies these glacial deposits. Alluvial materials are also present at shallow to intermediate depths within OU-2. Fill is present at shallow depths across the majority of OU-2.

Topographically, the 25 Willow Avenue parcel is located in a gently sloping bowl-like depression that appears related to a historic stream channel. The nearest surface water body is New York Harbor, which is located approximately 500 to 600 feet to the northeast. Public water supply is currently provided to the parcels included in OU-2 and all surrounding residents and businesses. The source of the public water supply is reservoirs in the Catskill Mountains north of New York City.

Groundwater beneath OU-2 resides in two aquifers, shallow (water table) and deep. Dense, silty ground moraine and terminal moraine deposits create a hydrogeologic confining unit between the aquifers. Groundwater flow direction in the water table aquifer is easterly towards New York Harbor and westerly towards the location of a former stream trace (current storm sewer). Groundwater from the western side of the storm sewer (along Greenfield Avenue and the railroad embankment) flows easterly toward the former stream trace. The groundwater from either side of OU-2 ultimately flows northeasterly towards New York Harbor. An isolated water-bearing zone was also identified within the confining unit at the 25 Willow Avenue parcel along Bay Street and Edgewater Street.

The most extensive observations of tar, tar-staining, sheen, odors, and soil and groundwater containing chemical constituents related to the former MGP are primarily limited to the 25 Willow Avenue parcel in close proximity to the former MGP-related structures. Isolated tar, tar-staining, sheen, and/or tar-like odors were only present in coarse-grained soils beneath the Willow Avenue ROW, the small triangular parcel between Bay Street and Edgewater Street and within Edgewater Street. Additional tar impacts in soils are being investigated at the One Edgewater Plaza parcel. Most of the chemical constituents in these areas were related to the presence of tar found within and adjacent to former MGP-related structures that handled tar as part of the gas production and storage process at the site. Minor amounts of chemical constituents at the site were related to former storage of gasoline and diesel fuels at the site.

Similarly, dissolved chemical constituents in groundwater within the water table aquifer are predominantly limited to the 25 Willow Avenue parcel. Elevated dissolved-phase benzene, toluene, ethylbenzene, and xylene (BTEX) and polycyclic aromatic hydrocarbons (PAHs) were present in groundwater within the water table aquifer at the 25 Willow Avenue parcel in

the vicinity of the former tar handling structures. Total cyanide was also detected within the shallow groundwater aquifer downgradient from the former purifying tanks. These concentrations decreased downgradient of the former structures. Total cyanide was also detected within the shallow groundwater aquifer downgradient from the former purifying tanks. These concentrations decreased downgradient of the former structures. Cyanide in groundwater does not represent a complete human exposure pathway under current use because the site is paved and the groundwater is inaccessible.

A water-bearing zone within the confining unit along Bay Street and Edgewater Street contained tar and consequently displayed elevated dissolved concentrations of BTEX and PAHs within monitoring wells RW-17, RW-18, and RW-19.

Only trace detections of dissolved phase BTEX were encountered in the deep aquifer monitoring wells RW-15 and RW-16, and PAHs were not detected.

The findings from the qualitative exposure assessment indicate that chemicals in soils, groundwater, and soil vapor within OU-2 do not present exposure pathways through which individuals could potentially be exposed under the current land uses. The assessment of exposure pathways and chemical occurrence of OU-2 revealed that chemicals were present in surface soils, subsurface soils, and groundwater above applicable regulatory standards. Based upon the current site conditions and site access at the 25 Willow Avenue parcel, there are currently no complete exposure scenarios. The on-site building is unoccupied and will eventually be demolished.

Direct contact with tar seeping through cracks in the pavement adjacent to the former gasometer and the current building at the 25 Willow Avenue site was considered a potential exposure pathway for some on-site receptors. This potential exposure pathway was mitigated by placing steel plates over the tar bubbles in accordance with a NYSDEC approved work plan.

The future site use scenario at the 25 Willow Avenue parcel could have potential pathways of concern if subsurface soils and groundwater are exposed through construction or utility work at the site. Based upon the current site use of off-site parcels and Willow Avenue, the current exposure pathways were considered incomplete and only the future intrusive activities could have potential pathways if soils and groundwater are exposed.

FWIA indicated that the site and surrounding area represent poor environmental resources due to the lack of vegetation in the urban environment. Wildlife species present are adapted to an urban setting and, due to the limited size of vegetated areas, only a few individuals would be present. Concentrations of several chemicals of potential ecological concern (COPECs) in soils pose a potential risk to wildlife; however, this potential risk has minimal

ecological significance. Since only transient species and a few individual animals would use this area, the frequency and duration of exposure to COPECs is limited. Therefore, the on-site COPECs do not pose a current risk or an anticipated future risk to wildlife.

The body of this RI report presents the environmental observations and findings. The reader is referred to Sections 6 and 7 for a summary of the conceptual site model and a summary of the environmental and risk findings, respectively.

1. Introduction

GEI Consultants, Inc. (GEI) was retained by KeySpan Corporation (KeySpan) to conduct a remedial investigation (RI) and to prepare this RI report which addresses environmental conditions related to the former manufactured gas plant (MGP) operation at the parcels located at 25 and 40 Willow Avenue in the neighborhood of Clifton in Staten Island, New York (Figure 1-1).

The site has been separated into two operable units (OUs). Operable Unit 2 (OU-2) is the focus of this report and includes the following areas:

- 25 Willow Avenue parcel
- Adjacent active railroad right-of-way (ROW) and its associated embankment to the northwest
- Greenfield Avenue parcels to the northwest
- a vacant lot (utilized for parking) is located between Bay and Edgewater Streets to the northeast
- One Edgewater Street (also referred to as Edgewater Plaza) property to the northeast
- Willow Avenue, Bay Street, and Edgewater Street ROWs.

The remainder of the site (including 40 Willow Avenue, 66 Willow Avenue, Lynhurst Avenue residential parcels [48 through 67] and the Lynhurst Avenue ROW) constitutes OU-1. The findings for OU-1 were summarized in the Final Remedial Investigation Report Clifton Former MGP Site Operable Unit 1 (OU-1) that was prepared by GEI and VHB, dated July 1, 2004., and were submitted to the New York State Department of Environmental Conservation (NYSDEC). Plate 1 presents the extent of each operable unit.

The RI was performed in accordance with the Administrative Order on Consent (AOC) (Index No. D2-0001-98-04) between Brooklyn Union Gas Company (Brooklyn Union) (KeySpan's predecessor) and the NYSDEC for the former Richmond County Gas Light Company MGP located at the 25 and 40 Willow Avenue parcels.

KeySpan currently owns the 25 Willow Avenue parcel. Plate 1 presents the current layout and former MGP configuration for both operable units. The scope of the RI included the completion of exploratory test pits, subsurface borings, groundwater monitoring wells, piezometers, surface-soil, and storm sewer collection points.

Subsection 1.2.1 presents a detailed description of the OU-2 parcels.

The remainder of Section 1 discusses the RI Objectives and Scope (subsection 1.1), background (subsection 1.2), the physical and environmental setting (subsection 1.3), and a summary of previous investigations (subsection 1.4).

Section 2 discusses the RI Scope of Work and methods used during the RI. Section 3 discusses the geology and hydrogeology underlying OU-2. Section 4 discusses the nature and extent of physical observations and chemical constituents. Section 5 discusses the fate and transport of chemical constituents. Section 6 presents a conceptual site model for OU-2, Section 7 presents a QHEA and an FWIA. The findings of the OU-2 RI are summarized in Section 8.

1.1 RI Objectives and Scope

The RI was conducted in accordance with the AOC and as outlined in the approved RI Work Plan, dated November 9, 1998, and its approved addenda listed below. The addenda work plans are included in Appendix A.

- *Remedial Investigation Clifton Former MGP Site, Amendment to the Work Plan, Staten Island, New York (July 26, 1999) (Round 2)*
- *Clifton Former MGP Site, Additional Scope of Work for Residential Lots Adjacent to the 40 Willow Avenue Parcel, Staten Island, New York (November 28, 1999) (Round 3)*
- *Former Clifton MGP Site, Revised Supplemental Investigation (RI) Work Plan, 25 and 40 Willow Avenue Parcels, Staten Island, New York (October 9, 2001) (Round 4)*
- *Former Clifton, Staten Island MGP Site, Supplemental Remedial Investigation (RI) Revised Work Plan (May 15, 2002) (Round 5)*
- *Former Clifton, Staten Island MGP Site, Supplemental Remedial Investigation (RI) Work Plan-Edgewater Street (November 4, 2002) (Round 6)*
- *Sub-Slab Soil Vapor Sampling and Vapor Intrusion Analysis Work Plan , Former Clifton, Staten Island MGP Site, Operable Unit 2 (April 16, 2003) (Round 7)*
- *Clifton, Staten Island Former MGP Site, Supplemental Remedial Investigation (RI) Work Plan-1 Edgewater Street (October 20, 2003) and Soil Vapor Sampling Work Plan Operable Unit 2, 1 Edgewater Street/Edgewater Plaza (December 8, 2004) (Round 8)*

Based upon the findings of the QHEA, a NYSDEC-approved work plan was developed to place steel plates over isolated tar observed within cracks in the pavement at the 25 Willow Avenue parcel. This work plan was implemented to mitigate a potential exposure pathway

for direct contact with tar bubbles. In addition, a work plan was developed to complete sub-slab soil vapor sampling and vapor intrusion analysis within the on-site commercial building located at 25 Willow Avenue. This work plan was approved by the NYSDEC on April 30, 2003 and the soil vapor sampling was conducted on June 10 and 11, 2003.

The RI was intended to characterize soil, groundwater, and soil vapor conditions at the 25 Willow Avenue parcel and adjacent parcels included in OU-2. The information gathered during the RI was intended to supplement information available from previous investigations of the 25 Willow Avenue parcel. Three previous investigations were completed at the 25 Willow Avenue parcel and Willow Avenue ROW by LEXICON and Fanning, Phillips, and Molnar (FP&M) between 1993 and 1998. These previous investigations are discussed in subsection 1.4.

1.2 Background

This subsection provides a description of the setting of OU-2 and discusses the surrounding demographics and the history of the former MGP.

1.2.1 Description of Parcels

The 25 Willow Avenue parcel encompasses approximately 3.53 acres. The 25 Willow Avenue parcel is triangular in shape, is located on the northwestern corner of Bay Street and Willow Avenue, and is bordered on the northwest by a wooded railroad embankment and active railroad ROW, on the northeast by Bay Street, and on the south by Willow Avenue (Plate 1). Commercial parcels are located on Greenfield Avenue to the northwest, and a vacant lot, utilized for parking, is located between Bay and Edgewater Streets to the northeast.

The 25 Willow Avenue parcel includes a single-story commercial building with multiple garage bays and is currently unoccupied. Until recently, the building was used as an automobile repair and car preparation facility for new automobiles. The automobile repair operations were conducted within the on-site building and likely required the handling and storage of petroleum products. Petroleum materials (motor oil, gasoline, diesel fuel, etc.) contain many of the same chemicals that are associated with MGP impacts (BTEX, naphthalene, and other semivolatile compounds). Use and handling of these materials may have had an effect on the indoor air quality of the building. Vehicles were also driven into a portion of the building where they are prepared for being delivered to automobile dealerships. Exhaust from the vehicles may have contributed many petroleum-derived compounds to the indoor air. In addition, periodic auto body painting activities were observed within the building, which may also have contributed to VOCs within the indoor air.

With the exception of a small landscaped strip along Bay Street, the remainder of the 25 Willow Avenue parcel is covered with a bituminous pavement parking lot.

Prior to use as an automobile repair and car preparation facility, the 25 Willow Avenue parcel was used as a service center for Brooklyn Union maintenance vehicles and earlier as the site of the gas generating operation of the former MGP. A chain-link fence surrounds the entire perimeter of the parcel (Plate 1).

The Greenfield Avenue parcels, located to the northwest of the 25 Willow Avenue parcel, are in a commercially zoned area along the eastern side of Greenfield Avenue. The parcels included within OU-2 consist of an active transformer yard, current lumber storage yard (formerly an automobile and boat repair yard), a current hardware store/lumber company, and an active railroad ROW (Plate 1). A chain-link fence surrounds the perimeter of each parcel.

The One Edgewater Street parcel is located to the northeast of the 25 Willow Avenue and is currently developed with a commercial office building and a paved parking lot. The property is surrounded by a chain-link fence and also contains a guarded entrance.

The land-use zoning for the OU-2 parcels is manufacturing zoned area (M3-1/M2-1) with a mixed commercial and industrial land use. Population data was obtained from the United States Environmental Protection Agency (EPA) Internet web site based upon 1990 census data. Census data from 1990 indicate that the average population density per square mile within 1 mile of the two parcels is 8,266 (Figure 1-2). There are 10,255 household units and a population totaling about 26,000 within this 1-mile radius. Updated population data obtained from the 2000 Census Internet web site indicates that the population density for Richmond County (Staten Island) ranges between 4,655 and 7,588 persons per square mile.

1.2.2 History

The Clifton former MGP was operated by Richmond County Gas Light Company from 1856 to 1901 and the Staten Island Gas Light Company circa 1884. Plate 1 shows the historic layout of the former plant. From 1901 until 1957, the plant was operated by the New York and Richmond Gas Company. Brooklyn Union acquired that company in 1957, at which point MGP operations ceased. Brooklyn Union (KeySpan) never operated the gas works.

The following discussion regarding the MGP history pertains to both OU-1 and OU-2.

Only a partial history of the former plant is available based on public records; however, through review of documentation at the Staten Island Institute of Arts and Sciences, *Brown's Directory of American Gas Companies (Brown's Directory)*, and available Sanborn Fire Insurance (Sanborn) maps, a general depiction of the former plant development is possible.

The earliest available map of the general vicinity is a Revolutionary War period map of Staten Island for the years 1775 through 1783 (Figure 1-3). Here the location of the future plant is shown as undeveloped with a small (un-named) stream flowing from the uplands to the south toward the northeast into New York Harbor. Bay Street (a.k.a. Shore Road) is essentially a shoreline travel way near the future plant location. Anchorages are also noted just offshore of where the MGP would be built 70 years later. In 1853, a James Butler map of the vicinity depicts substantial changes in the vicinity of the future plant (Figure 1-4). A street grid has been established, the shoreline appears to have bulkheads, and a number of dwellings dot the landscape. The unnamed stream that flows through the former MGP site is illustrated in more detail. This drawing probably represents the community layout at the time the MGP was constructed in 1850. It is documented in the *Richmond County Gazette* that the construction of the MGP began in 1850. At that time, the plant consisted of the following.

- A 30- x 50-foot brick retort house
- A 25- x 30-foot purifying house which contained purifiers, condensers, and a scrubber
- An office and meter house, 20 x 30 feet in dimension
- A single 75-foot-diameter holder having a brick tank 21 feet deep (subsequently referred to as Relief Holder No. 1)
- Lime and coal sheds

The plant was owned by the Richmond County Gas Light Company, which started production in April 1857.

The *1874 F.W. Beers Map of Staten Island* shows what is considered the earliest plant layout. Referring to Plate 1, the first gas holder is the same as Relief Holder No. 1. The main production facilities were located just to the southwest of the holder. Plate 1 indicates three of the original buildings as "purifying," "retort house," and "coal shed."

According to an article written by F. Rider in 1961, titled *Looking Back to Gas Light Era*, a second gas company, the Staten Island Gas Light Company, had previously existed only on paper with no plant or infrastructure improvements on the island. The Staten Island Gas Light Company was indicated to have built a plant adjacent to the Richmond County Gas Light Company (also referred to as the Richmond Gas Works). In 1884, the Staten Island Gas Light Company merged with the Richmond County Gas Light Company and a new carbureted water gas plant was built at the current 25 and 40 Willow Avenue parcels. The Staten Island Company was responsible for production and the Richmond County Gas Light Company distributed the gas.

The 1885 Sanborn map depicts a gas works with a gasometer as "not completed" on the western portion of the 25 Willow Avenue parcel, which are believed to be the Staten Island Gas Light Company operations. The 1885 Sanborn map also shows various operational features of the unlabeled gas works, including a gasometer (referred to in later years and in Plate 1 as Relief Holder No. 1), a fuel oil tank, several coal sheds, a purifying house, a lime house, and a retort house. In the 1898 Sanborn map, a second generating house, gasometer, and associated structures in the western portion of the 25 Willow Avenue parcel (likely the former Staten Island Gas Light Company operations) and a gasometer (referred to in later years as Relief Holder No. 2) are depicted on the 40 Willow Avenue parcel. The 25 Willow Avenue plant is referred to as the Richmond Gas Works in this Sanborn map.

The *1907 Atlas of the Borough of Staten Island, Richmond, City of New York*, indicates that the MGP is referred to as the Richmond County Gas Light Company. The atlas depicts the configuration of the plant to be relatively unchanged from the 1898 Sanborn map.

A 1917 Sanborn map shows that much expansion occurred at the plant between the late 1800s and 1917, including the addition/conversion of the original coal carbonization plant to a water gas plant, and construction of a large-capacity (1 million cubic feet) gas holder (Holder No. 2) at the northern corner of the 25 Willow Avenue parcel near Bay Street. In addition, in the northeastern portion of the site, a tar separator was located east of Relief Holder No. 1 and tanks (later referred to as tar tanks) and two oil tanks are depicted. The MGP is listed as the New York and Richmond Gas Company. This expansion in the plant was accompanied by increased gas production at the site from 38 million cubic feet (MMCF) to 372 MMCF in 1920 *Brown's Directory* listings (*Brown's Directory*, 1890 and 1920). The former gas works (Staten Island Gas Light Company) and associated structures have been incorporated into the New York and Richmond Gas Company MGP (also referred to as the Richmond County Gas Light Company) and were used for site operations.

A 1937 Sanborn map shows the expansion of the water gas plant and purifying facilities, the addition of another tar separator, and three fuel oil tanks at the southwestern corner of the 25 Willow Avenue parcel, and the addition of support equipment on the 40 Willow Avenue parcel around Relief Holder No. 2. Gas production continued to increase at the site to 910 MMCF by 1935 (*Brown's Directory*). Between 1937 and 1950, minor expansions occurred on both sides of Willow Avenue. Gas production at the site continued to increase to 1,230 MMCF by 1945 and reached a peak of 1,400 MMCF in 1955. The gas plant was demolished in the spring of 1959 according to a newspaper article in the "Advance." The 1977 Sanborn map shows the Brooklyn Union Service Center on the southeastern corner of the 25 Willow Avenue parcel, and a Brooklyn Union natural gas regulator station on the southern side of Willow Avenue (40 Willow Avenue parcel). The natural gas regulator station is the building associated with the gas plant that is depicted on the 1977 Sanborn map.

1.2.3 Water Use

Public water supply is currently provided to the OU-2 parcels and the surrounding area by the New York City Water Department. Mr. Joseph McGuire, a representative from the New York City Departemtn of Environmental Protection, was contacted regarding historic water use on Staten Island (McGuire, 2000). According to Mr. McGuire, all of Staten Island's water supply currently comes from the Catskill Region of New York and is stored in the Clove Lakes area of Staten Island in underground storage tanks (USTs). Staten Island was connected to the New York City water system in 1970, when the Richmond Tunnel was completed across The Verrazzano Narrows.

No wells are known to be currently in use. The nearest former well to OU-2 was an industrial/private water supply well operated by Louis Dejone and Company located at 330 Tompkins Avenue (McGuire, 2000). The well is not active and was located approximately 0.2 mile southwest and upgradient of the OU-2 parcels. Soren (1988) identified another former well approximately 0.2 mile south of the site. The former use of this well is unknown.

In previous investigations at OU-1, an 8-inch steel well that was likely associated with the former MGP was encountered on the site. The discovery and the decommissioning of this well was described within the Final Remedial Investigation Report, Clifton Former MGP Site, Operable Unit 1, dated July 1, 2004.

1.3 Physical and Environmental Setting

The OU-2 parcels are in a locally topographic low, bowl-shaped area that gently slopes to the northwest towards the railroad embankment (Plate 1). The 25 Willow Avenue parcel resides on the edge of a topographic bowl-like depression that appears to be associated with the historic stream that flowed on the northwestern portion of the parcel. Historic maps reveal that an un-named stream was present beneath the existing railroad bed on the northwestern portion of the 25 Willow Avenue parcel (Figures 1-3 and 1-4). This stream appears to have been filled at one point and replaced with the current storm sewer drainage system. New York Harbor is the closest surface water body to OU-2 and is located approximately 500 to 600 feet northeast (Figure 1-1).

1.3.1 Regional Geology

The OU-2 parcels are located in the Manhattan Prong Geologic Province, which contains bedrock associated with the New York City group (Bennimoff and Ohan, no date). Two other geologic provinces on Staten Island include the Staten Island Serpentinite that makes up the central highlands or spine of Staten Island, and the Newark Basin, which is located on the western portion of Staten Island (Bennimoff and Ohan, no date). OU-2 is believed to be

underlain by the Manhattan Schist, which is described as a metamorphosed dark gray micaceous rock unit of Late Proterozoic to Cambrian Age that was folded, faulted and eroded with younger deposits overlying (Soren, 1988). Surficial, unconsolidated Pleistocene age (Wisconsin) glacial deposits lie unconformably on the Manhattan Schist in the northeastern portion of Staten Island (Soren, 1988). Holocene (recent) aged deposits are inferred to be associated with streams, rivers, and marsh deposits.

The OU-2 parcels are indicated as underlain by Harbor Hill Terminal Moraine deposits which consist of unsorted sand, gravel, cobbles, and boulders within a clayey and silty matrix with some occurrences of locally stratified sand and gravel beds (Soren, 1988). A nearby geologic contact indicates that Pleistocene Age (Wisconsin) Ground Moraine deposits are located just to the west of the parcels and are described as a mainly reddish-brown, clayey-till from the surface to approximately 150 feet below ground surface (bgs). The unit is described as having local bodies of stratified sands and gravel bodies within the unit (Soren, 1988).

1.3.2 Regional Hydrogeology

The regional hydrogeology of the northern portion of Staten Island is characterized by groundwater flow from the central highlands easterly towards New York Harbor. Groundwater elevations range from as much as 350 feet above sea level in the central spine of Staten Island to sea level at the shore. The water table is less than 10 feet above sea level in the vicinity of the OU-2 parcels. Water table conditions are encountered on Staten Island where sandy till is present and confined conditions are encountered where silty-till and clayey-till overlie water-bearing units. (Soren, 1988).

The terminal moraine that underlies OU-2 is estimated to have an average hydraulic conductivity of 0.001 feet per day for a clayey till and 0.008 feet per day for a silty till. Horizontal hydraulic conductivities are approximately 10 to 20 times greater than the vertical hydraulic conductivities (Morris and Johnson, 1967, and Soren, 1988). Higher hydraulic gradients were noted within the stratified sand and gravel layers contained within the ground moraine unit.

1.3.3 Climatology

Climatologic records were reviewed for the Newark International Airport in Newark, New Jersey for the time period 1970 through 1997. The Newark International Airport is located approximately 8 miles to the northwest of the 25 Willow Avenue parcel and its weather records are considered representative of weather conditions at the parcels. Based upon a review of this data, the normal maximum and minimum daily temperature, normal monthly and annual precipitation, and mean wind speed and prevailing direction were obtained. Table 1-1 summarizes the climatologic data for the airport. The average daily maximum temperature was 63.4º F and the average daily minimum temperature was 46.1º F.

The lowest normal daily maximum temperature was 37º F recorded for January and the highest normal daily maximum was 87.0º F recorded for July. The annual precipitation (rainfall) for the area is 43.97 inches with the largest amount of monthly precipitation of 4.5 inches, which occurs in July. The annual snowfall in the vicinity is 27.0 inches with the largest monthly amount (9.2 inches) falling in February. The average annual wind speed is 10.2 miles per hour from the south/southwest (230ºE).

1.4 Previous Investigations

Subsurface investigations were conducted by others in and around the 25 Willow Avenue parcels since 1993. These investigations are summarized below.

1.4.1 25 Willow Avenue Investigation

1.4.1.1 LEXICON UST Closure Summary Report (October 15, 1993) Clifton Service Center, 25 Willow Avenue, Staten Island, New York

An investigation completed by Lexicon between September 14 and 15, 1993 is summarized as follows.

- Excavation of the diesel fuel and gasoline UST area
- Removal of one 550-gallon diesel fuel UST, one 4,000-gallon gasoline UST, four previously closed-in-place 550-gallon USTs, the fuel dispenser island, and associated piping
- Removal of a closed-in-place 550-gallon (waste) oil UST adjacent to the northwestern corner of the building
- Removal of approximately 125 cubic yards of soil and 100 cubic yards of concrete and debris; approximately 185 gallons of product and water was removed from the excavation and disposed of off site
- Collection of nine sidewall samples and one excavation water sample from the gasoline and diesel fuel tank excavation, and two sidewall samples from the used oil excavation
- Installation of two monitoring wells (OW-1 and OW-2)

Between September 13 and 15, 1993, Lexicon removed seven USTs from the 25 Willow Avenue parcel. Six of the USTs formerly contained gasoline and diesel fuel and were located in the north-central portion of the 25 Willow Avenue parcel (Plate 1). Grayish-black staining and a gasoline-like odor were observed above the 550-gallon diesel fuel UST, 4,000-gallon gasoline UST, and the four 550-gallon gasoline USTs in the excavation and beneath the fuel dispenser island. The Larry E. Tyree Company removed each of the USTs. The

tanks and piping appeared to be in good condition with no evidence of pitting or corrosion. Visible staining was noted on each of the sidewalls of the excavation with dark staining and product-saturated soils at the southern end of the excavation. During the removal of the USTs, a brownish-black product was observed on the groundwater surface in the southern portion of the excavation; it was recovered with a vacuum truck. The source of the product was unknown. Nine sidewall samples and one excavation water sample were collected and two monitoring wells (OW-1 and OW-2) were completed in the gasoline and diesel fuel excavation. The samples from the diesel fuel and gasoline UST excavation revealed elevated levels of VOCs and PAHs in the sidewall soil sample. The excavation was backfilled with clean fill and covered with pavement.

A previously closed-in-place 550-gallon waste oil UST located off the northwestern corner of the building was also removed. The 550-gallon waste oil tank appeared to be in good condition. Two sidewall samples taken from the waste (used) oil UST excavation revealed no detectable levels of PAHs.

1.4.1.2 Fanning, Phillips and Molnar Engineers' Underground Storage Tank Groundwater Investigation at the Brooklyn Union Gas Company, Clifton Station Facility, 25 Willow Avenue, Staten Island

An investigation was completed by FP&M on November 8, 1993 and is summarized as follows.

- Monitoring wells OW-3 and OW-4 were installed on the 25 Willow Avenue parcel
- Groundwater samples were collected

On November 8, 1993, FP&M installed monitoring wells OW-3 and OW-4 adjacent to the former gasoline and diesel UST grave (Plate 1). Soils were screened and visual observations and odors were recorded. Stained soils with lighter hydrocarbons and heavier hydrocarbons were encountered in soils at OW-3 from 0 to 4 feet. Slight petroleum odors were noted in soils from OW-4. The two 4-inch inner diameter (ID) wells were set at 15 feet below grade. Groundwater samples collected from OW-3 and OW-4 detected elevated concentrations of VOCs and PAHs.

1.4.1.3 Fanning, Phillips, and Molnar Engineers' Groundwater Sampling at the Brooklyn Union, Clifton Station Facility, 25 Willow Avenue, Staten Island, New York (August 1994) and Sampling Summary Report for the Former Brooklyn Union Gas Company, Clifton Station Facility, 25 Willow Avenue, Staten Island, New York (May 1998)

Quarterly groundwater monitoring investigations were completed at the 25 Willow Avenue parcel by FP&M from 1994 until 1998.

Since 1994, Brooklyn Union has performed quarterly sampling to characterize groundwater at the 25 Willow Avenue parcel, and has submitted yearly reports summarizing these results to NYSDEC (FP&M, August 1994 and May 1998). The quarterly sampling program

identified the presence of benzene, toluene, ethylbenzene, and xylenes (BTEX), naphthalene and low levels of 1,2-dichloroethane in groundwater.

1.4.1.4 Letter from Mary E. Casey at Brooklyn Union to Mark Tibbe at the New York State Department of Environmental Conservation, dated February 11, 1998

Brooklyn Union installed three additional monitoring wells (OW-5 through OW-7) in January 1998 (Plate 1). The analytical results indicated the presence of BTEX and PAHs. Five additional soil borings (SB-9, SB-10, SB-11, SB-12, and SB-13) were completed along Willow Avenue on the sidewalk of the 25 Willow Avenue parcel, and one groundwater sample (MW-4) was collected (Plate 1). Laboratory analysis revealed VOCs and PAHs. The groundwater sample collected from MW-4 in the sidewalk along the western border of the 25 Willow Avenue parcel revealed trace detections of naphthalene.

2. Remedial Investigation Scope of Work

The RI was primarily completed on the parcels located at 25 and 40 Willow Avenue, which contained the primary operations of the former MGP. Some work was completed on adjacent parcels contained within OU-1 and OU-2. The scope of work for OU-2 included the completion of soil borings, test pits, installation of groundwater monitoring wells, soil sampling, hydraulic conductivity testing, groundwater sampling, storm sewer sampling to characterize the soil, soil vapor, groundwater, and storm sewer water conditions. Plate 1 depicts the RI sampling locations at OU-2.

The RI was performed in eight rounds of field work: Round 1 (February through April 1999); Round 2 (July through October 1999); Round 3 (November through December 1999); Round 4 (November 2001 through January 2002); Round 5 (May through June 2002); Round 6 (November through December 2002);Round 7 (June 2003); Round 8 (April 2004 through June 2004 and December 2004). Soil vapor sampling associated with Round 8 of the RI field work has not been completed at this time. The results of the Round 8 field work will be provided following completion of the soil vapor task. Sampling locations were selected to address/identify former MGP structures at the site; to obtain information regarding the soil and groundwater conditions at the 25 Willow Avenue parcel in the vicinity of former structures of the MGP; and to characterize the soil, soil vapor, and groundwater at adjacent areas.

The OU-2 portion of the RI included completion of nine exploratory test pits, drilling of 46 subsurface-soil borings, drilling and installation of 18 groundwater monitoring wells, installation of two piezometers, collection of three storm sewer locations, and the sampling of 10 background surface-soil locations within OU-2. One hundred and fourteen subsurface-soil samples, 10 background surface-soil samples (three surface soil samples were located on the 25 Willow parcel), 22 groundwater samples, and 4 storm sewer samplings were chemically analyzed to evaluate the environmental conditions within OU-2.

This section generally describes the methods used for the sampling in accordance with the NYSDEC-approved work plan and the NYSDEC-approved work plan addenda. Detailed field procedures are located in the work plan and work plan addenda. Soil and groundwater sample were analyzed by Severn-Trent Laboratories (STL), located in Connecticut. The laboratory was originally located in Monroe, Connecticut and subsequently relocated to Shelton, Connecticut. Soil vapor samples were analyzed by Air Toxics Limited, located in Folsom California. These facilities are NYSDEC-approved laboratories.

2.1 Field Work

2.1.1 Round 1 - Investigation of 25 and 40 Willow Avenue Parcels and Willow Avenue ROW (February through April 1999)

The general objective of this phase of the RI was to identify the presence/absence of the former MGP structures and to characterize the subsurface conditions at the 25 and 40 Willow Avenue parcels.

In accordance with the RI work plan, nine test pits (TP-1, TP-2, TP-3, TP-4, TP-5, TP-6, TP-7, TP-8, TP-9) and 21 borings (RW-1, RW-2, RW-3, SB-9, SB-10/10A, SB-11, SB-12, SB-13, SB-14, SB-15, SB-16/16A, SB-19, RW-6/SB-20 and SB-30 to SB-35) were completed at the 25 Willow Avenue parcel and within the Willow Avenue ROW (OU-2) (Plate 1). Of these borings, four were completed as monitoring wells (RW-1, RW-2, RW-3, and RW-6/SB-20) (Plate 1).

Subsurface-soil sampling, groundwater sampling, hydraulic conductivity testing, and groundwater level measurements (at high and low tides) were completed during the first round of the RI.

Within OU-2, the groundwater investigation consisted of the collection of samples from the newly installed monitoring wells (RW-1, RW-2, RW-3, and RW-6) and the previously installed wells (FPM-OW-5, FPM-OW-6, and FPM-OW-7) as part of the Round 1 scope of work. In-situ hydraulic conductivity tests (slug tests) were completed for monitoring wells RW-1, RW-2, RW-3, and RW-6 were conducted to assess the hydraulic conductivities of the groundwater aquifer beneath the 25 Willow Avenue parcel. Monitoring wells RW-1, RW-2, RW-3, RW-6, FPM-OW-5, FPM-OW-6, and FPM-OW-7 were used to determine the groundwater flow direction during Round 1 of the RI. Each monitoring well was gauged for the potential presence of nonaqueous phase liquid (NAPL) during the groundwater sampling event. In addition, a temporary hand-dug piezometer (PZ-1) was installed to provide additional groundwater elevation data at the 25 Willow Avenue Parcel (Plate 1).

Nine air quality stations (AQS-1 to AQS-9) were established to monitor the air quality on the perimeter of the 25 and 40 Willow Avenue parcels during the test pit excavations at OU-1 and OU-2 (Plate 1). Air quality monitoring was also conducted immediately adjacent to test pits (work zone) to document the air quality during the exposure of soils during shallow excavations. The air-monitoring program included the collection of real-time air quality data, time-averaged air quality data, and meteorological data to document potential migration routes of airborne VOCs and particulates.

2.1.2 Round 2 - Investigation of 25 and 40 Willow Avenue Parcels and Adjacent Parcels (July through October 1999)

This portion of the RI was completed to characterize subsurface soils to a confining layer (bedrock), characterize shallow subsurface soils, determine the presence of additional former MGP structures at the site, characterize groundwater conditions within the upper and lower aquifers, evaluate the lateral and vertical extent of subsurface conditions, and evaluate surface-soil conditions on adjacent residential and other abutting parcels.

Within OU-2, 16 soil borings were drilled and sampled (SB-37, SB-39, SB-45/RW-8, SB-46/RW-9, SB-47/RW-10, SB-48/RW-11, SB-49/RW-12, SB-50/RW-13, SB-51, SB-52, SB-53, SB-54, SB-55, SB-55A/RW-15, SB-56/RW-16, and SB-57) with 8 of these borings completed as a monitoring well (SB-45/RW-8, SB-46/RW-9, SB-47/RW-10, SB-48/RW-11, SB-49/RW-12, SB-50/RW-13, SB-55A/RW-15, and RW-16/SB-56).

Subsurface-soil sampling, groundwater sampling, hydraulic conductivity testing, and groundwater level measurements (at high and low tide stages) were completed at boring and monitoring well locations on the 25 Willow Avenue parcel, adjacent Greenfield Avenue parcels, and the railroad ROW within OU-2. In-situ hydraulic conductivity tests (slug tests) were completed for monitoring wells RW-8, RW-12, and RW-13 to assess the hydraulic conductivities of the groundwater aquifer beneath the Greenfield Avenue parcels. A single well pumping test was completed for monitoring well RW-15 to evaluate the deep groundwater aquifer hydraulic conductivity beneath 25 Willow Avenue. Groundwater samples were collected from monitoring wells RW-1, RW-2, RW-3, RW-4, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, RW-15, and RW-16 and previously installed monitoring wells (FPM-OW-5, FPM-OW-6, and FPM-OW-7). Monitoring wells (RW-1, RW-2, RW-3, RW-4, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, FPM-OW-5, FPM-OW-6, and FPM-OW-7) and piezometer (PZ-4) were used to determine water table groundwater flow directions at OU-2. Monitoring wells RW-15 and RW-16 were used to determine the groundwater flow within the deep aquifer at the site. Groundwater information for the shallow and deep groundwater aquifers collected for OU-1 was used to supplement groundwater information collected within OU-2.

In addition to the proposed work described in the work plan addenda, the hand-dug piezometer (PZ-1) was abandoned because it was replaced with a permanent monitoring well (RW-13). A GeoProbe®-installed piezometer (PZ-4) with sand packs and protective wellhead was also installed in the vicinity of Bay Street (Plate 1). The proposed soil boring (SB-38) was not completed inside the existing building as part of the Round 2 investigation. This boring was not completed because elevated VOC measurements around the borehole for SB-37 (completed within the building) suggested that further subsurface drilling in the vicinity of the relief holder could potentially result in VOCs being released to the indoor air

of the building as soil cuttings were brought up from beneath the building. Therefore, to avoid any potential impacts to the work environment, boring SB-38 was not completed.

2.1.3 Round 3 - Investigation of Lynhurst Avenue Residential Lots and Commercial Lot at 66 Willow Avenue (November through December 1999)

This phase of the RI was conducted to characterize the soil conditions beneath the residential lots in OU-1. In addition, further characterization of surface soils at OU-1 was performed and background surface-soil samples were collected to establish the condition of background soils in the vicinity of the former MGP (OU-1 and OU-2). Ten background surface-soil samples (SS-33 through SS-42) were collected at accessible locations in the vicinity of the 25 and 40 Willow Avenue parcels. Three of the surface soils (SS-34, SS-35, and SS-36) were collected within grassed area of the 25 Willow Avenue parcel to evaluate surface-soil conditions at the parcel. The background surface samples were collected to establish background conditions for surface soils in the vicinity of OU-1 and OU-2 (Plate 1).

2.1.4 Round 4 - Former Clifton MGP Site, Revised Supplemental Investigation (RI) Work Plan, 25 and 40 Willow Avenue Parcels, Staten Island, New York (October 9, 2001) (November 2001 through January 2002)

This phase of the RI was conducted to evaluate soil conditions and the orientation of the glacial till surface along Bay Street and (at the request of NYSDEC) to evaluate the vertical extent of tar adjacent to three specific former MGP structures. Water samples were also collected from the storm sewer located on the northeastern portion of 25 Willow Avenue.

In accordance with the RI work plan addendum dated October 9, 2001, ten soil borings (SB-68, SB-69/RW-17, SB-70, SB-70A/RW-18, SB-71, SB-72, SB-73, SB-74, SB-75, and SB-76) were installed with a Resonant Sonic drilling rig on the 25 Willow Avenue parcel. Two of these borings (SB-69/RW-17 and SB-70A/RW-18) were completed as monitoring wells. Subsurface soil samples were collected from these borings. Groundwater samples and groundwater level measurements were collected at existing and newly installed monitoring well locations on the 25 Willow Avenue parcel, adjacent Greenfield Avenue parcels, and the Railroad ROW within OU-2. Groundwater elevations from the shallow groundwater aquifer at OU-1 were used to supplement groundwater information collected within OU-2. Storm sewer samples STRM-01, STRM-02, and STRM-03 were collected from within Willow Avenue, within the site, and at a manhole prior to exiting the site.

The proposed test pit location (TP-11) along Bay Street was not completed during the Round 4 RI because subsurface-soil information collected from soil borings SB-68, SB-69/RW-17, SB-70 and SB-70A/RW-18 suggested that impacts were encountered below the practical depth that an excavator could reach.

2.1.5 Round 5 - Former Clifton, Staten Island MGP Site, Supplemental Remedial Investigation (RI) (May through June 2002)

This phase of the RI was conducted to further characterize the presence and integrity of the glacial till layer along Bay Street.

In accordance with the RI work plan addendum dated March 14, 2002, three subsurface-soil borings (SB-81, SB-82, and SB-82A) were drilled and sampled with a GeoProbe® drill rig within a triangular parcel located between Bay Street and Edgewater Street. The proposed boring SB-83 was not completed as part of this investigation because tar was not observed at the location of borings SB-82/82A and because of administrative issues related to parcel access.

In addition to the scope described in the work plan addenda, two additional subsurface-soil borings (SB-88 and SB-89) were installed adjacent to the storm sewer line located on the 25 Willow Avenue parcel to evaluate the potential migration of tar adjacent to the storm sewer.

2.1.6 Round 6 - Former Clifton, Staten Island MGP Site, Supplemental Remedial Investigation (RI) Work Plan-Edgewater Street (November 4, 2002) (November through December 2002)

This phase of the RI was conducted to evaluate the migration of tar upon a glacial till layer within the Edgewater Street ROW.

In accordance with the RI work plan addendum dated November 4, 2002, nine subsurface-soil borings (SB-90/A/B/C, SB-91/91A, SB-92, SB-93, and SB-94) were drilled and sampled with a GeoProbe® drill rig within the Edgewater Street ROW. One monitoring well (RW-19) was installed adjacent to SB-94 during this supplemental investigation. Tar was gauged and removed from well RW-19 as part of this mobilization.

2.1.7 Round 7 - Former Clifton, Staten Island MGP Site, Sub-Slab Soil Vapor Sampling and Vapor Intrusion Analysis Work Plan-OU-2 (April 16, 2003) (June 2003)

This phase of the RI was conducted to evaluate the soil vapors beneath the slab of the building at 25 Willow Avenue.

In accordance with the Sub-Slab Soil Vapor Sampling and Vapor Intrusion Analysis work plan, dated April 16, 2003, twelve soil gas points (SG-1 through SG-12) were installed and sampled for TO-15 at 25 Willow Avenue.

2.1.8 Round 8 - Former Clifton, Staten Island MGP Site, Supplemental Remedial Investigation (RI) Work Plan-1 Edgewater Street (October 20, 2003) (April through June 2004) and Soil Vapor Sampling Work Plan, Operable Unit 2, 1 Edgewater Street/Edgewater Plaza (December 8, 2004) (December 2004)

This phase of the RI was conducted to evaluate the off site tar related impacts at 1 Edgewater Street/Edgewater Plaza.

In accordance with the RI work plan addendum dated October 20, 2003, forty-five subsurface-soil borings (SB-95 through SB-139) were drilled and sampled with a GeoProbe® drill rig at 1 Edgewater Street/Edgewater Plaza. Three monitoring wells, RW-20, RW-21, and RW-22, were installed adjacent to SB-137, SB-126, and SB-95 during this supplemental investigation. Based on the field observations from these borings, a soil vapor sampling program was developed (December 8, 2004 Work Plan) and approved by NSYDEC. The collection of the soil vapor samples has not yet been conducted.

The findings from the soil investigations and the soil vapor sampling tasks will be submitted as a Supplemental RI report following completion of the soil vapor task and evaluation of those data.

2.2 Field Methods

Several pieces of heavy equipment were mobilized and various sampling techniques were utilized to complete the RI. This subsection generally describes the sampling procedures utilized. For details refer to the approved RI work plan and addenda.

2.2.1 Air Monitoring

2.2.1.1 Perimeter Air Monitoring

Round 1 RI Air Monitoring

Ambient air monitoring was completed during the excavation of test pits at nine perimeter air quality stations (AQS-1 to AQS-9) during Round 1 of the RI (Plate 1). The air quality monitoring program was designed to evaluate the potential migration of volatile organic compounds (VOCs) and particulates off the perimeter of the site where excavation occurred, and to document the levels of VOCs and particulates in air at the property boundaries. A photoionization detector (PID) organic vapor analyzer (OVA) and MiniRAM™ particle detector were used in the collection of the air quality data at each air quality station. Each instrument was calibrated prior to use. Measurements were taken hourly at each sampling station while test pit excavation occurred. The perimeter air quality-monitoring program was

supplemental to and discrete from, the air monitoring program implemented for purposes of evaluating worker health and safety.

Meteorological data, including wind speed, wind direction, and temperature, were monitored throughout the air sampling program to evaluate potential migration pathways of VOCs and particulates. These data were collected from a weather station temporarily mounted on the roof of the building at the 25 Willow Avenue parcel during Round 1 of the RI.

Round 2, 4, 5, and 6 RI Air Monitoring

Ambient air monitoring was completed for subsurface soil boring activities during Round 2, Round 4, Round 5, and Round 6 of the RI. No air monitoring was collected within OU-2 during Round 3 because only surficial soil samples were collected. The air quality within the perimeter of the work zone was monitored during subsurface boring and groundwater well installation activities to evaluate that potential migration of VOCs in accordance with the approved work plan.

2.2.1.2 Worker Health and Safety Air Quality Monitoring

Round 1 RI Air Monitoring

As specified in the work plan and addenda, two particulate meters were used during the test pit activities (Round 1 of the RI in OU-2) to monitor dust generation during excavation of test pits. One unit was placed upwind of the excavations and the remaining unit was placed downwind of the excavations. The particulate meters were placed approximately 10 to 20 feet away from the excavation activities. The units were moved as appropriate during the excavation activities, based on wind direction. Potential organic vapor emissions were also monitored using a PID-OVA approximately 10 to 20 feet downwind of excavation activities. In addition, personnel working on excavating and logging each test pit monitored total VOCs within their workspace-breathing zone with a PID-OVA.

Round 2, 4, 5, and 6 RI Air Monitoring

Ambient air monitoring was completed within the work zone during subsurface soil boring activities during Round 2, Round 4, Round 5, and Round 6 of the RI. No air monitoring was collected within OU-2 during Round 3 because only surface soil samples were collected. The air quality in the perimeter was monitored during subsurface boring and groundwater well installation activities to evaluate that potential migration of VOCs in accordance with the approved work plan.

In addition, the work zone was monitored for cyanide during Round 6 of the RI. The Dragger Miniwarn electronic cyanide and a Dragger CMS analyzer were utilized to measure the ambient air conditions within the work zone.

Subsection 2.3 discusses the results of the air-monitoring program.

2.2.2 Soils (Test Pits, Borings, and Surface-Soil Sampling)

This subsection describes the methodology used at OU-2 to collect soil samples during the RI. Table 2-1 identifies the rationale for conducting each boring, submittal of each sample for laboratory analysis, and the analyses completed for each sample. Generally, soils were logged and screened in accordance with the RI work plan. Selected soil samples were placed directly into certified pre-cleaned containers and placed directly into ice-filled coolers. The samples were then shipped to STL under chain-of-custody or were picked up by laboratory courier and delivered to the laboratory for analysis. Boring logs and monitoring well construction logs are presented in Appendix B. Test pit logs and photographs are presented in Appendix C.

2.2.2.1 Test Pit Excavations

A backhoe was used to perform excavation of test pits TP-1, TP-2, TP-3, TP-4, TP-5, TP-6, TP-7, TP-8, and TP-9 at the 25 Willow Avenue parcel (Plate 1). Soil from the test pits was excavated, logged and screened with a PID-OVA according to the RI Work Plan. Test pit logs are provided in Appendix C. If historic structures were encountered in a test pit, the structure was described and its location was noted in the field book. Four soil samples were collected from the test pits for analytical testing (Table 2-1). Soils from TP-1, TP-3, and TP-8 were analyzed for BTEX (EPA Method 8260); semivolatile organic compounds (SVOCs) and 20 tentatively identified compounds (TICs) (EPA Method 8270); Resource Conservation and Recovery Act (RCRA 8) metals (EPA Method 6010); and total cyanide (TCN) (EPA Method 9012). The soil sample collected from TP-4 was analyzed for VOCs (BTEX) and SVOCs. The soil sample collected from TP-8 was also analyzed for polychlorinated biphenyls (PCBs) and pesticides (EPA Method 8081). Once test pits were logged, the test pits were backfilled in the reverse sequence that they were excavated and asphalt pavement was replaced to grade at the completion of each test pit.

2.2.2.2 Soil Borings

Eighty-eight borings and 18 borings completed as monitoring wells were completed as part of the RI for OU-2. Table 2-1 provides the boring IDs, as well as the rationale for sample selection. Soil boring logs and monitoring well construction logs are provided in Appendix B. Soil boring samples were collected utilizing GeoProbe®, hollow-stem auger, drive casing (drive and wash), and Rotosonic™ drilling methods. The objective of these

borings was to evaluate the shallow and deep geologic conditions, and to install monitoring wells to screen the groundwater quality at the OU-2 parcels.

Within each boring, soil samples were generally collected from intervals exhibiting the greatest observed occurrence of tar, staining, sheen, odors, and/or PID readings, and from a deeper interval not exhibiting these physical observations. Soils with discrete intervals of observed tar, staining, sheen, odors, and/or PID detections, soils at the completion depth of selected borings, soils at significant geologic unit changes, and soils from the water table interface were also submitted for analysis. Generally, soils were analyzed for VOCs (full scan and BTEX fraction only), SVOCs (full scan and PAH fraction only), metals (RCRA-8 and Target Compound List/Target Analyte List [TAL/TCL]), and TCN as specified in the RI Work Plan and addenda. Selected samples were also analyzed for total organic carbon (TOC), bulk density, and grain size (Table 2-1).

Soils were logged, screened with a PID-OVA, and visual and olfactory observations were noted according to the RI work plan and work plan addenda. At sampling locations that are overlain by pavement, sampling generally began immediately beneath the pavement and the underlying gravel base.

Hollow-stem auger, drive casing, GeoProbe®, and Rotosonic™ drilling methods used were described in the work plan and/or agreed to in the field by GEI representatives and the NYSDEC field representative.

2.2.2.3 Monitoring Well Installation and Well Development

Eighteen monitoring wells (RW-1, RW-2, RW-3, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, RW-15, RW-16, RW-17, RW-18, RW-19, RW-20, RW-21, and RW-22 and two piezometers (PZ-1 and PZ-4) were completed at OU-2 as part of the RI. Table 2-2 provides a summary of all the OU-2 monitoring wells installed during and prior to the RI, and Appendix B presents the well construction logs. Monitoring wells RW-1, RW-3, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, and RW-13 were installed utilizing the hollow-stem auger drilling method. RW-2 was installed utilizing drive and wash drilling method. RW-15, RW-16, RW-17, and RW-18 were installed utilizing Rotosonic™ drilling methods. Monitoring wells RW-19, RW-20, RW-21, and RW-22 were installed utilizing a Geoprobe™ drilling rig.

Each well (except RW-15, RW-16 and RW-19) was completed as a 2-inch ID monitoring well with flush-threaded polyvinyl chloride (PVC) 0.0010-inch slotted screen, solid PVC riser, and a flush-mounted cover. The annular space between the well screen, the borehole wall, and approximately 2 feet above the screen was backfilled with a sand pack. A 1- to 4-foot bentonite clay seal was placed above the sand pack. The thickness of the bentonite seal in some monitoring wells was less than specified in the work plan because of shallow

groundwater conditions. The remaining annular space was filled to grade with a cement-bentonite grout. A concrete pad surrounds each flush-mounted well cover. Each well was sealed with an expandable well cap that was secured with a padlock.

Monitoring well RW-15 and RW-16 were installed utilizing the Rotosonic™ drilling method. Monitoring wells RW-15 and RW-16 were completed to the top of the saprolite layer (weathered bedrock) to characterize and monitor the deep aquifer water conditions. This well was constructed with 4-inch ID, flush-threaded PVC 0.0010-inch slotted screen, solid PVC riser, and a flush-mounted cover. The annular space between the well screen and the borehole wall was backfilled with a sand pack to approximately 3 feet above the screen. A 4- to 5-foot bentonite seal was placed above the sand pack. The remaining annular space was tremie-grouted to grade with a cement-bentonite grout slurry. Each well was sealed with an expandable well cap that was secured with a padlock. A concrete pad surrounds the flush-mounted well cover for each of the wells.

Monitoring well RW-19 was a 1-inch inner diameter, flush-threaded PVC monitoring well installed via GeoProbe drilling methods. The sand pack was installed to 2.5 feet above the screen interval, a 6-foot bentonite seal was installed above the sand pack, and the remainder of the borehole was grouted/sealed with bentonite/concrete to the surface. The well was completed with a flush-mounted roadway box.

Monitoring wells RW-20, RW-21, and RW-22 were 2.5-inch outer diameter, 1.5-inch inner diameter, flush-threaded PVC monitoring well installed via GeoProbe drilling methods. The sand pack consisted of 2-5 foot prepacked Geoprobe screens and sand to approximately 3 feet above the screen interval, an approximately 2-foot bentonite seal was installed above the sand pack, and the remainder of the borehole was grouted/sealed with bentonite/concrete to the surface. The well was completed with a flush-mounted roadway box.

Following installation, each monitoring well was developed to remove silt and clays from the well and to stabilize the well filter pack. Development was done in accordance with the RI work plan.

2.2.2.4 Surface-Soil Sampling

Three surface soil samples (SS-34, SS-35, and SS-36) were collected from the grassed area within the landscaped strip of land adjacent to Bay Street on the 25 Willow Avenue parcel as part of the collection of background surface-soil samples in the vicinity of the 25 and 40 Willow Avenue parcels during Round 3 of the RI. Background surface soil locations (SS-33 and SS-37 through 42) were collected from areas surrounding OU-1 and OU-2 (Plate 1). No surface soil samples were collected from the footprint of the former MGP because asphalt pavement and a building cover the entire area. Table 2-1 provides a summary of the

rationale for surface-soil collection and analysis. Each surface-soil sample was collected from 0 to 2 inches of mineral soil immediately beneath the sod.

Each surface-soil sample was collected using decontaminated, stainless-steel sampling tools. Soils were placed into certified pre-cleaned sampling containers. Surface soil samples SS-33 through SS-42 were analyzed for VOCs (BTEX), SVOCs, RCRA 8 metals, TCN, TOC and grain size distribution (Table 2-1).

2.2.3 Groundwater

Groundwater sampling was conducted at OU-2 in April 1999, October 1999, January 2002, and June 2004. The April 1999 sampling event (Round 1) included monitoring wells RW-1, RW-2, RW-3, RW-6, and previously installed monitoring wells (FPM-OW-5 through FPM-OW-7). Round 2 groundwater sampling (October 1999) included the Round 1 monitoring wells and the newly installed groundwater table monitoring wells RW-8 through RW-12 located on the northwest parcels and within deep groundwater monitoring wells RW-15 and RW-16. No groundwater sampling was completed as part of Round 3 (November 2001) of the RI at OU-2. In January 2002 (Round 4), groundwater sampling included monitoring wells RW-17 and RW-18 and groundwater elevations were collected from the shallow groundwater aquifer monitoring wells (RW-1, RW-2, RW-3, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, FPM-OW-5, FPM-OW-6, and FPM-OW-7) and piezometer PZ-4. No groundwater sampling was completed as part of Rounds 5 or 6 of the RI. In June 2004 (Round 8), groundwater sampling included monitoring wells RW-20, RW-21 and RW-22 and groundwater elevations were collected from the shallow groundwater aquifer monitoring wells (RW-2, RW-3, RW-6, RW-8, RW-12, RW-20, RW-21, RW-22, FPM-OW-5, FPM-OW-6, and FPM-OW-7) and piezometer PZ-4. Table 2-2 provides a summary of monitoring well information, including the screened interval and groundwater elevations.

At monitoring wells where groundwater was sampled, groundwater levels were measured prior to sampling, followed by purging and sampling of the monitoring wells. Groundwater depths were measured from the surveyed top of the PVC riser pipe for each well. Following sampling, the groundwater levels were again measured in each monitoring well. Sampling was completed in accordance with the RI work plan and work plan addenda.

2.2.3.1 Purging

Each well was purged prior to sampling to ensure that a representative sample from the aquifer was obtained. Sampling and purging were conducted using low-flow methods employing a peristaltic pump with dedicated down hole tubing for monitoring wells RW-1, RW-2, RW-3, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, RW-17, RW-18, RW-20, RW-21 and RW-22. Purging rates varied because of the aquifer conditions; however, pumping rates ranged between 60 milliliters (ml) and 720 ml per minute in the shallow

groundwater aquifer. Regardless of the purge rate, draw down of the static water level was minimized at all times.

A submersible Grundfos® pump with dedicated tubing was used to purge and sample groundwater in deep monitoring wells RW-15 and RW-16. These wells were screened in the deep groundwater aquifer, which displayed artesian conditions and required higher pumping rates to obtain a representative sample from the formation. These monitoring wells were purged at a rate of 2 liter to 4 liters per minute. These monitoring wells were able to be pumped at higher rates with minimal draw down of the water column.

All wells were monitored for field parameters (temperature, pH, conductivity, dissolved oxygen [DO], and oxygen reduction potential [ORP]) with flow-through cells during purging. In addition to these parameters, purge water from each well was monitored for turbidity in Round 1, salinity in Round 2, and turbidity and salinity in Rounds 4 and 8. Measured flow rates and purge volumes were recorded coincidently with field parameter measurements. When at least three well volumes were purged and/or values of measured field parameters remained within a 10 percent difference over several consecutive readings, each well was sampled.

2.2.3.2 Sampling

After each well was purged, groundwater samples were collected and placed into preserved containers provided by STL. Groundwater samples were analyzed for VOCs, SVOCs, TCN, and RCRA 8 metals for the Round 1, Round 2, and Round 4 sampling events and BTEX, PAH, TCN and RCRA 8 metals for the Round 8 sampling event. In addition, analyses of polychlorinated biphenyls (PCBs), total dissolved solids (TDS), 11 additional metals and salinity were completed for groundwater samples obtained from wells RW-1, RW-2, RW-3, RW-4, RW-6, RW-7, OW-5, OW-6, and OW-7 during Round 1. VOCs were collected using a dedicated single check-ball bailer for the shallow aquifer groundwater samples; double check-ball bailers were used for the deep aquifer samples. Sample aliquots for analysis of SVOCs, metals, TCN, TDS (EPA Method 160.1), PCBs (EPA Method 8081), and salinity (EPA Method 2520B) were collected through dedicated tubing utilizing a peristaltic pump or a Grundfos® pump. A peristaltic pump was used for sampling shallow monitoring wells and groundwater was sampled at approximately 100 ml/minute. A Grundfos® pump was used for groundwater sample collection from deep wells RW-15 and RW-16. The pump rate for the Grundfos® pump was approximately 1,000 ml/minute while sampling because this was the lowest flow rate the Grundfos® pump could maintain before it disengaged. Following collection, groundwater samples were placed into an ice-filled cooler and shipped under chain of custody to STL Laboratories for analysis.

2.2.4 Storm Sewer Water Sampling

Storm sewer sampling was completed during Round 4 of the RI. Three storm sewer water samples were collected within OU-2:

- (STRM-01) upgradient within the Willow Avenue ROW
- (STRM-02) on-site location at the T-shaped grate
- (STRM-03) at a manhole location at the point the storm sewer line exist the 25 Willow Avenue parcel

Each storm sewer sample was collected utilizing a pre-cleaned polyethylene bailer and/or a peristaltic pump and dedicated tubing. Samples were collected and placed into preserved containers provided by STL. Each storm sewer sample was analyzed for BTEX, SVOCs, RCRA-8 metals, TCN and hardness.

2.2.5 Sub-Slab Soil Vapor Sampling

Sub-slab soil vapor sampling was completed during Round 7 of the RI. Twelve sub-slab soil vapor samples were collected within OU-2 at 25 Willow Avenue, SG-1 and 2 were collected at the automobile service and repair area, SG-3 through SG-9 were collected at the automobile detailing and preparation area, SG-10 was collected in the former storage area, and SG-11 and SG-12 were collected in the office area.

Each sub-slab soil vapor sample was collected using a 6-liter capacity Summa canister with a calibrated flow controller valve, provided by Air Toxics Ltd, over an 8-hour timeframe. Each soil vapor sample was analyzed for VOCs, including naphthalene, by method TO-15.

2.2.6 Survey

At the conclusion of the RI field activities, each boring and well location was surveyed by a GEI-employed New York State licensed surveyor (New York License No. 050156) with reference to the state coordinate grid system. The lateral accuracy of the survey was 0.1 foot and the vertical accuracy was 0.01 foot. The data were tied into a United States Geological Survey (USGS) benchmark to ensure that all groundwater elevations are referenced to the 1983 National Geodetic Vertical Datum (NGVD) and the 1988 National Astronomic Vertical Datum (NAVD). A reference point on the bulkhead at the harbor was surveyed to facilitate monitoring of tidal fluctuations during Round 1 and Round 2. Surface-soil and test pit sampling locations were either surveyed or field measured relative to known features.

2.3 Air Monitoring Findings

2.3.1 Meteorological Observations

Throughout the test pit excavation program of Round 1, wind blew out of the north at speeds ranging from 1 to 20 miles per hour (mph), with an overall average of 8 mph. Wind gusts ranged from 3 to 29 mph and averaged 13 mph. The outside temperature ranged from 20° F to 47° F, with an average of 35° F. Wind chill ranged from -3.9° F to 46° F, with an overall average of 27° F.

2.3.2 Perimeter Air Monitoring Findings

Air monitoring at the perimeter of the 25 and 40 Willow Avenue parcels was conducted in accordance with Section 5 of the Health and Safety Plan (HASP). At no time did total organic vapor levels exceed 5 parts per million (ppm) above background at the perimeter of the 25 and 40 Willow Avenue parcels during test pit activities.

There were five occurrences where the upwind perimeter particulate levels exceeded the downwind particulate levels by at least 150 $\mu g/m^3$ (two-minute maximum readings). The upwind exceedances occurred at stations along Bay Street, where heavy automobile and truck traffic likely resulted in high upwind (background) dust levels.

During Round 1 of the RI, there were five occurrences where the upwind perimeter particulate levels exceeded the downwind particulate levels by at least 150 $\mu g/m^3$ (two-minute maximum readings). The upwind exceedances occurred at stations along Bay Street and automobile and truck traffic likely resulted in high upwind (background) dust levels. There were 11 occurrences where the downwind perimeter particulate levels exceeded the upwind particulate levels by at least 150 $\mu g/m^3$ (two-minute maximum readings). Only three of these 11 occurrences had downwind two-minute time-weighted averages at least 150 $\mu g/m^3$ greater than the upwind particulate levels, indicating that 8 of the 11 occurrences were very brief. For the three occurrences where the downwind time-weighted averages exceeded the upwind time-weighted averages, it was noted that dust-generating activities other than excavation (pavement sawing) were occurring nearby and likely accounted for the occurrences.

There were no instances where PID readings exceeded a reading of 5.0 ppm at the perimeter of the work area were noted during the subsequent soil boring work within Round 2 (October 1999), Round 4 (November/December 2002), Round 5 (May 2002), and Round 6 (November 2002) in accordance with the approved work plan.

There were no instances where the 15-minute average of the PID readings exceeded 5.0 ppm or the 15-minute average of the particulate meter exceeded 0.150 ug/m^3 during the soil boring work within Round 8 (April and May 2004) in accordance with the approved work plan.

2.3.3 Worker Health and Safety Air Monitoring Results

Approximately 500 PID-OVA data points were recorded during excavation and backfilling at test pits on the 25 and 40 Willow Avenue parcels during Round 1 (April 1999) of the RI. Only two data points showed readings greater than 0.0 ppm. A reading of 0.2 ppm was recorded downwind of TP-08. A reading of 3.7 ppm was recorded downwind of TP-04, at which time it was noted that the PID was downwind of exhaust fumes from pavement cutters. At no time did the PID readings exceed 5.0 ppm.

There were no instances where the average downwind particulate levels exceeded 150 µg/m^3 during the test pit monitoring. Two upwind (background) occurrences were noted where the overall average particulate concentration was greater than 150 µg/m^3. These occurred upwind of TP-4 and TP-5, which were excavated one after the other on February 23, 1999. It was noted at the beginning of the TP-4 excavation that the upwind particulate data logger was located downwind of pavement cutting and the particulates were attributed to these activities.

There were no instances where PID readings exceeded a sustained reading of 5.0 ppm at the perimeter of the work area were noted during the subsequent soil boring work within Round 2 (October 1999), Round 4 (November/December 2002), Round 5 (May 2002), and Round 6 (November 2002). Minor detections were noted within the work zone when soils with the occurrence of tar and tar stained soils were encountered; however, these detections quickly dissipated or were controlled with engineering controls in accordance with the approved work plan.

3. Site Geology and Hydrogeology

This section documents the geology and hydrogeology beneath the 25 Willow Avenue parcel and the surrounding vicinity.

3.1 Geology

Four major stratigraphic units were identified during the RI drilling program: (1) fill, (2) alluvial/marsh deposits, (3) glacial deposits, and (4) weathered bedrock (saprolite). The general stratigraphy beneath OU-2 consists of the saprolite overlain by the glacial deposits, alluvial deposits, and fill in order of decreasing depth. Cross-sections A-A' through C-C′ (Plate 2) and cross-sections D-D′ through G-G′ (Plate 3) were developed to illustrate the geology underlying OU-2. Plate 1 indicates the location of each cross section. These cross-sections also depict the physical observations of tar, tar blebs, staining, sheen, and odors. Table 3-1 summarizes the geologic units encountered during the RI. The distribution of chemicals and the physical observations of tar are described in Section 4. Detailed geologic descriptions and well construction details are provided in boring logs and test pit logs located in Appendices B and C.

A general description of the four stratigraphic units is provided below.

3.1.1 Fill

Fill is present at the ground surface or immediately beneath a thin layer of topsoil or asphalt (Plates 2 and 3). Fill consists of silt, sand, and gravel mixed with slag, coal, brick, concrete, wood, metal, ash and clinkers. Foundations (constructed of brick/mortar and concrete) of former MGP-related structures were also encountered with the fill at the site. Typically, the fill is loose and non-cohesive. Fill was encountered in each of the test pits, soil borings, and monitoring well locations completed at the 25 Willow Avenue parcel and adjoining properties (Plates 2 and 3). Fill on the 25 Willow Avenue parcel ranged from inches thick (as in boring SB-16 bordering Bay Street) to a maximum of 9 feet thick in SB-13 (Cross-section B-B′, Plate 2 and Cross-section F-F′, Plate 3). Generally, the fill unit was thicker in the central to northeastern portion of the 25 Willow Avenue parcel than within adjacent areas along Willow Avenue, Bay/Edgewater Street, and the Greenfield Avenue parcels. Fill was also present from the ground surface to the bottom of the following subsurface structures of the former MGP facility: Relief Holder No. 1 (SB-37), Tar Separator (SB-39), Tar Tank/Gasometer (SB-53), Tar Separator (SB-10A, TP-2), Tar Tank (adjacent to tar tank/gasometer) (TP-3), and Tar Well (SB-54 and SB-75) (Plates 1, 2 and 3).
Fill was also present at parcels adjacent to the 25 Willow Avenue parcel at the Greenfield Avenue parcels as observed in borings RW-8/SB-45, RW-9/SB-46,

RW-10/SB-47, RW-11/SB-48, RW-12/SB-49, within the Willow Avenue ROW within borings SB-30 through 35, and in the Bay Street/Edgewater Street ROW within borings SB-81 through 82A and SB-90 through SB-94.

3.1.2 Alluvial Deposits

A mix of alluvial/marsh deposits was encountered, generally beneath a layer of fill, at the 25 Willow Avenue parcel, and within borings located within the Willow Avenue ROW, the Bay Street/Edgewater Street ROW, and on the northwest parcels on Greenfield Avenue. The alluvial/marsh deposits consist of sub-units of sand, gravelly-sand, gravelly-silt, silt, silt-clay, and peat, and are present throughout the majority of OU-2. Historical maps of the area indicate that an un-named stream had previously flowed along the north-central portion of the adjacent 25 Willow Avenue parcel and into New York Harbor. The former stream and its tributaries likely deposited these alluvial/marsh deposits within OU-2.

Deposits encountered during the RI drilling are consistent with a former active stream depositional environment and an associated lower energy (marsh) environment. For this discussion, the deposits are broken down into the alluvial deposits (sorted sands and gravelly sands) associated with the former active stream environment, and marsh deposits (silts, silt-clay, gravelly silt and peat deposits) associated with a lower energy depositional environment. The sand and gravelly-sand units are typically gray, brown, red-brown fine to coarse sand and gravelly-sand with trace silt, and were generally loose and non-cohesive. The alluvial deposits are illustrated in cross-sections B-B′ and C-C′ (Plate 2) and D-D′ through G-G′ on Plate 3. As shown on these cross-sections, these alluvial deposits extend to approximately 44 feet bgs at borings SB-56/RW-16 in the central portion of the 25 Willow Avenue parcel. The alluvial deposits were inter-stratified with marsh/quiet energy deposits.

An inferred scour into the underlying glacial deposits extends from north of RW-16/SB-56 in SB-52 at south of SB-14/SB-76 (Plate 2 and Plate 3). This scour is interpreted as a former stream channel that crossed the 25 Willow Avenue parcel. Historical maps of the area discussed in subsection 1.2.2 show an un-named historic stream flowing through the northern portion of the 25 Willow Avenue parcel. The stratified sand units encountered in borings at the central to south-central portion of the 25 Willow Avenue parcel are consistent with former alluvial deposits. These deposits ranged between 12 and 25 feet bgs in borings SB-12, SB-13, and SB-54 (Plates 2 and 3).

The alluvial sand was also encountered at parcels along Willow Avenue, Bay/Edgewater Street, and Greenfield Avenue. The sand and gravelly-sand unit was also encountered beneath Willow Avenue in borings SB-31, SB-32, and SB-33 from approximately 17 to 24 feet bgs (Plate 2) and along Bay/Edgewater Street within SB-91/91A and SB-92 to approximately 12 feet bgs (cross-section G-G', Plate 3). These sand units are also likely associated with the former historic stream that previously occupied the site.

Silt, silt-clay and peat units were encountered on the western and southern portions of the 25 Willow Avenue parcel, the adjacent northwest parcels on Greenfield Avenue, portions of the Willow Avenue and Edgewater Street ROWs. These deposits are believed to be associated with a former marsh (possibly inter-tidal) that was located adjacent to the former stream and New York Harbor. These units are described as black, olive, gray to brown, soft, and slightly cohesive to cohesive. The western portion of the 25 Willow Avenue parcel and the parcels to the west had thicker silt, silt-clay, and peat units than in the remainder of the northeastern and eastern portions of 25 Willow Avenue parcel and the Bay Street areas. The thickness of these units ranged from 6 feet in RW-1 to approximately 20 feet in RW-13 and RW-8 on the western portion of the 25 Willow Avenue parcel. On the eastern portion of the 25 Willow Avenue parcel, the marsh deposits were absent at SB-19, RW-6, and RW-3.

Marsh deposits were also encountered within borings RW-8/SB-45 and RW-9/SB-46, located adjacent to the elevated railroad located within the Willow Avenue ROW within borings SB-30 and CNY#8 and CNY#9. Thinner deposits of marsh deposits were encountered within the remainder of the borings located to the northeast on Willow Avenue.

Marsh deposits were also encountered within the Bay/Edgewater Street area where marsh deposits were ranged from approximately 4 feet in SB-91/91A to approximately 10 feet within boring SB-93.

The OU-2 marsh deposits were thicker and located at greater depths to the northeast across the site and are primarily located in the topographic bowl-shaped feature at the site. This is consistent with the historic stream that formerly flowed across the site.

3.1.3 Glacial Deposits

Glacial deposits were encountered beneath the alluvial/marsh deposits and above the saprolite layer at 25 Willow Avenue, the Greenfield Avenue parcels, Bay Street/Edgewater Street, and beneath Willow Avenue. The glacial deposits can be classified into two sub-units based upon previous geologic investigations by Soren, 1988: the Harbor Hill Terminal Moraine and the Ground Moraine. According to Soren, 1988, a geologic contact between the Harbor Hill Terminal Moraine and the Ground Moraine is located within the vicinity of OU-2. The Ground Moraine and Harbor Hill Terminal Moraine were encountered in a number of borings during the RI within OU-2 (Plates 2 and 3).

The Ground Moraine consists of a silt to silt-sand mixture, with little to some cobbles and gravels, is dense to very dense and is slightly moist, which is consistent with the descriptions by Soren (1988). This unit is believed to be the confining unit for downward tar migration on the 25 Willow Avenue parcel (see Section 4). The top of the Ground Moraine varies from 33.5 feet deep in the vicinity of the SB-68 to approximately 65 feet deep in the vicinity of

Willow Avenue. The Ground Moraine was encountered at shallower depths in the northern portion of the site (SB-68, RW-17/SB-69, and SB-70A/RW-18 in the vicinity of Bay Street (cross-section F-F', Plate 3). The Ground Moraine was located at increasing depths in the central portion of the 25 Willow Avenue parcel at 30 feet bgs in RW-15/SB-55A (cross-section B-B', Plate 2) to approximately 44 feet bgs in RW-16 (cross-section F-F', Plate 3). The unit is located at greater depth in the vicinity of Willow Avenue (cross-sections D-D' and E-E', Plate 3). The unit extends to the top of the weathered bedrock. Stratified graded sand layers were noted within the lower portions of this unit at RW-15 and RW-16 (cross-section B-B', Plate 2). The Ground Moraine is believed to act as a leaky hydrologic confining unit between the water table aquifer and the deeper confined unit (see subsection 3.2); however, the unit has acted as an effective confining unit to the downward migration of tar at the 25 Willow Avenue parcel.

The Ground Moraine was inter-stratified with sand and gravelly sand layers at the northeastern portion of the site within borings (SB-68, RW-17/SB-69, RW-18/SB-70A, and SB-89. These localized, sand layers were red-brown sands to gravelly sands that occurred within glacial materials and contained rip-up clasts of glacial till material and were located on a weathered glacial till surface. These glacially derived units were likely glacial outwash during the retreat and advance of the glaciers over the site.

The Harbor Hill Terminal Moraine was also encountered in a number of borings within OU-2 along Bay Street and Willow Avenue. The Harbor Hill Terminal Moraine was encountered in borings completed adjacent to Bay Street (SB-71, SB-72, SB-73, RW-6/SB-20, and RW-3 (cross-section F-F', Plate 3) as shallow as 8 feet in RW-3 and also along Willow Avenue within borings SB-74 and SB-75 (cross-section C-C', Plate 2 and cross-sections D-D' and F-F', Plate 3).

The Harbor Hill Terminal Moraine deposits appear to be acting as a lateral barrier to the migration of tar along Bay Street at the 25 Willow Avenue parcel. From the geologic information collected at the site and published papers, it appears that the Harbor Hill Terminal Moraine was deposited at the frontal edge of the glacier over the Ground Moraine at the site. It is hypothesized that the deposition of the terminal moraine resulted in a local topographical high point along Bay Street that acted as a dam to the glacial meltwaters of the retreating glacier at the site. Consequently, a topographic low area was created adjacent to the Terminal Moraine after the ice retreated that subsequently became a pathway for the former stream and associated marsh (previously discussed in section 3.1.2).

3.1.4 Saprolite

Saprolite, or weathered bedrock, was encountered beneath the glacial deposits (sand layers) at the 25 Willow Avenue parcel in borings RW-15/SB-55A and RW-16/SB-56 (cross-section B-B', Plate 2, and cross-sections D-D' E-E', Plate 3). The top of the saprolite ranged between

–105.05 feet NAVD within RW-15/SB-55A and –116.18 feet NAVD within RW-16/SB-56. Based on these data points and additional points at OU-1 where the saprolite was encountered (within boring SB-78, -108.76 feet NAVD and within boring RW-14/SB-48 at -116.00 feet NAVD), the saprolite unit appears to dip to the north. The saprolite was formed by in-situ weathering of bedrock; likely the Manhattan Schist based on descriptions of the bedrock by Soren, 1988.

The encountered saprolite was a red to red-brown, gray to green-gray clay with some silts and relict schist-like texture, which included muscovite and biotite mica mineral layers. The unit was very dense and dry. The saprolite is believed to be the lower confining layer of the deep aquifer beneath OU-2.

3.2 Hydrogeology

No surface water bodies are located at or immediately adjacent to the OU-2 parcels. However, a stream formerly traversed the 25 Willow Avenue parcel (Plates 2 and 3). A storm sewer line follows the approximate trace of the historic stream and extends along the northwestern border of the adjacent 25 Willow Avenue parcel within OU-2. The storm drain empties into New York Harbor approximately 500 to 600 feet to the northeast.

Two aquifers are present beneath OU-2: a shallow, unconfined (water table) aquifer and a deep confined aquifer. Additionally, a water-bearing zone was also encountered within the semi-confining unit, which also displays artesian conditions. The shallow groundwater aquifer is located in fill, alluvium/marsh, and shallow glacial deposits. The water table elevations (shallow aquifer) ranged from 4.02 feet (NGVD) in FPM-OW-7 to 8.99 feet (NGVD) in RW-12 along Greenfield Avenue (Table 2-2).

The deep aquifer is under confining pressure and the wells tapping it exhibited flowing artesian conditions (RW-15 and RW-16). These wells are screened in stratified silty-sand and gravelly sand layers within the glacial deposits located above bedrock. Static head elevations in the deep aquifer ranged between 9.89 feet (NGVD) in RW-15 and 13.88 feet (NGVD) in RW-16 (Table 2-2). The dense silt ground moraine and Harbor Hill Terminal Moraine form a confining to semi-confining layer separating the water table aquifer from the deep aquifer. The water-bearing unit within the semi-confined aquifer (RW-17, RW-18, and RW-19) is under confining pressure and exhibited higher elevations than nearby water wells at the water table aquifer (FPM-OW-7 and RW-2). These wells were screened in localized sand/gravelly-sand bodies contained within the glacial deposits. The static head in wells within these wells ranged between 4.20 feet (NAVD) in RW-19 to 7.89 feet (NAVD) in RW-17.

Groundwater table elevations were measured in Round 1 (April 1999) and Round 2 (October 1999) (Table 2-2). A slight seasonal variation in the water table elevation (between 0.04 foot and 0.53 foot) was observed between Round 1 and Round 2. Round 2 elevations were generally lower than elevations measured in April 1999. However, no change in the groundwater flow pattern was observed between these two events. This decrease in groundwater elevation is likely attributable to the severe drought experienced by the Northeast in the summer of 1999. Additional seasonal variation in the groundwater table was observed between the Round 2 and the Round 4 gauging events, with lower elevations measured in the Round 4 for the majority of the wells gauged within OU-2. This was likely attributable to the drought conditions experienced within the winter and summer of 2002.

Groundwater elevations were measured in monitoring wells during each round, at both high tide and low tide, to evaluate possible tidal influences on groundwater flow. Tidal influence on the shallow groundwater aquifer is apparently minimal based upon groundwater elevations gathered from Round 1 and Round 2 of the RI. In the deep groundwater aquifer, a decrease in groundwater elevations (-0.1 foot) was observed between high tide and subsequent low tide groundwater measurements (Table 2-2).

Groundwater contour maps were created for the shallow groundwater aquifer and deep .aquifer using the groundwater elevations collected at high tide on October 13, 1999 (Round 2) which are summarized on Plate 4 and Plate 5, respectively. A groundwater aquifer map was created for the shallow groundwater aquifer using groundwater elevations collected during Round 4 (January 2002), which is summarized on Plate 6.

3.2.1 Water Table Aquifer

Groundwater flow within the water table aquifer appears to be dominated by two features: groundwater moving toward the former stream trace in the northern portion on the 25 Willow Avenue parcel, and groundwater flowing directly toward New York Harbor near the eastern portion of the 25 Willow Avenue parcel. As shown by Plate 3 and Plate 5, groundwater flows toward the former stream trace (current stormwater sewer) from west of the 25 Willow Avenue parcel and from the majority of the 25 Willow Avenue parcel. Groundwater moving along the actual trace of the former stream is expected to discharge to New York Harbor.

An apparent divide between the influence of the local former stream trace and the more regional influence of New York Harbor exists on the eastern corner of the 25 Willow Avenue parcel and Willow Avenue that extends into OU-1. Groundwater on the western side of this divide is flowing toward the former stream trace, while groundwater on the eastern side of the divide is flowing directly toward New York Harbor.

The average horizontal hydraulic gradients of the shallow groundwater aquifer range from 0.014 to 0.03 foot/foot in the Round 2 (October 1999) sampling event. The steepest

hydraulic gradients occurred on the northern portion of the 25 Willow Avenue parcel near monitoring wells RW-2, FPM-OW-7, FPM-OW-6, and PZ-4. Lower hydraulic gradients are evident in the southwestern portion of the parcel. The water table flow directions and gradients are generally consistent with previous studies (FP&M, 1998) and the Round 1 groundwater contour patterns.

Hydraulic conductivities were calculated for water table wells using data generated from single well permeability tests (slug tests). Slug tests were completed on monitoring wells RW-1, RW-2, RW-3, RW-6, RW-8, RW-12, and RW-13. A summary of the hydraulic conductivities is presented in Table 3-2. Appendix D includes the slug test data files and the hydraulic conductivity calculations. The hydraulic conductivities (K) ranged from 3.2 x 10-4 centimeters/second (cm/sec) (0.9 feet/day) at RW-12 to 1.6 x 10-2 (cm/sec) (45 feet/day) at RW-13. These values are consistent with those expected for the silty-sand (Freeze and Cherry, 1979).

Monitoring wells RW-1, RW-8, and RW-13 have hydraulic conductivities generally an order of magnitude higher than monitoring wells RW-2, RW-3, RW-6 and RW-12. Wells RW-1 and RW-13 on the southwestern to western portions of the 25 Willow Avenue parcel, and RW-8 at an adjacent parcel to the west, are screened in coarser-grained and organic (and therefore more permeable) materials related to stream deposits (Table 3-2, Plate 2). Monitoring wells RW-2 and RW-3 on the eastern portion of the 25 Willow Avenue parcel along Bay Street are screened in finer-grained (and therefore less permeable) silt-sand related to the glacial deposits.

Average linear flow velocities for the water table aquifer were calculated based on the measured hydraulic conductivities and the horizontal hydraulic gradients using the following equation:

$$V = ki/n$$

where:

k = hydraulic conductivity of the formation
i = hydraulic gradient
n = effective porosity of the formation

Assuming an effective porosity of 30%, hydraulic gradients between 0.1 foot/foot along the western property line near the RW-13 location and 0.03 foot/foot in the vicinity of RW-6 (eastern portion of the 25 Willow Avenue parcel), and the calculated hydraulic conductivities, the average linear flow velocity of the water table aquifer ranges from 52.3 feet/year on the eastern portion of the 25 Willow Avenue parcel to 547.5 feet/year along

the western portion of the parcel. Higher flow velocities along the southwestern portion of the parcels are believed to be associated with highly permeable silty-sands associated with the inferred former stream channel. The relatively low velocities along Bay Street are a result of the less permeable glacial deposits comprising the shallow aquifer.

3.2.2 Deep Aquifer

The groundwater contour pattern for the deep aquifer is depicted in Plate 5. An apparent groundwater divide is oriented roughly north-south through the middle of the 25 Willow Avenue parcel. Groundwater on the western side of the divide appears to be flowing westerly and groundwater on the eastern side of the divide appears to be flowing easterly. It is unclear whether this divide actually exists or if it is an artifact of tidal influence. This apparent groundwater flow pattern may be the result of tidal lag influences. In other words, one or more of the deep aquifer monitoring wells may be "feeling" the effects of a tidal cycle, while other well(s) may not have been influenced by the tidal effect at the time these measurements were collected.

In the deep aquifer, the average horizontal hydraulic gradient was determined to be 0.00044 foot/foot in the vicinity of RW-15 on the 25 Willow Avenue parcel.

The hydraulic conductivity was calculated for the deep aquifer wells using data generated from a single-well pump test completed in well RW-15. This monitoring well was screened in relatively low permeability silt to silty fine-to-coarse sands related to the glacial deposits. Table 3-2 presents a summary of the hydraulic conductivity values, and Appendix D presents the pump test data and hydraulic conductivity calculations. The hydraulic conductivity (K) for RW-15 was calculated as 3.5 x 10-5 cm/sec (0.09 foot/day).

A similar calculation of the average linear flow velocity for the deep groundwater aquifer was performed. The average linear flow velocity of the groundwater was calculated to be 0.49 foot/year near RW-15.

Vertical hydraulic head potentials between the shallow aquifer and the deep aquifer were calculated for the following well clusters or nearby shallow and deep aquifer pairs: RW-13/RW-15 and FPM-OW-05/RW-16. The upward vertical head potentials for these well pairs ranged between 0.055 and 0.073 foot/foot. Vertical head potentials were greater between well pairs FPM-OW-05/RW-16 on the northeastern portion of the 25 Willow Avenue parcel, than between the well pair (RW-13/RW-15) on the southwestern portion of the parcel. Based upon additional groundwater elevations collected from OU-1 from a three-well cluster (RW-7, RW-14 and PZ-3), the deep groundwater aquifer in the vicinity of the 25 Willow Avenue parcel behaves as one hydrologic unit once below the semi-confining layer. There was virtually no vertical head potential between RW-7 and RW-14 both located

in the deep groundwater aquifer, while a vertical gradient existed between these wells and the water table piezometer PZ-3.

3.2.3 Water Bearing Zone Within the Confining Unit

A localized water-bearing zone within the confining unit was encountered in borings completed along Bay Street on the 25 Willow Avenue parcel and within Edgewater Street during the RI. Groundwater within the water-bearing unit within the glacial materials was apparently under confining pressure. A comparison of groundwater elevations within the water bearing unit and the water table aquifer reveals a difference of 2.35 feet between the RW-17/RW-2 nested pair and 2.9 feet between the RW-18/FPM-OW-7 nested pair. The calculated vertical head potentials for these well pairs were essentially identical (0.11 foot/foot [RW-17/RW-2] to 0.13 foot/foot [RW-18/OW-7]). Geologic information collected through borings SB-68, RW-17/SB-69, RW-18/SB-70A, and SB-89 depict this water-bearing zone as discontinuous sandy to gravelly-sand layer. During the groundwater sampling, monitoring wells RW-17 and RW-18 could only sustain low purging rates of approximately 100 ml/minute withdrawing down the well; consequently, this water-bearing zone is likely an isolated unit. Groundwater flow direction and the hydraulic conductivity was not calculated for this unit because of its likely discontinuous and isolated nature.

4. Nature and Extent

This section summarizes the physical observations made during the RI, presents the analytical findings of the investigation, and discusses the degree and extent of observed tar, staining, sheen, odors, and chemical constituents detected during the RI. The sample locations are shown on Plate 1. The terminology and descriptions used to describe the visual and olfactory observations made during the field investigation and used in this report section are defined in the Glossary of this report.

Subsection 4.1 discusses the soil findings and is subdivided by parcel. The soil findings for each parcel are further divided into surface-soil and subsurface-soil sections. Subsection 4.2 discusses groundwater conditions for the entire OU-2 study area of the RI.

The nature and extent of the chemical constituents is determined by the geologic conditions, groundwater flow patterns, and historic parcel use, processes and structures located at the site. During the drilling of soil borings and the excavation of test pits, tar-saturated soil, staining from tar, and odors characteristic of tar were observed. These physical observations were recorded on the boring and test pit logs (Appendices B and C) and were depicted on the geologic cross sections A-A′ through G-G′ for OU-2 parcels on Plates 2 and 3.

In addition to the physical observations, this section also discusses the analytical results of the surface-soil, subsurface-soil, groundwater, and storm sewer samples collected during the RI and previous sampling programs. Tables 4-1 and 4-2 present the detected laboratory analytical results for surface-soil and subsurface-soil samples, respectively. Table 4-3 presents a statistical summary of the surface soil samples collected on 25 Willow Avenue and background surface-soil results. Table 4-4 presents the detected laboratory analytical results for groundwater samples. Table 4-5 presents the detected laboratory analytical results for storm sewer samples. Appendices E and F present the chain-of-custody forms, validated laboratory Form I reports, and data validation reports for the soils and groundwater samples collected.

BTEX compounds were the principal VOCs detected and are the common VOCs associated with tar. SVOCs were also detected at the site with PAHs being the common subset of SVOCs in tar. For purposes of this report, PAHs include the compounds listed below.

2-Methylnaphthalene	Acenaphthene
Acenaphthylene	Anthracene
Benz(a)anthracene	Benzo(a)pyrene
Benzo(b)fluoranthene	Benzo(g,h,i)perylene

Benzo(k)fluoranthene
Chrysene
Fluorene
Naphthalene
Pyrene
Dibenz(a,h)anthracene
Fluoranthene
Indeno(1,2,3-cd)pyrene
Phenanthrene

Of these PAHs, the following constituents are considered carcinogenic PAHs by EPA.

Benz(a)anthracene
Benzo(a)pyrene
Chrysene
Indeno(1,2,3-cd)pyrene
Benzo(k)fluoranthene
Benzo(b)fluoranthene
Dibenz(a,h)anthracene

The analytical results of the RI and previous investigations are discussed relative to the total BTEX, total PAHs (TPAHs), and total carcinogenic PAHs (CPAHs).
Tables 4-1 and 4-2 include the sum of PAHs, the sum of carcinogenic PAHs, sum of the non-carcinogenic PAHs, and the sum of BTEX constituents for surface soil and subsurface soil, along with the analytical results for individual analytes. For non-detect results ("U" qualified), the value used in these sums was 0.00. For estimated values ("J" qualified), the value used in the sums was the numerical result for each analyte.

At the request of the NYSDEC, a comparison of detected analytes to the New York State Recommended Soil Cleanup Objectives (RSCOs) was also completed. The exceedances were highlighted and bolded on the tables.

Table 4-4 includes the sum of PAHs, carcinogenic PAHs, non-carcinogenic PAHs and BTEX for groundwater, along with the analytical results for individual analytes. At the request of the NYSDEC, a comparison of detected analytes to the New York State Ambient Groundwater Standards and guidance values for a GA area for all groundwater samples collected was completed. Exceedances of the established criteria have been highlighted and bolded in the table.

Table 4-5 includes the sum of PAHs, carcinogenic PAHs, non-carcinogenic PAHs and BTEX for storm sewer water samples, along with the analytical results for individual analytes.
Table 4-6 presents a summary of detected analytes in soil gas samples collected beneath the slab for the building at 25 Willow Avenue.

A statistical summary of detected analytes for each matrix (surface soil, subsurface soil, groundwater) is presented in Table 4-7.

4.1 Soil

Surface Soils

Three surface-soil samples were collected on the 25 Willow Avenue parcel as part of the collection of background surface-soil samples in the vicinity of the 25 and 40 Willow Avenue parcels. The background soil samples are discussed below in subsection 4.2. Table 4-1 summarizes the detected analytes for these three surface-soil samples and the background surface-soil samples. Appendix E includes the validated laboratory Form I reports and chain-of-custody forms for the RI samples. Plate 1 depicts the surface-soil sample locations.

Subsurface Soils

Subsurface-soil samples were collected from the 25 Willow Avenue parcel, the Greenfield Avenue commercial parcels, the Willow Avenue ROW, and in the Bay Street/Edgewater Street area. Table 4-2 is organized by parcel and summarizes the detected analytes for all subsurface-soil samples collected during the RI and during previous investigations. Appendix E includes the validated laboratory Form I reports and chain-of-custody forms for the RI samples. Plate 1 depicts the subsurface-soil sample locations (soil borings, test pits, monitoring wells).

The overall extent of tar, staining, sheen, odors, and chemical constituents detected in soils was located primarily adjacent to the immediate vicinity surrounding historic structures that handled tar on the 25 Willow Avenue parcel. However, discrete intervals of tar-related materials were noted at depth beneath the Willow Avenue and beneath Bay Street/Edgewater Street. As shown by cross-sections C-C′, F-F′, and G-G′ (Plates 2 and 3), isolated tar, tar-staining or tar-related sheens, and/or odors were observed in discrete areas beneath the Willow Avenue ROW and the Bay Street/Edgewater Street ROWs.

In general, elevated levels of TPAH, CPAH, and BTEX correlated with the occurrence of observable tar, odors and/or sheen. Where physical evidence of tar was not encountered, analyses indicated generally low to trace levels of these chemical constituents. As with the observed extent of tar, staining, odors, etc., the overall extent of chemical constituents was generally limited to the 25 Willow Avenue parcel, and to isolated discrete intervals beneath Willow Avenue, and Bay Street/Edgewater Street. Plates 7, 8, and 9 depict a summary of total BTEX, total PAHs, total carcinogenic PAHs, and total CN in soils in three different depth intervals: unsaturated soils, saturated soils above the confining layer, and saturated soils below the confining layer.

In addition to these analytes, RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), total cyanide, and TOC were analyzed for in certain soil

samples. Total cyanide was only detected in 20 subsurface-soil samples; all detections except one was significantly below 100 ppm[1] with the exception of one sample, (SB-54 [4 to 6 feet]), which contained a total cyanide detection of 139 ppm. Elevated detections of cyanide (39.8 ppm to 59.6 ppm) were encountered within borings SB-11, SB-12, and SB-53, which were completed in the vicinity of the former MGP gas purifying area. Detections of cyanide within subsurface soils will be discussed in subsection 4.1.1 (Purifying Tanks). Based upon analytical data collected, total cyanide in subsurface soils does not appear to be of concern.

4.1.1 25 Willow Avenue

Surface Soil

Three surface-soil samples (SS-34, SS-35, and SS-36) were collected within the grassed yard of the 25 Willow Avenue parcel. The remainder of the 25 Willow Avenue parcel is covered by a building and an asphalt parking lot. These samples were collected as part of background soil screening in the vicinity of the former MGP located at 25 and 40 Willow Avenue. Surface-soil samples were collected from just below the vegetative root mat from 0 to 2 inches.

The BTEX ranged from non-detected within SS-36 to 0.8 parts per billion (ppb) within SS-35. The total PAHs ranged from 11.1 ppm within SS-36 to 91.9 ppm within SS-34. The CPAHs exhibited a similar trend with the 5.9 ppm detected within SS-36 and 54.0 ppm within SS-34. Total cyanide was not detected within the three surface-soil samples. Metals were detected in each of the subsurface-soil samples that appeared to fall into the range of detection the background surface-soil samples collected.

Subsurface Soil

At the 25 Willow Avenue parcel, the lateral extent of chemical constituents is generally limited to the immediate vicinity surrounding historic structures that handled tar. The vertical extent of tar, staining, sheen, odors, and chemical constituents at some locations has been specifically documented, while at others, specific borings were terminated within soils containing tar, stains, etc. Two deep Rotosonic™ soil borings (SB-55/SB-55A and SB-56) and six intermediate depth Rotosonic™ borings (SB-68, SB-70A, SB-72, SB-73, SB-75, and SB-76) were completed to characterize deep soil conditions on the 25 Willow Avenue parcel. Soil boring SB-55/55A was placed adjacent to the former Tar Tank/Gasometer, SB-56 was placed adjacent to former Relief Holder No. 1, SB-75 was placed within a former tar well, and SB-76 was placed adjacent to a former tar well; these former structures were believed to have previously held tar.

[1] Generic Soil Screening Level (USEPA March 2001)

As discussed in subsection 3.1, a dense silt unit was encountered beneath the 25 Willow Avenue parcel in borings SB-55/SB-55A, SB-56 and SB-75 (cross-section B-B on Plate 2, and cross-sections D-D′ and E-E′ on Plate 3). In addition to acting as a hydrogeologic confining unit between the water table and deep aquifers, observations of tar and tar staining at SB-55/55A and SB-56 demonstrate that the dense silt unit effectively acts as a confining layer to the downward mobility of tar. At both locations, tar stopped at the top of the dense silt unit, and observed tar-like odors only permeated the top few feet of the silt. A glacially derived clayey-silt unit was also encountered beneath the 25 Willow Avenue parcel in borings RW-3, SB-19, SB-71, SB-72, and SB-73 along Bay Street (cross-section F-F, Plate 3). This layer generally appears to act as a lateral barrier to tar at the site along Bay Street with the exception of an isolated gravelly-sand layer (glacial outwash layer) in the vicinity of SB-68, RW-17/SB-69, RW-18/SB-70A, and SB-89 where tar and tar-stained soils were encountered (cross-section F-F', Plate 3). These observations will be summarized with the Bay Street/Edgewater Street discussion in subsection 4.1.3.

The remainder of this subsection discusses the occurrence and extent of tar, staining, sheen, odors and chemical constituents relative to the following specific historic structures on the 25 Willow Avenue parcel.

- Relief Holder No. 1
- Tar Separator Beneath Existing Building (at SB-39)
- Tar Tank/Gasometer and Adjacent Tar Tank (southwestern corner of parcel) (at SB-53 and SB-13)
- Tar Separator (at SB-10/10A and TP-2)
- Accumulator Tank (at TP-6 and SB-13)
- Tar Well (at SB-54 and SB-75)
- Tar Well (at TP-7, SB-14, and SB-76)
- Purifier Tanks (at TP-4, TP-5, and TP-6)
- Fuel Tanks (southwestern corner of parcel)
- Naphtha Tank and Tar Tanks (at RW-13/SB-50)
- Gas Holder No. 2 (at SB-57, SB-15, and TP-9)
- Former UST area

Plate 1 indicates the locations of the historic structures, soil borings, and surface-soil sample locations. Plates 2 and 3 summarize the geologic conditions, and the physical observations with respect to the former MGP structures.

Relief Holder No. 1

Subsurface-soil conditions were evaluated at this location through the completion of test pit TP-8, Geoprobe® soil boring SB-37, and Rotosonic™ boring/monitoring well SB-56/ RW-16. Test pit (TP-8) confirmed that fill containing tar was present within and outside of the holder wall. Soil boring SB-37 determined that approximately 5 feet of clean sand fill is present beneath the floor slab of the existing building. Below this clean fill, tar-saturated soil is present to a depth of 20 feet, where refusal was encountered and concrete chips recovered, likely on the floor of the former relief holder.

Soil boring/monitoring well SB-56/RW-16 was completed to characterize the deep soil conditions adjacent to Relief Holder No. 1. As shown in cross-section B-B' (Plate 2) and cross-section E-E′ (Plate 3), tar-saturated soil was encountered within generally coarse-grained alluvial materials (sand/gravelly-sand layers) to a depth of about 44 feet bgs. Silty soil lenses above 44 feet bgs exhibited only odors, staining, and discrete blebs of tar. At 44 feet bgs, a dense silt unit was encountered which appears to act as a confining unit and has limited the downward migration of tar at this location.

Analytical results from test pit TP-8, and borings SB-37 and SB-56/RW16, detected PAHs and BTEX at shallow depths coinciding with the presence of observed tar. The 2-foot depth sample from TP-8 exhibited the highest TPAH (96,060 ppm), CPAH (12,660 ppm), and BTEX (6,100 ppm) values for samples analyzed from this holder area. Sample SB-37 (14.5 to 19 feet), collected from within the holder, contained detections of TPAH of 11,804 ppm; CPAH of 1,024 ppm; and BTEX of 2,790 ppm.

Outside of the holder, BTEX and PAHs were present to a depth of 44 feet bgs where the dense silt unit stopped the downward migration of tar. Sample RW-16/SB-56 (43 to 44 feet) contained 9,858 ppm TPAH, 621 ppm CPAH, and 1,134 ppm BTEX. As shown by sample RW-16/SB-56 (63 to 63.5 feet), no CPAH or BTEX compounds were present and only trace TPAH (0.01 ppm) was detected below the top of the dense silty layer at 44 feet bgs.

A clayey-silt unit was encountered within soil borings SB-19, SB-71, SB-72, SB-73, and SB-74. Analytical results from soil borings SB-19, SB-72, SB-73, SB-88 and RW-6/SB-20 confirm that tar has not spread laterally eastward toward Bay Street from former Relief Holder No. 1 in the vicinity of these borings. Analytical results from borings to the east of the tar separator, indicate trace to low levels of PAHs and BTEX, thereby substantiating that the elevated PAHs and BTEX observed at RW-16/SB-56 and TP-8 are limited to the immediate vicinity of the former Relief Holder No. 1.

Tar Separator Beneath Existing Building

Geoprobe® soil boring SB-39 was completed within the building to assess soil conditions at the former location of the tar separator. Approximately 2 feet of clean fill was present beneath the concrete slab of the building. Tar-saturated material was encountered from 4 to 5.5 feet below the floor slab, where refusal on a concrete surface was encountered and the boring was terminated.

Analytical results from boring SB-39 indicate the presence of PAHs and BTEX at shallow depths below the building floor slab. Sample SB-39 (0 to 4 feet) contained 7,277 ppm TPAH, 839 ppm CPAH, and 149 ppm BTEX. Sample SB-39 (5.5 feet) contained 52,210 ppm TPAH, 5,770 ppm CPAH, and 209 ppm BTEX.

Soil borings SB-20/RW-6, SB-16 (16A), SB-72, SB-73, and RW-3 confirm that tar has not spread easterly toward Bay Street from the tar separator. Analytical results from these borings to the east of the tar separator, indicate trace to low levels of PAHs and BTEX, thereby substantiating that the elevated PAHs and BTEX observed at SB-39 are limited to the immediate vicinity of the former tar separator.

Tar Tank/Gasometer and Adjacent Tar Tank (Southwestern corner of parcel)

Subsurface conditions were evaluated at this location through the completion of test pit TP-3, hollow-stem auger boring SB-53, Geoprobe® boring SB-11, Rotosonic™ boring/monitoring well RW-15/SB-55A, and soil boring SB-55. Cross sections B-B' and D-D' (Plates 2 and 3) depict the extent of observed tar, staining, sheen, and odors at this location.

Test pit TP-3 identified tar just below the water table to at least 5 feet deep within the tar tank/gasometer and between the tar tank/gasometer and the adjacent tar tank. Soil boring SB-11 identified tar-saturated soils extending from 2 to 6 feet bgs in the vicinity of the adjacent tar tank. A peat and clay layer below 6 feet appears to have limited the downward migration of tar at SB-11. Discrete tar-saturated layers of sand were encountered within the clay layer and tar-stained soils were encountered within a sand/silt unit at the completion of the boring.

Boring SB-53 was advanced to 14.2 feet bgs where refusal was encountered on the holder floor. Tar-saturated soil/fill materials were present from 5.0 feet bgs to the bottom of the holder.

Outside the tar tank/gasometer there appears to be a limited amount of tar-saturated soil. Rotosonic™ boring SB-55 only encountered two discrete lenses of tar-saturated soil from 9.5 to 13.0 feet bgs (near the holder bottom) and from 18.0 to 21.0 feet bgs. Tar-saturated soil

was not encountered in Rotosonic™ boring/monitoring well location SB-55A/RW-15 (approximately 15 feet away from SB-55). Only tar staining, discrete tar blebs, sheens, and odors were observed extending to a maximum depth of 34 feet bgs (cross-section B-B', Plate 2, and cross-section D-D', Plate 3).

At the location of Former Tar Tank Gasometer, a dense silt unit was encountered which acts as a confining unit and has limited the downward migration of tar at this location. Tar-like odors extended about 5 feet into the top of the dense till unit, but no indications of tar, staining, sheen, or odors were observed below 34 feet bgs.

BTEX, TPAH, and CPAH concentrations in this area ranged from non-detect in the 123- to 125-foot sample from boring RW15/SB-55A to a maximum of 1,111 ppm, 38,420 ppm, and 3,680 ppm, respectively, in sample SB-53 (13.5 feet) collected within the former gasometer.

Within the footprint of the former tar tank/gasometer, analytical data just below the pavement indicate the presence of 258.4 ppm TPAH, 73 ppm CPAH, and 0.3 ppm BTEX (TP-3 [1 foot]). PAH and BTEX constituents increase in concentration with depth and with the presence of tar within the holder, as evidenced by the 13.5-foot sample from SB-53 that indicated 38,420 ppm TPAH; 3,990 ppm CPAH; and 1,111 ppm BTEX.

Outside the holder, concentrations are generally lower as evidenced by analytical results from boring SB-11 (Table 4-2). Borings RW-15/SB-55A and SB-55 were completed outside the holder and indicate that the vertical extent of tar, BTEX, and PAHs was limited by the presence of the dense silt unit that limited the downward migration of tar. Sample SB-55 (56 to 58 feet) was collected from below the top of the dense silt unit and exhibited only 0.01 ppm TPAH, only trace total BTEX, and no carcinogenic PAHs.

Tar Separator (at SB-10 and TP-2, SB-10A and SB-74)

This tar separator was evaluated by completion of test pit TP-2, Geoprobe® borings SB-10 and SB-10A, and one Rotosonic boring SB-74. Test pit TP-2 identified discrete tar blebs within fill material from about 2 feet to 5 feet bgs within the tar separator. Tar-saturated soil was present outside the tar separator down to at least 5 feet bgs. Soil boring SB-10A identified tar blebs and sheens within the tar separator to a depth of at least 8 feet. Boring SB-10A reached 13 feet bgs where refusal was encountered; however, sample recovery from below 8 feet was not possible. Outside the separator, soil boring SB-10 identified tar-saturated soils from about 2 to 6.5 feet bgs and tar-stained soils were observed within SB-74 from 1.5 to 28.5 feet where they subsequently terminated at the top of a clayey-silt unit. No visual observations of tar were observed within SB-74 28.5 feet deep to the termination of the boring at 45 feet. The clayey-silt layer appears to act as a tar-confining unit at this portion of the site.

Three subsurface soil samples were collected and analyzed from outside the tar separator in this area: SB-10 (5.0 to 6.5 feet), SB-74 (21.0 to 21.5 feet), SB-74 (34.5 to 35 feet). A shallow soil sample was collected from SB-10 that exhibited tar-coated soil grains with sheen and mixed fuel oil/tar odor. The sample contained 1,421 ppm TPAH; 115 ppm CPAH; and 14.1 ppm BTEX. Deeper subsurface-soil samples were collected from SB-74 with a slight naphthalene/tar odor at 21.0 to 21.5 feet and at 35.0 feet near the contact of the clayey-silt. BTEX, TPAH and CPAH concentrations decreased with depth adjacent to the tar separator. BTEX ranged from 76.2 ppm within the 21.0- to 21.5-foot sample to 0.088 ppm within the 34.5- to 35.0-foot sample interval. TPAH/CPAH concentrations ranged from 705 ppm/64.2 ppm within the 21.0- to 21.5-foot sample to 0.530 ppm to non-detected within the 34.5- to 35.0-foot sample interval which, also coincided with the decreasing frequency of the occurrence of tar.

Accumulator Tank (at TP-6 and SB-13)

Cross-section B-B' (Plate 2) depicts the observed subsurface conditions at the accumulator tank. Test pit TP-6 identified the presence of rubble and fill exhibiting a slight tar-like odor down to about 5 feet bgs. One Geoprobe® soil boring (SB-13) identified tar-saturated soil from 2.5 to 9.0 feet bgs, with discrete tar-saturated layers extending up to about 18 feet bgs.

Analytical data from soil boring SB-13 indicate that PAHs and BTEX constituents extend to 20 feet bgs, coinciding with the observation of tar-saturated soil lenses. Two samples were analyzed from this boring. The 7- to 9-foot sample contained 348.7 ppm TPAH, 73.5 ppm CPAH, and 20.9 ppm BTEX. The 18- to 20-foot sample contained 345 ppm TPAH, 44.2 ppm CPAH, and 208 ppm BTEX.

Tar Well (SB-54 and SB-75)

One hollow-stem auger boring (SB-54) and one Rotosonic™ boring (SB-75) were completed to evaluate the former tar well at this location. The tar well structure was encountered at approximately 4 to 5 feet bgs where fragments of wood and concrete were encountered during the completion of SB-75, which are consistent with the construction of this feature. Tar-saturated and tar-stained soil was present from 2 to 25 feet bgs, where the boring SB-54 was terminated. Within boring SB-75, tar-saturated and tar-stained soils were encountered from 5 to 23 feet bgs, and tar staining within soil fractures and staining of coarse-grained materials were noted from 23 to 58 feet bgs. Naphthalene and tar like odors were present within SB-75 from 58 to 65 feet bgs where physical observations of tar and odors diminished. One Geoprobe® soil boring (SB-12) was also completed near the tar well where tar-saturated soils were encountered down to 11 feet bgs. Tar-like odors were observed to a depth of 16 feet bgs.

Three soil samples were analyzed from boring SB-54: (4 to 6 feet, 9 to 11 feet, and 23 to 25 feet); two soil samples were analyzed from SB-75 (52 to 52.5 feet and 70 to 72 feet); and one soil sample was analyzed from boring SB-12 (4 to 6 feet). BTEX concentrations ranged from 204 ppm in sample SB-12 (4 to 6 feet) to 1,530 ppm in sample SB-54 (9 to 11 feet) within shallow subsurface soils. BTEX concentrations decreased with depth and only a trace detection of BTEX was noted within soil sample SB-75 (70 to 72 feet). TPAH ranged from 2,971 ppm in sample SB-54 (9 to 11 feet) to 9,673 ppm in sample SB-54 (23 to 25 feet) within the shallow subsurface soils beneath the tar well. TPAH concentrations decreased with depth from 2,838 ppm TPAH detected in soil sample SB-75 (52 to 52.5 feet) to 1.1 ppm detected in sample SB-75 (70 to 72 feet). CPAH ranged from 116 ppm in sample SB-12 (4 to 6 feet) to 585 ppm in sample SB-54 (23 to 25 feet) within the shallow subsurface soils beneath the tar well. CPAH concentrations decreased from 120 ppm CPAHs detected within soil sample SB-75 (52.0 to 52.5 feet) to non-detected within sample SB-75 (70 to 72 feet). The detections of PAHs and BTEX coincided with tar observed to a depth of 25 feet bgs in boring SB-54 and tar-stained soils within SB-75 to a depth of 58 feet bgs.

Tar Well (at TP-7, SB-14, and SB-76)

This tar well was evaluated by completion of test pit TP-7, Geoprobe® soil boring SB-14, and Rotosonic™ boring SB-76. The test pit identified the presence of tar within the former tar well to a depth of at least 4 feet bgs. Soil boring SB-14 was completed outside of the tar well and only identified the presence of tar-saturated soil from 5.5 to 7.0 feet bgs. Tar-like odors and staining were observed extending to about 16 feet bgs. Boring SB-76 identified the presence of tar-stained soils from approximately 2 to 21 feet bgs and from 35 to 40 feet bgs. A tar-saturated layer of gravelly sand was encountered from 40.0 to 45.5 feet. This unit was located atop very dense silt that is likely a former weathering surface of the glacial till. Below this dense silt layer, only isolated sheens and odors were noted from 45 to 50 feet bgs and odors were noted from 50 to 58 feet bgs at the completion of the boring.

Shallow-subsurface soil samples from 6 to 8 feet and 24 to 28 feet were analyzed from soil boring SB-14, and deep subsurface soils from boring SB-76 were analyzed from 44.0 to 44.5 feet and 58 to 58.5 feet. The 6- to 8-foot sample contained 1,260 ppm BTEX, 5,175 ppm TPAH, and 704 ppm CPAH and coincided with the shallow presence of tar-saturated soil. The 24- to 28-foot sample, which contained 3.0 ppm TPAH, 0.4 ppm CPAH, and 0.5 ppm BTEX, was collected at the termination of SB-14 where tar/naphthalene odors were encountered. Soil sample SB-76 (44 to 44.5 feet) contained 5,970 ppm BTEX, 30,250 ppm TPAH, and 2,540 ppm CPAH and coincided with a tar-saturated sand layer. The 58- to 58.5-foot sample from SB-76 contained 0.001 ppm of BTEX, 17.4 ppm TPAH, and 2.2 ppm of CPAH at the completion of the boring.

Purifier Tanks

The former purifier tanks were evaluated through the completion of test pits TP-4, TP-5, TP-6, and Geoprobe® boring SB-12 (Plate 2). Test pit TP-4 encountered tar, staining, and tar-like odors to a depth of about 5 feet bgs. Test pit TP-5 could not be excavated below a concrete slab approximately 1 foot bgs. Test pit TP-6 encountered fill with a light tar odor and tar-saturated wood. As discussed above, tar-saturated soil was observed in soil boring SB-12 to about 11 feet bgs.

During completion of these test pits and soil boring, no visible evidence of purifier materials (such as oxide box wastes) was encountered. The purifier tanks were aboveground structures. At test pit TP-4, a "purifier odor" (sulfur-like) was noted along with a tar-like odor at the water table.

Analytical data from the vicinity of the purifier tanks was obtained from test pit TP-4 (3 feet) and from boring SB-12 (4 to 6 feet). The data from TP-4 indicate 482.9 ppm TPAH; 142 ppm CPAH; and 78.2 ppm BTEX. The results from boring SB-12 indicate 204 ppm BTEX, 7,826 ppm TPAH, and 116 ppm CPAH. The analytical sample from SB-12 (4 to 6 feet) contained 47.6 ppm total cyanide.

Fuel Tanks (southwestern corner of parcel)

The subsurface conditions near the fuel tanks in the southwestern corner of the parcel were evaluated with test pit TP-1, hollow-stem auger soil boring SB-9, and hollow-stem auger boring/monitoring well RW-1. Tar blebs and odors were observed at boring SB-9 and soil samples from 8 to 10 feet; the 24- to 26-foot sample contained tar-saturated soil and tar odors, which was located within a discrete sand lens. Petroleum was also observed in the subsurface in this vicinity at RW-1 and TP-1. In addition, petroleum odors mixed with tar-like odors were noted at nearby well/boring RW-13/SB-50 that is discussed in the naphtha/tar tank subsection listed below. This well is located adjacent to the storm sewer line along the northwestern section of the 25 Willow Avenue parcel.

Analytical data from the area of the former fuel tanks was obtained for samples from test pit TP-1 and soil boring SB-9. BTEX was detected in subsurface soils in this area ranging from non-detect in samples SB-9 (33 to 34 feet) and RW-1 (17 feet) to 1,513 ppm in sample SB-9 (8 to 10 feet). TPAH was detected ranging from 0.02 ppm in sample SB-9 (33 to 34 feet) to 1,931 ppm in sample SB-9 (24 to 26 feet). CPAH was detected ranging from 2.2 ppm in sample RW-1 (17 feet) to 225 ppm in sample SB-9 (24 to 26 feet).

At SB-9, the BTEX and PAHs detected corresponded with the observed occurrence of tar. However, the 33- to 34-foot sample from SB-9 was collected from just below the top of the

dense silty layer where tar was not observed and only contained 0.02 ppm TPAH and 0.01 ppm CPAH; BTEX constituents were not detected.

Naphtha Tank and Tar Tanks

Subsurface conditions in the vicinity of the former naphtha tank and tar tanks were evaluated through completion of hollow-stem auger boring SB-50 for the installation of RW-13. Black-stained soils with petroleum and tar odors were noted from 3 to 9 feet bgs within fill material. Slight tar/petroleum odors were observed from 9 to 19 feet and naphthalene-like odors were observed from 19 to 35 feet.

Analytical data from this area was obtained from three soil samples collected from RW-13/SB-50 from 9 to 11 feet, 17 to 19 feet, and 39 to 41 feet. BTEX concentrations ranged from non-detected within the 39- to 41-foot sample to 30.6 ppm in the 9- to 11-foot sample. TPAH concentrations ranged between 0.32 ppm in the 39- to 41-foot sample to 826 ppm in the 9- to 11-foot sample. CPAH concentrations also ranged from non-detected within the 39- to 41-foot interval to 155 ppm within the 9- to 11-foot interval.

Gas Holder No. 2

Subsurface conditions in the vicinity of gas holder No. 2 were evaluated through completion of test pit TP-9, and Geoprobe® soil boring SB-15 and hollow-stem auger soil borings SB-52 and SB-57. Test pit TP-9 identified the edge of the slab-on-grade holder floor. The test pit revealed fill, but did not identify the presence of tar, staining, sheen, or odors. No tar, staining, sheen, or tar-like odors were observed in boring SB-15. At soil boring SB-52, black staining and mixed gasoline and tar-like odors were observed from 3.0 to 9.0 feet bgs. A sheen was noted between 5.0 and 6.2 feet bgs. Fuel oil-like odors mixed with naphthalene-like odors were encountered beneath the slab for Gas Holder No. 2 in boring SB-57 between 5 and 6.5 feet bgs, which is adjacent to a former 550-gallon fuel oil tank.
In this area, subsurface-soil analytical results were obtained from soil borings SB-15, SB-52, and SB-57. BTEX ranged from non-detect in sample SB-52 (39 to 41 feet) to 8 ppm in sample SB-52 (5 to 7 feet). TPAHs were not detected in the 11- to 13-foot and 39- to 41-foot samples from SB-52, and ranged up to 272.8 ppm in sample SB-57 (5 to 7 feet). CPAHs were not detected in the 11- to 13-foot and 39- to 41-foot samples from SB-52 or in the 29- to 31-foot sample from SB-57. The maximum detected CPAH was in sample SB-57 (5 to 7 feet) at 135 ppm.

Former UST Area

Physical observations in the area of the former USTs were obtained from previous investigation boring logs FPM-OW-3, FPM-OW-4, and through the completion of RI

hollow-stem auger borings SB-51 and SB-52. Petroleum odors mixed with tar-like odors were observed at and below the water table in boring FPM-OW-3. A slight petroleum odor was observed from 7 to 15 feet bgs in boring FPM-OW4. Mixed gasoline and tar-like odors were observed in boring SB-52 from 3 to 9 feet bgs. Gasoline odors were also present from 1 to 13 feet bgs in boring SB-51.

Subsurface-soil analytical data from this area are available from the September 1993 excavation sidewall samples collected by Lexicon following the removal of the USTs, and from nearby borings SB-51 and SB-52. The majority of these samples contained detections of PAHs and BTEX constituent. BTEX ranged from non-detect in sample SB-52 (39 to 41 feet) to 10.5 ppm in the sidewall sample LEX-SS-10. TPAHs were not detected in sidewall samples LEX-SS-2 and LEX-3 and in the 11- to 13-foot and 39- to 41-foot samples from boring SB-52. CPAHs were not detected in sidewall samples LEX-SS-2 and LEX-SS-3, in the 39- to 41-foot sample from boring SB-51, or in the 11- to 13-foot and 39- to 41-foot samples from boring SB-52. The highest TPAH (823 ppm) and CPAH (453 ppm) concentrations were detected in sidewall sample LEX-SS10 and LEX-SS9, respectively.

4.1.2 Willow Avenue

Between the 25 and 40 Willow Avenue parcels, within Willow Avenue and the sidewalk, subsurface conditions were evaluated through completion of previous borings CNY-8 through CNY-13 completed by the City of New York, FPM-SB-9 through FPM-SB-13 completed by Fanning Phillips and Molnar, and through RI Geoprobe® soil borings SB-30 through SB-35. Tar-saturated soil was present at FPM-SB-9 from just below the pavement to approximately 5 feet bgs; blebs of tar extended to 16 feet bgs. Tar blebs, staining, sheen, and odors were detected at the following boring locations in Willow Avenue: CNY-11, CNY-12, FPM-SB-10, FPM-SB-13, SB-33, and SB-34.

Analytical data were obtained from previous borings FPM-SB-9 through FPM-SB-12 and from RI borings SB-30 through SB-35, completed within Willow Avenue and the sidewalk, that indicate the presence of PAHs and BTEX constituents. BTEX in subsurface soils ranged from non-detect in samples FPM-SB-10 (8 to 9 feet) (elevated detection limit), FPM-SB-11 (4 feet), FPM-SB-11 (8 feet), SB-31 (7 to 11 feet), SB-35 (6 to 10 feet), and SB-35 (18 to 22 feet), to 1,683 ppm in sample FPM-SB-9 (0.5 to 4.0 feet). TPAHs ranged from non-detect in samples SB-31 (7 to 11 feet) and SB-35 (6 to 10 feet), to 1,424 ppm in sample FPM-SB-9 (0.5 to 4.0 feet). CPAHs ranged from non-detect in samples SB-30 (19 to 23 feet), SB-31 (7 to 11 feet), SB-31 (15 to 19 feet), SB-32 (20 to 23 feet), SB-34 (9 to 13 feet), and SB-35 (6 to 10 feet), to 64 ppm in sample FPM-SB-10 (8 to 9 feet).

4.1.3 Bay Street/Edgewater Street

Bay Street

The subsurface soil conditions within the Bay Street/Edgewater Street area were evaluated through Rotosonic™ borings SB-68, RW-17/SB-69, RW-18/SB-70A, and SB-70; Geoprobe® soil borings SB-81, SB-82/82A, SB-88, SB-89, SB-90 through SB-94; the drive and wash soil boring for monitoring well RW-2; and previous investigation boring FPM-OW-7.

Along Bay Street, on the 25 Willow Avenue parcel, tar staining and tar-saturated soils were observed within boring RW-18/SB-70A. Within this boring, tar-stained soil was encountered from approximately 28 to 31 feet bgs. Tar-saturated gravelly-sands were encountered from about 31 to 32.5 feet bgs. Below this depth, only tar-stained soil was encountered within sand lenses from 42 to 45 feet bgs.

Tar-stained soils were also encountered within a gravelly-sand lens within RW-17/SB-69 at approximately 33 to 33.5 feet bgs. Other borings along Bay Street (SB-68 and SB-89) to the northwest or the southeast of the site were completed within the similar geologic sands and gravelly-sands and naphthalene-like odors were noted. This confirms that the majority of observations of tar and tar-stained soils are isolated to the gravelly-sand unit located 32 to 32.5 feet (cross-section F-F', Plate 3).

Analytical data from soil borings SB-68, RW-17/SB-69, RW-18/SB-70A, SB-88, and SB-89 indicate the presence of PAH and BTEX constituents at the northern boundary of the 25 Willow Avenue parcel. BTEX concentrations ranged from non-detected within SB-68 (54.5 to 55 feet) and SB-88 (44 to 48 feet) to 1,140 ppm within RW-18/SB-70A (33.0 to 33.5 feet). TPAH concentrations ranged from non-detected within samples collected from SB-68 (54.0 to 54.5 feet) and SB-88 (44 to 48 feet) to a maximum of 21,140 ppm in a sample collected from RW-18/SB-70A (feet). CPAH concentrations ranged from non-detected within samples from boring SB-68 (33.0 to 33.5 feet and 54.0 to 54.5 feet), SB-69 (44.5 to 45.0 feet), SB-70A (54.5 to 55.0 feet), SB-88 (28 to 32 feet and 44 to 48 feet), and SB-89 (8 to 12 feet and 35 to 39 feet). The highest concentrations of BTEX and TPAH corresponded to the isolated tar stained and saturated gravelly-sand layer.

Isolated tar occurrence was also noted along Bay Street beneath a triangular parcel located between Bay Street and Edgewater Street. Tar-stained soils and soils with sheen were encountered from 13 to 21 feet bgs within a sand lens and abruptly stopped at a dense silt unit encountered at 21 feet bgs (Appendix B). Only slight naphthalene-like odors were noted within the silt unit. No tar, tar staining, sheens or odors were encountered within a nearby boring (SB-82/82A) to the northwest.

Analytical data from soil boring SB-81 and SB-82A indicate the presence of BTEX and/or PAH constituents beneath the triangular-shaped parcel. BTEX concentrations ranged from non-detected within sample SB-82/82A (5 to 9 feet and 25 to 29 feet) to 141.7 ppm within boring SB-81 (17 to 21 feet). TPAH concentrations ranged from non-detected within SB-82A (25 to 29 feet) to 3,823 ppm within SB-81 (17 to 21 feet). CPAH concentrations ranged from non-detected within SB-82/82A (5 to 9 feet and 25 to 29 feet) and SB-81 (41 to 45 feet) samples to 259 ppm within the SB-81 (17 to 21 feet) sample interval.

Edgewater Street

Isolated tar and tar-stained soils were noted beneath the Edgewater Street ROW only at the locations of SB-93, SB-94, and RW-19. Tar stained soils were confined to a silty-sand layer from approximately 22 to 24 feet bgs in boring SB-94. Visible tar abruptly stopped within a dense glacial silt unit at 24 feet bgs where only odors were encountered. Solid, viscous tar-stained soils and tar-like odors were encountered within SB-93 from 4 feet and 12 feet bgs on top of alluvial marsh deposits. Petroleum-like (motor oil-like) odors were noted within borings SB-90/90C, SB-91/91A and SB-92 at the apparent groundwater table.

Analytical data obtained from soil borings SB-90C through SB-94 indicated the presence of PAHs and BTEX constituents. Total BTEX concentrations ranged from non-detected in samples SB-90C (20 to 24 feet and 32 to 36 feet), SB-91 (8 to 12 feet), SB-91A (36 to 40 feet), and SB-92 (5 to 9 feet and the 37 to 41 feet) to 30.3 ppm in sample SB-94 (20 to 24 feet) and 44 ppm in sample SB-93 (8 to 12 feet). TPAH concentrations ranged from non-detected in samples SB-90C (20 to 24 feet and 32 to 36 feet), SB-91A (36 to 40 feet), and SB-92 (37 to 41 feet) to 14,950 ppm in sample SB-93 (8 to 12 feet). CPAH concentrations ranged from non-detected in samples SB-90C (20 to 24 feet and 32 to 36 feet), SB-91A (36 to 40 feet), SB-92 (37 to 41 feet), SB-93 (36 to 40 feet) and SB-94 (36 to 40 feet) to 2,720 ppm in sample SB-93 (8 to 12 feet). The occurrence of elevated BTEX and PAH concentrations occurred within soils that contained tar observations. Tar observations encountered within SB-93 and SB-94 are isolated to a very small lateral area and are laterally discontinuous based upon boring information collected within Edgewater Street. As previously discussed, an investigation of the One Edgewater Street parcel, to the east of these borings, is being performed. The findings of this investigation will be submitted in a subsequent supplemental RI Report.

4.1.4 Northwest Parcels

Surface Soil

The purpose of RI activities on these parcels was to install groundwater monitoring wells to confirm the hydraulic influence caused by the presence of the former stream bed (current

storm drain line) on 25 Willow Avenue. Therefore, no surface-soil samples were collected on these parcels.

Subsurface Soil

Soil conditions at parcels to the northwest of the 25 and 40 Willow Avenue parcels were evaluated through completion of borings RW-8/SB-45, RW-9/SB-46, RW-10/SB-47, RW-11/SB-48, and RW-12/SB-49. Tar, staining, sheen, and odors were not observed at any boring location along Greenfield Avenue. Within one boring (SB-48/RW-11) diesel fuel-like odors were present from the water table (3 feet bgs) to 9 feet bgs in boring SB-48/RW-11. A petroleum sheen and petroleum staining were also observed from 3 to 7 feet bgs at this location. These observations are unrelated to the former MGP operations

BTEX was not detected in samples RW-8 (13 to 15 feet) (19 to 21 feet) (37 to 39 feet), RW-9 (15 to 17 feet), RW-10 (5 to 7 feet) (39 to 41 feet), RW-12 (9 to 11 feet) (39 to 41 feet). The highest BTEX concentration detected was 0.29 ppm in sample RW-11 (3 to 5 feet). TPAHs were not detected in the soil samples collected at the termination of borings RW-8, RW-9, RW-10, RW-11 or RW-12 (ranging in depth from 37 to 41 feet bgs). The highest TPAH value detected was 2,319 ppm in sample RW-11 (3 to 5 feet). CPAHs were not detected in the 19- to 21-foot sample from boring RW-8, the 9- to 11-foot sample from boring RW-12, and the samples collected at the termination of borings RW-8, RW-9, RW-10, RW-11 or RW-12 (ranging in depth from 37 to 41 feet bgs). The highest CPAH value detected was 931 ppm in sample RW-11 (3 to 5 feet). The BTEX and PAHs detected in sample RW-11 (3 to 5 feet) corresponded with the observation of diesel odors, petroleum staining, and a sheen at this sample interval, and are not related to the former MGP operations.

4.1.5 Background Locations

Surface Soil

Ten surface-soil samples (SS-33 through SS-42) were collected from locations around the 25 and 40 Willow Avenue parcels (Plate 1). Three of these locations (SS-34, SS-35, and SS-36) were located on the 25 Willow Avenue parcel and were discussed in above subsection 4.1.1. No physical observations of tar or tar-related impacts were noted in the background surface soils collected. A summary of the detections within background surface soils is presented below.

BTEX ranged from non-detect in samples SS-37, SS-38, and SS-41 to 0.001 ppm in sample SS-40. TPAH ranged from 5.3 ppm in sample SS-41 to 56 ppm in sample SS-40. CPAH ranged from 3.1 ppm in sample SS-41 to 29.7 ppm in sample SS-40. The mean of the BTEX values was calculated as 0.00031 ppm and the mean of the TPAH was calculated as

17.2 ppm. Table 4-1 summarizes the detected analytes for all the background surface-soil samples. Appendix E includes the validated laboratory Form I reports and chain-of-custody forms for the RI samples. Plate 1 depicts the surface-soil sample locations. Table 4-3 presents these calculated mean values along with the maximum and minimum values. Table 4-3 also presents the maximum, minimum, and mean values of RCRA 8 metals and total cyanide for these samples.

Subsurface Soil

No background subsurface-soil samples were collected.

4.2 Groundwater

All available groundwater analytical data from the RI and previous investigations are summarized in Table 4-4. Appendix F includes, the chain-of-custody reports, validated laboratory Form I reports, and data validation reports from the RI investigation. A summary of TPAH, CPAH, and BTEX results from the October 1999 RI sampling event is presented on the shallow aquifer and deep aquifer groundwater contour maps (Plate 4 and Plate 5, respectively). A summary of the January 2002 (Round 4) RI groundwater sampling results is presented on the shallow groundwater aquifer contour map (Plate 6). Information regarding groundwater elevations, monitoring well construction, and groundwater aquifer classification for each monitoring well is summarized in Table 2-2.

Groundwater samples in the vicinity of former tar handling structures located on the 25 Willow Avenue parcel contained BTEX constituents and the lighter molecular weight SVOCs (also referred to as non-carcinogenic PAHs), which are generally more soluble than the heavier molecular weight SVOCs. Heavier molecular weight SVOCs (also referred to as carcinogenic PAHs) were encountered in wells where tar was observed. Concentrations of BTEX, non-carcinogenic PAHs, and carcinogenic PAHs, were noted at higher concentrations in the vicinity of the former tar handling structures and notably decreased by orders of magnitude away from the structures. Total cyanide was also detected within groundwater at the site and was generally detected in wells located downgradient from where the former MGP purifying activities occurred.
The shallow groundwater aquifer and water-bearing unit within the confining unit beneath the 25 Willow Avenue parcel contain chemical constituents associated with the former MGP located at the site. The deep groundwater aquifer located beneath the 25 Willow Avenue parcel only contained trace BTEX and non-detected PAHs.

4.2.1 Shallow Aquifer

Measurements for the presence of NAPL (dense and light) were taken at each groundwater monitoring well during Round 1, Round 2, Round 4, Round 6, and Round 8 of the RI

groundwater sampling events. No measurable NAPL was observed in any shallow groundwater monitoring wells or piezometer sampled as part of OU-2. Discrete tar blebs and petroleum-like odors (fuel-oil) were detected in the water column of well RW-1, and petroleum and/or tar-like odors were observed within FPM-OW-5, FPM-OW-6, and RW-13.

As discussed in subsection 3.2.1, groundwater is generally flowing toward the former stream trace on the western portion of the 25 Willow Avenue parcel, and directly toward New York Harbor at the eastern corner of the 25 Willow Avenue parcel. Plate 4 presents a summary of BTEX, TPAH, and CPAH analytical findings on the water table (shallow aquifer) contour map for the Round 2 RI groundwater sampling event (October 1999). Plate 6 presents water table elevation contours and analytical results for wells sampled within the water-bearing zone within the confining unit in January 2002.

The shallow groundwater aquifer contains detections of BTEX and TPAH in the vicinity of former MGP-related structures. Groundwater at the southwestern corner of the 25 Willow Avenue parcel (RW-1) contained a trace detection of BTEX (0.005 ppm) and low levels of PAHs (4.6 ppb TPAH and 1.2 ppb CPAH). Groundwater samples along the trace of the former stream/storm sewer line (RW-13) in the vicinity of the former MGP structures contain BTEX at 111 ppb and TPAH at 219 ppb; CPAH was non-detected. The groundwater sample from FPM-OW-5 contains 254.0 ppb TPAH; 2.8 ppb CPAH; and 2,150 ppb BTEX, and the groundwater sample from FPM-OW-6 contains 187 ppb BTEX and low levels of PAHs. These wells are located adjacent to the former gasoline/diesel UST grave and are in close vicinity to the former waste oil tanks. Groundwater samples at the eastern boundary of the 25 Willow Avenue parcel at RW-2 and OW-7 detected low levels of PAHs and BTEX constituents. RW-2 exhibits the highest concentrations with 2.2 ppb TPAH; 1.1 ppb CPAH; and 4 ppb BTEX.

Total cyanide was also detected in the shallow groundwater aquifer at the site. Detections of cyanide were generally noted downgradient from the former gas purifying area. As discussed in subsection 4.1.1 (Purifying Tanks), detections of cyanide were present within subsurface soils collected from soil borings within the area of the former purifying tanks. Groundwater samples collected from the northwestern and northern portion of the 25 Willow Avenue site revealed cyanide concentrations ranging from non-detected in monitoring wells RW-2, RW-3, and RW-6 along Bay Street to a maximum concentration of 0.568J ppm at FPM-OW-5. Total cyanide concentrations from the adjacent northwestern parcels revealed only one detection of 0.038 ppm within RW-8.

4.2.2 Water Bearing Zone within Semi-Confining Unit

As discussed above within subsection 3.2.2, a water-bearing zone (sand-silt and gravelly sand) was encountered on the northern portion of the 25 Willow Avenue and within the Edgewater Street ROW. Measurements for the presence of NAPL (dense and light) were

taken during Round 4 (January 17, 2002) at monitoring wells RW-17 and RW-18 and at monitoring well RW-19 during Round 6 (December 10, 2002) of the RI. A measurable amount of DNAPL (tar) was measured on the bottom of RW-18 and RW-19 during each gauging event. DNAPL thickness in the bottom of RW-18 was approximately 3 feet during Round 4 at the 25 Willow Avenue parcel. Discrete tar blebs and tar odors were observed within the water column of RW-17. Approximately 5.47 feet of DNAPL was also measured in RW-19 during Round 6 of the RI. Tar was removed from each of these wells during the respective samplings.

Groundwater quality within a discrete water-bearing zone of the confining unit was assessed by the collection of groundwater samples from RW-17 and RW-18 on the 25 Willow Avenue parcel (Plate 1). A summary of the BTEX, TPAH, and CPAH concentrations is presented in Table 4-4. The BTEX concentrations ranged from 3.2 ppm in RW-18 to 5.2 ppm in RW-17. The TPAH concentrations ranged from 5.9 ppm in RW-18 to 8.1 ppm in RW-17. CPAHs were not detected above the detection limit. The elevated BTEX and TPAH concentrations coincided with the occurrence of DNAPL. No groundwater samples were collected from RW-19 during Round 6 because the presence of DNAPL in the 1-inch diameter monitoring well precluded the ability to obtain a groundwater sample that did not contain DNAPL. Only trace concentrations of total cyanide were detected within the water-bearing zone of the confining unit. Total cyanide concentrations within the water bearing zone within the confining unit ranged from non-detected within monitoring wells RW-17 and RW-18 to 0.0059 ppm within the duplicate groundwater sample of RW-18.

4.2.3 Deep Aquifer

Measurements for the presence of NAPL (dense and light) were taken at each groundwater monitoring well during Round 1 (April 1999) and Round 2 (October 1999) of the RI groundwater sampling events. No measurable NAPL or odors were observed in either deep well sampled during these events.

Groundwater quality in the deep aquifer was assessed by the collection of groundwater samples from wells RW-15 and RW-16 on the 25 Willow Avenue parcel (see Plate 5). A summary of the TPAH, CPAH, and BTEX analytical results is shown on Plate 5 along with the groundwater elevation contours from October 13, 1999. Only trace levels of BTEX (0.7 and 0.6 ppb) were detected in samples from RW-15 and RW-16, respectively. PAHs were not detected in either of these groundwater samples. Total cyanide was not detected in either groundwater sample collected from the deep groundwater aquifer at the 25 Willow Avenue site.

4.3 Storm Sewer Sampling

The storm sewer located on the northeastern portion of the 25 Willow Avenue and Willow Avenue was sampled at three locations during Round 4 (January 18, 2002) (of the RI. One storm sewer sample was collected upstream of OU-2 from a manhole within Willow Avenue ROW (STRM-01). A second sample was obtained from the 25 Willow Avenue parcel at a T-shaped grate where an off-site storm sewer flows onto the parcel (STRM-02). A third sample was collected from a manhole in a vault at the downstream location of the storm sewer line on the 25 Willow Avenue parcel, (STRM-03). Visual observations were noted during the collection of each storm sewer sample. The storm sewer water analytical data from the RI summarized in Table 4-5. Appendix F includes the validated laboratory Form I reports from the RI investigation. A summary of stormwater concentrations is presented below.

The BTEX concentrations detected ranged from 10 ppb within STRM-01, to 661 ppb within STRM-02, and 387 ppb with STRM-03. The TPAH concentrations detected ranged from 1.2 ppb within STRM-01, to 371 ppb within STRM-02, and 324 ppb within STRM-03. No CPAH concentrations were detected. A spotty sheen was noted for the storm sewer water sample STRM-01 within the Willow Avenue ROW. A moderate petroleum-like sheen was noted within STRM-02 on the 25 Willow Avenue parcel. At this location, an off-site sewer from Greenfield Avenue connects with the storm sewer on the site. Previous sheens have been noted in the stormwater flowing onto the 25 Willow Avenue parcel from the storm sewer line that receives drainage from properties along Greenfield Avenue. Groundwater with petroleum odors and elevated BTEX and PAH concentrations was sampled at monitoring well RW-11, which is located adjacent to the storm sewer line. Petroleum odors were noted within STRM-03. The site is currently vacant and recently was utilized as an automobile service repair and preparation facility. This facility likely handles and stores petroleum products as part of operations. The waste handling activities of this operation was not evaluated at this time.

Cyanide was detected in STRM-01 at 14.5 ppb, in STRM-02 at 164 ppb, and in STRM-03 at 110 ppb. Detections of total cyanide within STRM-02 and STRM-03 may be related to the detections of cyanide within monitoring wells OW-5, OW-6, and OW-7 located adjacent to the storm sewer sample points. These sample points were located downgradient from the former purifying tanks located on the 25 Willow Avenue parcel.

4.4 Soil Vapor – 25 Willow Avenue

Twelve (12) soil vapor samples were collected by GEI on June 11, 2003 from beneath the building slab at 25 Willow Avenue (Figure 4-1). Table 4-6 presents a summary of detected compounds in the soil vapor samples. Maximum and average soil vapor concentrations found in the sub-slab soil pores were compared to occupational health standards.

An analysis of the potential risk to workers posed by these soil vapor results is presented in Section 7.1.5, however in summary, conservative vapor intrusion modeling suggests a greater than 1000 times dilution for the contaminants at the above slab level. Therefore, soil vapor concentrations, in themselves, do not pose a risk to human health and the environment (that is, a de minimis human exposure assessment). Because soil gas concentrations do not pose a health risk to workers, additional indoor air sampling is not necessary to quantify exposure. In addition, the building is currently unoccupied and will eventually be demolished; therefore, there are no current receptors.

5. Fate and Transport

This section provides an analysis and discussion of the data presented in previous sections to provide an interpretation of the interaction between physical and chemical processes that affect the behavior of chemical constituents in the subsurface. Through an understanding of these physical and chemical processes, mechanisms affecting the fate and transport of chemicals at the site will be evaluated.

The following analysis takes into account the physical characteristics of the OU-2 parcels, including the 25 Willow Avenue parcel, adjacent northwest parcels, the Willow Avenue ROW, and the Bay Street/Edgewater Street ROW; the interaction of the surface and groundwater hydrogeology; the nature of chemical compounds encountered during the sampling and analysis program; and any apparent trends in the distribution of these materials within the OU-2 parcels. This section provides a discussion of the physical and chemical characteristics of BTEX and PAHs, and a discussion of the sources and transport pathways for these constituents.

The chemical constituents can exist in four different phases, nonaqueous phase liquid, dissolved in an aqueous phase, sorbed to a solid, or as a vapor. Transport of chemical constituents between these four phases will depend upon the physical and chemical properties of the specific chemicals and the physical characteristics of the OU-2 parcels. The transport pathway and how it relates to chemical constituents is discussed below.

- **Solubility.** Is the measure of a chemical's ability to dissolve in water. Chemical constituents sorbed to soil or in a NAPL may dissolve in water as groundwater flows through the soil matrix, or may dissolve in stormwater runoff. BTEX compounds have a high solubility. PAHs have a varying degree of solubility. The lighter molecular weight PAHs are generally more soluble while the heavier molecular weight PAHs are less soluble and typically do not dissolve into an aqueous phase.

- **Sorption.** Sorption is usually defined as the reversible binding of a chemical to a solid matrix. However, there is evidence in the published literature that, at MGP sites, interactions between tar and the soil matrix may result in a modified matrix that does not represent independent characteristics of either pure tar phase or the original soil matrix. The presence of weathered and/or residually trapped tar phase enhances the sorption capacity of the soil matrix. Hence, the impacted soil matrix is often more sorptive than carbon-based hydrophobic domains in natural organic matter. Furthermore, soils at MGP sites may exhibit a high potential for hysteretic and irreversible sequestration of chemicals, resulting in a different chemical release mechanism from the impacted soil matrix than what was observed during the

adsorption mode. These phenomena lead to a partially irreversible sorbed fraction that is not available for partitioning and dissolution (Brusseau, et al., 1989; Brusseau, et al., 1991; Loehr, et al., 1996; Lee, et al., 1998; and EPRI TR-110516-V2, 1999).

- **Volatilization.** Describes the movement of a chemical from the surface of a liquid or solid matrix to a gas or vapor phase. BTEX constituents are highly volatile and are therefore readily transported into the atmosphere from surficial soil. PAHs are nonvolatile and transport of these chemicals by this process is not considered a major pathway for transport.

Sorption of the COCs to solids limits the fraction available for other fate processes such as volatilization and/or solubility. In general, BTEX compounds have low sorption potential, coupled with high water solubility and volatility, which make sorption a relatively minor environmental fate process for BTEX compared to other mechanisms. PAHs exhibit varying degrees of binding affinity to organic matter and soil particles and this affinity is dependent upon their individual molecular structures. In general, the higher molecular weight PAHs, (e.g., benzo(a)pyrene) are strongly sorbed, whereas the lighter PAHs (e.g., naphthalene) are less strongly sorbed (EPA, 1979; EPA, 1986). Therefore, the lighter-molecular weight PAHs may be desorbed and transported by other mechanisms.

Once released into the environment, COCs have the potential to interact with organisms. The following is a brief summary of the process of the bioconcentration of MGP-related compounds.

Bioconcentration factors (BCFs), which relate the concentration of the chemical in an organism at equilibrium to the concentration of the chemical in water, are used to assess the potential for chemical bioconcentration. BCFs are related to the octanol/water partition coefficient and solubility of a chemical. Since VOCs have log K_{ow} and high water solubilities, these chemicals have a low potential to bioconcentrate in organisms (Howard, 1990).

PAHs contain only carbon and hydrogen and consist of two or more fused benzene rings in linear, angular or cluster arrangements. In general, most PAHs can be characterized as having low vapor pressure, low to very low water solubility, low Henry's Law constant, high log K_{ow}, and high organic carbon partition coefficient (K_{oc}). Thus, PAHs remain bound to soil and do not freely enter groundwater.

High partition coefficients and low solubilities suggest that PAHs are likely to be sorbed onto sediment particles. Conversely, these properties indicate that most PAHs will not readily volatilize into the atmosphere.

Although PAHs are regarded as persistent in the environment, they are degradable by microorganisms. Environmental factors, microbial flora and physicochemical properties of the PAHs themselves influence degradation rates and degree of degradation. Important environmental factors influencing degradation include temperature, pH, redox potential (the tendency of a chemical to accept or donate electrons, or to become reduced or oxidized) and microbial species. Physicochemical properties, which influence degradation, include chemical structure, concentration, and lipophilicity ("fat-loving" tendency). In general, PAHs show little tendency to biomagnify in food chains despite their high lipid solubility because most PAHs are rapidly metabolized by the organisms that are exposed to them (Eisler, 1987).

Metals, which do mobilize from the soil into groundwater, are usually mobile under acid conditions. Higher pH usually reduces their bioavailability (McIntosh, 1992).

A qualitative human health exposure assessment and fish and wildlife impact analysis is presented in Section 7.

The environmental media that are of primary concern for the subject properties are NAPL, subsurface and surface soil, and groundwater. Section 4 provides a detailed description of the nature and extent of chemical constituents. Plates 2 and 3 illustrate the vertical and lateral extent of tar, staining, sheen, and odors, along with the geology and hydrogeology at the OU-2 parcels.

5.1 NAPL

NAPL (tar) is present at the site. NAPL is considered to include the visual observation of tar-saturated material or soil containing tar blebs or tar lenses (see Section 4 for a description of these terms). NAPL was observed within the subsurface foundations of the former MGP structures and in the subsurface materials surrounding the former structures that handled tar. The chemical constituents addressed that are in NAPL include BTEX and PAHs.

NAPL (tar) generally migrated downward through permeable fill and other permeable soils on the 25 Willow Avenue parcel. At isolated locations beneath Willow Avenue, Edgewater Street, and triangular parcel along Bay Street NAPL appears to have migrated laterally through coarse-grained materials atop less permeable soil layers. NAPL was observed to a maximum depth of 44 feet on the 25 Willow Avenue parcel where the dense silty ground moraine stopped its migration (SB-58/RW-16). Evidence of residual NAPL (staining) is present beneath to a depth of 55 feet the 25 Willow Avenue parcel (SB-75). NAPL was generally observed in near proximity to the former historic structures.

NAPL present within the subsurface will desorb and contribute to chemical constituents in the soil and groundwater beneath 25 Willow Avenue, Willow Avenue ROW, and Bay Street/Edgewater Street. BTEX and lighter molecular weight PAHs will dissolve into groundwater and can be transported with groundwater flow. Heavier PAHs will sorb to soil and will remain relatively immobile. BTEX in NAPL above the water table on the 25 Willow Avenue parcel, Willow Avenue ROW and the Bay Street Edgewater Street ROW can also volatilize and diffuse through the soil pore spaces in the vadose zone.

5.2 Subsurface Soil

In general, the distribution of BTEX and PAHs in subsurface soil correlates with the presence of NAPL (tar). Chemicals sorbed to soils in the subsurface will continue to be a source of dissolved chemical constituents in groundwater. BTEX and lighter molecular weight PAHs can desorb from soil, dissolve into groundwater, and be transported with groundwater flow. BTEX can also volatilize from soil and diffuse through the vadose zone. Heavier molecular weight PAHs will remain sorbed to soil and will remain relatively immobile.

5.3 Surface Soil

Three surface-soil samples were collected from the grassed area of 25 Willow Avenue and at background surface soil locations. PAHs were identified in surface soil present on the 25 Willow Avenue parcel and total BTEX concentrations in surface soil range from non-detect to 0.0008 ppm.

Lighter molecular weight PAHs could desorb and become dissolved in infiltrating precipitation. PAHs dissolved in infiltrating precipitation could be transported to shallow groundwater and move with groundwater flow. It is unlikely that PAHs will potentially dissolve in runoff that could be transported through storm sewer systems given that the vast majority of the site is paved or covered by the on-site building. PAHs sorbed to soil could be transported off the 25 Willow Avenue parcel as airborne particulates or as particulates entrained in surface water runoff; however this scenario also is unlikely under current conditions because the majority of the site is paved or covered by the on-site building.

5.4 Groundwater

Two groundwater aquifers (shallow and deep) have been identified at OU-2 and are described in Section 3. An isolated water-bearing unit was encountered within the confining unit along Bay Street/Edgewater Street. Chemical constituents detected in the shallow groundwater aquifer and water bearing zone within the confining unit included BTEX and PAHs. Only trace concentrations of BTEX and non-detected PAH concentrations were present in groundwater within the deep aquifer at the well locations of RW-15 and RW-16.

BTEX and PAHs dissolved in groundwater are present in the vicinity of NAPL. Groundwater in the shallow aquifer under the OU-2 parcels flows to the northwest and northeast. Elevated BTEX and PAH concentrations were noted within a water bearing zone of the confining layer at the 25 Willow Avenue and along Bay Street and Edgewater Street. This coincides with observed NAPL within this unit within RW-17, RW-18 and RW-19.

Groundwater flow direction in the deep aquifer is unclear and is either split along a divide or is heterogeneously affected by tidal influences. Based on the available data, it appears that on the eastern portions of the 25 Willow Avenue parcel, groundwater flow in the deep aquifer is generally to the east towards the bay. On the eastern portion of the 25 Willow Avenue parcel and Willow Avenue, groundwater flow in the deep aquifer appears to be toward the southwest.

Dissolved BTEX and lighter molecular weight PAHs will be transported with groundwater flow within the shallow groundwater towards the former stream trace along the northwestern portion of OU-2 and towards New York Harbor. A decrease in concentrations of BTEX and PAH was noted away from MGP structures at the 25 Willow Avenue site. The decrease in concentrations away from the former MGP structures makes this unlikely. Groundwater elevations within the deep groundwater aquifer reveal flow towards the harbor; however, based upon the trace detected concentrations it is unlikely that the deep groundwater aquifer is impacted within OU-2.

6. Conceptual Site Model

This section discusses the conceptual site model as it pertains to the nature of the physical observations of tar, staining, sheening and odors, migration pathways and receptors. From the six successive rounds of investigation that have taken place at the site, it has become apparent that the primary areas of concern within OU-2 are the former tar handling structures (former Relief Holder No. 1, tar tank/gasometer, and various tar tanks and tar wells) associated with the former MGP operations located at the 25 Willow Avenue parcel.

The majority of the former tar-handling structures are located over the central portion of the 25 Willow Avenue site. Many of the former foundations still exist at the site today, such as the former Relief Holder No. 1, former tar tank/gasometer, former tar wells (at SB-54/ SB-74), tar separator beneath the building (SB-39) and tar separator (SB-10). Upon the decommissioning of these structures, fill material was likely used to backfill the former tar handling structures. Some tar and tar-impacted material may have remained within these structures and mixed with the fill. This tar, in conjunction with tar historically produced and handled on site during the operation of the former MGP, appears to represent the source of DNAPL (tar) observed within soils on site. Cross-section B-B′ located on Plate 2 and D-D′, E-E′, and F-F′ located on Plate 3 depict the soil conditions at the 25 Willow Avenue in the former footprint of the MGP. Isolated DNAPL (tar) lenses were also observed within the Willow Avenue ROW, which likely were associated with nearby tar handling structures and piping to Relief Holder No. 2 located on the adjacent 40 Willow Avenue parcel. Isolated tar lenses were also noted within the Edgewater Street ROW.

The 25 Willow Avenue parcel is located within a topographic bowl that has historically been occupied by a stream prior to development of the site. Inferred alluvial sand and gravel associated with the former stream is located just below many of the former tar handling structures in the central portion of the site. These layers may have been impacted by the seepage of some tar through the holder (Relief Holder No. 1) and various tar wells, tanks, separators, and other former tar-handling structures located in central and western portions of the site. Once released, the tar is hypothesized to have continued to migrate downward through the subsurface by micro-fractures and grain-to-grain movement within coarser-grained materials and loose materials, and preferentially collected within localized sand and sand-gravel layers. The ground moraine (dense silt) unit acts as a confining unit for tar under the site. A relatively dense coarse-grained clay-silt unit (inferred as the Harbor Hill Terminal Moraine) unit bounds the tar and acts as a lateral barrier to tar on the north and east of the site. Isolated coarse-grained sand and gravelly-sand layers also may have allowed small amounts of tar to migrate from the vicinity of the former Relief Holder No. 1 laterally to the north as far as Edgewater Street and from the tar well (located at SB-54/75) into the

subsurface soils beneath Willow Avenue. The coarser-grained terminal moraine located along Willow Avenue allowed DNAPL (tar) to migrate downward to a depth of 55 feet. In the vicinity of the former tar handling structures, no physical observations of tar odors were present below the confining unit at the site or at the top of weathered bedrock interface at approximately 115 feet bgs.

Groundwater exhibits concentrations of BTEX and PAHs in the areas associated with DNAPL residuals in the vicinity of the MGP foundations. Dissolved tar-related constituents (BTEX and PAHs) are limited in extent to the vicinity of the former tar handling structures and concentrations decrease with depth and away from the former structures within the shallow groundwater aquifer in the direction of New York Harbor. No tar-related impacts were noted in the deep groundwater aquifer on the 25 Willow Avenue parcel.

Soil vapors beneath the 25 Willow Avenue building are related to soil and groundwater contamination beneath the building. Soil vapors concentrations beneath the building, in themselves, do not pose a risk to human health and the environment (that is, a de minimis human exposure assessment). The building is currently unoccupied and will eventually be demolished.

7. Qualitative Human Exposure Assessment and Fish and Wildlife Impact Analysis

This report section presents the qualitative human exposure assessment (QHEA) and fish and wildlife impact analysis (FWIA) for the site. These assessments consider the chemical distribution at the site in terms of possible human exposure and impact(s) to fish and wildlife. The QHEA and FWIA are part of an Order on Consent (Index No. D2-0001-98-11) between KeySpan and the NYSDEC concerning the former MGP site located in Clifton, Staten Island, New York. These assessments used data collected as part of GEI's initial remedial investigation and supplemental data collected in 2001 and 2002. The QHEA was performed to meet the requirements identified in the NYSDOH's November 9, 2000 guidance memorandum titled *New York State Department of Health, Qualitative Human Health Exposure Assessment (NYSDEC, 2002).* The ecological portion of the assessment presented here is consistent with the NYSDEC's *Fish and Wildlife Impact Analysis* guidance (NYSDEC 1994b). The objectives of the assessments are:

- To identify chemicals of potential concern (COPCs) that are related to the former gas manufacturing activities conducted at the site;
- To identify potential pathways of exposure to people, plants, animals, and fish;
- To estimate and characterize the potential ecological impact associated with these exposures; and
- To indicate whether there is a need for mitigative measures to reduce potential exposures.

For purposes of the qualitative human health exposure assessment, OU-2 is discussed in terms of potential on-site exposures associated within the former plant parcel (25 Willow Avenue); and potential off-site exposures associated with three parcels adjacent to 25 Willow Avenue: a wooded railway embankment to the northwest (herein referred to as the Northwest parcel) which also includes a few commercial properties along Greenfield Avenue, a roadway parcel beneath Willow Avenue, and a second roadway parcel beneath Bay Street and Edgewater Street. The City has indicated that they have plans to reconstruct the storm sewer system beneath Willow Avenue. Since there are plans to breach the paved surface and reconstruct the storm sewer, this area is evaluated separately. The site location and description are discussed in Section 1 of this report. The site-specific hydrogeologic characteristics of OU-2 are discussed in Section 3. The current site plan for OU-2 is presented in Figure 7-2A.

With the exception of a grass strip abutting Bay Street, the entire ground surface within the on-site parcel of 25 Willow Street is either covered with the footprint of the commercial building, or is paved and used for parking. This lack of exposed ground surface would normally eliminate exposure to on-site surface soil (from 0 to 2 inches below ground surface) for all current receptors, both human and ecological. The presence of isolated tar bubbles seeping through a limited number of cracks in the pavement adjacent to the former tank/gasometer located at the southwestern portion of the 25 Willow Avenue site ,posed a potential exposure to workers and visitors to the site. This potential exposure was mitigated by the placement of steel plates over the exposed tar bubbles, thereby preventing any potential contact with the tar.

While the parcels underneath the roadways are also considered to be completely beneath a paved surface, the Northwest parcel is not entirely covered. However, no surface soil sampling was performed within the off-site parcels with the consent of NYSDEC. Therefore, all current exposure pathways associated with off-site surface soil are eliminated and the qualitative human exposure assessment does not include off-site surface soil as an exposure medium of concern. Future exposure pathways, such as a potential construction worker, assess potential exposure to surface soils as part of exposures to soils, both surface and subsurface, as a result of assumed subsurface activities.

7.1 Qualitative Human Exposure Assessment

7.1.1 Nature and Extent of Chemical Constituents

BTEX constituents were the principal VOCs detected in soil and groundwater samples at the site and are the common VOCs associated with former MGP operations. SVOCs also were detected at the site. PAHs are the common subset of SVOCs associated with former MGP operations. Sixteen metals (including arsenic, lead, and mercury) and cyanide are also commonly associated with MGP sites (WDNR 1999). Soil vapor sampling beneath the 25 Willow Avenue building identified the presence of BTEX as well as chlorinated VOCs. Section 4 of this report provides a detailed description of the nature and extent of chemical constituents found on-site and at relevant off-site locations. Section 5 of this report provides a detailed description of the fate and transport of analytes commonly associated with the former MGP operations. The potential migration pathways for chemical constituents are illustrated in Figure 7-1.

7.1.2 Selection of Chemicals of Potential Concern

Several classes of chemicals were detected in soil and groundwater. COPCs were selected following the practice established by EPA in the Risk Assessment Guidance for Superfund, Volume I, Part A (EPA, 1989). Selection criteria were as follows:

- Chemicals not detected at least once above the limit of detection were automatically excluded from the assessment, regardless of the size of the data set;

- Frequency of detection was considered. Chemicals with a frequency of detection of less than 5% in a data set of 20 or more samples were excluded from the assessment; and

- Chemicals that are not associated with MGP operations were not considered COPCs.

Tables 7-1 through 7-5 list for each medium (*i.e.,* subsurface soil and groundwater) and location, the chemicals reported at least once above the limit of detection, their frequency of detection, and their minimum and maximum detected concentrations. The chemicals listed in these tables are those that meet the frequency of detection criteria listed above. Additionally, these tables present the 95% upper confidence limit (UCL) of the mean when appropriate for the applicable data set, and relevant and appropriate standards, criteria, and guidance values (SCGs) (*i.e.,* NYSDEC TAGM and TOGS concentrations for subsurface soil and groundwater, respectively). COPCs that are both MGP-related and exceed applicable NYSDEC SCGs appear in bold italics in these tables. All analytical data obtained from the 1999, 2002, and all previous field investigations were combined to estimate the average concentration and the 95% UCL.

Data sets were developed to estimate the UCL according to the exposure scenario being evaluated. For off-site exposure scenarios, subsurface soil and groundwater sample results from the Northwest parcel and Bay Street and Edgewater Avenue roadways were combined and used to evaluate exposure pathways. A separate data set for the samples underneath Willow Avenue is considered separately. For the on-site exposure scenarios, subsurface soil and groundwater samples collected from the 25 Willow Avenue parcel were used to evaluate the exposure pathways. It is important to note that samples considered ‘on-site’ are only those within the fence line of 25 Willow Avenue. Samples collected to a maximum depth of 16 feet were used to estimate exposure point concentrations (EPCs).

The 95% UCL is determined from the detected concentrations and the substitution of one-half the limit of detection for samples reported as non-detected (U-qualified). U-qualified chemical concentrations were used in the exposure assessment at one-half the limit of detection if other samples in the data set were reported at least once above the limit of detection (EPA 1989).

Prior to calculating the 95% UCL, statistical tests were performed to identify the best distributional assumption of the data (*i.e.*, lognormal or normal). Normally distributed data are those that, when plotted, exhibit a bell-shaped curve, while log normally distributed data exhibit a skewed curve. Most data sets in this assessment contained fewer than 50 samples; consequently, the data were evaluated using the W-test developed by Shapiro and Wilk (Gilbert 1987). For a few groundwater constituents (BTEX and naphthalene), the data sets contained greater than 50 samples. These data sets were subsequently evaluated using the W-test developed by D'Agostino (Gilbert 1987). If the results of the W-test indicated the data did not represent a normal distribution (the data did not exhibit a bell-shaped curve), then a lognormal distribution was assumed. The appropriate equation was then used to calculate the 95% UCL concentrations (EPA 2002).

If the data set was found to be consistent with the normal distribution, then the 95% UCL was calculated from the following equation (EPA 2002):

$$95\%\ UCL = \bar{x} + t\left(\frac{s}{\sqrt{N}}\right)$$

where:

$\bar{x}$ = mean of the (untransformed) data;
t = Student t-statistic (from Gilbert 1987);
S = standard deviation of the (untransformed) data;
N = number of samples.

If the data set was assumed to be consistent with the lognormal distribution, then the 95% UCL concentration was calculated from the following equation (EPA 2002):

$$95\%\ UCL = e^{\left(\bar{x} + 0.5s^2 + \frac{SH}{\sqrt{N-1}}\right)}$$

where:

e = base of the natural log = 2.718;
$\bar{x}$ = mean of the log transformed data;
S = standard deviation of the log transformed data;
H = H-statistic (interpolated from Gilbert 1987); and
N = number of samples.

Maximum concentrations were used to represent the mean concentration in small data sets (sample size < 10). Additionally, if the calculated 95% UCL exceeded the maximum detected concentration for a data set, the maximum concentration was used to represent the mean (EPA 1992). These representations of the data are considered the EPC for each dataset, or COPC.

In order to aid remedial planning for the site, the EPCs calculated for subsurface soil were compared to NYSDEC TAGM concentrations (Tables 7-1 and 7-2, NYSDEC 1994). Concentrations detected in groundwater samples were compared to NYSDEC TOGS (Tables 7-3 and 7-4, NYSDEC 1998). These comparisons are discussed in Section 7.2.7.

7.1.3 Current and Reasonably Foreseeable Site Use

It is anticipated that the 25 Willow Avenue site will continue as a commercial property for the foreseeable future. Furthermore, the 25 Willow Avenue parcel, the Northwest parcel, and the Willow Avenue roadway are located in a M3-1 zone and the Bay Street and Edgewater Avenue roadway is located in a M2-1 zone. Both zones indicate manufacturing at different levels (heavy and medium). Consequently, the land use of the property is not expected to change substantially from the current commercial/manufacturing use (see Figure 7-2D). Additionally, no new residences or community facilities are permitted under either zoning classification. Therefore, a future on-site residential scenario was not considered in this exposure assessment.

7.1.4 Exposure Setting and Identification of Potentially Exposed Populations

The human health exposure assessment provides qualitative descriptions of potential exposures to site-related COPCs for human populations who may reasonably be expected to contact site media under present or future conditions. The exposure assessment is comprised of two components:

- Description of exposure setting and identification of potentially exposed populations; and
- Identification of exposure pathways.

Under current and future site use conditions, the potentially exposed populations (*i.e.*, potential receptors) are those that might come into contact with those COPCs identified above. Figure 7-1 presents a conceptual risk system model (CRSM), and Table 7-6 identifies the potential exposure routes for current and future on-site and off-site human populations. Potentially exposed populations and pathways of exposure, as outlined in the CRSM and Table 7-6, are described below.

25 Willow Avenue Parcel (On Site) Current Scenarios

The 25 Willow Avenue parcel is the location of the former gas plant production operations and is currently being leased from KeySpan for use as a vehicle preparation and service center. It includes a one-story commercial building and a paved bituminous parking lot used for automobile storage. A chain link fence surrounds the entire perimeter of the parcel.

While there are institutional controls limiting access available to trespassers (the property is gated and locked at night), the potential for trespassers at the site remains a possibility and trespassers are therefore included in this assessment.

Thus, the receptors considered in the assessment under current site conditions include (Figure 7-1 and Table 7-6):

- On-site employees/commercial visitors – i.e., those employees working at the vehicle preparation and service station and the intermittent visitor to the site.
- On-site trespassers – adult, adolescent, and child.

25 Willow Avenue (On-site) Future Scenarios

As stated previously, future uses of the site and immediate off-site areas are not expected to change substantially from the current commercial/manufacturing uses allowed under the property zoning classification. As a consequence, the current exposure scenario also holds for future use of the site (i.e. commercial workers/visitors and trespassers). However, to account for the possibility that construction activities may occur at the site to accommodate facility expansion or reorganization or conversion for other commercial use, a future on-site construction worker were also considered (see Figure 7-1 of this report). Other potential exposure populations include utility workers.

Off-Site Parcels Current Scenarios

The Northwest parcel evaluated in this assessment is immediately adjacent to the northwest boundary of the 25 Willow Avenue parcel. The area contains a wooded railroad embankment and a few commercial properties along Greenfield Avenue. The only current potential receptors for this parcel are trespassers; child, adolescent, and adult. The gradient of the embankment just outside the fence line of 25 Willow Avenue is fairly steep and the surface drainage runs from the embankment towards 25 Willow Avenue. This makes the migration of contaminants from 25 Willow Avenue to surface soils of the Northwest parcel unlikely. Given the lack of surface soil data (per NYSDEC consent) and the surface gradient of the railroad embankment, exposures to surface soils within the Northwest parcel are not evaluated in this assessment.

Exposures to surface soils underneath the roadways and adjacent sidewalks are not considered complete pathways and therefore are not evaluated in this assessment

Off-Site Parcels Future Scenario

As discussed above, future uses of the off-site parcels are not expected to change substantially from the current transportation/commercial uses. However, to account for the possibility that construction activities may occur at these parcels to accommodate redevelopment for other use, a future off-site construction worker and a future off-site utility worker were considered (see Figure 7-1 of this report). These receptor scenarios are particularly relevant for the Willow Avenue roadway as planned reconstruction of the storm sewers beneath this area is planned in the near future. For other exposures at the roadway parcels, it is extremely unlikely that a future residential receptor will occur, however, this receptor is included as the most conservative receptor possible within the off-site areas.

7.1.5 Identification of Exposure Pathways

Generally, human populations may be potentially exposed to COPCs in the following impacted media: surface soil, subsurface soil, groundwater, ambient air, and indoor air. Ambient air is considered to be outdoor air that may be impacted by site COPCs in two ways; volatilization of surface soil COPCs and inhalation of particulate matter. However, the only identified surface soil component at the site is surface soil as tar bubbles seeping through cracks in the pavement. This type of media is not expected to contribute significantly to outside air and therefore, exposure to ambient air is not considered a complete exposure pathway for current exposure scenarios.

25 Willow Avenue Parcel (On Site)

Currently the on-site building (25 Willow Avenue) is not used as a commercial facility and will eventually be demolished. Therefore, there is no potential exposure to workers at the building. Previously the building use included commercial activities. Under the prior use of the building two potential exposure pathways were identified: 1) the inhalation of accumulated COPCs in indoor air from vapor intrusion for on-site employees and adult and child visitors, and 2) on-site employees and trespassers potentially being exposed to surface soil (as tar bubbles) through dermal contact. The potential for contact to the tar bubbles was mitigated by placing steel plates over the tar bubbles thereby breaking the potential exposure pathway for any previous workers of potential future trespassers.

The potential for prior workers exposure to COPCs through vapor intrusion was assessed by the collection of twelve (12) soil vapor samples beneath the footprint of the on-site building. Soil and groundwater contamination resides below the concrete working surface at the site. However, conservative vapor intrusion modeling suggests a greater than 1000 times dilution for the contaminants at the above slab level. Therefore, soil vapor concentrations, in themselves, do not pose a risk to human health and the environment (that is, a de minimis human exposure assessment). Because soil gas concentrations to not pose a health risk to workers, additional indoor air sampling is not necessary to quantify exposure.

Given the nature of their work (*i.e.*, trenching, excavation, installing deep piles, etc.), future on-site construction workers may reasonably be expected to contact surface and subsurface soil via ingestion, dermal contact, inhalation of soil particulates, and vapor inhalation. In addition, construction workers may contact groundwater during trenching activities, since the depth to groundwater is relatively shallow and in places less than eight feet below ground surface. Chemical exposures for on-site utility workers may occur because of the presence of subsurface sewer, telephone, gas, and water facilities in the area. The exposure pathways through which this population could be potentially exposed are identical to those for the construction worker.

There is no current on-site use of groundwater for consumptive or other purposes. Therefore, there are no current exposure pathways that can be considered complete for direct contact with groundwater. Consequently, the only potential complete exposure pathways for groundwater are future dermal contact and inhalation of vapors emanating from the groundwater. These potential future exposures are most likely to occur for the construction worker and the utility worker.

Off-Site Parcels

Under current off-site conditions, there are no exposure scenarios that are considered complete for this evaluation.

Given the nature of their work (*i.e.*, trenching, excavation, installing deep piles, etc.), future off-site construction workers may reasonably be expected to contact surface and subsurface soil via ingestion, dermal contact, inhalation of soil particulates and vapor inhalation. In addition, construction workers may contact groundwater during trenching activities, since the depth to groundwater is one to eight feet below ground surface. Exposure pathways for off-site utility workers may be complete, due to the presence of subsurface sewer, telephone, gas, and water facilities in the area. The exposure pathways through which this population could be potentially exposed are identical to those for the construction worker. It is important to note that modifications to the storm sewer beneath Willow Avenue are planned in the near future by the State of New York. Therefore, the exposure pathways described for a future off-site construction worker and a future off-site utility worker are highly possible in the Willow Avenue roadway area. For this reason, the COPCs in this area are evaluated separately in this assessment.

A future resident may be exposed to soils via ingestion, dermal contact, and inhalation of ambient air (soil particulate and vapor inhalation). While future surface soil exposures for this receptor are likely, exposures to subsurface soils are unlikely, yet included, in the event that a future resident engages in excavation activities at their home. This scenario would also

possibly expose a future resident to groundwater via dermal contact and inhalation of vapors. Possible vapor intrusion of volatile constituents in soil and groundwater to indoor air could be a complete exposure pathway for a future resident if their home is built within one of the off-site parcels. While this exposure pathway is included in this evaluation for an ultimate conservative approach, it should be noted that the likelihood of future residential property within the off-site areas is highly unlikely.

There is no off-site use of groundwater for consumptive or other purposes. Therefore, there are no current exposure pathways that can be considered complete for off-site groundwater. Consequently, the only potential complete exposure pathways for groundwater are dermal contact and inhalation of vapors emanating from the groundwater. These potential future exposures are most likely to occur for the construction worker and the utility worker, but are also included in the future resident scenario.

7.1.6 Screening Level Assessment

The EPCs determined for each portion of OU-2, the 25 Willow Avenue parcel (on-site), and the off-site parcels, were compared to appropriate NYSDEC concentrations, and the results of this screening are as follows.

25 Willow Avenue (On-Site)

Subsurface Soils

Subsurface soil concentrations at the 25 Willow Avenue Parcel were compared to NYSDEC TAGM concentrations where available. This comparison indicates that the majority (33/41) of chemicals are present at concentrations that exceed applicable TAGM concentrations (Table 7-1).

Groundwater

Evaluation of groundwater concentrations at the 25 Willow Avenue parcel indicates that 18 of 41 COPCs exceed applicable TOGS concentrations. TOGS concentrations were not available for some of the detected chemicals (Table 7-4). It is also important to note that the TOGS concentration for benzo(a)pyrene is listed as 'ND', which means that any detected concentration above the applicable method detection limit is considered above NYSDEC guidelines.

Off-Site Parcels

Subsurface Soil Beneath Willow Avenue

Chemicals detected in subsurface soils at the off-site area beneath Willow Avenue were also compared to NYSDEC TAGM concentrations (Table 7-2). Results of this comparison indicate that 17 of 36 COPCs exceed applicable TAGM concentrations.

For the groundwater beneath Willow Avenue, only one monitoring well (FPM-MW-04) is considered to be within this defined area. Results of groundwater sampling from this well detected only naphthalene at 0.003 mg/L, well below the TOGS concentration of 0.01 mg/L for this chemical.

Subsurface Soil Beneath Other Off-Site Parcels

Chemicals detected in subsurface soils at the remaining off-site parcels were also compared to available NYSDEC TAGM concentrations (Table 7-3). Results of this comparison indicate that the majority (25/33) of chemicals are present at concentrations that exceed the applicable TAGM concentration.

Off-Site Parcels – Groundwater

Eight chemicals (benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(k)fluoranthene, chrysene, phenol, lead, and selenium) were detected at concentrations above TOGS recommended concentrations. As stated above, the TOGs concentration for benzo(a)pyrene is essentially below the applicable method detection limit. Concentrations of toluene, ethylbenzene, and xylenes (total) were compared to appropriate TOGS concentrations and are present at concentrations that are lower than the TOGS concentration (Table 7-5). Benzene was not detected in these off-site groundwater samples.

7.1.7 Conclusions

7.1.7.1 25 Willow Avenue (On Site)

A majority of the chemicals detected in subsurface soil at the 25 Willow Avenue parcel exceed the applicable TAGM concentrations. Consequently, potential exposure to these soils may be considered a pathway of concern. However, under current site conditions due to the lack of exposed ground surface at the site, the subsurface soils at the site are considered inaccessible. The potential for inhalation of COPCs through potential vapor intrusion was assessed through soil vapor sampling The results showed the following:

- The maximum (and average) concentrations of all contaminants were below occupational health standards. The data suggest that prior or future workers could breathe sub-slab soil vapor concentrations for 8 hours a day/ 50 weeks a year without adverse health effects. Regardless, there are currently no workers occupying the building and the building will eventually be demolished.

- The maximum sub-slab soil vapor concentrations are, in most cases, several orders of magnitude below health criteria.

- If the soil vapor transport is considered, conservative air intrusion modeling suggests that it would be diluted by at least 1,000 times below concentrations found in the sub-surface soil pores.

These results suggest that the soil vapor concentrations are de minimus and, as such, pose an insignificant human health exposure to prior workers at Clifton.

Potential exposure to tar bubbles in the parking lot area of the 25 Willow Avenue parcel was mitigated by placing steel plates over the tar bubbles, thereby preventing any potential contact by the former workers or current/future trespassers or visitors.

Because future redevelopment of the site or conversion to another commercial use would likely entail construction and utility work and, by definition, direct contact with subsurface soils, the concentrations of chemicals detected in subsurface soil at the 25 Willow Avenue parcel indicate that direct contact with these soils may be a future exposure pathway of concern.

Several chemicals in groundwater are present at concentrations that exceed TOGS. The groundwater is not used as a potable water source and potential direct contact exposures to groundwater are expected to be limited to those individuals engaged in excavation work (e.g., construction worker, KeySpan employee, and utility worker). Results of the screening analysis indicate that only future direct contact exposure may be as a pathway of potential concern. However, under current site conditions, direct contact with groundwater is an incomplete exposure pathway.

7.1.7.2 Off-Site Beneath Willow Avenue

Results of subsurface soil screening indicate that some COPCs are present at concentrations above TAGM concentrations and the potential exposure pathways for a future construction worker and utility worker are considered complete and likely in the near future. Currently, there are no complete pathways for exposure to subsurface soils beneath Willow Avenue.

Groundwater beneath Willow Avenue is considered a potentially complete exposure pathway for a future construction worker or utility worker, however, only one COPC (naphthalene) was identified in the single monitoring well in this area and the concentration was below the applicable TOGS concentration.

7.1.7.3 Other Off-Site Parcels

Results of subsurface soil screening indicate that while some chemicals are present at concentrations above the TAGM concentrations, the potential for future exposure to subsurface soils at these parcels is minimal for two reasons: 1) the infrequent nature of excavation work among roadways and along a railroad embankment and 2) the infrequent nature of excavation work in a residential setting, in the very unlikely event their parcels ever become designated as residential. Currently, there are no complete pathways for exposure to subsurface soils at either of the remaining off-site parcels.

A few of the chemicals detected in groundwater are present at concentrations above applicable TOGS concentrations. However, groundwater wells were not observed during the field investigation and the property and the surrounding communities are served by a municipal water supply. It is expected that any new construction would be connected to the municipal water supply. Consequently, exposure to potentially MGP-related constituents that may be present in groundwater does not occur under existing conditions (i.e., potential exposure to groundwater is an incomplete exposure pathway), and is limited to dermal contact and vapor inhalation entailing subsurface construction/utility work for future exposure pathways.

7.1.8 Summary

Based upon the QHEA, there currently are no complete exposure pathways that were identified within OU-2 that are of potential concern. Potential dermal contact by visitors or trespassers to tar bubbles in the parking lot area of 25 Willow Avenue has been mitigated by placing steel plates over the tar bubbles. The potential for an inhalation exposure pathway to prior workers at the 25 Willow Avenue building was evaluated through soil vapor sampling that demosntrated a de minimus risk to the workers based on the soil vapor concentration themselves, not even accounting for dilution and attenuation as vapors potentially migrate through the floor slab. The building is currently un-occupied and eventually will be demolished.

The rest of the chemicals present in subsurface soil and groundwater within the OU-2 boundary are either not of concern or the exposure pathways through which individuals could potentially be exposed to these chemicals are incomplete. Data for the areas within the OU-2 boundary indicate that under potential future site use conditions, and absent remedial measures, exposure to subsurface soil and groundwater are potential pathways of concern. This is of special importance for the future construction worker and future utility worker for the Willow Avenue roadway. Planned reconstruction of storm sewers in this area make these exposure pathways probable in the near future.

7.2 Fish and Wildlife Impact Analysis (FWIA)

This FWIA has been conducted to identify actual or potential impacts to fish and wildlife residing in the vicinity of the site from chemicals potentially migrating from the former MGP. Specifically, it focuses on impacts associated with site-related chemicals detected in soil and groundwater.

This analysis contains:

- Site descriptions including a characterization of the floral and faunal resources present and the concentration of these resources to humans;
- The identification of applicable regulatory standards and criteria for fish and wildlife;
- Evaluations of potential exposure pathways to fish and wildlife from site-related chemicals of potential ecological concern (COPECs);
- Comparison of chemical concentrations for COPECs to regulatory criteria or derived toxicological benchmarks for the protection of fish and wildlife; and

- Conclusions regarding the potential of exposure and possible impacts to fish and wildlife on or about the site.

This FWIA was initially prepared for the RI report issued in 2000 that encompassed the entire Clifton site. Because the conclusions regarding the potential for adverse impacts to flora and fauna were not significantly altered by the additional data collected during the supplemental RI, a decision was made not to revise the previously submitted FWIA. Consequently, the initial FWIA is being re-issued in this report and is reproduced in its entirety on the following pages.

7.2.1 Fish and Wildlife Resources

Terrestrial Resources

The U.S. Fish and Wildlife Service and the NYSDEC Natural Heritage Program were contacted regarding species of concern, significant habitats, and fishery resources within two miles of the site. In addition, a field reconnaissance survey of the site and surrounding 0.5-mile radius was conducted on September 2, 1999. The objectives of the survey were to:

- Map and describe plant communities and aquatic resources on and adjacent to the site;
- Observe wildlife species;
- Identify significant ecological resources; and
- Observe evidence of stress to plants and animals, if any, from site-related chemicals.

Approximately two-thirds of the area within the 0.5-mile radius of the site is upland. Currently, commercial uses dominate the land within 0.5 mile of the site. The residential areas consist of buildings surrounded by maintained lawns and ornamental plantings. Commercial establishments are covered by buildings and asphalt. Little vegetation exists to support wildlife populations. As a result, much of the area is classified as paved road or urban structure exterior. The paved road category includes much of the site, parking lots, streets, and sidewalks. The residential areas consist of buildings surrounded by maintained lawns and ornamental plantings.

Aquatic Resources – New York Harbor

The site lies within the New York Harbor drainage basin. A Comprehensive Conservation and Management Plan (CCMP) has been developed for the Harbor. The areas of concern outlined in the CCMP are: habitat and living resources, toxic contamination, nutrients and

organic enrichment, pathogenic contamination, dredged material management, floatable debris, and rainfall-induced discharges. The NYSDEC classifies the New York Harbor as "SI" indicating the water is suitable for fish propagation and fish survival.

The Narrows section of New York Harbor is approximately 600 feet to the east and northeast of the site. The drowned mouth of the Hudson River forms much of New York Harbor. The physical constraints of Manhattan and New Jersey, Brooklyn and Staten Island define the harbor in the area known as the Upper Bay. The Narrows links the Upper Bay to the Lower Bay, south of Staten Island and the Atlantic Ocean.

The estuarine setting to the east of the site within the 0.5-mile radius includes intertidal and subtidal communities formed largely by artificial conditions and the influence of the Hudson River. To the south-southeast of the site and south of commercial piers, the intertidal and higher shoreline consists of rip/rap and artificial structures. The developed shoreline within 0.5-mile southeast and east of the site involves pilings from two former piers that remain in near-shore water north of the site. The pilings and shoreline bulkheads that extend through intertidal and subtidal zones provide substrate for sedentary life forms, such as microbes, algae and invertebrate epifauna (hydroids, polychaete worms, amphipods and bryozoans), as well as refuge, browsing habitat and spacial reference for mobile organisms, such as crabs and fish, including such species as tautog (*Tautoga onitis*) and cunner (*Tautogolabrus ad.spersus*).

Offshore, beyond the piers, the Narrows constitute a coastal inlet between the Atlantic Ocean and the Hudson River. Resident and seasonal fish species known from the coastal ocean and lower Hudson estuary could be expected in the Narrows. Resident fish include bay anchovy (Anchoa mitchilli), silverside (Membras martinica and Menidia spp.), scup (Stenotomus chrysops), spot (Leiostomus xanthurus), and winter flounder (Pseudopleuronectes americanus). Seasonal species include warm-weather visitors: menhaden (Brevortia tyrannus), Atlantic needlefish (Strongylura marina), juvenile bluefish (Pomatomus saltatrix), weakfish (Cynoscion regalis); and anadromous species, that pass through the area when moving to and from Hudson River waters, such as Atlantic sturgeon (Acipenser oxyrhynchus), shad (Alosa sapidissima) and striped bass (Morone saxatilis).

Redevelopment of the Staten Island waterfront to the northeast and north of the site, between 0.5 and 1 mile away, occurred during the early 1990s as part of the US Navy's Stapleton Homeport Program. Former piers were removed, a million cubic yards of dredging occurred and a new pier was constructed. One maintenance-dredging event occurred following construction of the new pier. Planned Navy use of the new facility never occurred, but the US Coast Guard operated from the facility until recently (USACOE, 2000). As a result of the Homeport project, significant modification occurred during the past 10 years within the subtidal and intertidal zones between 0.5 and 1.0 miles from the site.

The Narrows area is inherently a relatively deep part of the harbor. The waters northeast and southeast between one and two miles of the site include areas with depths >50 feet. In the vicinity of active piers, water depths may be as much as 40 feet.

7.2.2 Freshwater and Tidal Wetlands

Wetlands have been identified on the U.S. Fish and Wildlife National Wetland Inventory (NWI) Maps (The Narrows and Jersey City, NY-NJ quadrangles) and NYSDEC Tidal Wetland Maps (see Figure 7-2C). There are no wetlands in or associated with OU2. Portions of the New York Harbor near the site are mapped as an estuarine, intertidal, aquatic bottom, agael, regularly flooded wetland (E2AB1N). Some of the remaining wetlands are downgradient from the site. However, there are no known direct migration pathways from the site into the wetlands. Also, due to distance involved and fate and transport mechanisms, no significant effects on wetlands are expected.

7.2.3 Fish and Wildlife Resources

Wildlife uses in the area were evaluated using literature sources and field observations. Wildlife sightings included direct observations and identifications based on vocalizations, tracks, browse, and scat. General wildlife values (*e.g.,* food and cover availability) also were noted.

Federally listed endangered, threatened or species of concern are not known to occur within two miles of the site (Clough, 1999). Seven state-listed endangered species were identified as occurring within two miles of the site (Christoffel, 2000) (see Figure 7-2C). In addition, one significant habitat, serpentine barrens, was identified as occurring within two miles of the site.

The surrounding two-mile radius consists of residential homes and industrial/ commercial properties. These areas typically consist of mowed lawns interspersed with trees and shrubs, which often times are introduced exotics used for ornamental purposes. These areas do not support an abundance of wildlife because of the lack of vegetation, which could provide food and cover, and constant human activity. The unmowed lot near the gate station and the narrow strip of vegetation along the right-of-way do provide habitat for wildlife. However, the small size limits the size of the population it can support. The herptile (amphibian and reptile), bird, and mammal species that may potentially occur within and adjacent to the site based on the land uses identified during the field reconnaissance are listed in the table below. The species observed during the field reconnaissance (which are representative for the point in time of the field reconnaissance) are also identified.

7.2.4 Observation of Stress

Signs of stress to vegetation and wildlife from site-related chemicals were not observed during the field reconnaissance.

7.2.5 Value of Habitat to Associated Fauna

The site and adjoining terrestrial properties are of little value to wildlife. The area is developed, and only isolated pockets of vegetation exists, and in most cases these areas are maintained by frequent mowing. The wildlife expected to occur in the vicinity of the site includes more urbanized bird and mammalian species such as mockingbird (*Mimus polyglottos*), gray squirrel (*Sciurus carolinensis*), and Norway rat (*Rattus norvegicus*).

Species That May Potentially Occur on or Adjacent to the Site

Common Name	Scientific Name	Habitat Preference
Northern brown snake	*Stirerua dekayi*	Ubiquitous.
Eastern garter snake	*Thamnophis sirtalis*	Ubiquitous.
Eastern American toad	*Bufo americanus*	Found in almost any habitat.
Killdeer	*Charadrius vociferous*	Lawns, open areas.
Rock dove[a]	*Columba livia*	Open areas near human habitations.
Mourning dove	*Zenaida macroura*	Open areas, lawns, and woodland edges.
Chimney swift	*Chaetura pelagica*	The vicinity of buildings in towns, cities and farms.
Barn swallow	*Hirundo rustica*	Man-made structures near open areas.
House wren	*Troglodytes aedon*	Near human dwellings with sufficient wooded vegetation.
European starling	*Sturnus vulgaris*	Farms, cities, gardens, parks.
Common grackle	*Quiscalus quisscula*	Suburbs, parks, cities.
House Finch	*Carpodacus mexicanus*	Suburban and Urban yards.
House sparrow[a]	*Passer domesticus*	Villages, cities.
Eastern mole	*Scalopus aquaticus*	Lawns.

Common Name	Scientific Name	Habitat Preference
Norway rat	*Rattus norvegicus*	Near human habitation.
House mouse	*Mus musculus*	Buildings.
Meadow	*Microtis pennsylvanicus*	Fields, lawns.

Notes:
[a] Species observed by sight or sound during field reconnaissance.
Source: DeGraaf and Rudis, 1983; Conat and Collins, 1975; Burt and Grossenheider, 1976

7.2.6 Value of Resources to Humans

The site and surrounding area are of little value to humans for recreational use of wildlife. Bird feeders may be in residential yards. The developed nature of the area precludes small game and deer hunting.

7.2.7 Applicable Fish and Wildlife Criteria and Standards

Site-specific criteria protective of fish and wildlife resources associated with the site that may be applicable to future remediation are included in:

- Migratory Bird Treaty Act, which protects migratory birds, their eggs and nests from harm.

7.2.8 Exposure Pathways Analysis

Chemicals of Potential Ecological Concern

A number of substances were detected in soil and groundwater. Some are naturally occurring. Some are less toxic than others. In order to focus the FWIA on those chemicals that may pose risks to the environment, COPECs were selected.

For this assessment, the chemicals detected in groundwater are not considered COPECs for ecological receptors except indirectly as a potential source of contamination to the surface water or sediment downgradient of the site. The depth to groundwater is generally greater than three feet bgs, which is below the root zone of most plants. Where groundwater is less than three feet bgs, the area is unvegetated and/or paved. Therefore, no exposure routes exist, and the chemicals detected in groundwater are not discussed.

Surface and subsurface soil samples were collected from the site and analyzed for VOCs, SVOCs, RCRA metals and total cyanide. Only shallow subsurface soils (up to four feet below ground surface) were considered in this FWIA. A total of 64 samples (36 surface soil

and 28 subsurface soil) were analyzed in this depth interval. Data for deeper subsurface soils were not evaluated due to lack of exposure routes to wildlife. Most burrowing animals create dens in the upper four feet of soil. In addition, the deeper subsurface soil samples (*i.e.,* greater than four feet) are below the root zone of most plants. Essential nutrients (calcium, iron, potassium, sodium and magnesium) are not considered COPECs.

Sec-butylbenzene, 3-Nitroaniline, di-n-butylphthalate, hexachlorobenzene and isophorone were detected infrequently (*i.e.,* in less than 5% of the samples with sample sizes greater than 20 samples). Therefore, these chemicals are not considered COPECs for this assessment.

Chemical Migration and Fate

The COPECs consist of VOCs, PAHs and metals.

Volatile Organic Compounds – The VOCs of concern have high vapor pressures and, therefore, would be expected to volatilize readily from surface soil to the atmosphere. Once released to the atmosphere, these compounds are rapidly photodegraded.

In deeper soils, these compounds degrade slowly, are water-soluble and may leach into groundwater. These compounds have low octanol/water coefficients (log K_{ow}) and, therefore, do not sorb to sediment or particulate matter present in the water column.

PAHs - PAHs are a major component of coal tars. PAHs contain only carbon and hydrogen and consist of two or more fused benzene rings in linear, angular or cluster arrangements. The number of rings in a PAH molecule affects its biological activity, and fate and transport in the environment. In general, most PAHs can be characterized as having low vapor pressure, low to very low water solubility, low Henry's Law constant, high log K_{ow}, and high K_{oc}.

Although PAHs are regarded as persistent in the environment, they are degradable by microorganisms. Environmental factors, microbial flora and physicochemical properties of the PAHs themselves influence degradation rates and degree of degradation. Important environmental factors influencing degradation include temperature, pH, and redox potential and microbial species. Physicochemical properties, which influence degradation, include chemical structure, concentration and lipophilicity.

Metals – In a terrestrial setting, trace elements released to the environment accumulate in the soil (Sposito and Page, 1984). Mobility of these trace elements in soil is low and accumulated metals are depleted slowly by leaching, plant uptake, erosion, or chelation. The half-life of trace elements in temperate climate ranges from 75 years for cadmium to more than 3,000 for zinc.

The transport of trace elements in soil may occur via the dissolution of metals into pore water and leaching to groundwater, or colloidal or bulk movement (*i.e.,* wind or surface water erosion). The rate of trace element migration in soil is affected by the chemical, physical and biological characteristics of the soil. The most important characteristics include:

- Eh-pH system;
- Cation exchange capacity and salt content;
- Quantity of organic matter;
- Plant species;
- Water content and temperature; and
- Microbial activity.

Metals that do mobilize from the soil into the water column are most mobile under acid conditions and increasing pH usually reduces their bioavailability (McIntosh, 1992).

The migration pathways for chemicals are illustrated on Figure 7-1 of the report.

Exposure Pathways

Wildlife resources in the commercial/residential area surrounding the site are limited due to the lack of food and cover. Also, constant human disturbance limits the population to wildlife species more tolerant of human activity. No state or federally listed species were identified as occurring on the site. Several wetlands were identified in the two-mile radius study area. These wetlands are currently too distant and/or up-gradient of the site for any likely exposure to site-related chemicals. Also, some of the COPECs are selected metals and PAHs. The fate and transport mechanisms of these chemicals reduce the likelihood of future migration into these areas. Thus, exposure is likely to be limited to wildlife on, near, or immediately downgradient from the site.

Plant roots are not discriminating in the uptake of small organic molecules (molecular weight less than 500) except on the basis of polarity. The more water-soluble molecules pass through the root epidermis and translocate throughout the plant and are eventually volatilized from the leaves (Efroymson *et al.,* 1997a). Plants selectively uptake metals in soil by absorption from soil solution by the root. Metals may be bound to exterior exchange sites on the root and not actually taken up. They may enter the root passively in organic or inorganic

complexes or actively by way of metabolically controlled membrane transport (Kabata-Pendias and Pendias, 1992). Once in the plant, a metal can be stored in the root or translocated to other plant parts. Potential exposure to wildlife could occur through direct contact with or accidental ingestion of contaminated soil or through the terrestrial food chain.

7.2.9 Criteria-Specific Toxicity Assessment

Soil

The NYSDEC does not have soil cleanup criteria relating to the protection of wildlife and the availability of applicable soil screening values in scientific literature is limited. The screening of soil COPECs was conducted by comparing the chemical concentrations to available screening benchmark values derived by the Oak Ridge National Laboratory (Efroymson *et al.,* 1997a, 1997b and Sample *et al.*, 1996) for the U.S. Department of Energy. The benchmark values are the 10^{th}-percentile of the distribution of various toxic effects threshold for the chemicals in soil for a group of organisms.

Transformation or loss due to environmental degradation is not considered in this assessment. It is assumed that following uptake, concentration in soil will equal concentrations in organisms. This assumption overestimates potential risk in that wildlife has limited contact with these chemicals in soil and plants.

Benchmark values for three groups of organisms, where available or derived, are presented in Table 7-8. Terrestrial plants were selected since they are critical in nutrient cycling and are a source of food in the diets of higher animals. Also, plants readily take up the COPECs. Earthworms were selected because of their importance in maintaining soil fertility through burrowing and feeding activities. Also, earthworms are at the base of the food chain and are an important food for higher organisms. Meadow voles were selected to represent an herbivorous small mammal. The benchmark values for meadow vole is presented as dietary concentrations in milligram (mg) of chemical per kilogram (kg) of diet that would result in no observed adverse effect levels (NOAELs). For screening purposes, it was assumed that the chemical concentration in soil would be found in the food items of each species. As stated previously, this is a conservative approach that should result in the overestimation of potential exposure and risk.

As indicated in the table on the following page, screening values are available for a few of the COPECs. Therefore, the methodology of the Oak Ridge National Laboratory (Sample *et al.,* 1996) was used to derive toxicological benchmarks for the meadow vole from published toxicological data for laboratory animals. Literature sources included IRIS (EPA, 2000), HEAST (EPA, 1997), and the National Toxicology Program. It should be emphasized that the resulting benchmarks obtained from this methodology and toxicological data are based on

a conservative approach whose resulting relationship to potential population effects is uncertain.

No observed adverse effect levels (NOAELs) and lowest observed adverse effect levels (LOAELs) are daily dose levels normalized to the weight of the test animal [*e.g.*, mg of chemical per kg body weight per day (mg/kg/day)]. The presentation of toxicity data on a mg/kg/day basis allows for comparison across species with appropriate consideration for differences in body sizes. If a NOAEL (or LOAEL) for a mammalian test species ($NOAEL_t$) is available, then the equivalent NOAEL (or LOAEL) for a mammalian wildlife species ($NOAEL_w$) can be calculated by using an adjustment factor for the difference in body size:

$$NOAEL_w = NOAEL_t \times \left(bw_t / bw_w \right)^{1/4}$$

where:

$NOAEL_w$ = No observed adverse effect level for wildlife species (mg/kg/day)
$NOAEL_t$ = No observed adverse effect level for test species (mg/kg/day)
bw_w = Body weight for wildlife species (kg)
bw_t = Body weight for test species (kg)

In some cases, a NOAEL for a specific chemical was not available, but a LOAEL or lethal dose (LD_{50}) had been determined experimentally. The NOAEL can be estimated by applying an uncertainty factor (UF) to the LOAEL or LD_{50}. In the USEPA methodology (USEPA, 1989), the LOAEL or LD_{50} can be reduced by a factor of 10 or 50, respectively, to derive the NOAEL.

The dietary level or concentration in food (C_f) of a chemical in mg of chemical per kg of food that would result in a dose equivalent to the NOAEL can be calculated from the food factor (*f*):

$$C_f = \frac{NOAEL_w}{f}$$

The food factor, (*f*) is the amount of food consumed per day per unit of body weight. The table below provides the body weight, food intake and food factors used in the derivation of chemical-specific NOAELS for the meadow vole. Table 7-7 provides the derived toxicological benchmarks for the meadow vole. When literature values were not available for a chemical, a structurally similar surrogate was used. These surrogates are provided in Table 7-7.

Parameters for Calculation of Toxicological Benchmarks

Organism	Body Weight (kg)	Food Intake (kg/day)	Food Factor *f*
Mouse	0.03	0.0055	0.18
Rat	0.35	0.028	0.08
Dog	12.7	0.301	0.024
Rabbit	3.8	0.135	0.034
Meadow vole	0.044	0.005	0.114

Screening the maximum concentrations of the COPECs against the literature and derived benchmark values (Table 7-8) indicated:

- Several chemicals did not exceed their respective benchmark values and do not pose a risk to environmental receptors. These include 1,3,5-trimethylbenzene, n-butylbenzene, n-propylbenzene, p-isopropyltoluene, tert-butylbenzene, isopropylbenzene, benzene, ethylbenzene, isopropylbenzene, methylene chloride, styrene, anthracene, benzoic acid, benzo(k)fluoranthene, benzyl alcohol, butylbenzylphthalate, diethylphthalate, fluoranthene, bis(2-ethylhexyl)phthalate, beryllium, chromium, cobalt, manganese, nickel, selenium, cyanide, dieldrin, heptachlor, indeno(1,2,3-cd)pyrene, and endosulfan sulfate.

- Several chemicals exceeded their respective benchmark values and may pose a risk to environmental receptors. They include benzo(a)anthracene, benzo(a)pyrene, benzo(b)fluoranthene, benzo(g,h,i)perylene, chrysene, dibenzo(a,h)anthracene, dibenzofuran, 1,2,4-trimethylbenzene, acetone, carbon tetrachloride, toluene, xylene, 2,4-dimethylphenol, 2-methylnaphthalene, 4-methylphenol, acenaphthene, carbazole, di-n-octylphthalate, fluorene, n-nitrosodiphenylamine, naphthalene, phenanthrene, phenol, pyrene, antimony, arsenic, barium, cadmium, copper, lead, mercury, silver, thallium, vanadium, and zinc.

7.2.10 Conclusions

Habitat Characteristics

The site reconnaissance conducted as part of this analysis indicates the site and surrounding area are poor quality environmental resources, due to the limited presence of vegetation. The site is mostly covered with buildings and asphalt. Wildlife species typically present are adapted to urban setting. Due to the size of the vegetated areas, only a few individuals will

be present. The New York Harbor and several wetland areas are located within 2 miles of the site. Potential migration of COPECs into these resources should be prevented.

Soil

Several COPECs were detected at concentrations greater than the toxicological benchmark values. This suggests that these chemicals may pose a risk to wildlife. In addition, toxicological benchmarks were not derived for several COPECs. However, these potential effects have minimal ecological significance.

The potential risk from COPECs is minimal, for several reasons. Exposure frequency, chemical concentration (especially within the upper 6 inches), mechanism of exposure, and duration of exposure determines risk. The commercial area (*i.e.*, paved areas, buildings, etc.) provides minimal habitat in the form of "weedy" patches that would not support a wildlife population. This area experiences constant physical disturbance that prevents populations of wildlife from developing. Because only transient species and a few individual animals would use this area, the frequency and duration of exposure is limited. Thus, the observed chemicals detected on-site do not pose a current impact, nor is any expected in the future.

8. Summary of Findings

The overall extent of tar, staining, sheen, odors, and chemical constituents detected in soils was located primarily adjacent to former tar handling structures located at the 25 Willow Avenue parcel because the dense Ground Moraine unit and Harbor Hill Terminal Moraine impede the lateral and vertical migration of tar. The majority of tar impacts are contained within alluvial deposits (stratified sands) located within an inferred scour into the under-lying ground moraine located beneath the 25 Willow Avenue parcel ranging from 33 feet bgs in the vicinity of Bay Street to 65 feet bgs in the vicinity of Willow Avenue. Localized sand and gravely-sand units were noted at the northern edge of the site within Bay Street/ Edgewater Street and also along the eastern portion of the site along Willow Avenue. Isolated lenses of tar in these units migrated laterally beneath Willow Avenue and as far north as Edgewater Street.

In general, elevated levels of TPAH, CPAH, and BTEX correlated with the occurrence of observable tar, odors and/or sheen. Where physical evidence of tar was not encountered, analyses indicated generally low to trace levels of these chemical constituents. As with the observed extent of tar, staining, odors, etc., the overall extent of chemical constituents was generally limited primarily to the 25 Willow Avenue parcel; however, discrete intervals beneath the isolated portions of Willow Avenue, Bay Street, and Edgewater Street were observed that contained elevated levels of TPAH, CPAH, and BTEX. An investigation of the soil, groundwater, and soil vapor quality beneath the One Edgewater Street parcel is being conducted and the findings will be transmitted in a Supplemental RI Report.

Surface-soil analytical data from 25 Willow Avenue indicate that surface soil conditions at the 25 Willow Avenue parcels were generally consistent with background conditions with the exception of elevated PAH concentrations that are likely associated with fill material used in development of the 25 Willow Avenue parcel.

Similarly, dissolved chemical constituents in groundwater within the water table aquifer appear predominantly limited to the 25 Willow Avenue parcel. Elevated concentrations of BTEX and PAH were observed within monitoring wells within the water bearing zone of the confining unit were tar was encountered on the 25 Willow Avenue parcel and extending as far north as Edgewater Street. Only trace detections of BTEX were present in groundwater within the deep aquifer at well RW-15 and RW-16 at the 25 Willow Avenue parcel. Total cyanide was primarily detected within monitoring wells (OW-5, OW-6 and OW-7) along the northern boundary of the site and within the adjacent storm sewer samples STRM-02 and STRM-03 that were located downgradient from the former purify tanks on the 25 Willow

Avenue parcel. Cyanide in groundwater does not represent a complete human exposure pathway under current use because the site is paved and the groundwater is inaccessible.

The findings of the human health risk assessment indicate that there are no complete exposure pathways for the current land usage within OU-2. Remedial measures are required to mitigate potential future exposure scenarios to site-related chemicals at the 25 Willow Avenue parcel and potential futures use within isolated sections beneath Willow Avenue, Bay Street, and Edgewater Street. A feasibility study report is currently being prepared to assess the appropriate means to mitigate the conditions related to the former tar handling structures on the 25 Willow Avenue parcel and tar impacted media within OU-2.

An assessment of soil, groundwater, and soil vapor conditions at One Edgewater Street is being performed. The findings and potential risks posed by these conditions will be provided in a Supplemental RI Report following completion of the assessment.

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Tables

Table 1-1
Climatological Normals and Means
Newark International Airport
Newark, New Jersey

Month	Maximum Normal Daily Temperature (Degrees F)	Minimum Normal Daily Temperature (Degrees F)	Average Rainfall Precipitation (inches)	Average Snowfall (inches)	Mean Wind Speed (Miles per hour [mph])	Prevailing Wind Direction (Degrees)
January	37.7	23.4	3.39	8.9	11	300
February	40.5	25.4	3.04	9.2	11.3	310
March	50.8	33.4	3.87	3.7	11.9	310
April	61.9	42.7	3.84	0.7	11.3	320
May	72.4	53.2	4.13	Trace	10	230
June	82.3	62.8	3.22	0	9.6	220
July	87	68.6	4.5	0	9	230
August	85.4	67.4	3.91	0	8.8	230
September	77.6	59.9	3.66	0	9.1	230
October	66.7	48.2	3.05	Trace	9.5	230
November	55.4	39.2	3.91	0.6	10.2	230
December	42.9	29.1	3.45	3.9	10.6	20
Year	63.4	46.1	43.97	27	10.2	230

Source: *Normals, Means, and Extremes for Newark, New Jersey* . National Oceanic Atmospheric Administration: National Climatic Data Center, Ashville, North Carolina. 1968-1997.

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
Monitoring Wells													
Round 1 (February 1999 to April 1999)													
RW-1	Located at the southern portion of the 25 Willow Avenue parcel adjacent to former fuel oil tank to screen soil and groundwater at the southern (upgradient) portion of the 25 Willow Avenue Parcel.	CF-RW-1 (4-6)	Tar-stained soils, oil blebs, slight to moderate tar odors.	•		• (BTEX) only	•	•	•				
		CF-RW-1 (16.5-17)	Sample to determine vertical extent of impacts.	•		• (BTEX) only	•	•	•				
		CF-RW-1	Sample to analyze groundwater quality on the southern (upgradient) portion of the 25 Willow Avenue parcel.		•	• (BTEX) only	•	•	•				
RW-2	Located at the northern portion of the 25 Willow Avenue parcel to evaluate soil and groundwater quality and to evaluate the extent of the impacts detected at FPM-OW-7.	CF- RW-2 (9-11)	Sample to analyze geologic materials.	•							•		•
		CF-RW-2	Sample to analyze groundwater quality on the northern portion of the 25 Willow Avenue parcel.		•	• (BTEX) only	•	•	•				
RW-3	Located along the northeast corner of the Willow and Bay Street intersection on the 25 Willow Avenue parcel boundary to evaluate groundwater quality at the site boundary and the potential for off-site migration of MGP constituents.	CF-RW-3 (8-10)	Sample to evaluate lateral and vertical extent of contamination.	•		• (BTEX) only	•	•	•				
		CF-RW-3	Sample to analyze groundwater quality on the northern portion of the 25 Willow Avenue parcel.		•	• (BTEX) only	•	•	•				
RW-6/SB-20	Monitoring well installed at SB-20 location north of former Relief Holder No.1 to evaluate impacts to soil quality and the vertical extent of potential contamination.	CF-SB-20 (5-7)	Sample to analyze soils at the apparent groundwater interface and to analyze fill material.	•		• (BTEX) only	•	•	•				
		CF-RW-6	Groundwater sample to analyze groundwater from the shallow aquifer between Relief Holder No. 1 and Bay Street.		•	• (BTEX) only	•	•	•				
Round 2 (July 1999 to October 1999)													
RW-8/SB-45	West of the site on the abandoned railroad spur to evaluate lateral extent of potential contamination and to evaluate groundwater flow conditions.	CF-SB-45 (13-15)	Sample to analyze fill material.	•		• (BTEX)	•	•	•				
		CF-SB-45 (19-21)	Sample to analyze geologic materials/ geologic changes.	•		• (BTEX) only	•	•	•				
		CF-SB-45 (37-39)	Sample to analyze soil at the completion of the boring.	•		• (BTEX) only	•	•	•				
		CF-RW-8	Groundwater sample to evaluate off-site groundwater quality.		•	• (BTEX) only	•	•	•				

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
RW-9/SB-46	West of the site on the abandoned railroad spur to evaluate lateral extent of potential contamination and to evaluate groundwater flow conditions.	CF-SB-46 (15-17')	Sample to evaluate artificial fill and at the approximate groundwater interface.	•		• (BTEX) only	•	•	•				
		CF-SB-46 (39-41) (Duplicate CF-SB-09/14/99)	Sample to evaluate soils at the completion depth of boring.	•		• (BTEX) only	•	•	•				
		CF-RW-9	Groundwater sample to evaluate off-site groundwater quality.		•	• (BTEX) only	•	•	•				
RW-10/SB-47	West of the site, west of the active railroad embankment to evaluate lateral extent of potential contamination and to evaluate groundwater flow conditions.	CF-SB-47 (5-7)	Soil sample to evaluate artificial fill and at observed groundwater table interface.	•		• (BTEX) only	•	•	•				
		CF-SB-47 (39-41)	Soil sample to evaluate soils at the completion depth of boring.	•		• (BTEX) only	•	•	•				
		CF-RW-10	Groundwater sample to evaluate the off-site groundwater quality.		•	• (BTEX) only	•	•	•				
RW-11/SB-48	Northwest of the site on the north side of the active line to evaluate lateral extent of potential contamination and to evaluate groundwater flow conditions.	CF-SB-48 (3-5)	Sample to evaluate soils with black staining and strong petroleum odor (diesel) at the observed groundwater interface.	•		• (BTEX) only	•	•	•				
		CF-SB-48 (39-41)	Sample to evaluate soils at the completion depth of boring.	•		• (BTEX) only	•	•	•				
		CF-RW-11	Groundwater sample to evaluate the off-site groundwater quality.		•	• (BTEX) only	•	•	•				
RW-12/ SB-49	North of the active railroad embankment near the northwest corner of the site to evaluate lateral extent of potential contamination and to evaluate groundwater flow conditions.	CF-SB-49 (9-11)	Sample to evaluate soils at the observed groundwater table.	•		• (BTEX) only	•	•	•				
		CF-SB-49 (39-41)	Sample to evaluate soils at the completion depth of boring.	•		• (BTEX) only	•	•	•				
		CF-RW-12	Sample to evaluate the off-site groundwater quality.		•	• (BTEX) only	•	•	•				

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
RW-13/ SB-50	Along the westerly property boundary (downgradient of fuel oil tanks) to assess potential migration of contaminants from the tanks.	CF-SB-50 (3-5)	Sample to evaluate tar and petroleum stained soil at the observed groundwater interface.	•		• (BTEX) only							
		CF-SB-50 (9-11)	Sample to evaluate soil with black staining and slight naphthalene-like odors.	•		• (BTEX) only	•	•	•				
		CF-SB-50 (17-19)	Sample to evaluate soils with slight naphthalene and tar odors.	•		• (BTEX) only	•	•	•				
		CF-SB-50 (39-41) (Duplicate CF-SB-1000)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
		CF-RW-13	Sample to evaluate shallow groundwater quality on the western border of the site.		•	• (BTEX) only	•	•	•				
RW-15/SB-55A	Situated adjacent to the former tar tank/gasometer near the southwestern corner of the site to provide horizontal and vertical characterization of subsurface soils and to determine whether site impacts have migrated to the top of bedrock or a confining layer.	CF-SB-55A (123-125')	Sample to characterize saprolite at the completion of the boring.	•		• (BTEX) only	•	•	•				
		CF-RW-15	Groundwater sample to evaluate deep aquifer quality.		•	• (BTEX) only	•	•	•				
RW-16/(SB-56)	Adjacent to former Relief Holder No. 1 to determine whether impacts have migrated to the top of bedrock or a confining layer.	CF-SB-56 (12.5-13.0) (Duplicate CF-SB-081899)	Sample to evaluate soils with tar impacts.	•		• (BTEX) only	•	•	•				
		CF-SB-56 (28-30)	Sample to evaluate soils with strong tar odors.	•		• (BTEX) only	•	•	•				
		CF-SB-56 (43-44)	Sample to evaluate tar-saturated soils.	•		• (BTEX) only	•	•	•				
		CF-SB-56 (63-63.5)	Sample to evaluate soils at the depth of temporary isolation casing.	•		• (BTEX) only	•	•	•				
		CF-SB-56 (122-123)	Sample to evaluate soils above the saprolite layer.	•		• (BTEX) only	•	•	•				
		CF-RW-16	Sample to characterize deep groundwater quality.		•	• (BTEX) only	•	•	•				
Round 3 (November 1999 to December 1999)													
No Monitoring Wells Installed		No analytical samples collected.	No analytical samples collected.										

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
Round 4 (November 2001 to January 2002)													
RW-17/(SB-69)	Monitoring well RW-17 was installed at SB-69 to evaluate the integrity of the glacial till surface along Bay Street and to evaluate the lateral and vertical occurrence of tar to evaluate groundwater quality within the water bearing zone within the confining unit.	CF-SB-69 (33-33.5)	Sample to evaluate tar-stained gravel layer with strong tar odor at the screen interval.	•		• (BTEX) only	•	•	•				
		CF-SB-69 (44.5-45)	Sample to evaluate soils at completion depth of the boring below observed tar observations.	•		• (BTEX) only	•	•	•				
		CF-RW-17	Sample to analyze groundwater with tar odors, blebs of tar and sheen from the water bearing zone within the confining unit.		•	• (BTEX) only	•	•	•				
RW-18/(SB-70A)	Monitoring well RW-18 was installed at SB-70A to evaluate the integrity of the glacial till surface along Bay Street, to evaluate the lateral/vertical occurrence of tar and to evaluate groundwater quality within the water bearing zone within the confining unit.	CF-SB-70A (31.5-32)	Sample to evaluate tar-saturated soils with strong tar odor at the screen interval.	•		• (BTEX) only	•	•	•				
		CF-SB-70A (54.5-55)	Sample to evaluate soils at completion depth of the boring.	•		• (BTEX) only	•	•	•				
		CF-RW-18 [Duplicate is CF-RW-81]	Sample to analyze groundwater with tar odors and sheen within the water bearing zone within the confining unit.		•	• (BTEX) only	•	•	•				
Round 5 (November 1999 to June 2002)													
No Monitoring Wells Installed		No analytical samples collected.	No analytical samples collected.										
Round 6 (November to December 2002)													
RW-19	Monitoring well RW-19 was installed adjacent to boring SB-94 to evaluate the groundwater quality	No analytical samples collected.	No groundwater sample was collected because a sample could not be obtained without intro										
Test Borings													
Round 1 (February 1999 to April 1999)													
SB-9	Adjacent to former fuel oil tanks at southwest corner of 25 Willow Avenue parcel to evaluate potential impacts from the tanks.	CF-SB-9 (8-10)	Sample to evaluate soil with tar blebs and strong tar odor.	•		• (BTEX) only	•	•	•				
		CF-SB-9 (24-26)	Sample to evaluate tar-saturated soils with strong tar odors.	•		•	•	•	•			•	
		CF-SB-9 (33-34)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•	•	•		

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
SB-10/10A	At the former tar separator located in the southwestern portion of the site (north of Willow Avenue) to evaluate potential impacts from the separator.	CF-SB-10 (5-6.5)	Sample to evaluate tar-stained soils with blebs and tar odors.	•		• (BTEX) only	•	•	•				
SB-11	Adjacent to two former tar tanks in the southern portion of 25 Willow Avenue parcel to evaluate potential impacts from the tar tanks.	CF-SB-11 (4-6)	Sample to evaluate tar-saturated soils.	•		• (BTEX) only	•	•	•				
		CF-SB-11 (21-23)	Sample to evaluate tar-stained soils with strong tar odors.	•		• (BTEX) only	•	•	•				
SB-12	North of the former purifier tanks and a tar well along the central southern boundary of 25 Willow Avenue to evaluate potential impacts from the purifier tanks and tar well.	SB-12 (4-6)	Sample to evaluate tar-saturated fill material with strong tar odors.	•		• (BTEX) only	•	•	•				
SB-13	Adjacent to the former accumulator tank in the central portion of the 25 Willow Avenue parcel to evaluate potential impacts from the accumulator tank.	CF-SB-13 (7-9)	Sample to evaluate artificial fill with tar impacts.	•		• (BTEX) only	•	•	•		•		
		CF-SB-13 (18-20) (Duplicate CF-DUP-1)	Sample to evaluate tar-saturated sand lenses with slight tar odors.	•		• (BTEX) only	•	•	•		•		
		CF-SB-13 Comp	A composite sample from SB-13 to evaluate impacts to soils.	•		• (BTEX) only	•	•	•				
SB-14	North of a former tar well to evaluate lateral and vertical extent of potential contamination.	CF-SB-14 (6-8) (Duplicate of CF-DUP-2)	Sample to evaluate tar-saturated soils with strong tar odors.	•		• (BTEX) only	•	•	•				
		CF-SB-14 (24-28)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•	•	•		
SB-15	Adjacent to former Gas Holder No. 2 to evaluate potential impact on soil.	CF-SB-15 (5-8)	Sample to evaluate soil quality at the approximate groundwater interface.	•		• (BTEX) only	•	•	•				
SB-16	Northeast of the former tar separator (located beneath the existing building) to evaluate the potential lateral and vertical extent of impacts.	CF-SB-16 (5-7)	Sample to evaluate soil quality at the approximate groundwater interface.	•		• (BTEX) only	•	•	•	•	•		•
SB-19	Situated north of the former Relief Holder No. 1 on the south side of Bay Street to evaluate lateral and vertical extent of potential contamination.	CF-SB-19 (5-7)	Sample to evaluate soils at the observed groundwater interface.	•		• (BTEX) only	•	•	•				
		CF-SB-19 (34-36)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•	•	•		

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
SB-30	Within Willow Avenue to characterize materials beneath the street.	CF-SB-30 (7-11)	Sample to evaluate soil quality at approximate groundwater interface.	•		• (BTEX) only	•	•	•				
		CF-SB-30 (19-23)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-31	Within Willow Avenue to characterize materials beneath the street.	CF-SB-31 (7-11)	Sample to evaluate soils beneath Willow Avenue at the approximate groundwater table.	•		• (BTEX) only	•	•	•				
		CF-SB-31 (15-19)	Sample to evaluate soils with slight septic odors.	•		•	•	•	•	•	•		
SB-32	Within Willow Avenue to characterize materials beneath the street.	CF-SB-32 (11-15)	Sample to evaluate tar-saturated soils.	•		•	•	•	•		•		
		CF-SB-32 (20-23)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-33	Within Willow Avenue to characterize materials beneath the street.	CF-SB-33 (7-9)	Sample to evaluate soils beneath shallow tar impacts.	•		• (BTEX) only	•	•	•				
		CF-SB-33 (23-25)	Sample to evaluate soil with tar staining and odor at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-34	Within Willow Avenue to characterize materials beneath the street.	CF-SB-34 (5-9)	Sample to evaluate soil at the observed groundwater table.	•		• (BTEX) only	•	•	•				
		CF-SB-34 (9-13)	Sample to evaluate soil at the completion depth of the soil boring.	•		• (BTEX) only	•	•	•				
SB-35	Within Willow Avenue to characterize materials beneath the street.	CF-SB-35 (6-10)	Sample to evaluate potential lateral and vertical extent of contamination.	•		• (BTEX) only	•	•	•				
		CF-SB-35 (18-22)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
Round 2 (July 1999 to October 1999)													
SB-37	Within the former Relief Holder No. 1 to evaluate the holder's contents, depth, and integrity.	CF-SB-37 (4-8)	Sample to evaluate tar-stained soils with strong tar odors at the water table interface.	•		• (BTEX) only	•	•	•				
		CF-SB-37 (14.5-19)	Sample to evaluate tar-saturated soil with a strong tar odor.	•		• (BTEX) only	•	•	•				
SB-39	Within the former tar separator to evaluate its presence, contents, depth, and integrity.	CF-SB-39 (0-4)	Sample to evaluate soils coated with tar and strong tar odors.	•		• (BTEX) only	•	•	•				
		CF-SB-39 (5.5)	Sample to evaluate materials at refusal depth in the tar separator.	•		• (BTEX) only	•	•	•				

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
SB-51	Situated along the western property boundary of 25 Willow Avenue parcel to provide horizontal and vertical characterization of subsurface soils.	CF-SB-51 (5-7)	Sample to evaluate artificial fill material with strong petroleum (gasoline) odors and trace oil-like staining.	•		• (BTEX) only	•	•	•				
		CF-SB-51 (39-41)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-52	Adjacent to former Gas Holder No. 2 to evaluate potential impacts from holder and nearby former UST grave.	CF-SB-52 (5-7)	Sample to evaluate artificial fill material with sheen and black staining.	•		• (BTEX) only	•	•	•				
		CF-SB-52 (11-13)	Sample to evaluate soils beneath the observed contamination.	•		• (BTEX) only	•	•	•				
		CF-SB-52 (39-41)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-53	Within the former tar tank/gasometer in the southwestern portion of the site to evaluate its depth, integrity, and contents	CF-SB-53 (7-9)	Sample to evaluate fill material with tar impacts.	•		• (BTEX) only	•	•	•				
		CF-SB-53 (13.5)	Sample to evaluate fill material with strong tar impacts at the concrete bottom of the tar tank/gasometer.	•		• (BTEX) only	•	•	•				
SB-54	Within the former tar well to evaluate its potential presence, contents, depth, and integrity.	CF-SB-54 (4-6)	Sample to evaluate fill material with petroleum and tar impacts.	•		• (BTEX) only	•	•	•				
		CF-SB-54 (9-11)	Sample to evaluate fill material with strong tar odors and tar product.	•		• (BTEX) only	•	•	•				
		CF-SB-54 (23-25)	Sample to evaluate soils at the completion depth of the boring with tar impacts.	•		• (BTEX) only	•	•	•				
SB-55	Adjacent to the former tar tank/gasometer near the southwestern corner of the site to evaluate lateral and vertical extent of potential impacts.	CF-SB-55 (18-20')	Sample to evaluate tar-saturated soils.	•		• (BTEX) only	•	•	•				
		CF-SB-55 (56-58')	Sample to evaluate potential lateral and vertical extents of impacts.	•		• (BTEX) only	•	•	•				
		CF-SB-55 (73-75') (Duplicate CF-SB-081099)	Sample to evaluate soils at the final depth of the temporary isolation casing.	•		• (BTEX) only	•	•	•				
SB-57	Within former Gas Holder No. 2 to determine potential impacts from the holder.	CF-SB-57 (5-7)	Sample to evaluate fill material with tar and petroleum odor and slight sheen.	•		• (BTEX) only	•	•	•				
		CF-SB-57 (29-31)	Sample to evaluate soils at the completion depth of the boring with slight tar odors.	•		• (BTEX) only	•	•	•				

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
Round 3 (November 1999 to December 1999)													
No soil borings installed		No analytical samples collected.	No analytical samples collected.										
Round 4 (November 2001 to January 2002)													
SB-68	Adjacent to northern portion of Bay Street to evaluate presence and integrity of confining glacial till layer.	CF-SB-68 (33-33.5)	Sample to evaluate soils with slight naphthalene odor.	•		• (BTEX) only	•	•	•				
		CF-SB-68 (54.5-55)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-71	Adjacent to Bay Street to evaluate presence and integrity of confining glacial till layer.	CF-SB-71 (30-30.5)	Sample to evaluate soils within the glacial till unit.	•		• (BTEX) only	•	•	•				
		CF-SB-71 (44-45)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-72	Adjacent to Bay Street to evaluate presence and integrity of confining glacial till layer.	CF-SB-72 (24.5-25)	Sample to evaluate soils within the glacial till unit.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-72 (48-49)	Sample to evaluate soils near the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-73	Adjacent to Bay Street to evaluate presence and integrity of confining glacial till layer.	CF-SB-73 (30-31)	Sample to evaluate soils within the glacial till unit.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-73 (54-55)	Sample to evaluate soils near the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-74	Adjacent to the former tar separator located in the southwestern portion of the site (north of Willow Avenue) to evaluate vertical occurrence of tar from the separator.	CF-SB-74 (21-21.5)	Sample to evaluate soils with slight to moderate tar-like odor.	•		• (BTEX) only	•	•	•				
		CF-SB-74 (34.5-35)	Sample to evaluate soils near the completion depth of the boring.	•		• (BTEX) only	•	•	•				
SB-75	Within the former tar well to evaluate its presence and vertical extent of tar occurrence adjacent to the former tar well.	CF-SB-75 (52-52.5)	Sample to evaluate stained soils with moderate to strong tar-like odors.	•		• (BTEX) only	•	•	•				
		CF-SB-75 (70-72)	Sample to evaluate soils near the completion depth of the boring.	•		• (BTEX) only	•	•	•				

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
SB-76	North of a former tar well to evaluate vertical extent of tar ocurrence.	CF-SB-76 (44-44.5)	Sample to evaluate soils with sheen and strong tar-like odors.	•		• (BTEX) only	•	•	•				
		CF-SB-76 (58-58.5)	Sample to evaluate soils near the completion depth of the boring.	•		• (BTEX) only	•	•	•				
Round 5 (May to June 2002)													
SB-81	Adjacent to Bay Street to evaluate presence, location, and integrity of confining glacial till layer.	CF-SB-81 (17-21)	Sample to evaluate heavily tar-coated soils with strong to moderate tar-like odors.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-81 (41-45)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-82	Adjacent to Bay Street to evaluate presence, location, and integrity of confining glacial till layer.	CF-SB-82 (5-9)	Sample to evaluate soils at the apparent groundwater table.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-82A (25-29)	Sample to evaluate soils near the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-88	Adjacent to Bay Street to evaluate presence, location, and integrity of confining glacial till layer.	CF-SB-88 (28-32)	Sample to evaluate soils with slight naphthalene odor.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-88 (44-48) [Duplicate is CF-SB-88 (44-48)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-89	Adjacent to Bay Street to evaluate presence, location, and integrity of confining glacial till layer.	CF-SB-89 (8-12)	Sample to evaluate soils with moderate naphthalene and tar-like odors.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-89 (35-39)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
Round 6 (November to December 2002)													
SB-90C	Within Edgewater Street to evaluate the migration of contaminants from the site.	CF-SB-90C (20-24)	Sample to evaluate soils within the glacial till unit at similar interval as tar observed within SB-94.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-90C (32-36)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
SB-91/91A	Within Edgewater Street to evaluate the migration of contaminants from the site.	CF-SB-91 (8-12)	Sample to evaluate petroleum-like odors (motor oil) and sheen.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-91A (36-40)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-92	Within Edgewater Street to evaluate the migration of contaminants from the site.	CF-SB-92 (5-9)	Sample to evaluate soils with a slight petroleum sheen.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-92 (37-41) [Duplicate is CF-SB-92 (45-50)]	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-93	Within Edgewater Street to evaluate the migration of contaminants from the site.	CF-SB-93 (8-12)	Sample to evaluate heavily tar-coated (with black viscous tar) soils with strong to moderate tar-like odors.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-93 (36-40)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
SB-94	Within Edgewater Street to evaluate the migration of contaminants from the site.	CF-SB-94 (20-24)	Sample to evaluate tar saturated soils with moderate to heavy naphthalene and tar odors.	•		• (BTEX) only	• (PAH) only	•	•				
		CF-SB-94 (36-40)	Sample to evaluate soils at the completion depth of the boring.	•		• (BTEX) only	• (PAH) only	•	•				
Test Pits													
Round 1 (February to April 1999)													
TP-1	Situated within and between two former fuel oil tanks in the southwestern portion of the 25 Willow Avenue parcel to evaluate their potential presence and impacts.	TP-1 (3)	Sample taken at the water table to evaluate impacted soils and tar product.	•		•	•	•	•				
TP-3	Situated within and adjacent to the two former tar tanks in the south central portion of the 25 Willow Avenue parcel to evaluate their potential presence, contents, and integrity.	TP-3 (1)	Sample to evaluate tar-impacted soils adjacent to the former tar tank/ gasometer.	•		•	•	•	•				
TP-4	Situated within and adjacent to the former purifier tanks and a tar well along the south central portion of the 25 Willow Avenue parcel to evaluate their presence, contents, and integrity.	TP-4 (3)	Sample taken at the water table to evaluate soils with tar odors and staining in the vicinity of the former tar well and purifier tanks.	•		• (BTEX) only	•						

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
TP-8	Situated within and adjacent to former Relief Holder No. 1, and two tar tanks along the western side of the existing building on the 25 Willow Avenue parcel to evaluate their presence, contents, and integrity.	TP-8 (2)	Sample at the water table to evaluate tar-impacted soils adjacent to the former Relief Holder No. 1.	•		•	•	•	•				
Round 2 (July 1999 to October 1999)													
No test pits installed		No analytical samples collected.	No analytical samples collected.										
Round 3 (November 1999 to December 1999)													
No test pits installed		No analytical samples collected.	No analytical samples collected.										
Round 4 (November 2001-January 2002)													
No test pits installed		No analytical samples collected.	No analytical samples collected.										
Round 5 (May-June 2002)													
No test pits installed		No analytical samples collected.	No analytical samples collected.										
Round 6 (November to December 2002)													
No test pits installed		No analytical samples collected.	No analytical samples collected.										
Surface-Soil Samples													
Round 1 (February to April 1999)													
No surface soils were collected.		No analytical samples collected.	No analytical samples collected.										
Round 2 (July 1999 to October 1999)													
No surface soils were collected.		No analytical samples collected.	No analytical samples collected.										
Round 3 (November to December 1999)													
SS-33 to SS-42	Background surface-soil samples in the vicinity of the site to establish background surface-soil conditions.	SS-33 (0-2") to SS-42 (0-2") (Duplicate CF-SS-69 of sample CF-SS-39)	Background surface-soil samples to evaluate surface-soil conditions in the vicinity of the former MGP.	•		• [BTEX] only	•	•	•	•	•		
Round 4 (November 2001 to January 2002)													
No surface soils were collected.		No analytical samples collected.	No analytical samples collected.										

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
Round 5 (May to June 2002)													
No surface soils were collected.		No analytical samples collected.	No analytical samples collected.										
Round 6 (November to December 2002)													
No surface soils were collected.		No analytical samples collected.	No analytical samples collected.										
Storm Water Samples													
Round 1 (February to April 1999)													
No storm sewer samples were collected.		No analytical samples collected.	No analytical samples collected.										
Round 2 (July 1999 to October 1999)													
No storm sewer samples were collected.		No analytical samples collected.	No analytical samples collected.										
Round 3 (November 1999 to December 1999)													
No storm sewer samples were collected.		No analytical samples collected.	No analytical samples collected.										
Round 4 (November 2001 to January 2002)													
STRM-01	Located at a manhole upstream of site to assess the potential for storm water line to act as a pathway for dissolved phase constituents.	STRM-01	Storm water sample to evaluate dissolved phase constituents.		•	• [BTEX] only	•	•	•				
STRM-02	Located at a manhole on site to assess the potential for storm water line to act as a pathway for dissolved phase constituents.	STRM-02	Storm water sample to evaluate dissolved phase constituents.		•	• [BTEX] only	•	•	•				
STRM-03	Located at a manhole downstream of site to assess the potential for storm water line to act as a pathway for dissolved phase constituents.	STRM-03	Storm water sample to evaluate dissolved phase constituents.		•	• [BTEX] only	•	•	•				
Round 5 (May to June 2002)													
No storm sewer samples were collected.		No analytical samples collected.	No analytical samples collected.										

Table 2-1
Sample Collection Rationale OU-2
Clifton Former MGP Site

Sample ID	Sample Location/Rationale	Sample Designation (Sample Depth Feet)	Selected Soil Sample Interval Rationale	Sample Type		Analysis[1]							
				Soil	Water	VOCs[2]	SVOCs[3]	Metals[4]	TCN[5]	Grain Size[6]	TOC[7]	TCL/ TAL[8]	Bulk Density[9]
Round 6 (November to December 2002)													
No storm sewer samples were collected.		No analytical samples collected.	No analytical samples collected.										

Notes:

1. All test methods specified are from EPA SW-846.
2. VOCs refer to volatile organic compounds (EPA Method 8260A/8260B).
3. SVOCs refer to semivolatile organic compounds (EPA Method 8270B/8270C).
4. RCRA 8 Metals analyzed are as follows: arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver (both mass analysis and EPA Method 6010).
5. TCN stands for total cyanide (EPA Method 9012A).
6. Grain size was analyzed by ASTM Method D-422.
7. TOC stands for total organic compound (EPA Method 9060).
8. TCL/TAL stands for target compound list/target analyte list, which includes VOCs, SVOCs, RCRA 8 metals, total cyanide, and PCBs.
9. Bulk density was analyzed by ASTM Method D2937-94.
10. Total dissolved solids were analyzed by EPA Method 160.1.
11. Salinity was analyzed by EPA Method 2520B.
12. Polychlorinated biphenyl (PCB) and pesticide analyses were completed by EPA Method 8081.
13. Round 1 groundwater samples were collected from RI-installed monitoring wells RW-1, RW-2, RW-3, RW-4, RW-6, RW-7, and previously installed FPM-OW-5, FPM-OW-6, and FPM-OW-7. Groundwater samples were analyzed for VOCs, SVOCs, RCRA 8 metals, TCN, PCBs, salinity, and total dissolved solids.
14. Round 2 groundwater samples were collected from RI-installed monitoring wells RW-1, RW-2, RW-3, RW-4, RW-6, RW-8, RW-9, RW-10, RW-11, RW-12, RW-13, RW-14, RW-15, RW-16, and previously installed monitoring wells FPM-OW-5, FPM-OW-6, and FPM-OW-7. Groundwater samples were analyzed for VOCs, SVOCs, RCRA 8 metals, and TCN.
15. Round 4 groundwater samples were collected from RI-installed monitoring wells RW-17 and RW-18. Groundwater samples were analyzed for VOCs, SVOCs, RCRA-8 metals, and TCN.
16. Round 4 storm sewer samples were collected from three storm sewer locations: STRM-01 (within the Willow Avenue ROW); STRM-02 (at 25 Willow within a T-shaped grate), and at STRM-03 (within a vault prior adjacent to Bay Street). Storm sewer samples were analyzed for VOCs, SVOCs, RCRA-8 metals, TCN, pH, and hardness.

Prepared by:
KEA

Checked by:
LEW

Table 2-2
OU-2 Monitoring Well Data
Clifton Former MGP Site

Groundwater Elevation (ft NGVD 83/ NAVD 88)

Monitoring Well	Elevation (ft NGVD 83 NAVD 88)			Well Diameter (in)	Groundwater Aquifer	Round 1 - April 1999				Round 2 - October 1999				Round 4 - January 2002
						High Tide		Low Tide		High Tide		Low Tide		
	Ground Surface	Top of Riser	Screened Interval			3/31	4/1	3/31	4/1	10/12	10/13	10/12	10/13	1/17/2002
RW-01	8.79	8.5	4.79 to -5.21	2	Shallow (unconfined)	7.29	7.29	7.29	7.29	7.02	7.07	7.08	7.09	6.30
RW-02	10.09	9.71	6.09 to -3.91	2	Shallow (unconfined)	5.79	5.79	5.71	5.79	5.64	5.66	5.65	5.7	5.54
RW-03	10.41	9.95	7.91 to -2.09	2	Shallow (unconfined)	7.92	7.95	7.89	7.89	7.8	7.79	7.81	7.78	7.94
RW-06	11.72	11.14	9.72 to -0.28	2	Shallow (unconfined)	8.58	8.62	8.64	8.53	8.54	8.53	8.53	8.53	8.43
RW-08	10.93	10.78	5.93 to -4.07	2	Shallow (unconfined)	NI	NI	NI	NI	7.73	7.76	7.76	7.79	7.33
RW-09	23.35	22.89	9.42 to -0.58	2	Shallow (unconfined)	NI	NI	NI	NI	7.11	7.11	7.1	7.12	6.69
RW-10	11.23	10.69	5.45 to -4.55	2	Shallow (unconfined)	NI	NI	NI	NI	6.96	6.95	6.97	7.00	8.02
RW-11	10.84	10.54	7.26 to -2.74	2	Shallow (unconfined)	NI	NI	NI	NI	7.43	7.78	7.69	7.82	8.93
RW-12	10.56	10.4	3.40 to -6.60	2	Shallow (unconfined)	NI	NI	NI	NI	8.99	8.99	8.96	8.99	8.32
RW-13	9.06	8.84	6.06 to -3.94	2	Shallow (unconfined)	NI	NI	NI	NI	6.82	7.02	6.88	7.08	7.13
RW-15	9.16	8.95	-94.94 to -104.94	4	Deep (semi-confined)	NI	NI	NI	NI	13.34	12.75	9.89	12.61	NM
RW-16	9.54	9.32	-103.46 to -113.46	4	Deep (semi-confined)	NI	NI	NI	NI	13.88	13.88	NM	13.78	NM
RW-17	9.97	9.61	-15.39 to -25.39	2	Water-Bearing Unit within Confining Layer	NI	NI	NI	NI	NI	NI	NI	NI	7.89
RW-18	9.57	9.29	-13.71 to -23.71	2	Water-Bearing Unit within Confining Layer	NI	NI	NI	NI	NI	NI	NI	NI	6.92
RW-19	7.19	6.97	-14.03 to -19.03	1	Water-Bearing Unit within Confining Layer	NI	NI	NI	NI	NI	NI	NI	NI	NI
OW-5	7.64	7.41	7.41 to -1.59	4	Shallow (unconfined)	5.57	5.6	5.66	5.6	NM	5.8	NM	5.85	5.57
OW-6	7.45	6.88	6.88 to -2.62	4	Shallow (unconfined)	5.22	5.23	5.25	5.24	4.72	4.7	NM	NM	4.58
OW-7	10.08	9.72	9.72 to -0.28	4	Shallow (unconfined)	4.56	4.51	4.55	4.52	4.51	4.51	4.51	4.51	4.02
PZ-4	11.13	10.97	8.47 to -1.53	1	Shallow (unconfined)	NI	NI	NI	NI	4.02	5.06	4.02	5.07	4.21
Tidal Mark	7.54	NA	NA	NA	NA	2.34	2.04	-2.86	-2.06	3.18	2.92	-1.54	-2.07	NM

Notes:
NM - not measured
NI - not installed
NA- not available

Prepared by: LEW
Checked by: BL

Table 3-1
Geologic Units Encountered During the Remedial Investigation
Clifton Former MGP Site

Unit	Description
Fill	
Fill	Fill including slag, coal fragments, wood fragments, bricks, concrete fragments, steel, ash, glass fragments, shells, some sands, gravels, and silts.
Alluvial/Marsh Deposits	
Gravelly Sand	Gray to brown, gravelly-SAND, some coarse sand, silty, or with fine sand.
Sand (shallow)	Brown to red-brown SAND, few coarse to very coarse sand, trace silt.
Silt (shallow)	Tan to brown, SILT, shallow depths, trace to some fine sand.
Silt-Clay	Gray to dark brown, olive-green to black, silty-CLAY, clayey-SILT, cohesive.
Gravely-Silt	Grey, gravelly-SILT to silty-GRAVEL, trace fine sand and cobble, wet.
Peat	Brown, PEAT, including organic wood material deposited in swamps.
Glacial Deposits	
Silt (deep)	Red to red-brown, SILT, lesser amounts of sand and gravel, dense, dry to moist (Ground Moraine).
Silt-Sand	Red-brown, silty-SAND to sandy-SILT, loose to dense, moist to wet (Ground Moraine).
Sand-Silt-Clay	Red-brown, SAND-SILT-CLAY mixture, trace cobbles and gravels, dense (Harbor Hill Terminal Moraine).
Silt-Clay	Red-brown, silty-CLAY, lesser amounts of sand and trace gravels (Harbor Hill Terminal Moraine).
Sand (deep)	Red-brown, SAND, loose, located at deeper depths (Glacial fluvial).
Gravely-Sand	Gray to brown, gravelly-SAND, some coarse sand, silty, or with fine sand. (Glacial fluvial)
Weathered Bedrock	
Saprolite	Red-brown, CLAY with relict mineral layers, dense, dry.

Table 3-2
OU-2 Hydraulic Conductivity Values
Clifton Former MGP Site

Well	Lithology of Screen Section	K (ft/day)	K (cm/sec)	Standard K values (cm/sec) (after Freeze and Cherry, 1979)
Single Well Slug Out Hydraulic Conductivity Test Results (Bouwer & Rice Method)				
RW-01	Silty fine to coarse sand.	33	1.2 E-02	1 E-05 to 1 E-01
RW-02	Silty fine sand. Trace gravel.	2.0	6.9 E-04	1 E-05 to 1 E-01
RW-03	Sandy silts and silty sands.	1.4	5.0 E-04	1 E-05 to 1 E-01
RW-06	Silty fine sand. Trace gravel.	6.9	2.4 E-03	1 E-05 to 1 E-01
RW-08 (1)	Silty fine to medium sand. Trace gravel.	25	9.0 E-03	1 E-05 to 1 E-01
RW-08 (2)	Silty fine to medium sand. Trace gravel.	20	7.1 E-03	1 E-05 to 1 E-01
RW-12	Sandy silts and silty sands.	0.9	3.2 E-04	1 E-05 to 1 E-01
RW-13	Silty fine to coarse sand. Some peat.	45	1.6 E-02	1 E-05 to 1 E-01
Single Well Pump Test Results (Theis Method)				
RW-15	Silt, silt with few gravels, and fine to coarse sand.	0.09	3.5 E-05	1 E-07 to 1 E-03

Notes:
Hydraulic conductivity tests were completed in monitoring wells RW-01, RW-02 and RW-03 during Round 1 (April 1999)
Hydraulic conductivity tests were completed in monitoring wells RW-08, RW-12, RW-13, and RW-15 during Round 3 (October 1999)

Table 4-1
Surface-Soil Analytical Results Summary
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue			Background Samples		
Site ID:	New York Recommended	SS-34	SS-35	SS-36	SS-33	SS-37	SS-38
Depth (ft):	Soil Cleanup	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)
Sample ID:	Objectives	CF-SS-34	CF-SS-35	CF-SS-36	CF-SS-33	CF-SS-37	CF-SS-38
Constituent Date:	(RSCOs)	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999
Volatile Organic Compounds (ug/kg)							
BTEX							
Benzene	60	0.2 J	6 U	6 U	6 U	6 U	6 U
Toluene	1500	0.4 J	0.8 J	6 U	0.2 J	6 UJ	6 U
Ethylbenzene	5500	6 U	6 U	6 U	6 U	6 UJ	6 U
Xylene	1200	6 U	6 U	6 U	6 U	6 UJ	6 U
Total BTEX		0.6	0.8	0	0.2	0	0
Semivolatile Organic Compounds (ug/kg)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	36400	160 J	53 J	64 J	19 J	93 J	83 J
Acenaphthene	50000	250 J	110 J	60 J	46 J	120 J	43 J
Acenaphthylene	41000	1800 J	470	540	61 J	1000	640 J
Anthracene	50000	1900 J	590	440	160 J	1200	460 J
Benzo(g,h,i)perylene	50000	3100 J	240 J	160 J	110 J	320 J	200 J
Fluoranthene	50000	12000	1900	1400	640	3800	1100
Fluorene	50000	320 J	130 J	74 J	60 J	170 J	42 J
Naphthalene	13000	210 J	65 J	94 J	17 J	94 J	78 J
Phenanthrene	50000	5200	1200	900	520	1700	460 J
Pyrene	50000	13000	2100	1400	870	4300	1300
Total Non-Carcinogenic PAHs		37,940	6,858	5,132	2,503	12,797	4,406
Carcinogenic PAHs							
Benz(a)anthracene	224	9400	1600	1000	540	3000	780 J
Benzo(a)pyrene	61	8800	1300	1000	530	2800	740 J
Benzo(b)fluoranthene	1100	8200	1200	1000	520	2500	710 J
Benzo(k)fluoranthene	1100	10000 J	1700 J	1400 J	850 J	4000 J	1300 J
Chrysene	400	12000	1700	1200	590	3200	990
Dibenz(a,h)anthracene	14	1600 J	140 J	80 J	46 J	170 J	95 J
Indeno(1,2,3-cd)pyrene	3200	4000	360 J	240 J	140 J	490 J	260 J
Total Carcinogenic PAHs		54,000	8,000	5,920	3,216	16,160	4,875
Total PAHs		91,940	14,858	11,052	5,719	28,957	9,281
Other Semivolatile Organic Compounds							
2,4-Dimethylphenol	NE	3300 U	410 U	420 U	380 U	800 U	840 U
3-Nitroaniline	500	16000 U	260 J	2000 U	1800 U	3900 U	4000 U
4-Methylphenol	900	3300 U	410 U	420 U	380 UJ	800 U	840 U
Benzoic acid	2700	16000 U	120 J	310 J	37 J	310 J	1400 J
Benzyl alcohol	NE	3300 U	410 U	420 U	380 U	130 J	4200
Butylbenzylphthalate	50000	210 J	61 J	65 J	1300	150 J	62 J

Table 4-1 (continued)
Surface-Soil Analytical Results Summary
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue			Background Samples		
Site ID:	New York Recommended	SS-34	SS-35	SS-36	SS-33	SS-37	SS-38
Depth (ft):	Soil Cleanup	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)
Sample ID:	Objectives	CF-SS-34	CF-SS-35	CF-SS-36	CF-SS-33	CF-SS-37	CF-SS-38
Constituent Date:	(RSCOs)	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999
Carbazole	NE	710 J	160 J	120 J	69 J	170 J	87 J
Di-n-butylphthalate	8100	3300 U	410 U	420 U	380 U	800 U	840 U
Dibenzofuran	6200	140 J	56 J	37 J	29 J	68 J	52 J
Hexachlorobenzene	410	3300 U	410 U	420 U	380 U	800 U	840 U
Isophorone	4400	3300 U	410 U	420 U	380 U	800 U	33 J
bis(2-Ethylhexyl)phthalate	50000	3300 U	410 U	420 U	380 U	800 U	840 U
Metals (mg/kg)							
Arsenic	7.5*	7.9	9.3	8.4	6.7	10.3	10.1
Barium	300*	94.8	110	124	106	140	160
Cadmium	1*	0.63 B	0.32 B	0.53 B	0.21 UN	1.7	1.4
Chromium	10*	31.3	19.3	19.9	36	31.8	31.9
Lead	500*	225 J	251 J	382 J	169 J	744 J	350 J
Mercury	0.1	0.29 J	0.64 J	0.62 J	0.23	0.63 J	0.22 J
Selenium	2*	2	2.2	1.5	1.6 J	1.3	2.2
Silver	NE*	0.22 U	0.21 U	0.2 J	0.21 U	0.31 J	0.24 J
Total Cyanide (mg/kg)							
Cyanide (Total)	NE*	0.6 UJ	0.61 UJ	0.64 UJ	0.57 UJ	0.61 UJ	0.63 UJ
Total Organic Carbon (mg/kg)							
TOC	NE*	37800 J	37700 J	48400 J	15000 J	65500 J	105000 J

Table 4-1 (continued)
Surface-Soil Analytical Results Summary
OU-2
Clifton Former MGP Site

Parcel:		Background Samples					
Site ID:	New York Recommended	SS-39	SS-39 (dup)	SS-39 (dup)	SS-40	SS-41	SS-42
Depth (ft):	Soil Cleanup	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)
Sample ID:	Objectives	CF-SS-39	CF-SS-69	CF-SS-69DL	CF-SS-40	CF-SS-41	CF-SS-42
Constituent Date:	(RSCOs)	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999
Volatile Organic Compounds (ug/kg)							
BTEX							
Benzene	60	0.5 J	6 U	NA	0.5 J	6 U	6 U
Toluene	1500	6 U	0.4 J	NA	0.5 J	6 UJ	0.3 J
Ethylbenzene	5500	6 U	6 U	NA	6 U	6 UJ	6 U
Xylene	1200	6 U	6 U	NA	6 U	6 UJ	6 U
Total BTEX		0.5	0.4	--	1	0	0.3
Semivolatile Organic Compounds (ug/kg)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	36400	8200 U	42 J	8100 U	190 J	90 J	47 J
Acenaphthene	50000	8100 U	810 UJ	8100 U	280 J	23 J	62 J
Acenaphthylene	41000	730 J	360 J	300 J	3900	240 J	340 J
Anthracene	50000	610 J	440 J	320 J	2800	230 J	420
Benzo(g,h,i)perylene	50000	1200 J	71 J	8100 UJ	840 J	61 J	89 J
Fluoranthene	50000	2500 J	1800 J	1200 J	6300	540	1100
Fluorene	50000	8200 U	56 J	8100 U	380 J	28 J	70 J
Naphthalene	13000	8100 U	51 J	8100 U	220 J	60 J	60 J
Phenanthrene	50000	1400 J	1100 J	930 J	5000	390	680
Pyrene	50000	2600 J	1100 J	2000 J	6700	600	1100
Total Non-Carcinogenic PAHs		9,040	5,020	4,750	26,610	2,262	3,968
Carcinogenic PAHs							
Benz(a)anthracene	224	1100 J	1000 J	780 J	5400	380 J	800
Benzo(a)pyrene	61	1400 J	1200	770 J	5200	450 J	840 J
Benzo(b)fluoranthene	1100	1300 J	1600	730 J	4800	680 J	1100 J
Benzo(k)fluoranthene	1100	2100 J	1500	740 J	6600 J	940 J	1800 J
Chrysene	400	1700 J	1800 J	1400 J	6000	550	1100
Dibenz(a,h)anthracene	14	490 J	810 UJ	8100 UJ	500 J	390 UJ	56 J
Indeno(1,2,3-cd)pyrene	3200	1200 J	82 J	8100 UJ	1200 J	72 J	130 J
Total Carcinogenic PAHs		9,290	7,182	4420	29,700	3,072	5,826
Total PAHs		18,330	12,202	9170	56,310	5,334	9,794
Other Semivolatile Organic Compounds							
2,4-Dimethylphenol	NE	8100 U	810 U	8100 U	1500 U	390 U	410 U
3-Nitroaniline	500	40000 U	4000 UJ	40000 U	7300 U	1900 U	2000 U
4-Methylphenol	900	8100 U	810 U	8100 U	1500 U	38 J	410 U
Benzoic acid	2700	40000 U	150 J	40000 U	180 J	170 J	160 J
Benzyl alcohol	NE	8100 U	810 U	8100 U	1500 U	390 U	410 U
Butylbenzylphthalate	50000	510 J	610 J	8100 UJ	1500 U	1000	100 J

Table 4-1 (continued)
Surface-Soil Analytical Results Summary
OU-2
Clifton Former MGP Site

Parcel:			Background Samples				
Site ID:	New York Recommended	SS-39	SS-39 (dup)	SS-39 (dup)	SS-40	SS-41	SS-42
Depth (ft):	Soil Cleanup	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)	(0-0.16)
Sample ID:	Objectives	CF-SS-39	CF-SS-69	CF-SS-69DL	CF-SS-40	CF-SS-41	CF-SS-42
Constituent Date:	(RSCOs)	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999	11/30/1999
Carbazole	NE	220 J	150 J	8100 U	660 J	71 J	140 J
Di-n-butylphthalate	8100	8100 U	820 U	8100 U	1500 U	390 U	410 U
Dibenzofuran	6200	8100 U	40 J	8100 U	280 J	26 J	40 J
Hexachlorobenzene	410	8100 U	810 UJ	8100 U	1500 U	390 U	410 U
Isophorone	4400	8100 U	810 U	8100 U	1500 U	390 U	410 U
bis(2-Ethylhexyl)phthalate	50000	29000 J	4000 JB	4400 JB	1500 U	470 B	410 U
Metals (mg/kg)							
Arsenic	7.5*	5.6	7.1	NA	26.4	11.6	8.5
Barium	300*	76	83.8	NA	59.9	131	126
Cadmium	1*	1.4	1.3 NJ	NA	0.23 B	1.1	0.35 B
Chromium	10*	45.4	36.7	NA	19.6	18.8	66.1
Lead	500*	283 J	337	NA	352 J	400 J	226 J
Mercury	0.1	0.2 J	0.27 NJ	NA	0.82 NJ	0.18 NJ	0.2 NJ
Selenium	2*	1.6	1.2	NA	1.1	2.4	1.8
Silver	NE*	0.47 J	0.26 JB	NA	0.2 U	0.16 U	0.19 U
Total Cyanide (mg/kg)							
Cyanide (Total)	NE*	1.18 J	0.64 UJ	NA	0.59 UJ	0.6 UJ	2.74 J
Total Organic Carbon (mg/kg)							
TOC	NE*	60000 J	53400 J	NA	36700 J	73800 J	32500 J

Notes:
Only detected analytes are shown on the table.
* site background
NE - not established
NA - not analyzed
J - estimated value
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis
UJ - estimated detection limit
-- unable to calculate because it was non-detected or not analyzed
(dup) - indicates duplicate sample
Shading/bolding indicates an exceedance of established New York State Recommended Soil Cleanup Objectives for residential soils.
B - analyte was found within the laboratory method blank as well as the sample; it indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte (organics); or indicates analyte result was between IDL and contract required detection limit (metals)
mg/kg - milligrams/kilogram or parts per million (ppm)
ug/kg - micrograms/kilogram or parts per billion (ppb)
N - spiked sample recovery was not within control limits (metals)

Prepared by: SJG
Checked by: KEA, PHH

Table 4-2
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	LEX-SS-02 [(a)]	LEX-SS-03	LEX-SS-04	LEX-SS-05	LEX-SS-06
Sample ID:		SS-2	SS-3	SS-4	SS-5	SS-6
Depth (ft):						
Constituent Date:		09/14/1993	09/14/1993	09/15/1993	09/15/1993	09/15/1993
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	NA	NA	10T	94T	4400T
Toluene	1500	NA	NA	50T	5.2T	440T
Ethylbenzene	5500	NA	NA	61T	10T	800T
Xylene (total)	1200	NA	NA	120T	46T	3300T
Total BTEX		--	--	241	155	8,940
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	100T	33T	2800T
1,3,5-Trimethylbenzene	NE	NA	NA	87T	24T	1300T
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	6.9U	1.2U	160U
Isopropylbenzene	NE	NA	NA	140U	45U	1900U
Methylene Chloride	100	NA	NA	6.9U	1.2U	160U
Styrene	NE	NA	NA	6.9U	8.3T	220T
n-Butylbenzene	NE	NA	NA	160T	72T	1700T
n-Propylbenzene	NE	NA	NA	63T	16T	3200T
p-Isopropyltoluene	NE	NA	NA	53T	23T	2200T
sec-Butylbenzene	NE	NA	NA	6.9U	65T	160U
tert-Butylbenzene	NE	NA	NA	24T	5.3T	230T
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	NA	NA	NA	NA	NA
Acenaphthene	50000	340U	340U	1900T	25000T	7500J
Acenaphthylene	41000	340U	340U	720J	9800T	10000T
Anthracene	50000	340U	340U	2500T	22000T	7300J
Benzo(g,h,i)perylene	50000	340U	340U	920U	11000T	14000T
Fluoranthene	50000	340U	340U	560J	5600J	2200J
Fluorene	50000	340U	340U	2500T	19000T	7800J
Naphthalene	13000	340U	340U	3800#T	7600#J	11000#T
Phenanthrene	50000	340U	340U	6000T	62000T	23000T
Pyrene	50000	340U	340U	1000T	10000T	7400J
Total Non-Carcinogenic PAHs		0	0	18,980	172,000	82,600
Carcinogenic PAHs						
Benz(a)anthracene	224	340U	340U	640J	14000T	7700J
Benzo(a)pyrene	61	340U	340U	920U	15000T	18000T
Benzo(b)fluoranthene	1100	340U	340U	420J	8800T	10000T
Benzo(k)fluoranthene	1100	340U	340U	500J	11000T	8000J
Chrysene	400	340U	340U	1200T	23000T	16000T
Dibenz(a,h)anthracene	14	340U	340U	920U	7800U	8300U
Indeno(1,2,3-cd)pyrene	3200	340U	340U	920U	7500J	9900T
Total Carcinogenic PAHs		0	0	2,760	79,300	69,600
Total PAHs		0	0	21,740	251,300	152,200
Other Semivolatile Organic Compounds						
4-Methylphenol	900	NA	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA	NA

Table 4-2
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	LEX-SS-02 [(a)]	LEX-SS-03	LEX-SS-04	LEX-SS-05	LEX-SS-06
Sample ID:		SS-2	SS-3	SS-4	SS-5	SS-6
Depth (ft):						
Constituent Date:		09/14/1993	09/14/1993	09/15/1993	09/15/1993	09/15/1993
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	NA	NA	NA	NA	NA
Barium	300	NA	NA	NA	NA	NA
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	NA	NA	NA	NA	NA
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	NA	NA	NA	NA	NA
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA	NA
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	LEX-SS-07	LEX-SS-08	LEX-SS-09	LEX-SS-10	LEX-SS-11
Sample ID:		SS-7	SS-8	SS-9	SS-10	SS-11
Depth (ft):						
Constituent Date:		09/15/1993	09/15/1993	09/15/1993	09/15/1993	09/15/1993
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	2900T	1400T	2700T	2600T	1.2U
Toluene	1500	21T	79T	260T	470T	24T
Ethylbenzene	5500	130T	300T	530T	3500T	3.7T
Xylene (total)	1200	16T	61T	5600T	3900T	77T
Total BTEX		3,067	1,840	9,090	10,470	105
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	140T	1400T	2000T	5700T	1.5T
1,3,5-Trimethylbenzene	NE	15T	120T	5300T	3400T	65T
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	6.4U	7.6U	7.1U	580T	1.2U
Isopropylbenzene	NE	180T	98T	960T	2200T	1.2U
Methylene Chloride	100	6.4U	7.6U	18T	210U	1.2U
Styrene	NE	6.4U	18T	730T	1000T	1.2U
n-Butylbenzene	NE	100T	150T	10000T	9800T	83T
n-Propylbenzene	NE	6.4U	1300T	2200T	3000T	4.1T
p-Isopropyltoluene	NE	50T	800T	870T	2500T	2.7T
sec-Butylbenzene	NE	6.4U	7.6U	1700T	210U	1.2U
tert-Butylbenzene	NE	150T	140T	330T	4200T	1.2U
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	NA	NA	NA	NA	NA
Acenaphthene	50000	15000T	11000T	31000T	110000T	510J
Acenaphthylene	41000	13000T	4300T	13000T	22000T	1100J
Anthracene	50000	20000T	840J	42000T	63000T	780J
Benzo(g,h,i)perylene	50000	14000T	6700T	54000T	11000U	3900U
Fluoranthene	50000	14000T	12000T	26000T	22000T	2200J
Fluorene	50000	5200J	1600J	29000T	81000T	820J
Naphthalene	13000	54700#T	980#T	23000#T	150000#T	1800#J
Phenanthrene	50000	7500J	14000T	94000T	180000T	2100J
Pyrene	50000	20000T	5700T	28000T	30000T	3900U
Total Non-Carcinogenic PAHs		163,400	56,720	340,000	658,000	9,310
Carcinogenic PAHs						
Benz(a)anthracene	224	23000T	16000T	74000T	43000T	1600J
Benzo(a)pyrene	61	24000T	13000T	92000T	31000T	3900U
Benzo(b)fluoranthene	1100	14000T	7900T	61000T	16000T	3900U
Benzo(k)fluoranthene	1100	22000T	11000T	70000T	20000T	3900U
Chrysene	400	28000T	17000T	90000T	46000T	1800J
Dibenz(a,h)anthracene	14	8500U	2200T	16000T	11000U	3900U
Indeno(1,2,3-cd)pyrene	3200	13000T	6300T	50000T	9300J	3900U
Total Carcinogenic PAHs		124,000	73,400	453,000	165,300	3,400
Total PAHs		287,400	130,520	793,000	823,300	12,710
Other Semivolatile Organic Compounds						
4-Methylphenol	900	NA	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York**	LEX-SS-07	LEX-SS-08	LEX-SS-09	LEX-SS-10	LEX-SS-11
Sample ID:	**Recommended**	SS-7	SS-8	SS-9	SS-10	SS-11
Depth (ft):	**Soil Cleanup**					
Constituent Date:	**Objectives (RSCOs)**	09/15/1993	09/15/1993	09/15/1993	09/15/1993	09/15/1993
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	NA	NA	NA	NA	NA
Barium	300	NA	NA	NA	NA	NA
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	NA	NA	NA	NA	NA
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	NA	NA	NA	NA	NA
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA	NA
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	NA	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA	NA
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	NA	NA	NA	NA	NA
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	RW-01		RW-02	RW-03	RW-06
Sample ID:		CF-RW1	CF-RW1	CF-RW2	CF-RW3	CF-SB20
Depth (ft):		(4-6)	(17)	(9-11)	(8-10)	(5-7)
Constituent Date:		02/22/1999	02/22/1999	02/21/1999	02/24/1999	02/22/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	5J	16U	NA	2J	6U
Toluene	1500	10J	16U	NA	6U	6U
Ethylbenzene	5500	30U	16U	NA	6U	6U
Xylene (total)	1200	30U	16U	NA	6U	6U
Total BTEX		15	0	--	2	0
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	4000U	940U	NA	380U	370U
Acenaphthene	50000	3600J	48J	NA	380U	370U
Acenaphthylene	41000	4200J	71J	NA	380U	370U
Anthracene	50000	20000UJ	940UJ	NA	380U	370U
Benzo(g,h,i)perylene	50000	20000UJ	850J	NA	380U	370U
Fluoranthene	50000	20000UJ	940UJ	NA	380U	370U
Fluorene	50000	20000UJ	940U	NA	380U	370U
Naphthalene	13000	4000U	160J	NA	7J	9J
Phenanthrene	50000	16000J	440J	NA	24J	8J
Pyrene	50000	12000J	450J	NA	12J	8J
Total Non-Carcinogenic PAHs		35,800	2,019	--	43	25
Carcinogenic PAHs						
Benz(a)anthracene	224	5400J	230J	NA	380U	6J
Benzo(a)pyrene	61	6300J	340J	NA	380U	370U
Benzo(b)fluoranthene	1100	3000J	200J	NA	380U	370U
Benzo(k)fluoranthene	1100	2200J	250J	NA	380U	370U
Chrysene	400	12000J	370J	NA	380UJ	370UJ
Dibenz(a,h)anthracene	14	20000UJ	940U	NA	380U	370U
Indeno(1,2,3-cd)pyrene	3200	20000UJ	780J	NA	380U	370U
Total Carcinogenic PAHs		28,900	2,170	--	0	6
Total PAHs		64,700	4,189	--	43	31
Other Semivolatile Organic Compounds						
4-Methylphenol	900	4000U	940U	NA	380U	370U
Benzoic acid	2700	20000U	250J	NA	1800U	1800U
Carbazole	NE	4000UJ	940UJ	NA	380U	370U
Di-n-butylphthalate	8100	4000UJ	940UJ	NA	380U	370U
Di-n-octylphthalate	50000	4000UJ	940U	NA	380U	5J
Dibenzofuran	6200	1100J	25J	NA	380U	370U
N-Nitrosodiphenylamine (1)	NE	4000UJ	940UJ	NA	380U	370U
Phenol	30	4000U	940U	NA	380U	370U
bis(2-Ethylhexyl)phthalate	50000	4000UJ	440J	NA	380U	370U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	RW-01		RW-02	RW-03	RW-06
Sample ID:		CF-RW1	CF-RW1	CF-RW2	CF-RW3	CF-SB20
Depth (ft):		(4-6)	(17)	(9-11)	(8-10)	(5-7)
Constituent Date:		02/22/1999	02/22/1999	02/21/1999	02/24/1999	02/22/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	4.6	5.2J	NA	1.9	3.4
Barium	300	112.	180.J	NA	47.0	52.7
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.20U	1.1J	NA	0.17U	0.38U
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	16.6	38.6J	NA	37.4	79.2
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	84.0	8.1J	NA	4.2	22.8
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.14	0.10UJ	NA	0.034U	0.033U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	0.84J	2.6UJ	NA	0.69UJ	1.4J
Silver	NE	0.39U	1.3UJ	NA	0.34U	0.33U
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	1.36J	24.0J	NA	0.549UJ	0.566UJ
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	516.	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	RW-13			RW-13	RW-13 (dup)
Sample ID:		CF-SB-50	CF-SB-50	CF-SB-50	CF-SB-50	CF-SB-1000
Depth (ft):		(3-5)	(9-11)	(17-19)	(39-41)	
Constituent Date:		08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	1000J	940J	74J	6U	6U
Toluene	1500	230J	180J	2J	6U	6U
Ethylbenzene	5500	3500	24000	360J	6U	6U
Xylene (total)	1200	3800	5500	310J	6U	6U
Total BTEX		8,530	30,620	746	0	0
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	NA	81000J	610J	370U	360U
Acenaphthene	50000	NA	49000J	360J	370U	360U
Acenaphthylene	41000	NA	16000J	170J	370U	360U
Anthracene	50000	NA	45000J	290J	370U	4J
Benzo(g,h,i)perylene	50000	NA	15000J	2900UJ	370U	360U
Fluoranthene	50000	NA	61000J	450J	7J	8J
Fluorene	50000	NA	44000J	320J	370U	360U
Naphthalene	13000	NA	160000J	3800J	370U	360U
Phenanthrene	50000	NA	130000J	1000J	12J	13J
Pyrene	50000	NA	70000J	760J	13J	8J
Total Non-Carcinogenic PAHs			671,000	7,760	32	33
Carcinogenic PAHs						
Benz(a)anthracene	224	NA	37000J	290J	370U	5J
Benzo(a)pyrene	61	NA	22000J	160J	370U	360U
Benzo(b)fluoranthene	1100	NA	20000J	160J	370U	360U
Benzo(k)fluoranthene	1100	NA	20000J	150J	370U	360U
Chrysene	400	NA	38000J	310J	370U	4J
Dibenz(a,h)anthracene	14	NA	4800J	2900UJ	370U	360U
Indeno(1,2,3-cd)pyrene	3200	NA	13000J	2900UJ	370U	360U
Total Carcinogenic PAHs		--	154,800	1,070	0	9
Total PAHs		--	825,800	8,830	32	42
Other Semivolatile Organic Compounds						
4-Methylphenol	900	NA	27000UJ	2900UJ	370U	360U
Benzoic acid	2700	NA	130000UJ	14000UJ	1800U	1800U
Carbazole	NE	NA	1700J	2900UJ	370U	360U
Di-n-butylphthalate	8100	NA	27000UJ	2900UJ	370U	360U
Di-n-octylphthalate	50000	NA	27000UJ	2900UJ	370U	360U
Dibenzofuran	6200	NA	7700J	41J	370U	360U
N-Nitrosodiphenylamine (1)	NE	NA	27000UJ	2900UJ	370U	360U
Phenol	30	NA	27000UJ	2900UJ	370U	360U
bis(2-Ethylhexyl)phthalate	50000	NA	27000UJ	2900UJ	370U	360U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	RW-13			RW-13	RW-13 (dup)
Sample ID:	Soil Cleanup	CF-SB-50	CF-SB-50	CF-SB-50	CF-SB-50	CF-SB-1000
Depth (ft):	Objectives	(3-5)	(9-11)	(17-19)	(39-41)	
Constituent Date:	(RSCOs)	08/02/1999	08/02/1999	08/02/1999	08/02/1999	08/02/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	NA	2.0UJ	10.6UJ	3.2J	1.2UJ
Barium	300	NA	98.8	168.UJ	82.4	26.8B
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	NA	0.50B	0.61UJ	0.16UJ	0.23B
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	NA	12.3	32.6UJ	15.8J	5.1J
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	NA	13.2	11.5UJ	10.1J	3.6J
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	NA	0.051B	0.20UJ	0.027U	0.028U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	NA	1.2UJ	5.0UJ	1.4U	0.76UJ
Silver	NE	NA	0.25UJ	0.61UJ	0.16UJ	0.15UJ
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	NA	26.9	2.12UJ	0.530UJ	0.520U
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	RW-15	RW-16	RW-16 (dup)	RW-16	
Sample ID:	Soil Cleanup	FSB55A 123-12	CF-SB-56	CF-SB	CF-SB-56	CF-SB-56
Depth (ft):	Objectives	(123-125)	(12.5-14)	081899	(28-30)	(43-44)
Constituent Date:	(RSCOs)	08/16/1999	08/18/1999	08/18/1999	08/18/1999	08/18/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	6U	7300	6300	660J	84000
Toluene	1500	6U	1400U	87J	45	130000
Ethylbenzene	5500	6U	2500	2300	370J	380000
Xylene (total)	1200	6U	1400U	460J	320	540000
Total BTEX		0	9,800	9,147	1,395	1,134,000
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	380U	25000J	12000J	1400	2000000
Acenaphthene	50000	380U	190000	92000	320J	650000J
Acenaphthylene	41000	380U	34000J	8300J	240J	100000J
Anthracene	50000	380U	89000	41000J	140J	280000J
Benzo(g,h,i)perylene	50000	380UJ	9400J	3900J	400UJ	37000J
Fluoranthene	50000	380U	100000	44000	160J	350000J
Fluorene	50000	380U	150000	84000	350J	450000J
Naphthalene	13000	380U	280000	120000	1900	3700000
Phenanthrene	50000	380U	370000	180000	610	1200000
Pyrene	50000	380U	140000	67000	230J	470000J
Total Non-Carcinogenic PAHs			1,387,400	652,200	5,350	9,237,000
Carcinogenic PAHs						
Benz(a)anthracene	224	380U	52000J	24000J	86J	170000J
Benzo(a)pyrene	61	380U	33000J	15000J	64J	120000J
Benzo(b)fluoranthene	1100	380U	14000J	6300J	27J	50000J
Benzo(k)fluoranthene	1100	380U	21000J	11000J	50J	88000J
Chrysene	400	380U	52000J	23000J	90J	160000J
Dibenz(a,h)anthracene	14	380U	6500J	1400J	400U	740000U
Indeno(1,2,3-cd)pyrene	3200	380U	9800J	3700J	12J	33000J
Total Carcinogenic PAHs		0	188,300	84,400	329	621,000
Total PAHs		0	1,575,700	736,600	5,679	9,858,000
Other Semivolatile Organic Compounds						
4-Methylphenol	900	380U	77000U	43000U	400U	740000U
Benzoic acid	2700	1900U	370000U	210000U	2000U	3600000U
Carbazole	NE	380U	6200J	43000J	77J	16000J
Di-n-butylphthalate	8100	380U	77000U	43000U	400U	740000U
Di-n-octylphthalate	50000	380U	77000U	43000U	400U	740000U
Dibenzofuran	6200	380U	15000J	43000J	47J	65000J
N-Nitrosodiphenylamine (1)	NE	380U	77000U	43000U	400U	740000U
Phenol	30	380U	77000U	43000U	82J	740000U
bis(2-Ethylhexyl)phthalate	50000	380U	77000U	43000U	400U	740000U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	RW-15	RW-16	RW-16 (dup)	RW-16	
Sample ID:	Soil Cleanup	FSB55A 123-12	CF-SB-56	CF-SB	CF-SB-56	CF-SB-56
Depth (ft):	Objectives	(123-125)	(12.5-14)	081899	(28-30)	(43-44)
Constituent Date:	(RSCOs)	08/16/1999	08/18/1999	08/18/1999	08/18/1999	08/18/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	1.5UJ	4.7J	6.3J	5.4J	3.6J
Barium	300	15.2B	40.2	44.2B	45.6	74.9
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.19U	1.3	0.22U	0.17U	0.12U
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	8.3J	27.3J	44.8J	61.0J	39.5J
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	11.1J	10.0J	12.9J	10.9J	10.3J
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.020U	0.020U	0.0093U	0.014U	0.015U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	2.3UJ	1.5UJ	1.1UJ	0.85UJ	1.3UJ
Silver	NE	0.19UJ	0.16UJ	0.22UJ	0.17UJ	0.12UJ
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.580U	0.570U	0.600U	0.540U	0.560U
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	RW-16		SB-09		
Sample ID:	Soil Cleanup	CF-SB-56	CF-SB56	CF-SB9	CF-SB9	CF-SB9
Depth (ft):	Objectives	(63-63.5)	(122-123)	(8-10)	(24-26)	(33-34)
Constituent Date:	(RSCOs)	08/19/1999	08/20/1999	02/22/1999	02/23/1999	02/23/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	5U	6U	43000	4500	6U
Toluene	1500	5U	6U	130000	1300J	6U
Ethylbenzene	5500	5UJ	6U	510000	33000	6U
Xylene (total)	1200	5UJ	6U	830000	26000	6U
Total BTEX		0	0	1,513,000	64,800	0
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	2500UJ	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	1400J	NA
Acetone	200	NA	NA	NA	2500U	NA
Carbon Tetrachloride	600	NA	NA	NA	2500U	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	2500U	NA
Styrene	NE	NA	NA	NA	2500U	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	370U	350U	180000	350000	370U
Acenaphthene	50000	370U	350U	55000J	90000J	370U
Acenaphthylene	41000	370U	350U	15000J	99000	370U
Anthracene	50000	370U	350U	96000U	16000J	370U
Benzo(g,h,i)perylene	50000	370U	350UJ	94000J	76000J	370U
Fluoranthene	50000	370U	350U	96000U	15000J	370U
Fluorene	50000	370U	350U	96000U	30000J	370U
Naphthalene	13000	14J	350U	560000	630000	370U
Phenanthrene	50000	370U	350U	140000	310000	370U
Pyrene	50000	370U	350U	57000J	90000J	13J
Total Non-Carcinogenic PAHs		14	0	1,101,000	1,706,000	13
Carcinogenic PAHs						
Benz(a)anthracene	224	370U	350U	27000J	43000J	6J
Benzo(a)pyrene	61	370U	350U	33000J	33000J	370U
Benzo(b)fluoranthene	1100	370U	350U	17000J	13000J	370U
Benzo(k)fluoranthene	1100	370UJ	350U	24000J	24000J	370U
Chrysene	400	370UJ	350U	32000J	45000J	370U
Dibenz(a,h)anthracene	14	370U	350U	96000U	88000U	370U
Indeno(1,2,3-cd)pyrene	3200	370U	350U	81000J	67000J	370U
Total Carcinogenic PAHs		0	0	214,000	225,000	6
Total PAHs		14	0	1,315,000	1,931,000	19
Other Semivolatile Organic Compounds						
4-Methylphenol	900	370U	350U	96000U	88000U	370U
Benzoic acid	2700	1800U	1700U	460000U	430000U	1800U
Carbazole	NE	370U	350U	96000U	88000U	370U
Di-n-butylphthalate	8100	370U	350U	96000U	88000U	370U
Di-n-octylphthalate	50000	370U	350U	96000U	88000U	370U
Dibenzofuran	6200	370U	350U	3000J	4500J	370U
N-Nitrosodiphenylamine (1)	NE	370U	350U	96000U	88000U	370U
Phenol	30	370U	350U	96000U	88000U	370U
bis(2-Ethylhexyl)phthalate	50000	370U	350U	96000UJ	88000UJ	370U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	RW-16		SB-09		
Sample ID:	Soil Cleanup	CF-SB-56	CF-SB56	CF-SB9	CF-SB9	CF-SB9
Depth (ft):	Objectives	(63-63.5)	(122-123)	(8-10)	(24-26)	(33-34)
Constituent Date:	(RSCOs)	08/19/1999	08/20/1999	02/22/1999	02/23/1999	02/23/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	26	NA
4,4'-DDT	2100	NA	NA	NA	9.4J	NA
Dieldrin	44	NA	NA	NA	15.J	NA
Endosulfan sulfate	1000	NA	NA	NA	99.U	NA
Heptachlor epoxide	20	NA	NA	NA	51.U	NA
Heptachlor	100	NA	NA	NA	1.6J	NA
gamma-Chlordane	540	NA	NA	NA	5.8J	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	3990	NA
Antimony	NE	NA	NA	NA	1.4U	NA
Arsenic	7.5	2.1J	1.2UJ	2.5	8.6	1.2J
Barium	300	41.6	43.9	23.4B	39.0	66.7
Beryllium	0.16	NA	NA	NA	0.18B	NA
Cadmium	1	0.15U	<1.0B	0.24U	0.21U	0.28J
Calcium	NE	NA	NA	NA	2110	NA
Chromium	10	27.5J	21.9J	5.1	28.9	26.6
Cobalt	30	NA	NA	NA	20.9	NA
Copper	25	NA	NA	NA	14.0	NA
Iron	2000	NA	NA	NA	21500	NA
Lead	500	5.3J	6.8J	34.3	4.8	6.4J
Magnesium	NE	NA	NA	NA	29400	NA
Manganese	NE	NA	NA	NA	222.	NA
Mercury	0.1	0.017U	0.012U	0.045B	0.020U	0.021U
Nickel	13	NA	NA	NA	383.	NA
Potassium	NE	NA	NA	NA	671.J	NA
Selenium	2	0.76UJ	5.0UJ	1.5J	1.6J	0.64B
Silver	NE	0.15UJ	0.15UJ	0.48U	0.28U	0.28U
Sodium	NE	NA	NA	NA	142.U	NA
Thallium	NE	NA	NA	NA	1.0UJ	NA
Vanadium	150	NA	NA	NA	13.5J	NA
Zinc	20	NA	NA	NA	31.0	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.540U	2.21	0.848J	0.579UJ	0.564U
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-10	SB-11		SB-12
Sample ID:		CF-SB10	CF-SB11	CF-SB11	CF-SB12
Depth (ft):		(5-6.5)	(4-6)	(21-23)	(4-6)
Constituent Date:		02/23/1999	02/23/1999	02/23/1999	02/23/1999
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	12000U	42000	6600	22000
Toluene	1500	12000U	12000U	11000	41000
Ethylbenzene	5500	13000	140000	10000	71000
Xylene (total)	1200	1100J	48000	14000	70000
Total BTEX		14,100	230,000	41,600	204,000
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	300000	320000	160000J	3000000J
Acenaphthene	50000	140000	48000J	38000U	900000U
Acenaphthylene	41000	20000J	23000J	11000J	900000U
Anthracene	50000	53000J	84000U	38000U	900000U
Benzo(g,h,i)perylene	50000	6900	93000	4000J	900000U
Fluoranthene	50000	29000J	84000U	38000U	900000U
Fluorene	50000	110000	42000J	38000U	900000U
Naphthalene	13000	300000	310000	190000	4600000
Phenanthrene	50000	270000J	240000	92000J	900000U
Pyrene	50000	78000	88000	38000	110000J
Total Non-Carcinogenic PAHs		1,306,900	1,164,000	495,000	7,710,000
Carcinogenic PAHs					
Benz(a)anthracene	224	25000J	36000J	14000J	42000J
Benzo(a)pyrene	61	21000	32000J	10000J	32000J
Benzo(b)fluoranthene	1100	8100	17000J	4700J	900000U
Benzo(k)fluoranthene	1100	14000	27000J	38000U	900000U
Chrysene	400	36000J	52000J	14000J	42000J
Dibenz(a,h)anthracene	14	4200J	58000J	38000U	900000U
Indeno(1,2,3-cd)pyrene	3200	6200	78000J	3100J	900000U
Total Carcinogenic PAHs		114,500	300,000	45,800	116,000
Total PAHs		1,421,400	1,464,000	540,800	7,826,000
Other Semivolatile Organic Compounds					
4-Methylphenol	900	4600U	84000U	38000U	900000U
Benzoic acid	2700	22000UJ	400000U	190000U	4400000U
Carbazole	NE	4600UJ	84000U	38000U	900000U
Di-n-butylphthalate	8100	4600UJ	84000U	38000U	900000U
Di-n-octylphthalate	50000	4600U	84000U	38000U	900000U
Dibenzofuran	6200	12000J	13000J	38000U	900000U
N-Nitrosodiphenylamine (1)	NE	4600UJ	84000U	38000U	900000U
Phenol	30	4600U	84000U	38000U	900000U
bis(2-Ethylhexyl)phthalate	50000	4600UJ	84000UJ	38000U	900000U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Constituent	Parcel: / Site ID: / Sample ID: / Depth (ft): / Date:	New York Recommended Soil Cleanup Objectives (RSCOs)	25 Willow Avenue Parcel			
			SB-10	SB-11		SB-12
			CF-SB10	CF-SB11	CF-SB11	CF-SB12
			(5-6.5)	(4-6)	(21-23)	(4-6)
			02/23/1999	02/23/1999	02/23/1999	02/23/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE		2100	NA	NA	NA	NA
4,4'-DDT		2100	NA	NA	NA	NA
Dieldrin		44	NA	NA	NA	NA
Endosulfan sulfate		1000	NA	NA	NA	NA
Heptachlor epoxide		20	NA	NA	NA	NA
Heptachlor		100	NA	NA	NA	NA
gamma-Chlordane		540	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum		NE	NA	NA	NA	NA
Antimony		NE	NA	NA	NA	NA
Arsenic		7.5	6.4	5.2	3.0J	5.3J
Barium		300	206.	43.0B	61.8	57.2
Beryllium		0.16	NA	NA	NA	NA
Cadmium		1	0.25U	0.22U	0.63J	0.36J
Calcium		NE	NA	NA	NA	NA
Chromium		10	75.1	25.0	50.0	35.0
Cobalt		30	NA	NA	NA	NA
Copper		25	NA	NA	NA	NA
Iron		2000	NA	NA	NA	NA
Lead		500	137.	33.7	7.1J	174.
Magnesium		NE	NA	NA	NA	NA
Manganese		NE	NA	NA	NA	NA
Mercury		0.1	0.36	0.28	0.020U	1.6
Nickel		13	NA	NA	NA	NA
Potassium		NE	NA	NA	NA	NA
Selenium		2	3.2J	2.4J	0.90	3.1
Silver		NE	0.50U	0.44U	0.35U	0.45U
Sodium		NE	NA	NA	NA	NA
Thallium		NE	NA	NA	NA	NA
Vanadium		150	NA	NA	NA	NA
Zinc		20	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)		NE	12.0J	39.8J	0.541U	47.6
Total Organic Carbon (mg/kg)						
TOC		NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)		NE	NA	NA	NA	NA
4-Methylphenol (TCLP)		NE	NA	NA	NA	NA
Pyridine (TCLP)		NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended	SB-13		SB-13 (dup)	SB-14
Sample ID:	Soil Cleanup	CF-SB13	CF-SB13	CF-DUP-1	CF-SB14
Depth (ft):	Objectives	(7-9)	(18-20)		(6-8)
Constituent Date:	(RSCOs)	02/24/1999	02/24/1999	02/24/1999	02/24/1999
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	5900J	16000J	11000	180000J
Toluene	1500	6000U	19000J	24000	62000U
Ethylbenzene	5500	12000	92000	79000	820000J
Xylene (total)	1200	3000J	81000	61000	260000J
Total BTEX		20,900	208,000	175,000	1,260,000
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	4600U	56000J	18000J	1200000
Acenaphthene	50000	36000	28000J	8000J	230000J
Acenaphthylene	41000	6200J	3500J	7300U	49000J
Anthracene	50000	23000J	19000U	7300U	330000U
Benzo(g,h,i)perylene	50000	21000J	17000J	1100J	300000J
Fluoranthene	50000	15000J	19000U	7300U	330000U
Fluorene	50000	35000	6300J	7300U	62000J
Naphthalene	13000	16000J	110000J	30000J	1400000
Phenanthrene	50000	92000J	62000J	24000J	940000
Pyrene	50000	31000	18000J	8600	290000J
Total Non-Carcinogenic PAHs		275,200	300,800	89,700	4,471,000
Carcinogenic PAHs					
Benz(a)anthracene	224	12000J	7900J	3000J	110000J
Benzo(a)pyrene	61	8500J	6600J	2500J	91000J
Benzo(b)fluoranthene	1100	3600J	2700J	1100J	40000J
Benzo(k)fluoranthene	1100	8900J	3800J	7300U	63000J
Chrysene	400	18000J	8200J	3200J	140000J
Dibenz(a,h)anthracene	14	3500J	19000U	7300U	330000U
Indeno(1,2,3-cd)pyrene	3200	19000J	15000J	940J	260000J
Total Carcinogenic PAHs		73,500	44,200	10,740	704,000
Total PAHs		348,700	345,000	100,440	5,175,000
Other Semivolatile Organic Compounds					
4-Methylphenol	900	4600U	19000U	7300U	330000U
Benzoic acid	2700	22000U	91000U	36000U	1600000U
Carbazole	NE	4600UJ	19000U	7300U	330000U
Di-n-butylphthalate	8100	4600UJ	19000U	7300U	330000U
Di-n-octylphthalate	50000	4600U	19000U	7300U	330000U
Dibenzofuran	6200	4600J	1200J	7300U	34000J
N-Nitrosodiphenylamine (1)	NE	4600UJ	19000U	7300U	330000U
Phenol	30	4600U	19000U	7300U	330000U
bis(2-Ethylhexyl)phthalate	50000	4600UJ	19000UJ	7300U	330000UJ

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended	SB-13		SB-13 (dup)	SB-14
Sample ID:	Soil Cleanup	CF-SB13	CF-SB13	CF-DUP-1	CF-SB14
Depth (ft):	Objectives	(7-9)	(18-20)		(6-8)
Constituent Date:	(RSCOs)	02/24/1999	02/24/1999	02/24/1999	02/24/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	6.2	2.1	1.0UJ	6.7
Barium	300	146.	46.4	39.1	24.2B
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.49U	0.36U	0.60J	0.21U
Calcium	NE	NA	NA	NA	NA
Chromium	10	15.7	172.J	52.4J	23.8
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	33.5	8.4	5.3U	76.4J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.034U	0.026U	0.029U	0.14
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	2.0J	1.1J	0.85B	4.0
Silver	NE	0.50U	0.40U	0.34U	0.41U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.961J	0.546UJ	0.553U	0.615UJ
Total Organic Carbon (mg/kg)					
TOC	NE	56200	4380	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York**	SB-14 (dup)		SB-14	SB-15	SB-16
Sample ID:	**Recommended**	CF-DUP-2	CF-SB14	CF-SB14	CF-SB15	CF-SB16
Depth (ft):	**Soil Cleanup**		(6-8)	(24-28)	(5-8)	(5-7)
Constituent Date:	**Objectives (RSCOs)**	02/24/1999	02/24/1999	02/24/1999	02/21/1999	02/22/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	58000J	NA	150	3J	6U
Toluene	1500	33000U	NA	5U	2J	6U
Ethylbenzene	5500	420000J	NA	200	0.7J	2J
Xylene (total)	1200	130000J	NA	100	2J	2J
Total BTEX		608,000	--	450	8	4
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	1900000J	NA	510	440U	380U
Acenaphthene	50000	400000U	NA	200J	170J	30J
Acenaphthylene	41000	400000U	NA	21J	26J	37J
Anthracene	50000	400000U	NA	370U	440U	380U
Benzo(g,h,i)perylene	50000	79000J	NA	290J	630	290J
Fluoranthene	50000	400000U	NA	370U	710J	380U
Fluorene	50000	86000J	NA	370U	440U	380U
Naphthalene	13000	1500000	NA	1100	130J	100J
Phenanthrene	50000	1400000J	NA	380	600	230J
Pyrene	50000	580000	NA	94J	880J	82J
Total Non-Carcinogenic PAHs		5,545,000	--	2,595	3,146	769
Carcinogenic PAHs						
Benz(a)anthracene	224	180000J	NA	40J	420J	41J
Benzo(a)pyrene	61	140000J	NA	36J	490	32J
Benzo(b)fluoranthene	1100	56000J	NA	13J	290J	15J
Benzo(k)fluoranthene	1100	400000U	NA	22J	420J	25J
Chrysene	400	200000J	NA	49J	500J	40J
Dibenz(a,h)anthracene	14	400000U	NA	370U	400J	380U
Indeno(1,2,3-cd)pyrene	3200	60000	NA	260J	620	270J
Total Carcinogenic PAHs		636,000	--	420	3,140	423
Total PAHs		6,181,000	--	3,015	6,286	1,192
Other Semivolatile Organic Compounds						
4-Methylphenol	900	400000U	NA	370U	440U	380U
Benzoic acid	2700	2000000U	NA	1800U	53J	1800U
Carbazole	NE	400000U	NA	370U	440U	380U
Di-n-butylphthalate	8100	400000U	NA	370U	440U	380U
Di-n-octylphthalate	50000	400000U	NA	370U	440U	380U
Dibenzofuran	6200	400000U	NA	67J	31J	380U
N-Nitrosodiphenylamine (1)	NE	400000U	NA	370U	440U	380U
Phenol	30	400000U	NA	46J	8J	380U
bis(2-Ethylhexyl)phthalate	50000	400000U	NA	370U	440U	380U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	**New York**	SB-14 (dup)		SB-14	SB-15	SB-16
Sample ID:	**Recommended**	CF-DUP-2	CF-SB14	CF-SB14	CF-SB15	CF-SB16
Depth (ft):	**Soil Cleanup**		(6-8)	(24-28)	(5-8)	(5-7)
Constituent Date:	**Objectives (RSCOs)**	02/24/1999	02/24/1999	02/24/1999	02/21/1999	02/22/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	1.4J	NA	2.2	5.7	1.9B
Barium	300	16.8U	NA	44.0	75.8	51.3
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.19U	NA	0.41U	0.29U	0.20U
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	26.8	NA	35.7	37.5	15.2
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	20.7J	NA	4.8	101.	7.9
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.069B	0.10	0.030U	0.21	0.024U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	2.3	NA	0.70J	1.8J	0.80UJ
Silver	NE	0.39U	NA	0.25U	0.58U	0.40U
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.666	NA	0.556UJ	0.775UJ	0.554UJ
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	3000	NA	402.
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	SB-19		SB-19 (dup)	SB-37	
Sample ID:	Soil Cleanup	CF-SB19	CF-SB19	CF-SB19	CF-SB-37	CF-SB-37
Depth (ft):	Objectives	(5-7)	(34-36)	(34-36)	(4-8)	(14.5-15)
Constituent Date:	(RSCOs)	02/24/1999	02/25/1999	02/25/1999	08/05/1999	08/05/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	3J	1J	NA	2900J	490000
Toluene	1500	6U	5U	NA	190J	780000
Ethylbenzene	5500	6U	5U	NA	13000	680000
Xylene (total)	1200	6U	2J	NA	3800J	840000
Total BTEX		3	3	--	19,890	2,790,000
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	400U	380U	NA	12000	2700000
Acenaphthene	50000	400U	380U	NA	3400J	140000J
Acenaphthylene	41000	400U	380U	NA	1400J	500000J
Anthracene	50000	400U	380U	NA	3700J	400000J
Benzo(g,h,i)perylene	50000	400U	380U	NA	3000J	110000J
Fluoranthene	50000	400U	380U	NA	8100	440000J
Fluorene	50000	400U	380U	NA	3800J	640000J
Naphthalene	13000	51J	230J	NA	10000B	3800000B
Phenanthrene	50000	45J	380U	NA	18000	1400000
Pyrene	50000	15J	9J	NA	13000	650000
Total Non-Carcinogenic PAHs		111	239	--	76,400	10,780,000
Carcinogenic PAHs						
Benz(a)anthracene	224	400U	380U	NA	5400J	240000J
Benzo(a)pyrene	61	400U	380U	NA	4100J	210000J
Benzo(b)fluoranthene	1100	400U	380U	NA	2600J	91000J
Benzo(k)fluoranthene	1100	400U	380U	NA	2600J	140000J
Chrysene	400	400UJ	380U	NA	6400J	230000J
Dibenz(a,h)anthracene	14	400U	380U	NA	1000J	34000J
Indeno(1,2,3-cd)pyrene	3200	400U	380U	NA	2000J	79000J
Total Carcinogenic PAHs		0	0	--	24,100	1,024,000
Total PAHs		111	239	--	100,500	11,804,000
Other Semivolatile Organic Compounds						
4-Methylphenol	900	400U	380U	NA	7300U	650000U
Benzoic acid	2700	2000U	1900U	NA	36000U	3200000U
Carbazole	NE	400U	380U	NA	160J	25000J
Di-n-butylphthalate	8100	400U	380U	NA	7300U	650000U
Di-n-octylphthalate	50000	400U	380U	NA	7300U	650000U
Dibenzofuran	6200	400U	380U	NA	690J	120000J
N-Nitrosodiphenylamine (1)	NE	400U	380U	NA	7300U	650000U
Phenol	30	400U	380U	NA	7300U	650000U
bis(2-Ethylhexyl)phthalate	50000	400U	380U	NA	7300U	650000U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	SB-19		SB-19 (dup)	SB-37	
Sample ID:	Soil Cleanup	CF-SB19	CF-SB19	CF-SB19	CF-SB-37	CF-SB-37
Depth (ft):	Objectives	(5-7)	(34-36)	(34-36)	(4-8)	(14.5-15)
Constituent Date:	(RSCOs)	02/24/1999	02/25/1999	02/25/1999	08/05/1999	08/05/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	4.4	2.8J	NA	3.4J	9.8
Barium	300	44.6B	54.5	NA	51.4	149.
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.23U	0.21J	NA	0.22B	1.5
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	70.0	18.6	NA	19.2	16.2
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	13.8	8.1	NA	38.3	606.
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.029U	0.019U	NA	0.20	3.6
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	2.3J	0.63U	NA	0.81UJ	1.0UJ
Silver	NE	0.47U	0.31U	NA	0.16UJ	0.20UJ
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.687UJ	0.583U	NA	1.70	19.4
Total Organic Carbon (mg/kg)						
TOC	NE	NA	2230	2460.	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	0.13
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	0.19
Pyridine (TCLP)	NE	NA	NA	NA	NA	0.004J

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-39		SB-51	
Sample ID:		CF-SB-39	CF-SB-39	CF-SB-51	CF-SB-51
Depth (ft):		(0-4)	(5.5)	(5-7)	(39-41)
Constituent Date:		08/05/1999	08/05/1999	08/04/1999	08/04/1999
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	15000J	34000	150J	11J
Toluene	1500	40000	66000	120J	6J
Ethylbenzene	5500	32000	20000J	210J	2J
Xylene (total)	1200	62000	89000	470J	1J
Total BTEX		149,000	209,000	950	20
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	1700000J	11000000B	7700J	99J
Acenaphthene	50000	88000J	600000J	13000	370U
Acenaphthylene	41000	420000	3000000	5500J	6J
Anthracene	50000	230000J	1700000J	14000	3J
Benzo(g,h,i)perylene	50000	110000J	640000J	11000	370U
Fluoranthene	50000	270000J	1800000J	22000	9J
Fluorene	50000	370000J	2900000	13000	370U
Naphthalene	13000	1900000B	14000000B	9000B	170JB
Phenanthrene	50000	810000J	6600000	41000	19J
Pyrene	50000	540000J	4200000	30000	11J
Total Non-Carcinogenic PAHs		6,438,000	46,440,000	166,200	317
Carcinogenic PAHs					
Benz(a)anthracene	224	180000J	1400000J	11000	370U
Benzo(a)pyrene	61	170000J	1100000J	13000	370U
Benzo(b)fluoranthene	1100	78000J	400000J	8500	370U
Benzo(k)fluoranthene	1100	98000J	810000J	8500	370U
Chrysene	400	200000J	1400000J	14000	370U
Dibenz(a,h)anthracene	14	39000J	240000J	4300J	370U
Indeno(1,2,3-cd)pyrene	3200	74000J	420000J	9000	370U
Total Carcinogenic PAHs		839,000	5,770,000	68,300	0
Total PAHs		7,277,000	52,210,000	234,500	317
Other Semivolatile Organic Compounds					
4-Methylphenol	900	360000U	2500000U	8000U	370U
Benzoic acid	2700	1700000U	12000000U	39000U	1800U
Carbazole	NE	13000J	86000J	2900J	370U
Di-n-butylphthalate	8100	360000U	2500000U	8000U	370U
Di-n-octylphthalate	50000	360000U	2500000U	8000U	0.0001U
Dibenzofuran	6200	65000J	490000J	4400J	370U
N-Nitrosodiphenylamine (1)	NE	360000U	2500000U	8000U	370U
Phenol	30	360000U	2500000U	8000U	370U
bis(2-Ethylhexyl)phthalate	50000	360000U	2500000U	8000U	0.0001U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	New York Recommended Soil Cleanup Objectives (RSCOs)	25 Willow Avenue Parcel			
Site ID:		SB-39		SB-51	
Sample ID:		CF-SB-39	CF-SB-39	CF-SB-51	CF-SB-51
Depth (ft):		(0-4)	(5.5)	(5-7)	(39-41)
Constituent Date:		08/05/1999	08/05/1999	08/04/1999	08/04/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	4.5J	3.9J	7.1J	61.3
Barium	300	40.6	34.0B	105.	282.
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.66B	0.50B	0.65J	63.7
Calcium	NE	NA	NA	NA	NA
Chromium	10	17.3	4.9	31.8	44.1
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	92.4	55.9	103.	92.2
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.042B	NA	0.79	0.035U
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.2UJ	1.1UJ	0.88UJ	59.6J
Silver	NE	0.20J	0.21UJ	0.18UJ	58.1J
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.530U	0.510U	34.0J	0.560UJ
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	SB-52			SB-53	
Sample ID:	Soil Cleanup	CFSB-52	CFSB-52	CFSB-52	CF-SB-53	CF-SB-53
Depth (ft):	Objectives	(5-7)	(11-13)	(39-41)	(7-9)	(13.5)
Constituent Date:	(RSCOs)	07/29/1999	07/29/1999	07/29/1999	08/03/1999	08/03/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	260J	7U	6U	15000	230000
Toluene	1500	250J	0.4J	6U	32000	390000
Ethylbenzene	5500	2900	5J	6U	6400	51000J
Xylene (total)	1200	4600	7	6U	38000	440000
Total BTEX		8,010	12	0	91,400	1,111,000
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	560J	890U	370U	3200000	10000000
Acenaphthene	50000	650J	890U	370U	120000J	480000J
Acenaphthylene	41000	540J	890U	370U	220000J	390000J
Anthracene	50000	1000J	890U	370U	290000J	460000J
Benzo(g,h,i)perylene	50000	11000	890U	370U	130000J	310000J
Fluoranthene	50000	4900	890U	370U	570000J	1600000J
Fluorene	50000	590J	890U	370U	790000J	2500000J
Naphthalene	13000	6200	890U	370U	3300000B	12000000B
Phenanthrene	50000	3000	890U	370U	1800000	5000000
Pyrene	50000	6700	890U	370U	780000J	2000000J
Total Non-Carcinogenic PAHs		35,140	0	0	11,200,000	34,740,000
Carcinogenic PAHs						
Benz(a)anthracene	224	4100	890U	370U	300000J	790000J
Benzo(a)pyrene	61	8400	890U	370U	270000J	710000J
Benzo(b)fluoranthene	1100	6200	890U	370U	130000J	320000J
Benzo(k)fluoranthene	1100	7700	890U	370U	160000J	540000J
Chrysene	400	4400	890U	370U	320000J	940000J
Dibenz(a,h)anthracene	14	3200	890U	370U	42000J	130000J
Indeno(1,2,3-cd)pyrene	3200	8400	890U	370U	85000J	250000J
Total Carcinogenic PAHs		42,400	0	0	1,307,000	3,680,000
Total PAHs		77,540	0	0	12,507,000	38,420,000
Other Semivolatile Organic Compounds						
4-Methylphenol	900	42J	890U	370U	820000U	100000J
Benzoic acid	2700	9300U	4300U	1800U	4000000U	13000000U
Carbazole	NE	910J	890U	370UJ	31000J	160000J
Di-n-butylphthalate	8100	1900U	890U	370U	820000U	2700000U
Di-n-octylphthalate	50000	1900U	890U	370U	820000U	2700000U
Dibenzofuran	6200	310J	890U	370U	140000J	360000J
N-Nitrosodiphenylamine (1)	NE	1900U	890U	370U	820000U	2700000U
Phenol	30	94JB	890U	370U	820000U	80000J
bis(2-Ethylhexyl)phthalate	50000	1900U	890U	370U	820000U	2700000U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	SB-52			SB-53	
Sample ID:	Soil Cleanup	CFSB-52	CFSB-52	CFSB-52	CF-SB-53	CF-SB-53
Depth (ft):	Objectives	(5-7)	(11-13)	(39-41)	(7-9)	(13.5)
Constituent Date:	(RSCOs)	07/29/1999	07/29/1999	07/29/1999	08/03/1999	08/03/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	3.5J	7.3J	3.8J	4.3J	15.2
Barium	300	112.	96.9	88.1	26.3B	161.
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	5.5J	3.1J	3.5J	0.37B	0.83J
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	89.0J	57.7J	35.5J	4.9	4.2
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	62.5	15.4	14.1	71.5	86.1
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.044	0.012B	0.0048U	0.031U	0.84
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	3.2UJ	1.6UJ	0.84UJ	1.0UJ	1.1UJ
Silver	NE	0.33U	0.20U	0.17U	0.20UJ	0.21UJ
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.980J	0.710UJ	0.580UJ	3.58	59.5
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	SB-54			SB-55	
Sample ID:	Soil Cleanup	CF-SB-54	CF-SB-54	CF-SB-54	CFSB55	CFSB55
Depth (ft):	Objectives	(4-6)	(9-11)	(23-25)	(18-20)	(56-58)
Constituent Date:	(RSCOs)	08/03/1999	08/03/1999	08/03/1999	08/10/1999	08/10/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	54000	230000	80000	41000J	1J
Toluene	1500	1900J	390000	120000	120000J	6U
Ethylbenzene	5500	520000	340000	100000	23000J	6U
Xylene (total)	1200	300000	570000	160000	170000J	6U
Total BTEX		875,900	1,530,000	460,000	354,000	1
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	1000000	630000	2300000	360000	400U
Acenaphthene	50000	97000J	190000	480000	23000J	400U
Acenaphthylene	41000	43000J	54000J	520000	140000	400U
Anthracene	50000	180000J	110000J	360000J	64000J	2J
Benzo(g,h,i)perylene	50000	31000J	13000J	28000J	14000J	400U
Fluoranthene	50000	200000J	88000J	320000J	64000J	400U
Fluorene	50000	260000J	190000	520000	98000J	400U
Naphthalene	13000	1800000B	1000000B	3000000B	700000B	400U
Phenanthrene	50000	530000	340000	1200000	240000	4J
Pyrene	50000	200000J	150000J	360000J	130000	3J
Total Non-Carcinogenic PAHs		4,341,000	2,765,000	9,088,000	1,833,000	9
Carcinogenic PAHs						
Benz(a)anthracene	224	98000J	48000J	150000J	36000J	400U
Benzo(a)pyrene	61	62000J	37000J	100000J	27000J	400U
Benzo(b)fluoranthene	1100	43000J	14000J	50000J	11000J	400U
Benzo(k)fluoranthene	1100	51000J	35000J	77000J	19000J	400U
Chrysene	400	100000J	53000J	170000J	36000J	400U
Dibenz(a,h)anthracene	14	13000J	8000J	12000J	130000U	400U
Indeno(1,2,3-cd)pyrene	3200	27000J	11000J	26000J	9400J	400U
Total Carcinogenic PAHs		394,000	206,000	585,000	138,400	0
Total PAHs		4,735,000	2,971,000	9,673,000	1,971,400	9
Other Semivolatile Organic Compounds						
4-Methylphenol	900	330000U	160000U	400000U	130000U	400U
Benzoic acid	2700	1600000U	780000U	1900000U	640000U	2000U
Carbazole	NE	10000J	7400J	16000J	130000U	400U
Di-n-butylphthalate	8100	330000U	160000U	400000U	130000U	400U
Di-n-octylphthalate	50000	330000U	160000U	400000U	130000U	400U
Dibenzofuran	6200	30000J	20000J	58000J	12000J	400U
N-Nitrosodiphenylamine (1)	NE	330000U	160000U	400000U	130000U	400U
Phenol	30	330000U	160000U	400000U	130000U	400U
bis(2-Ethylhexyl)phthalate	50000	330000U	160000U	400000U	130000U	400U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel				
Site ID:	New York Recommended	SB-54			SB-55	
Sample ID:	Soil Cleanup	CF-SB-54	CF-SB-54	CF-SB-54	CFSB55	CFSB55
Depth (ft):	Objectives	(4-6)	(9-11)	(23-25)	(18-20)	(56-58)
Constituent Date:	(RSCOs)	08/03/1999	08/03/1999	08/03/1999	08/10/1999	08/10/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	10.4	3.0J	2.2J	2.0J	1.3UJ
Barium	300	48.3	86.3	25.4B	61.2	51.2
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.58J	0.59J	0.22B	0.46J	0.29B
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	41.4	64.7	31.0	192.	8.8
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	100.	23.0	3.5	6.2	5.2
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	1.6	0.17	0.036U	0.032U	0.025U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	4.9UJ	7.0J	1.4UJ	0.86UJ	1.1UJ
Silver	NE	0.18UJ	0.20UJ	0.19UJ	0.17UJ	0.17UJ
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	139.	5.88	0.580U	0.560U	0.620U
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	SB-55	SB-55 (dup)	SB-57	
Sample ID:		CFSB55	CF081099	CFSB-57	CFSB-57
Depth (ft):		(73-75)		(5-7)	(29-31)
Constituent Date:		08/10/1999	08/10/1999	07/30/1999	07/30/1999
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	5U	0.5J	140	4J
Toluene	1500	5U	6U	110	3J
Ethylbenzene	5500	5U	6U	780	2J
Xylene (total)	1200	5U	6U	570	4J
Total BTEX		0	0.5J	1,600	13
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	360U	6J	1000J	68J
Acenaphthene	50000	360U	370U	1900J	370U
Acenaphthylene	41000	2J	370U	1800J	16J
Anthracene	50000	3J	370U	5000J	370U
Benzo(g,h,i)perylene	50000	360U	370U	18000J	370U
Fluoranthene	50000	5J	370U	39000	370U
Fluorene	50000	360U	370U	1800J	370U
Naphthalene	13000	360U	370U	18000	240J
Phenanthrene	50000	10J	370U	10000	370U
Pyrene	50000	6J	370U	41000	370U
Total Non-Carcinogenic PAHs		26	6	137,500	324
Carcinogenic PAHs					
Benz(a)anthracene	224	4J	370U	20000	370U
Benzo(a)pyrene	61	360U	370U	26000	370U
Benzo(b)fluoranthene	1100	360U	370U	17000	370U
Benzo(k)fluoranthene	1100	360U	370U	29000	370U
Chrysene	400	3J	370U	21000	370U
Dibenz(a,h)anthracene	14	360U	370U	6300J	370U
Indeno(1,2,3-cd)pyrene	3200	360U	370U	16000J	370U
Total Carcinogenic PAHs		7	0	135,300	0
Total PAHs		33	6	272,800	324
Other Semivolatile Organic Compounds					
4-Methylphenol	900	360U	370U	8500U	370U
Benzoic acid	2700	1800U	1800U	41000U	1800U
Carbazole	NE	360U	370U	2000J	370U
Di-n-butylphthalate	8100	360U	370U	8500U	370U
Di-n-octylphthalate	50000	360U	370U	8500U	370U
Dibenzofuran	6200	360UJ	370U	650J	370U
N-Nitrosodiphenylamine (1)	NE	360U	370U	470J	370U
Phenol	30	360U	370U	8500U	370U
bis(2-Ethylhexyl)phthalate	50000	360U	370U	8500U	370U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	SB-55	SB-55 (dup)	SB-57	
Sample ID:		CFSB55	CF081099	CFSB-57	CFSB-57
Depth (ft):		(73-75)		(5-7)	(29-31)
Constituent Date:		08/10/1999	08/10/1999	07/30/1999	07/30/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	1.3UJ	1.4UJ	5.7J	4.0J
Barium	300	69.2	49.8	67.0	66.6
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.16B	0.17U	3.5J	2.5UJ
Calcium	NE	NA	NA	NA	NA
Chromium	10	12.0	8.6	41.7J	21.0J
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	7.0	5.4	79.3	9.1
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.026U	0.046U	0.38	0.0072U
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	0.97UJ	0.86UJ	1.6U	0.92UJ
Silver	NE	0.16UJ	0.17UJ	0.19U	0.18U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.550U	0.510U	30.5	0.580U
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-68		RW-17	
Sample ID:		SB-68	SB-68	SB-69	SB-69
Depth (ft):		(33-33.5)	(54.5-55)	(33-33.5)	(44.5-45)
Constituent Date:		12/04/2001	12/05/2001	12/05/2001	12/05/2001
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	12 J	6 U	52000 U	6 U
Toluene	1500	23 U	6 U	52000 U	6 U
Ethylbenzene	5500	5 J	6 U	95000	3 J
Xylene (total)	1200	18 J	6 U	97000	2 J
Total BTEX		35	0	192,000	5
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	310 J	370 U	240000	200 J
Acenaphthene	50000	370 U	370 U	97000	51 J
Acenaphthylene	41000	60 J	370 U	9000 J	370 U
Anthracene	50000	370 U	370 U	39000 J	370 U
Benzo(g,h,i)perylene	50000	370 U	370 U	71000 U	370 U
Fluoranthene	50000	370 U	370 U	33000 J	370 U
Fluorene	50000	370 U	370 U	49000 J	370 U
Naphthalene	13000	870	370 U	290000	330 J
Phenanthrene	50000	370 U	370 U	140000	370 U
Pyrene	50000	370 U	370 U	52000 J	370 U
Total Non-Carcinogenic PAHs		1,240	0	949,000	581
Carcinogenic PAHs					
Benz(a)anthracene	224	370 U	370 U	18000 J	370 U
Benzo(a)pyrene	61	370 U	370 U	71000 U	370 U
Benzo(b)fluoranthene	1100	370 U	370 U	71000 U	370 U
Benzo(k)fluoranthene	1100	370 U	370 U	71000 U	370 U
Chrysene	400	370 U	370 U	18000 J	370 U
Dibenz(a,h)anthracene	14	370 U	370 U	71000 U	370 U
Indeno(1,2,3-cd)pyrene	3200	370 U	370 U	71000 U	370 U
Total Carcinogenic PAHs		0	0	36,000	0
Total PAHs		1,240	0	985,000	581
Other Semivolatile Organic Compounds					
4-Methylphenol	900	370 U	370 U	71000 U	370 U
Benzoic acid	2700	NA	NA	NA	NA
Carbazole	NE	370 U	370 U	71000 U	370 U
Di-n-butylphthalate	8100	370 U	370 U	71000 U	370 U
Di-n-octylphthalate	50000	370 U	370 U	71000 U	370 U
Dibenzofuran	6200	370 U	370 U	6000 J	370 U
N-Nitrosodiphenylamine (1)	NE	370 U	370 U	71000 U	370 U
Phenol	30	370 U	370 U	71000 U	370 U
bis(2-Ethylhexyl)phthalate	50000	370 U	370 U	71000 U	370 U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	SB-68		RW-17	
Sample ID:		SB-68	SB-68	SB-69	SB-69
Depth (ft):		(33-33.5)	(54.5-55)	(33-33.5)	(44.5-45)
Constituent Date:		12/04/2001	12/05/2001	12/05/2001	12/05/2001
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	1.1 J	2.5	2.3	2
Barium	300	36.6	72.5	33.8	75.5
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.30 U	0.33 J	0.3 J	0.3 J
Calcium	NE	NA	NA	NA	NA
Chromium	10	20.5	15.3	39.7	16.2
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	3.8 J	7.4 J	3.8 J	7.3 J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.0028 J	0.0038 J	0.00098 J	0.0011 J
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.7 U	1.2 U	1.5 U	1.3 U
Silver	NE	0.27 U	0.2 U	0.24 U	0.21 U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.11 UJ	0.107 U	0.109 U	0.111 UJ
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	RW-18		SB-71	
Sample ID:		SB-70A	SB-70A	SB-71	SB-71
Depth (ft):		(31.5-32)	(54.5-55)	(30-30.5)	(44-45)
Constituent Date:		12/07/2001	12/07/2001	12/11/2001	12/11/2001
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	140000	6 U	2 J	6 U
Toluene	1500	120000	6 U	6 U	6 U
Ethylbenzene	5500	390000	2 J	6 U	0.7 J
Xylene (total)	1200	490000	2 J	1 J	2 J
Total BTEX		1,140,000	4	3	2.70
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	5300000	360 U	380 U	360 U
Acenaphthene	50000	1700000	360 U	380 U	360 U
Acenaphthylene	41000	250000 J	360 U	380 U	360 U
Anthracene	50000	690000 J	360 U	380 U	360 U
Benzo(g,h,i)perylene	50000	1100000 U	360 U	380 UJ	360 UJ
Fluoranthene	50000	670000 J	360 U	380 U	360 U
Fluorene	50000	1000000 J	360 U	380 U	360 U
Naphthalene	13000	7100000	530	380 U	360 U
Phenanthrene	50000	2400000	360 U	380 U	360 U
Pyrene	50000	920000 J	360 U	380 U	360 U
Total Non-Carcinogenic PAHs		20,030,000	530	0	0
Carcinogenic PAHs					
Benz(a)anthracene	224	360000 J	360 U	380 U	360 U
Benzo(a)pyrene	61	210000 J	360 U	380 U	360 U
Benzo(b)fluoranthene	1100	1100000 U	360 U	380 U	360 U
Benzo(k)fluoranthene	1100	150000 J	360 U	380 U	360 U
Chrysene	400	390000 J	360 U	380 U	360 U
Dibenz(a,h)anthracene	14	1100000 U	360 U	380 U	360 U
Indeno(1,2,3-cd)pyrene	3200	1100000 U	360 U	380 UJ	360 UJ
Total Carcinogenic PAHs		1,110,000	0	0	0
Total PAHs		21,140,000	530	0	0
Other Semivolatile Organic Compounds					
4-Methylphenol	900	1100000 U	360 U	380 U	360 U
Benzoic acid	2700	NA	NA	NA	NA
Carbazole	NE	1100000 U	360 U	380 U	360 U
Di-n-butylphthalate	8100	1100000 U	360 U	380 U	360 U
Di-n-octylphthalate	50000	1100000 U	360 U	380 U	360 U
Dibenzofuran	6200	120000 J	360 U	380 U	360 U
N-Nitrosodiphenylamine (1)	NE	1100000 U	360 U	380 U	360 U
Phenol	30	1100000 U	360 U	380 U	360 U
bis(2-Ethylhexyl)phthalate	50000	1100000 U	360 U	380 U	260 J

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	RW-18		SB-71	
Sample ID:		SB-70A	SB-70A	SB-71	SB-71
Depth (ft):		(31.5-32)	(54.5-55)	(30-30.5)	(44-45)
Constituent Date:		12/07/2001	12/07/2001	12/11/2001	12/11/2001
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	4.1	2.6	3.1	4.4
Barium	300	83.6	69.9	66	65
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.58 J	0.28 J	0.34 J	0.3 J
Calcium	NE	NA	NA	NA	NA
Chromium	10	72	17.8	41.6	20.3
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	9.5 J	6.9 J	8.4 J	8.3 J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.00033 U	0.0022 J	0.0068 U	0.0063 U
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.7 U	1.3 U	1.3 U	1.5 U
Silver	NE	0.27 U	0.21 U	0.2 U	0.24 U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.126 U	0.105 UJ	0.115 UJ	0.115 UJ
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-72		SB-73	
Sample ID:		SB-72	SB-72	SB-73	SB-73
Depth (ft):		(24.5-25)	(48-49)	(30-31)	(54-55)
Constituent Date:		12/12/2001	12/12/2001	12/12/2001	12/12/2001
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	2 J	2 J	2 J	3 J
Toluene	1500	6 U	6 U	6 U	6 U
Ethylbenzene	5500	0.5 J	0.5 J	6 U	6 U
Xylene (total)	1200	2 J	2 J	6 U	6 U
Total BTEX		5	5	2	3
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	370 U	1200	360 U	390 U
Acenaphthene	50000	370 U	20 J	360 U	390 U
Acenaphthylene	41000	370 U	120 J	360 U	390 U
Anthracene	50000	370 U	390 U	360 U	390 U
Benzo(g,h,i)perylene	50000	370 UJ	390 UJ	360 UJ	390 UJ
Fluoranthene	50000	370 U	390 U	360 U	390 U
Fluorene	50000	370 U	390 U	360 U	390 U
Naphthalene	13000	370 U	1600	360 U	390 U
Phenanthrene	50000	370 U	390 U	360 U	390 U
Pyrene	50000	370 U	390 U	360 U	390 U
Total Non-Carcinogenic PAHs		0	2,940	0	0
Carcinogenic PAHs					
Benz(a)anthracene	224	370 U	390 U	360 U	390 U
Benzo(a)pyrene	61	370 U	390 U	360 U	390 U
Benzo(b)fluoranthene	1100	370 U	390 U	360 U	390 U
Benzo(k)fluoranthene	1100	370 U	390 U	360 U	390 U
Chrysene	400	370 U	390 U	360 U	390 U
Dibenz(a,h)anthracene	14	370 U	390 U	360 U	390 U
Indeno(1,2,3-cd)pyrene	3200	370 UJ	390 UJ	360 UJ	390 UJ
Total Carcinogenic PAHs		0	0	0	0
Total PAHs		0	2,940	0	0
Other Semivolatile Organic Compounds					
4-Methylphenol	900	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-72		SB-73	
Sample ID:		SB-72	SB-72	SB-73	SB-73
Depth (ft):		(24.5-25)	(48-49)	(30-31)	(54-55)
Constituent Date:		12/12/2001	12/12/2001	12/12/2001	12/12/2001
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	6.8	2	3	3.2
Barium	300	52.7	56.2	61.3	33
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.35 J	0.25 UJ	0.34 J	0.29 UJ
Calcium	NE	NA	NA	NA	NA
Chromium	10	75.8	11.1	82.2	9.9
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	6.8 J	6.4 J	6.6 J	5.4 J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.058 U	0.069 U	0.062 U	0.072 U
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.6 U	1.4 U	1.5 U	1.6 U
Silver	NE	0.26 U	0.23 U	0.24 U	0.27 U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.113 U	0.12 U	0.111 U	0.118 U
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-74		SB-75	
Sample ID:		SB-74	SB-74	SB-75	SB-75
Depth (ft):		(21-21.5)	(34.5-35)	(52-52.5)	(70-72)
Constituent Date:		12/10/2001	12/10/2001	12/11/2001	12/11/2001
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	3800 J	13	8800 J	4 J
Toluene	1500	6400	13	33000	6 U
Ethylbenzene	5500	30000	35	26000	0.8 J
Xylene (total)	1200	36000	27	56000	3 J
Total BTEX		76,200	88	123,800	78
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	190000	360 U	690000	320 J
Acenaphthene	50000	27000 J	360 U	31000 J	390 U
Acenaphthylene	41000	8100 J	360 U	240000	80 J
Anthracene	50000	21000 J	360 U	92000 J	50 J
Benzo(g,h,i)perylene	50000	41000 U	360 UJ	150000 U	390 UJ
Fluoranthene	50000	27000 J	360 U	95000 J	390 U
Fluorene	50000	41000 J	360 U	150000	57 J
Naphthalene	13000	180000	530	950000	360 J
Phenanthrene	50000	100000	360 U	350000	230 J
Pyrene	50000	47000	360 U	120000 J	390 U
Total Non-Carcinogenic PAHs		641,100	530	2,718,000	1,097
Carcinogenic PAHs					
Benz(a)anthracene	224	17000 J	360 U	45000 J	390 U
Benzo(a)pyrene	61	13000 J	360 UJ	27000 J	390 U
Benzo(b)fluoranthene	1100	6100 J	360 U	150000 U	390 U
Benzo(k)fluoranthene	1100	7000 J	360 U	150000 U	390 U
Chrysene	400	18000 J	360 U	48000 J	390 U
Dibenz(a,h)anthracene	14	41000 U	360 U	150000 U	390 U
Indeno(1,2,3-cd)pyrene	3200	3100 J	360 U	150000 U	390 UJ
Total Carcinogenic PAHs		64,200	0	120,000	0
Total PAHs		705,300	530	2,838,000	1,097
Other Semivolatile Organic Compounds					
4-Methylphenol	900	41000 U	360 U	150000 U	390 U
Benzoic acid	2700	NA	NA	NA	NA
Carbazole	NE	41000 U	360 U	150000 U	390 U
Di-n-butylphthalate	8100	41000 U	360 U	150000 U	390 U
Di-n-octylphthalate	50000	41000 U	360 U	150000 U	390 U
Dibenzofuran	6200	6500 J	360 U	18000 J	390 U
N-Nitrosodiphenylamine (1)	NE	41000 U	360 U	150000 U	390 U
Phenol	30	41000 U	360 U	150000 U	160 J
bis(2-Ethylhexyl)phthalate	50000	41000 U	360 U	150000 U	390 U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	SB-74		SB-75	
Sample ID:		SB-74	SB-74	SB-75	SB-75
Depth (ft):		(21-21.5)	(34.5-35)	(52-52.5)	(70-72)
Constituent Date:		12/10/2001	12/10/2001	12/11/2001	12/11/2001
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	2.6	3	2.1	1.6 J
Barium	300	36	82.7	57.7	62.7
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.39 J	0.29 J	0.22 U	0.3 U
Calcium	NE	NA	NA	NA	NA
Chromium	10	46.1	15.7	12.2	10.4
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	5.2 J	8.2 J	6.7 J	5.5 J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.0054 U	0.0067 U	0.0071 U	0.0066 U
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.3 U	1.3 U	1.2 U	1.7 U
Silver	NE	0.20 U	0.21 U	0.2 U	0.28 U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.123 UJ	0.107 UJ	0.114 UJ	0.118 UJ
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		25 Willow Avenue Parcel					
Site ID:	New York Recommended Soil Cleanup Objectives (RSCOs)	SB-76		TP-01	TP-03	TP-04	TP-08
Sample ID:		SB-76	SB-76	CF-TP1	CF-TP3	CF-TP4	CF-TP8
Depth (ft):		(44-44.5)	(58-58.5)	(3)	(1)	(3)	(2)
Constituent Date:		12/07/2001	12/07/2001	02/22/1999	02/23/1999	02/23/1999	02/24/1999
Volatile Organic Compounds (ug/kg)							
BTEX							
Benzene	60	870000	6 U	14J	47	12000	1000000
Toluene	1500	2100000	6 U	32U	30	1200J	1800000
Ethylbenzene	5500	1300000	1 J	17J	130	49000	1500000
Xylene (total)	1200	1700000	6 U	49	96	16000	1800000
Total BTEX		5,970,000	1	80	303	78,200	6,100,000
Other Volatile Organic Compounds							
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	47J	25U	NA	130000UJ
4-Methyl-2-Pentanone	1000	NA	NA	65U	25U	NA	130000UJ
Acetone	200	NA	NA	160U	30U	NA	130000U
Carbon Tetrachloride	600	NA	NA	32U	12U	NA	130000U
Isopropylbenzene	NE	NA	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	32U	12U	NA	130000U
Styrene	NE	NA	NA	32U	21	NA	130000U
n-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	36400	3400000	2700	16000	43000	8600U	26000000
Acenaphthene	50000	330000 J	360 J	6100J	4300J	3800J	1500000
Acenaphthylene	41000	1300000 J	920	2900J	5400J	3100J	3300000
Anthracene	50000	780000 J	670 J	1400J	1700J	34000J	130000U
Benzo(g,h,i)perylene	50000	1800000 U	140 J	4700	13000	22000	3600000
Fluoranthene	50000	1600000 J	1100	3400J	11000J	42000J	130000J
Fluorene	50000	1200000 J	1100	4400J	15000	22000	3200000
Naphthalene	13000	13000000	3900	2500J	19000	26000	27000000
Phenanthrene	50000	4100000	3000	23000J	58000	78000J	14000000
Pyrene	50000	2000000	1400	7700J	28000	110000J	4700000J
Total Non-Carcinogenic PAHs		27,710,000	15,290	72,100	198,400	340,900	83,430,000
Carcinogenic PAHs							
Benz(a)anthracene	224	690000 J	550 J	3600J	10000	29000J	1700000J
Benzo(a)pyrene	61	550000 J	420 J	4600	8200J	25000	1500000
Benzo(b)fluoranthene	1100	250000 J	190 J	2500J	3400J	13000	590000
Benzo(k)fluoranthene	1100	400000 J	300 J	2800J	5400J	17000J	870000
Chrysene	400	650000 J	570 J	6900J	14000	33000J	2200000
Dibenz(a,h)anthracene	14	1800000 U	740 U	3200J	8000J	6000J	2600000J
Indeno(1,2,3-cd)pyrene	3200	1800000 U	120 J	4200	11000	19000	3200000J
Total Carcinogenic PAHs		2,540,000	2,150	27,800	60,000	142,000	12,660,000
Total PAHs		30,250,000	17,440	99,900	258,400	482,900	9,609,000
Other Semivolatile Organic Compounds							
4-Methylphenol	900	1800000 U	740 U	4200U	9900U	8600U	130000U
Benzoic acid	2700	NA	NA	20000U	48000U	42000U	640000U
Carbazole	NE	1800000 U	740 U	4200UJ	9900U	8600U	130000U
Di-n-butylphthalate	8100	1800000 U	740 U	4200UJ	9900U	8600U	130000U
Di-n-octylphthalate	50000	1800000 U	740 U	4200U	9900U	8600U	130000U
Dibenzofuran	6200	160000 J	130 J	1400J	2800J	8600U	890000
N-Nitrosodiphenylamine (1)	NE	1800000 U	740 U	4200UJ	9900U	8600U	130000U
Phenol	30	1800000 U	95 J	4200U	9900U	8600U	130000U
bis(2-Ethylhexyl)phthalate	50000	1800000 U	740 U	4200UJ	9900UJ	8600UJ	130000UJ

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	New York Recommended Soil Cleanup Objectives (RSCOs)	25 Willow Avenue Parcel					
Site ID:		SB-76		TP-01	TP-03	TP-04	TP-08
Sample ID:		SB-76	SB-76	CF-TP1	CF-TP3	CF-TP4	CF-TP8
Depth (ft):		(44-44.5)	(58-58.5)	(3)	(1)	(3)	(2)
Constituent Date:		12/07/2001	12/07/2001	02/22/1999	02/23/1999	02/23/1999	02/24/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)							
4,4'-DDE	2100	NA	NA	NA	NA	NA	680J
4,4'-DDT	2100	NA	NA	NA	NA	NA	2000U
Dieldrin	44	NA	NA	NA	NA	NA	2000U
Endosulfan sulfate	1000	NA	NA	NA	NA	NA	2100J
Heptachlor epoxide	20	NA	NA	NA	NA	NA	640J
Heptachlor	100	NA	NA	NA	NA	NA	1000U
gamma-Chlordane	540	NA	NA	NA	NA	NA	160J
Metals (mg/kg)							
Aluminum	NE	NA	NA	NA	NA	NA	297.
Antimony	NE	NA	NA	NA	NA	NA	2.5UJ
Arsenic	7.5	6.1	2.4	8.1	4.6	NA	11.9
Barium	300	36.7	89.4	109.	38.1	NA	21.8U
Beryllium	0.16	NA	NA	NA	NA	NA	0.25U
Cadmium	1	0.42	0.35 J	0.78U	0.34U	NA	1.4
Calcium	NE	NA	NA	NA	NA	NA	816.B
Chromium	10	46.7	40.6	35.8	16.1	NA	2.1U
Cobalt	30	NA	NA	NA	NA	NA	0.72B
Copper	25	NA	NA	NA	NA	NA	28.3
Iron	2000	NA	NA	NA	NA	NA	1560
Lead	500	3.7 J	6.7 J	227.	46.8	NA	429.
Magnesium	NE	NA	NA	NA	NA	NA	176.B
Manganese	NE	NA	NA	NA	NA	NA	18.6J
Mercury	0.1	0.0012 J	0.0026 J	0.49	0.81	NA	0.12
Nickel	13	NA	NA	NA	NA	NA	13.7
Potassium	NE	NA	NA	NA	NA	NA	57.8J
Selenium	2	1.1 U	1.6 U	2.2J	2.8J	NA	4.6
Silver	NE	0.18 U	0.26 U	0.36U	0.28U	NA	0.51U
Sodium	NE	NA	NA	NA	NA	NA	202.B
Thallium	NE	NA	NA	NA	NA	NA	1.8UJ
Vanadium	150	NA	NA	NA	NA	NA	16.2J
Zinc	20	NA	NA	NA	NA	NA	208.
Total Cyanide (mg/kg)							
Cyanide (Total)	NE	0.112 UJ	0.112 UJ	0.639 UJ	2.01 J	NA	0.679 U
Total Organic Carbon (mg/kg)							
TOC	NE	NA	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)							
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Constituent	Parcel: / Site ID: / Sample ID: / Depth (ft): / Date:	New York Recommended Soil Cleanup Objectives (RSCOs)	Willow Avenue FPM-SB-09 SB-9 (0.5-4) 01/10/1998	Willow Avenue FPM-SB-09 SB-9 (12) 01/10/1998	Willow Avenue FPM-SB-09 SB-9 (16) 01/10/1998	Willow Avenue FPM-SB-10 SB-10 (8-9) 01/10/1998
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene		60	18125U	8500	1700	2975U
Toluene		1500	43000	5875U	600U	2975U
Ethylbenzene		5500	640000	66000	2900	2975U
Xylene (total)		1200	1000000	45000	690	2975U
Total BTEX			1,683,000	119,500	5,290	0
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene		NE	470000	40000	2600	8000
1,3,5-Trimethylbenzene		NE	180000	13000	810	3000
2-Butanone		300	NA	NA	NA	NA
4-Methyl-2-Pentanone		1000	NA	NA	NA	NA
Acetone		200	NA	NA	NA	NA
Carbon Tetrachloride		600	NA	NA	NA	NA
Isopropylbenzene		NE	87000	7700	530	1500
Methylene Chloride		100	NA	NA	NA	NA
Styrene		NE	NA	NA	NA	NA
n-Butylbenzene		NE	8700U	2820U	290U	1428U
n-Propylbenzene		NE	24000	2500J	290U	1428U
p-Isopropyltoluene		NE	10000	4700	240J	2000
sec-Butylbenzene		NE	8700U	2820U	290U	1428U
tert-Butylbenzene		NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene		36400	NA	NA	NA	NA
Acenaphthene		50000	84J	100J	4350U	140000
Acenaphthylene		41000	NA	NA	NA	NA
Anthracene		50000	320J	290J	2900J	44000J
Benzo(g,h,i)perylene		50000	4400	1400U	9300	81500U
Fluoranthene		50000	1700	1700	16000	32000J
Fluorene		50000	67J	110J	4350U	56000J
Naphthalene		13000	1400000#	420000#	37000#	560000#
Phenanthrene		50000	880	1300	7600	130000
Pyrene		50000	2700	2200	23000	46000J
Total Non-Carcinogenic PAHs			1,410,151	427,100	95,800	1,008,000
Carcinogenic PAHs						
Benz(a)anthracene		224	1500	1100	14000	19000J
Benzo(a)pyrene		61	2900	1100	11000	12000J
Benzo(b)fluoranthene		1100	1700	870	6300	7100J
Benzo(k)fluoranthene		1100	1800	820	7300	7900J
Chrysene		400	1900	1200	14000	18000J
Dibenz(a,h)anthracene		14	1200	385U	2900J	81500U
Indeno(1,2,3-cd)pyrene		3200	3400	1000	7100	81500U
Total Carcinogenic PAHs			14,400	6,090	62,600	64,000
Total PAHs			1,424,551	433,190	158,400	1,072,000
Other Semivolatile Organic Compounds						
4-Methylphenol		900	NA	NA	NA	NA
Benzoic acid		2700	NA	NA	NA	NA
Carbazole		NE	NA	NA	NA	NA
Di-n-butylphthalate		8100	NA	NA	NA	NA
Di-n-octylphthalate		50000	NA	NA	NA	NA
Dibenzofuran		6200	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)		NE	NA	NA	NA	NA
Phenol		30	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate		50000	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Constituent	Parcel: / Site ID: / Sample ID: / Depth (ft): / Date:	New York Recommended Soil Cleanup Objectives (RSCOs)	Willow Avenue FPM-SB-09 SB-9 (0.5-4) 01/10/1998	Willow Avenue FPM-SB-09 SB-9 (12) 01/10/1998	Willow Avenue FPM-SB-09 SB-9 (16) 01/10/1998	Willow Avenue FPM-SB-10 SB-10 (8-9) 01/10/1998
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE		2100	NA	NA	NA	NA
4,4'-DDT		2100	NA	NA	NA	NA
Dieldrin		44	NA	NA	NA	NA
Endosulfan sulfate		1000	NA	NA	NA	NA
Heptachlor epoxide		20	NA	NA	NA	NA
Heptachlor		100	NA	NA	NA	NA
gamma-Chlordane		540	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum		NE	NA	NA	NA	NA
Antimony		NE	NA	NA	NA	NA
Arsenic		7.5	NA	NA	NA	NA
Barium		300	NA	NA	NA	NA
Beryllium		0.16	NA	NA	NA	NA
Cadmium		1	NA	NA	NA	NA
Calcium		NE	NA	NA	NA	NA
Chromium		10	NA	NA	NA	NA
Cobalt		30	NA	NA	NA	NA
Copper		25	NA	NA	NA	NA
Iron		2000	NA	NA	NA	NA
Lead		500	NA	NA	NA	NA
Magnesium		NE	NA	NA	NA	NA
Manganese		NE	NA	NA	NA	NA
Mercury		0.1	NA	NA	NA	NA
Nickel		13	NA	NA	NA	NA
Potassium		NE	NA	NA	NA	NA
Selenium		2	NA	NA	NA	NA
Silver		NE	NA	NA	NA	NA
Sodium		NE	NA	NA	NA	NA
Thallium		NE	NA	NA	NA	NA
Vanadium		150	NA	NA	NA	NA
Zinc		20	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)		NE	NA	NA	NA	NA
Total Organic Carbon (mg/kg)						
TOC		NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)		NE	NA	NA	NA	NA
4-Methylphenol (TCLP)		NE	NA	NA	NA	NA
Pyridine (TCLP)		NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Willow Avenue			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	FPM-SB-11		FPM-SB-12	
Sample ID:		SB-11	SB-11	SB-12	SB-12
Depth (ft):		(4)	(8)	(4)	(8-12)
Constituent Date:		01/10/1998	01/10/1998	01/10/1998	01/10/1998
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	2U	2U	110J	600U
Toluene	1500	2U	2U	76J	230J
Ethylbenzene	5500	2U	2U	510	1000
Xylene (total)	1200	2U	2U	530J	1630
Total BTEX		0	0	1,226	2,860
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	1U	1U	2000	1900
1,3,5-Trimethylbenzene	NE	1U	1U	170	670
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	1U	1U	440	190J
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	1U	1U	1100	300U
n-Propylbenzene	NE	1U	1U	350	300U
p-Isopropyltoluene	NE	1U	1U	250	300U
sec-Butylbenzene	NE	1U	1U	130J	300U
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	NA	NA	NA	NA
Acenaphthene	50000	110J	390U	5000	390J
Acenaphthylene	41000	NA	NA	NA	NA
Anthracene	50000	170J	14J	5300	840
Benzo(g,h,i)perylene	50000	460	79J	720J	110J
Fluoranthene	50000	1400	46J	3700J	700J
Fluorene	50000	42J	390U	6500	1100
Naphthalene	13000	180#J	35#J	2900#J	48000#
Phenanthrene	50000	150J	41J	16000	2700
Pyrene	50000	2100	85J	6500	1100
Total Non-Carcinogenic PAHs		4,612	300	46,620	54,940
Carcinogenic PAHs					
Benz(a)anthracene	224	870	37J	2400J	500J
Benzo(a)pyrene	61	1000	75J	1600J	300J
Benzo(b)fluoranthene	1100	540	58J	680J	120J
Benzo(k)fluoranthene	1100	680	57J	1200J	190J
Chrysene	400	870	52J	2500J	510J
Dibenz(a,h)anthracene	14	370U	390U	3795U	815U
Indeno(1,2,3-cd)pyrene	3200	380	57J	570J	92J
Total Carcinogenic PAHs		4,340	336	8,950	1,712
Total PAHs		8,952	636	55,570	56,652
Other Semivolatile Organic Compounds					
4-Methylphenol	900	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Willow Avenue			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	FPM-SB-11		FPM-SB-12	
Sample ID:		SB-11	SB-11	SB-12	SB-12
Depth (ft):		(4)	(8)	(4)	(8-12)
Constituent Date:		01/10/1998	01/10/1998	01/10/1998	01/10/1998
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	NA	NA	NA	NA
Barium	300	NA	NA	NA	NA
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA
Chromium	10	NA	NA	NA	NA
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	NA	NA	NA	NA
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	NA	NA	NA	NA
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	NA	NA	NA	NA
Silver	NE	NA	NA	NA	NA
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	NA	NA	NA	NA
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Willow Avenue					
Site ID:	New York Recommended	SB-30		SB-31		SB-32	
Sample ID:	Soil Cleanup	CF-SB30	CF-SB30	CF-SB31	CF-SB31	CF-SB32	CF-SB32
Depth (ft):	Objectives	(7-11)	(19-23)	(7-11)	(15-19)	(11-15)	(20-23)
Constituent Date:	(RSCOs)	03/01/1999	03/01/1999	03/01/1999	03/01/1999	03/01/1999	03/01/1999
Volatile Organic Compounds (ug/kg)							
BTEX							
Benzene	60	6U	7U	6U	3J	31U	6U
Toluene	1500	1J	1J	6U	0.8J	31U	6U
Ethylbenzene	5500	0.6J	0.5J	6U	6U	150	0.8J
Xylene (total)	1200	3J	3J	6U	6U	340	2J
Total BTEX		5	5	0	4	490	3
Other Volatile Organic Compounds							
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	62UJ	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	62UJ	NA
Acetone	200	NA	NA	NA	NA	62UJ	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	31UJ	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	47U	NA
Styrene	NE	NA	NA	NA	NA	31U	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	36400	380U	49J	380U	400U	200J	380U
Acenaphthene	50000	380U	490U	380UJ	29J	25J	67J
Acenaphthylene	41000	380U	58J	380U	400U	16J	25J
Anthracene	50000	380U	19J	380U	400U	14J	380U
Benzo(g,h,i)perylene	50000	380U	490U	380U	400U	380U	380U
Fluoranthene	50000	18J	490U	380U	400U	19J	380U
Fluorene	50000	380U	490U	380U	400U	18J	380U
Naphthalene	13000	380U	490U	380U	400U	880	37J
Phenanthrene	50000	16J	70J	380U	400U	66J	380U
Pyrene	50000	22J	29J	380U	400U	31J	380U
Total Non-Carcinogenic PAHs		56	225	0	29	1,269	129
Carcinogenic PAHs							
Benz(a)anthracene	224	16J	490U	380U	400UJ	11J	380U
Benzo(a)pyrene	61	24J	490U	380U	400U	380U	380U
Benzo(b)fluoranthene	1100	180J	490U	380U	400U	380U	380U
Benzo(k)fluoranthene	1100	26J	490U	380U	400U	380U	380U
Chrysene	400	17J	490U	380U	400U	380U	380U
Dibenz(a,h)anthracene	14	380U	490U	380U	400U	380U	380U
Indeno(1,2,3-cd)pyrene	3200	17J	490U	380U	400U	380U	380U
Total Carcinogenic PAHs		280	0	0	0	11	0
Total PAHs		336	225	0	29	1,280	129
Other Semivolatile Organic Compounds							
4-Methylphenol	900	380U	490U	380U	400U	380U	380U
Benzoic acid	2700	1800U	2400U	1900U	2000U	1900U	1800U
Carbazole	NE	380U	490U	380U	400U	380U	380U
Di-n-butylphthalate	8100	380U	490U	380U	400U	380U	18JB
Di-n-octylphthalate	50000	380U	490U	380U	400U	380U	380U
Dibenzofuran	6200	380U	490U	380U	400U	380U	380U
N-Nitrosodiphenylamine (1)	NE	380U	490U	380U	400U	380U	380U
Phenol	30	380U	490U	380U	400U	380U	380U
bis(2-Ethylhexyl)phthalate	50000	380U	490U	380U	400U	380U	11JB

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Willow Avenue					
Site ID:	**New York Recommended**	SB-30		SB-31		SB-32	
Sample ID:	**Soil Cleanup**	CF-SB30	CF-SB30	CF-SB31	CF-SB31	CF-SB32	CF-SB32
Depth (ft):	**Objectives**	(7-11)	(19-23)	(7-11)	(15-19)	(11-15)	(20-23)
Constituent Date:	**(RSCOs)**	03/01/1999	03/01/1999	03/01/1999	03/01/1999	03/01/1999	03/01/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)							
4,4'-DDE	2100	NA	NA	NA	NA	3.8U	NA
4,4'-DDT	2100	NA	NA	NA	NA	0.31J	NA
Dieldrin	44	NA	NA	NA	NA	3.8U	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	3.8U	NA
Heptachlor epoxide	20	NA	NA	NA	NA	1.9U	NA
Heptachlor	100	NA	NA	NA	NA	1.9U	NA
gamma-Chlordane	540	NA	NA	NA	NA	1.9U	NA
Metals (mg/kg)							
Aluminum	NE	NA	NA	NA	NA	4420	NA
Antimony	NE	NA	NA	NA	NA	1.8UJ	NA
Arsenic	7.5	2.5J	5.2J	1.4J	1.2J	1.5J	2.7J
Barium	300	50.3	95.3	44.7	23.1	42.1	31.2
Beryllium	0.16	NA	NA	NA	NA	0.25	NA
Cadmium	1	0.22U	0.34U	0.51U	0.32U	0.50U	0.64U
Calcium	NE	NA	NA	NA	NA	1850	NA
Chromium	10	49.7J	33.5J	50.0J	50.8J	44.2J	36.6J
Cobalt	30	NA	NA	NA	NA	28.1	NA
Copper	25	NA	NA	NA	NA	13.8	NA
Iron	2000	NA	NA	NA	NA	22400	NA
Lead	500	11.9J	11.5J	7.8J	4.0J	6.1J	5.5J
Magnesium	NE	NA	NA	NA	NA	44200	NA
Manganese	NE	NA	NA	NA	NA	396.	NA
Mercury	0.1	0.021U	0.026U	0.032U	0.025U	0.032U	0.022U
Nickel	13	NA	NA	NA	NA	541.	NA
Potassium	NE	NA	NA	NA	NA	997.	NA
Selenium	2	1.1J	1.5J	1.8J	1.6J	2.0J	1.2J
Silver	NE	0.35	0.50	0.29	0.38	0.36	0.36
Sodium	NE	NA	NA	NA	NA	154.U	NA
Thallium	NE	NA	NA	NA	NA	1.2	NA
Vanadium	150	NA	NA	NA	NA	14.8	NA
Zinc	20	NA	NA	NA	NA	30.4	NA
Total Cyanide (mg/kg)							
Cyanide (Total)	NE	0.585UJ	0.679UJ	0.583UJ	0.614UJ	0.593UJ	0.567UJ
Total Organic Carbon (mg/kg)							
TOC	NE	NA	NA	NA	1410.	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)							
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Willow Avenue					
Site ID:	**New York Recommended**	SB-33		SB-34		SB-35	
Sample ID:	**Soil Cleanup**	CF-SB33	CF-SB33	CF-SB34	CF-SB34	CF-SB35	CF-SB35
Depth (ft):	**Objectives**	(7-9)	(23-25)	(5-9)	(9-13)	(6-10)	(18-22)
Constituent Date:	**(RSCOs)**	03/01/1999	03/02/1999	03/02/1999	03/02/1999	03/02/1999	03/02/1999
Volatile Organic Compounds (ug/kg)							
BTEX							
Benzene	60	3900J	1000J	4J	6U	6U	6U
Toluene	1500	11000U	730J	6U	6U	6U	6U
Ethylbenzene	5500	43000	4900J	6U	0.7J	6U	6U
Xylene (total)	1200	47000	6600B	62	3J	6U	6U
Total BTEX		93,900	13,230	66	4	0	0
Other Volatile Organic Compounds							
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	36400	120000J	260000J	740U	420U	400U	380U
Acenaphthene	50000	26000J	41000	320J	420U	400U	380U
Acenaphthylene	41000	3200J	46000	160J	420U	400U	380U
Anthracene	50000	39000U	7400J	210J	420U	400U	380U
Benzo(g,h,i)perylene	50000	39000U	26000J	1500	420U	400U	180J
Fluoranthene	50000	39000U	36000U	1700	420U	400U	380U
Fluorene	50000	39000U	36000	740U	420U	400U	380U
Naphthalene	13000	150000B	210000B	590JB	63J	400U	380U
Phenanthrene	50000	17000J	110000	1300	420U	400U	8J
Pyrene	50000	9200J	35000J	2100	420U	400U	6J
Total Non-Carcinogenic PAHs		325,400	771,400	7,880	63	0	194
Carcinogenic PAHs							
Benz(a)anthracene	224	3900J	13000J	1800	420U	400U	8J
Benzo(a)pyrene	61	2800J	8600J	2000	420U	400U	14J
Benzo(b)fluoranthene	1100	1200J	3400J	1500	420U	400U	380U
Benzo(k)fluoranthene	1100	39000U	36000U	1400J	420U	400U	380U
Chrysene	400	3300J	11000J	1700	420U	400U	8J
Dibenz(a,h)anthracene	14	39000U	36000U	840	420U	400U	380U
Indeno(1,2,3-cd)pyrene	3200	39000U	22000J	1600	420U	400U	380U
Total Carcinogenic PAHs		11,200	58,000	10,840	0	0	30
Total PAHs		336,600	829,400	18,720	63	0	224
Other Semivolatile Organic Compounds							
4-Methylphenol	900	39000U	36000U	740U	420U	400U	380U
Benzoic acid	2700	190000U	180000U	3600U	2000U	2000U	1800U
Carbazole	NE	39000U	36000U	740U	420U	400U	380U
Di-n-butylphthalate	8100	39000U	36000U	740U	420U	400U	380U
Di-n-octylphthalate	50000	39000U	36000U	740U	420U	400U	380U
Dibenzofuran	6200	1800J	6000J	220J	420U	400U	380U
N-Nitrosodiphenylamine (1)	NE	39000U	36000U	740U	420U	400U	380U
Phenol	30	39000U	36000U	740U	420U	400U	380U
bis(2-Ethylhexyl)phthalate	50000	39000U	36000U	740U	420U	400U	380U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Willow Avenue					
Site ID:	**New York Recommended**	SB-33		SB-34		SB-35	
Sample ID:	**Soil Cleanup**	CF-SB33	CF-SB33	CF-SB34	CF-SB34	CF-SB35	CF-SB35
Depth (ft):	**Objectives**	(7-9)	(23-25)	(5-9)	(9-13)	(6-10)	(18-22)
Constituent Date:	**(RSCOs)**	03/01/1999	03/02/1999	03/02/1999	03/02/1999	03/02/1999	03/02/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)							
4,4'-DDE	2100	NA	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Aluminum	NE	NA	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA	NA
Arsenic	7.5	6.3J	1.4J	2.8J	1.2J	1.3U	3.5
Barium	300	72.8	35.8	43.1	319.	74.0	54.2
Beryllium	0.16	NA	NA	NA	NA	NA	NA
Cadmium	1	0.19U	0.41U	0.20U	0.20U	0.21UN	0.17U
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	10	69.8J	41.5J	52.8J	22.9J	64.5J	47.0
Cobalt	30	NA	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA	NA
Lead	500	9.3J	6.3J	18.8J	9.8J	10.6J	6.0J
Magnesium	NE	NA	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA	NA
Mercury	0.1	0.035U	0.020U	0.058B	0.035U	0.029U	0.029U
Nickel	13	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	2	2.4J	0.85J	0.96J	1.2	2.3J	0.67UJ
Silver	NE	0.33	0.29	0.40	0.40	0.43U	0.33UJ
Sodium	NE	NA	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)							
Cyanide (Total)	NE	0.588UJ	0.549UJ	0.591UJ	0.615UJ	0.618UJ	0.566UJ
Total Organic Carbon (mg/kg)							
TOC	NE	NA	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)							
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Northwest Parcels			
Site ID:	New York Recommended	RW-08		RW-08 (dup)	RW-08
Sample ID:	Soil Cleanup	CF-SB-45	CF-SB-45	CF-SB-45	CF-SB-45
Depth (ft):	Objectives	(13-15)	(19-21)	(19-21)	(37-39)
Constituent Date:	(RSCOs)	09/13/1999	09/13/1999	09/13/1999	09/13/1999
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	5U	12UJ	NA	7U
Toluene	1500	5U	12UJ	NA	7U
Ethylbenzene	5500	5U	12UJ	NA	7U
Xylene (total)	1200	5U	12UJ	NA	7U
Total BTEX		0	0	--	0
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	72J	1800UJ	NA	450U
Acenaphthene	50000	44J	1800UJ	NA	450U
Acenaphthylene	41000	150J	64J	NA	450U
Anthracene	50000	200J	1800UJ	NA	450U
Benzo(g,h,i)perylene	50000	340J	1800UJ	NA	450U
Fluoranthene	50000	710	27J	NA	450U
Fluorene	50000	120J	42J	NA	450U
Naphthalene	13000	110J	1800UJ	NA	450U
Phenanthrene	50000	650	1800UJ	NA	450U
Pyrene	50000	760	34J	NA	450U
Total Non-Carcinogenic PAHs		3,156	167	--	0
Carcinogenic PAHs					
Benz(a)anthracene	224	480	1800UJ	NA	450U
Benzo(a)pyrene	61	460	1800UJ	NA	450U
Benzo(b)fluoranthene	1100	300J	1800UJ	NA	450U
Benzo(k)fluoranthene	1100	500J	1800UJ	NA	450U
Chrysene	400	490	1800UJ	NA	450U
Dibenz(a,h)anthracene	14	120J	1800UJ	NA	450U
Indeno(1,2,3-cd)pyrene	3200	360J	1800UJ	NA	450U
Total Carcinogenic PAHs		2,710	0	--	0
Total PAHs		5,866	167	--	0
Other Semivolatile Organic Compounds					
4-Methylphenol	900	78J	1800UJ	NA	450U
Benzoic acid	2700	140J	560J	NA	71J
Carbazole	NE	62J	1800UJ	NA	450U
Di-n-butylphthalate	8100	410U	1800UJ	NA	450U
Di-n-octylphthalate	50000	410U	1800UJ	NA	450U
Dibenzofuran	6200	76J	1800UJ	NA	14J
N-Nitrosodiphenylamine (1)	NE	410U	1800UJ	NA	450U
Phenol	30	17J	1800UJ	NA	34J
bis(2-Ethylhexyl)phthalate	50000	410U	1800UJ	NA	450U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Northwest Parcels			
Site ID:	New York Recommended	RW-08		RW-08 (dup)	RW-08
Sample ID:	Soil Cleanup	CF-SB-45	CF-SB-45	CF-SB-45	CF-SB-45
Depth (ft):	Objectives	(13-15)	(19-21)	(19-21)	(37-39)
Constituent Date:	(RSCOs)	09/13/1999	09/13/1999	09/13/1999	09/13/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	5.0	2.9J	2.6B	4.5
Barium	300	95.9	611.J	535.	138.
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.22J	0.41J	0.37U	0.19UN
Calcium	NE	NA	NA	NA	NA
Chromium	10	42.1	88.9J	78.3	79.9
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	93.7	12.1J	9.6	12.7J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.69J	0.20J	0.21	0.016J
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	0.92UJ	4.2J	3.4	0.97UJ
Silver	NE	0.18U	0.35UJ	0.37U	0.19U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.650UR	1.16UR	1.22U	0.750UR
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Northwest Parcels				
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	RW-09		RW-09 (dup)	RW-10	
Sample ID:		CF-SB-46	CF-SB-46	CF-SB	CF-SB-47	CF-SB-47
Depth (ft):		(15-17)	(39-41)	09/14/99	(5-7)	(39-41)
Constituent Date:		09/14/1999	09/14/1999	09/14/1999	09/15/1999	09/15/1999
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	6UJ	9U	10U	6U	6U
Toluene	1500	6UJ	0.6J	0.7J	6U	6U
Ethylbenzene	5500	6UJ	9U	10U	6U	6U
Xylene (total)	1200	6UJ	9U	10U	6U	6U
Total BTEX		0	1	1	0	0
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	22J	1200U	1300U	300J	380U
Acenaphthene	50000	390U	1200U	1300U	110J	380U
Acenaphthylene	41000	27J	1200U	1300U	1700	380U
Anthracene	50000	26J	1200U	1300U	660J	380U
Benzo(g,h,i)perylene	50000	98J	1200U	1300U	1600J	380U
Fluoranthene	50000	200J	1200U	1300U	4200	380U
Fluorene	50000	390U	1200U	1300U	160J	380U
Naphthalene	13000	18J	1200U	1300U	250J	380U
Phenanthrene	50000	130J	1200U	1300U	1500J	380U
Pyrene	50000	230J	1200U	1300U	7600	380U
Total Non-Carcinogenic PAHs		751	0	0	18,080	0
Carcinogenic PAHs						
Benz(a)anthracene	224	140J	1200U	1300U	4300	380U
Benzo(a)pyrene	61	120J	1200U	1300U	2700	380U
Benzo(b)fluoranthene	1100	110J	1200U	1300U	1600J	380U
Benzo(k)fluoranthene	1100	150J	1200U	1300U	2700J	380U
Chrysene	400	160J	1200U	1300U	3600	380U
Dibenz(a,h)anthracene	14	33J	1200U	1300U	730J	380U
Indeno(1,2,3-cd)pyrene	3200	83J	1200U	1300U	1600J	380U
Total Carcinogenic PAHs		796	0	0	17,230	0
Total PAHs		1,547	0	0	35,310	0
Other Semivolatile Organic Compounds						
4-Methylphenol	900	390U	1200U	1300U	1700U	380U
Benzoic acid	2700	76J	160J	6200J	8100UJ	91J
Carbazole	NE	9J	1200U	1300U	160J	380U
Di-n-butylphthalate	8100	390U	1200U	1300U	1700U	380U
Di-n-octylphthalate	50000	390U	1200U	1300U	1700U	380U
Dibenzofuran	6200	12J	1200U	1300U	130J	380U
N-Nitrosodiphenylamine (1)	NE	390U	1200U	1300U	1700U	380U
Phenol	30	390U	1200U	1300U	1700U	380U
bis(2-Ethylhexyl)phthalate	50000	390U	1200U	1300U	1700U	380U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Northwest Parcels				
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	RW-09		RW-09 (dup)	RW-10	
Sample ID:		CF-SB-46	CF-SB-46	CF-SB	CF-SB-47	CF-SB-47
Depth (ft):		(15-17)	(39-41)	09/14/99	(5-7)	(39-41)
Constituent Date:		09/14/1999	09/14/1999	09/14/1999	09/15/1999	09/15/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	7.4	10.3	11.4	8.8	2.0
Barium	300	50.2	143.	149.	105.	43.8
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.19UN	0.32UN	0.32UN	0.19UN	0.18UN
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	13.1	33.3	35.9	27.0	113.
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	203.J	13.6J	11.2J	1380J	5.8J
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.34J	0.026J	0.020J	0.090J	0.0037UR
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	0.97UJ	1.6UJ	1.6UJ	1.4J	0.90UJ
Silver	NE	0.19U	0.32U	0.32U	0.19U	0.18U
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.590UR	0.970UR	0.970UR	0.600UR	0.580UR
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Northwest Parcels			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	RW-11		RW-12	
Sample ID:		CF-SB-48	CF-SB-48	CF-SB-49	CF-SB-49
Depth (ft):		(3-5)	(39-41)	(9-11)	(39-41)
Constituent Date:		09/20/1999	09/20/1999	09/16/1999	09/16/1999
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	47J	6U	6U	6U
Toluene	1500	78J	2J	6U	6U
Ethylbenzene	5500	160J	6U	6U	6U
Xylene (total)	1200	1500U	6U	6U	6U
Total BTEX		285	2	0	0
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	130000	380U	400U	370U
Acenaphthene	50000	27000J	380U	400U	370U
Acenaphthylene	41000	95000	380U	400U	370U
Anthracene	50000	89000	380U	400U	370U
Benzo(g,h,i)perylene	50000	120000	380U	400U	370U
Fluoranthene	50000	260000	380U	400U	370U
Fluorene	50000	83000	380U	400U	370U
Naphthalene	13000	14000J	380U	400U	370U
Phenanthrene	50000	330000	380U	400U	370U
Pyrene	50000	240000	380U	4J	370U
Total Non-Carcinogenic PAHs		1,388,000	0	4	0
Carcinogenic PAHs					
Benz(a)anthracene	224	190000	380U	400U	370U
Benzo(a)pyrene	61	130000	380U	400U	370U
Benzo(b)fluoranthene	1100	130000	380U	400U	370U
Benzo(k)fluoranthene	1100	130000J	380U	400U	370U
Chrysene	400	180000	380U	400U	370U
Dibenz(a,h)anthracene	14	51000J	380U	400U	370U
Indeno(1,2,3-cd)pyrene	3200	120000	380U	400U	370U
Total Carcinogenic PAHs		931,000	0	0	0
Total PAHs		2,319,000	0	4	0
Other Semivolatile Organic Compounds					
4-Methylphenol	900	56000U	380U	400U	370U
Benzoic acid	2700	270000UJ	1800UJ	1900U	1800U
Carbazole	NE	11000J	380U	400U	370U
Di-n-butylphthalate	8100	56000U	380U	400U	370U
Di-n-octylphthalate	50000	56000U	380U	400U	370U
Dibenzofuran	6200	33000J	380U	400U	370U
N-Nitrosodiphenylamine (1)	NE	56000U	380U	400U	370U
Phenol	30	56000U	380U	400U	370U
bis(2-Ethylhexyl)phthalate	50000	56000U	380U	400U	370U

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Northwest Parcels			
Site ID:	**New York Recommended Soil Cleanup Objectives (RSCOs)**	RW-11		RW-12	
Sample ID:		CF-SB-48	CF-SB-48	CF-SB-49	CF-SB-49
Depth (ft):		(3-5)	(39-41)	(9-11)	(39-41)
Constituent Date:		09/20/1999	09/20/1999	09/16/1999	09/16/1999
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	5.6	3.5	4.0	1.7
Barium	300	45.3	63.6	112.	65.7
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	0.19UN	0.19UN	0.20UN	0.13UN
Calcium	NE	NA	NA	NA	NA
Chromium	10	8.6	97.7	62.6	13.5
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	21.4J	6.9J	10.4J	5.8J
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.073J	0.0076J	0.0051UR	0.0040UR
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.4J	0.94UJ	0.98UJ	0.66UJ
Silver	NE	0.19U	0.19U	0.20U	0.13U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.700UR	0.540UR	0.570UR	0.570UR
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Bay Street			
Site ID:	New York Recommended	SB-81		SB-82	
Sample ID:	Soil Cleanup	CF-SB-81	CF-SB-81	CF-SB-82	CF-SB-82
Depth (ft):	Objectives	(17-21)	(41-45)	(5-9)	(25-29)
Constituent Date:	(RSCOs)	05/22/2002	05/22/2002	05/23/2002	05/23/2002
Volatile Organic Compounds (ug/kg)					
BTEX					
Benzene	60	2700	6 U	6 U	6 U
Toluene	1500	27000	6 U	6 U	6 U
Ethylbenzene	5500	40000	6	6 U	6 U
Xylene (total)	1200	72000	3 J	6 U	6 U
Total BTEX		141700.00	9.00	0.00	0.00
Other Volatile Organic Compounds					
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)					
Non-Carcinogenic PAHs					
2-Methylnaphthalene	36400	800000	360 U	400 U	360 U
Acenaphthene	50000	58000 J	360 U	35 J	360 U
Acenaphthylene	41000	240000	360 U	400 U	360 U
Anthracene	50000	130000 J	360 U	400 U	360 U
Benzo(g,h,i)perylene	50000	16000 J	360 U	400 U	360 U
Fluoranthene	50000	150000 J	360 U	400 U	360 U
Fluorene	50000	160000 J	360 U	400 U	360 U
Naphthalene	13000	1400000	160 J	400 U	360 U
Phenanthrene	50000	440000	360 U	400 U	360 U
Pyrene	50000	170000 J	360 U	400 U	360 U
Total Non-Carcinogenic PAHs		3,564,000	160	35	0
Carcinogenic PAHs					
Benz(a)anthracene	224	68000 J	360 U	400 U	360 U
Benzo(a)pyrene	61	46000 J	360 U	400 U	360 U
Benzo(b)fluoranthene	1100	24000 J	360 U	400 U	360 U
Benzo(k)fluoranthene	1100	39000 J	360 U	400 U	360 U
Chrysene	400	66000 J	360 U	400 U	360 U
Dibenz(a,h)anthracene	14	180000 U	360 U	400 U	360 U
Indeno(1,2,3-cd)pyrene	3200	16000 J	360 U	400 U	360 U
Total Carcinogenic PAHs		259,000	0	0	0
Total PAHs		3,823,000	160	35	0
Other Semivolatile Organic Compounds					
4-Methylphenol	900	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Bay Street			
Site ID:	New York Recommended	SB-81		SB-82	
Sample ID:	Soil Cleanup	CF-SB-81	CF-SB-81	CF-SB-82	CF-SB-82
Depth (ft):	Objectives	(17-21)	(41-45)	(5-9)	(25-29)
Constituent Date:	(RSCOs)	05/22/2002	05/22/2002	05/23/2002	05/23/2002
Pesticides/Polychlorinated Biphenyls (ug/kg)					
4,4'-DDE	2100	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA
Metals (mg/kg)					
Aluminum	NE	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA
Arsenic	7.5	3.2	4	3.5	3.7
Barium	300	48.5	53.5	43.6	65.2
Beryllium	0.16	NA	NA	NA	NA
Cadmium	1	1 U	0.76 U	0.97 U	0.93 U
Calcium	NE	NA	NA	NA	NA
Chromium	10	37.5	73.6	56.9	99.5
Cobalt	30	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA
Lead	500	13	5.1	24.2	5
Magnesium	NE	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA
Mercury	0.1	0.093 U	0.091 U	0.1 U	0.099 U
Nickel	13	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA
Selenium	2	1.6 U	1.2 U	1.5 U	1.5 U
Silver	NE	0.3 U	0.23 U	0.29 U	0.28 U
Sodium	NE	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA
Total Cyanide (mg/kg)					
Cyanide (Total)	NE	0.112 UJ	0.111 UJ	0.124 UJ	0.111 UJ
Total Organic Carbon (mg/kg)					
TOC	NE	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)					
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Edgewater				
Site ID:	New York Recommended	SB-88			SB-89	
Sample ID:	Soil Cleanup	CF-SB-88	CF-SB-88	CF-SB-88	CF-SB-89	CF-SB-84
Depth (ft):	Objectives	(28-32)	(44-48)	(44-48 DUP)	(8-12)	(35-39)
Constituent Date:	(RSCOs)	06/11/2002	06/11/2002	06/11/2002	06/19/2002	06/21/2002
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	1 J	6 U	6 U	410 J	1 J
Toluene	1500	6 U	6 U	6 U	3100 U	0.6 J
Ethylbenzene	5500	2 J	6 U	6 U	30000	7
Xylene (total)	1200	1 J	6 U	6 U	30000	4 J
Total BTEX		4	0	0	60,410	13
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	360 U	340 U	360 U	2600 J	270 J
Acenaphthene	50000	360 UJ	340 U	360 U	4100 U	360 U
Acenaphthylene	41000	360 U	340 U	360 U	4100 U	360 U
Anthracene	50000	360 U	340 U	360 U	4100 U	360 U
Benzo(g,h,i)perylene	50000	360 U	340 U	360 U	4100 U	360 U
Fluoranthene	50000	360 U	340 U	360 U	4100 U	360 U
Fluorene	50000	360 U	340 U	360 U	4100 U	360 U
Naphthalene	13000	240 J	340 U	360 U	24000	390
Phenanthrene	50000	360 U	340 U	360 U	4100 U	360 U
Pyrene	50000	360 U	340 U	360 U	4100 U	360 U
Total Non-Carcinogenic PAHs		240	0	0	26,600	660
Carcinogenic PAHs						
Benz(a)anthracene	224	360 U	340 U	360 U	4100 U	360 U
Benzo(a)pyrene	61	360 U	340 U	360 U	4100 U	360 U
Benzo(b)fluoranthene	1100	360 U	340 U	360 U	4100 U	360 U
Benzo(k)fluoranthene	1100	360 U	340 U	360 U	4100 U	360 U
Chrysene	400	360 U	340 U	360 U	4100 U	360 U
Dibenz(a,h)anthracene	14	360 U	340 U	360 U	4100 U	360 U
Indeno(1,2,3-cd)pyrene	3200	360 U	340 U	360 U	4100 U	360 U
Total Carcinogenic PAHs		0	0	0	0	0
Total PAHs		240	0	0	26,600	660
Other Semivolatile Organic Compounds						
4-Methylphenol	900	NA	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Edgewater				
Site ID:	New York Recommended	SB-88			SB-89	
Sample ID:	Soil Cleanup	CF-SB-88	CF-SB-88	CF-SB-88	CF-SB-89	CF-SB-84
Depth (ft):	Objectives	(28-32)	(44-48)	(48-52)	(8-12)	(35-39)
Constituent Date:	(RSCOs)	06/11/2002	06/11/2002	06/11/2002	06/19/2002	06/21/2002
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	6 J	1.9 J	2.5 J	19.4	2.2
Barium	300	71.2	72.3	71.3	1430	69
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	0.86 U	0.89 U	0.83 U	2.6 U	0.83 U
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	99.9 J	17.9 J	20.5 J	65.9	20
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	6.7 J	6.7 J	10.2 J	11.6	6.6
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.087 U	0.08 U	0.089 U	0.27 U	0.086 U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	1.4 UJ	1.4 UJ	1.3 UJ	4.2 U	1.3 U
Silver	NE	0.26 U	0.27 U	0.25 U	0.79 U	0.25 U
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.107 UJ	0.111 UJ	0.111 UJ	0.302 U	0.107 U
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Edgewater				
Site ID:	New York Recommended	SB-90C		SB-91	SB-91A	SB-92
Sample ID:	Soil Cleanup	CF-SB-90C	CF-SB-90C	CF-SB-91	CF-SB-91A	CF-SB-92
Depth (ft):	Objectives	(20-24)	(32-36)	(8-12)	(36-40)	(5-9)
Constituent Date:	(RSCOs)	11/14/2002	11/14/2002	11/15/2002	11/15/2002	11/12/2002
Volatile Organic Compounds (ug/kg)						
BTEX						
Benzene	60	6 U	6 U	6 U	6 U	29 U
Toluene	1500	6 U	6 U	6 U	6 U	29 U
Ethylbenzene	5500	6 U	6 U	6 U	6 U	29 U
Xylene (total)	1200	6 U	6 U	6 U	6 U	29 U
Total BTEX		0	0	0	0	0
Other Volatile Organic Compounds						
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	36400	380 U	370 U	370 U	370 U	380 U
Acenaphthene	50000	380 U	370 U	370 U	370 U	58 J
Acenaphthylene	41000	380 U	370 UJ	100 J	370 U	260 J
Anthracene	50000	380 U	370 U	53 J	370 U	87 J
Benzo(g,h,i)perylene	50000	380 U	370 U	140 J	370 U	170 J
Fluoranthene	50000	380 U	370 U	270 J	370 U	140 J
Fluorene	50000	380 U	370 U	370 U	370 U	34 J
Naphthalene	13000	380 U	370 U	370 U	370 U	380 U
Phenanthrene	50000	380 U	370 U	52 J	370 U	61 J
Pyrene	50000	380 U	370 U	320 J	370 U	170 J
Total Non-Carcinogenic PAHs		0	0	935	0	980
Carcinogenic PAHs						
Benz(a)anthracene	224	380 U	370 U	170 J	370 U	120 J
Benzo(a)pyrene	61	380 U	370 U	250 J	370 U	170 J
Benzo(b)fluoranthene	1100	380 U	370 U	160 J	370 U	120 J
Benzo(k)fluoranthene	1100	380 U	370 U	370 J	370 U	130 J
Chrysene	400	380 U	370 U	180 J	370 U	140 J
Dibenz(a,h)anthracene	14	380 U	370 U	53 J	370 U	49 J
Indeno(1,2,3-cd)pyrene	3200	380 U	370 U	140 J	370 U	110 J
Total Carcinogenic PAHs		0	0	1,323	0	839
Total PAHs		0	0	2,258	0	1,819
Other Semivolatile Organic Compounds						
4-Methylphenol	900	NA	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Edgewater				
Site ID:	**New York Recommended**	SB-90C		SB-91	SB-91A	SB-92
Sample ID:	**Soil Cleanup**	CF-SB-90C	CF-SB-90C	CF-SB-91	CF-SB-91A	CF-SB-92
Depth (ft):	**Objectives**	(20-24)	(32-36)	(8-12)	(36-40)	(5-9)
Constituent Date:	**(RSCOs)**	11/14/2002	11/14/2002	11/15/2002	11/15/2002	11/12/2002
Pesticides/Polychlorinated Biphenyls (ug/kg)						
4,4'-DDE	2100	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA
Metals (mg/kg)						
Aluminum	NE	NA	NA	NA	NA	NA
Antimony	NE	NA	NA	NA	NA	NA
Arsenic	7.5	2.6 J	7.0 J	2.0 J	2.8 J	2.7 J
Barium	300	43.6	66.5	11.0	48	22.5
Beryllium	0.16	NA	NA	NA	NA	NA
Cadmium	1	1 U	0.96 U	0.90 U	1 U	0.83 U
Calcium	NE	NA	NA	NA	NA	NA
Chromium	10	33.6	94.8	10.6	84.6	20.2
Cobalt	30	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA
Lead	500	4	7.0	12.8	4.7	35.2
Magnesium	NE	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA
Mercury	0.1	0.042 U	0.056 U	0.046 U	0.051 U	0.041 U
Nickel	13	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	2	1.6 U	1.5 U	1.4 U	1.6 U	1.3 U
Silver	NE	0.3 U	0.29 U	0.27 U	0.3 U	0.25 U
Sodium	NE	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)						
Cyanide (Total)	NE	0.0593 UJ	0.0582 UJ	0.0608 UJ	0.058 UJ	0.0612 UJ
Total Organic Carbon (mg/kg)						
TOC	NE	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)						
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Edgewater					
Site ID:	**New York Recommended**	SB-92		SB-93	SB-93	SB-94	SB-94
Sample ID:	**Soil Cleanup**	CF-SB-92	CF-SB-92	CF-SB-93	CF-SB-93	CF-SB-94	CF-SB-94
Depth (ft):	**Objectives**	(37-41)	(37-41 DUP)	(8-12)	(36-40)	(20-24)	(36-40)
Constituent Date:	**(RSCOs)**	11/12/2002	11/12/2002	11/13/2002	11/13/2002	11/14/2002	11/14/2002
Volatile Organic Compounds (ug/kg)							
BTEX							
Benzene	60	6 U	6 U	6200 U	6 U	5800 U	6 U
Toluene	1500	6 U	6 U	6200 U	6 U	4900 J	6 U
Ethylbenzene	5500	6 U	6 U	28000	4.0 J	9400	3 J
Xylene (total)	1200	6 U	6 U	16000	6 U	16000	1 J
Total BTEX		0	0	44,000	4	30,300	4
Other Volatile Organic Compounds							
1,2,4-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	NE	NA	NA	NA	NA	NA	NA
2-Butanone	300	NA	NA	NA	NA	NA	NA
4-Methyl-2-Pentanone	1000	NA	NA	NA	NA	NA	NA
Acetone	200	NA	NA	NA	NA	NA	NA
Carbon Tetrachloride	600	NA	NA	NA	NA	NA	NA
Isopropylbenzene	NE	NA	NA	NA	NA	NA	NA
Methylene Chloride	100	NA	NA	NA	NA	NA	NA
Styrene	NE	NA	NA	NA	NA	NA	NA
n-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
n-Propylbenzene	NE	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	NE	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	NE	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/kg)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	36400	360 U	360 U	80000 J	360 U	30000	140 J
Acenaphthene	50000	360 U	360 U	1200000	56 J	2800 J	21 J
Acenaphthylene	41000	360 U	360 U	190000 J	18 J	14000 J	25 J
Anthracene	50000	360 U	360 U	810000	360 U	7400 J	370 U
Benzo(g,h,i)perylene	50000	360 U	360 U	260000 J	360 U	1200 J	370 U
Fluoranthene	50000	360 U	360 U	1900000	360 U	9500 J	370 U
Fluorene	50000	360 U	360 U	890000	360 U	9500 J	370 U
Naphthalene	13000	360 U	360 U	1600000	320 J	62000	390
Phenanthrene	50000	360 U	360 U	3800000	28 J	25000	370 U
Pyrene	50000	360 U	360 U	1500000	360 U	10000 J	370 U
Total Non-Carcinogenic PAHs		0	0	12,230,000	422	171,400	576
Carcinogenic PAHs							
Benz(a)anthracene	224	360 U	360 U	640000 J	360 U	3700 J	370 U
Benzo(a)pyrene	61	360 U	360 U	540000 J	360 U	2900 J	370 U
Benzo(b)fluoranthene	1100	360 U	360 U	460000 J	360 U	15000 U	370 U
Benzo(k)fluoranthene	1100	360 U	360 U	390000 J	360 U	3200 J	370 U
Chrysene	400	360 U	360 U	450000 J	360 U	3500 J	370 U
Dibenz(a,h)anthracene	14	360 U	360 U	800000 U	360 U	15000 U	370 U
Indeno(1,2,3-cd)pyrene	3200	360 U	360 U	240000 J	360 U	1000 J	370 U
Total Carcinogenic PAHs		0	0	2,720,000	0	14,300	0
Total PAHs		0	0	14,950,000	422	185,700	576
Other Semivolatile Organic Compounds							
4-Methylphenol	900	NA	NA	NA	NA	NA	NA
Benzoic acid	2700	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Di-n-butylphthalate	8100	NA	NA	NA	NA	NA	NA
Di-n-octylphthalate	50000	NA	NA	NA	NA	NA	NA
Dibenzofuran	6200	NA	NA	NA	NA	NA	NA
N-Nitrosodiphenylamine (1)	NE	NA	NA	NA	NA	NA	NA
Phenol	30	NA	NA	NA	NA	NA	NA
bis(2-Ethylhexyl)phthalate	50000	NA	NA	NA	NA	NA	NA

Table 4-2 (continued)
Subsurface-Soil Analytical Results
OU-2
Clifton Former MGP Site

Parcel:		Edgewater					
Site ID:	**New York Recommended**	SB-92		SB-93	SB-93	SB-94	SB-94
Sample ID:	**Soil Cleanup**	CF-SB-92	CF-SB-92	CF-SB-93	CF-SB-93	CF-SB-94	CF-SB-94
Depth (ft):	**Objectives**	(37-41)	(45-50)	(8-12)	(36-40)	(20-24)	(36-40)
Constituent Date:	**(RSCOs)**	11/12/2002	11/12/2002	11/13/2002	11/13/2002	11/14/2002	11/14/2002
Pesticides/Polychlorinated Biphenyls (ug/kg)							
4,4'-DDE	2100	NA	NA	NA	NA	NA	NA
4,4'-DDT	2100	NA	NA	NA	NA	NA	NA
Dieldrin	44	NA	NA	NA	NA	NA	NA
Endosulfan sulfate	1000	NA	NA	NA	NA	NA	NA
Heptachlor epoxide	20	NA	NA	NA	NA	NA	NA
Heptachlor	100	NA	NA	NA	NA	NA	NA
gamma-Chlordane	540	NA	NA	NA	NA	NA	NA
Metals (mg/kg)							
Aluminum	NE	NA	NA	NA	NA	NA	N
Antimony	NE	NA	NA	NA	NA	NA	N
Arsenic	7.5	7.2 J	6.8 J	2.6 J	6.6 J	2.5 J	7.7 J
Barium	300	62.7	47.8	8.7	71.3	48.9	81.6
Beryllium	0.16	NA	NA	NA	NA	NA	NA
Cadmium	1	0.99 U	0.94 U	1 U	0.9 U	0.82 U	1.1 U
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	10	82.2	72.0	14.0	83.8	27.3	91.3
Cobalt	30	NA	NA	NA	NA	NA	NA
Copper	25	NA	NA	NA	NA	NA	NA
Iron	2000	NA	NA	NA	NA	NA	NA
Lead	500	6.2	5.3	3.8	7.6	4.6	7.3
Magnesium	NE	NA	NA	NA	NA	NA	NA
Manganese	NE	NA	NA	NA	NA	NA	NA
Mercury	0.1	0.045 U	0.045 U	0.057 U	0.039 U	0.046 U	0.047 U
Nickel	13	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	2	1.6 U	1.5 U	1.6 U	1.4 U	1.3 U	1.7 U
Silver	NE	0.3 U	0.28 U	0.31 U	0.27 U	0.25 U	0.32 U
Sodium	NE	NA	NA	NA	NA	NA	NA
Thallium	NE	NA	NA	NA	NA	NA	NA
Vanadium	150	NA	NA	NA	NA	NA	NA
Zinc	20	NA	NA	NA	NA	NA	NA
Total Cyanide (mg/kg)							
Cyanide (Total)	NE	0.0594 UJ	0.0567 UJ	0.0659 UJ	0.0572 UJ	0.0602 UJ	0.0579 UJ
Total Organic Carbon (mg/kg)							
TOC	NE	NA	NA	NA	NA	NA	NA
Toxicity Characteristic Leaching Procedure (mg/L)							
2-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
4-Methylphenol (TCLP)	NE	NA	NA	NA	NA	NA	NA
Pyridine (TCLP)	NE	NA	NA	NA	NA	NA	NA

Notes:

Only detected analytes are shown on the table.

Prepared By: SJG

* site background

Checked By: KEA/PHH

NE - not established

Revised by: KHS (1/14/2005)

NA - not analyzed

J - estimated value

U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis

UJ - estimated detection limit

-- unable to calculate because it was non-detected or not analyzed

(dup) - indicates duplicate sample

Shading/bolding indicates an exceedance of established New York State Recommended Soil Cleanup Objectives for residential soils.

D - identifies all compounds in the analysis completed at secondary dilution factor

R - the reported results or detection limits are estimated or rejected based upon the recovery

B - analyte was found within the laboratory method blank as well as the sample; it indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte (organics); or indicates analyte result was between IDL and contract required detection limit (metals)

T - indicates total concentration detected

TCLP - Toxicity Characteristic Leaching Procedure

- Naphthalene was tested by and reported under the VOC and SVOC analyses. The higher concentration is reported.

mg/L - milligrams/liter

mg/kg - milligrams/kilogram or parts per million (ppm)

ug/kg - micrograms/kilogram or parts per billion (ppb)

JB - estimated detection limit/analyte was found within laboratory method blank

N - spiked sample recovery was not within control limits (metals)

Table 4-3
Summary of Surface-Soil Data
25 Willow Avenue and
Background Surface-Soil Samples
Clifton Former MGP Site

Compound	25 Willow Avenue			Background Surface Soils		
	Minimum	Maximum	Mean	Minimum	Maximum	Mean
Volatile Organic Compounds (BTEX) (ppm)						
BTEX	0.0	0.8	0.4667	0	1	0.31
Semivolatile Organic Compounds (PAHs) (ppm)						
PAHs	11,052	91,940	39,283.33	5,334	56,310	17,233
8 RCRA Metals (ppm)						
Arsenic	7.9	9.3	8.5333	5.6	26.4	10.79
Barium	94.8	124	109.6	59.9	160	110.34
Cadmium	0.32	63	0.49333	0	1.7	0.94
Chromium	19.3	31.3	23.5	18.8	66.1	35.79
Lead	225	382	286	169	744	357.63
Mercury	0.29	0.64	0.51667	0.18	0.82	0.34
Selenium	1.5	2.2	1.9	1.1	2.4	1.65
Silver	0.0	0.2	0.0667	0	0.47	0.16
Total Cyanide (TCN) (ppm)						
TCN	0	0	0	0	2.74	0.49
Total Organic Carbon (TOC) (ppm)						
TOC	37,700	48,400	41,300	15,000	105,000	55,237.50

Notes:

BTEX is benzene, toluene, ethylbenzene, and xylene.
PAHs are polycyclic aromatic hydrocarbons.
Minimum is the lowest concentration for an analysis.
Maximum is the highest concentration for an analysis.
Mean is the arithmetic mean for an analysis.
ppm indicates parts per million

Checked by: PHH
Prepared by: KEA

Table 4-4
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel: / Site ID: / Sample ID: / Constituent / Date:	NY State Ambient Groundwater Quality Standards (GA)	25 Willow Avenue Parcel FPM-OW-03 OW-3 11/15/1993	OW-3 12/07/1993	OW-3 05/12/1994	OW-3 12/07/1995	OW-3 01/03/1996	OW-3 02/01/1996
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	NA	3300D	8300D	3800D	3100D	3700D
Toluene	5	NA	9	11	8	4	14
Ethylbenzene	5	NA	270D	120	380D	2U	330D
Xylene (total)	5	NA	182	190	144	115	200
Total BTEX		--	3,761	8,621	4,332	3,219	4,244
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	5U	10U	NA	NA	NA
1,1,2-Trichloroethane	1	NA	5U	10U	NA	NA	NA
1,1-Dichloroethane	5	NA	5U	10U	NA	NA	NA
1,2,4-Trimethylbenzene	5	NA	110	NA	150	110	10U
1,2-Dichloroethane	0.6	NA	50U	61	NA	NA	NA
1,3,5-Trimethylbenzene	5	NA	66	NA	82	49	96
Bromodichloromethane	50	NA	5U	10U	NA	NA	NA
Bromoform	50	NA	5U	10U	NA	NA	NA
Carbon Disulfide	NE	NA	NA	10U	NA	NA	NA
Chlorobenzene	5	NA	5U	10U	NA	NA	NA
Dibromochloromethane	50	NA	5U	10U	NA	NA	NA
Isopropylbenzene	5	NA	75	NA	100	15	80
Methyl tert-butyl ether	5	NA	NA	NA	1U	2U	10U
Tetrachloroethene	5	NA	5U	10U	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	10U	NA	NA	NA
n-Butylbenzene	5	NA	5U	NA	1U	2U	10U
n-Propylbenzene	5	NA	17	NA	27	2U	14
p-Isopropyltoluene	5	NA	7	NA	18	13	36
sec-Butylbenzene	5	NA	5U	NA	1U	2U	10U
tert-Butylbenzene	5	NA	5U	NA	1U	12	17
trans-1,3-Dichloropropene	0.4	NA	NA	10U	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	54	NA	310D	NA	NA	NA
Acenaphthene	20*	63	NA	63	NA	NA	NA
Acenaphthylene	NE	10U	NA	10U	NA	NA	NA
Anthracene	50*	4J	NA	10U	NA	NA	NA
Benzo(g,h,i)perylene	NE	10U	NA	10U	NA	NA	NA
Fluoranthene	50*	6J	NA	10U	NA	NA	NA
Fluorene	50*	20	NA	27	NA	NA	NA
Naphthalene	10*	870D	2400D	1200D	6800D	2500D	5800D
Phenanthrene	50*	19	NA	21	NA	NA	NA
Pyrene	50*	6J	NA	10U	NA	NA	NA
Total Non-Carcinogenic PAHs		1,042	2,400	1,621	6,800	2,500	5,800
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	3J	NA	10U	NA	NA	NA
Benzo(a)pyrene	ND	2J	NA	10U	NA	NA	NA
Benzo(b)fluoranthene	0.002*	2J	NA	10U	NA	NA	NA
Benzo(k)fluoranthene	0.002*	1J	NA	10U	NA	NA	NA
Chrysene	0.002*	3J	NA	10U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002*	1J	NA	10U	NA	NA	NA
Total Carcinogenic PAHs		12	--	0	--	--	--
Total PAHs		1,054	2,400	1,621	6,800	2,500	5,800

Table 4-4
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel: / Site ID: / Sample ID: / Constituent / Date:	NY State Ambient Groundwater Quality Standards (GA)	25 Willow Avenue Parcel					
		FPM-OW-03					
		OW-3 11/15/1993	OW-3 12/07/1993	OW-3 05/12/1994	OW-3 12/07/1995	OW-3 01/03/1996	OW-3 02/01/1996
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	10U	NA	20	NA	NA	NA
2-Methylphenol	1	25U	NA	10U	NA	NA	NA
4-Methylphenol	1	25U	NA	10U	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	10U	NA	10U	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	NE	11	NA	12	NA	NA	NA
Phenol	1	10U	NA	16	NA	NA	NA
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	NA
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-03					
Sample ID:	Quality Standards	OW-3	OW-3	OW-3	OW-3	OW-3	OW-3
Constituent Date	(GA)	03/06/1996	04/09/1996	05/01/1996	06/05/1996	07/12/1996	08/01/1996
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	4400D	2300D	4100D	1600D	4200D	3400D
Toluene	5	19	8	9	5	14	9
Ethylbenzene	5	430D	200D	310	150	200D	1U
Xylene (total)	5	560D	130	197	100	170	410
Total BTEX		5,409	2,638	4,616	1,855	4,584	3,819
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	500D	100	150	1	130	130
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	290D	100	100	2	150	130
Bromodichloromethane	50	NA	NA	NA	NA	NA	NA
Bromoform	50	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NE	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	170D	68	89	1U	57	79
Methyl tert-butyl ether	5	1U	1U	8	1U	1U	1U
Tetrachloroethene	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	5	1U	1U	1U	1U	1U	3
n-Propylbenzene	5	19	1U	17	5	9	20
p-Isopropyltoluene	5	40	39	11	4	8	10
sec-Butylbenzene	5	1U	1U	1U	1U	1U	1U
tert-Butylbenzene	5	1U	1U	1U	1U	1U	1U
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA
Acenaphthene	20*	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA
Anthracene	50*	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NE	NA	NA	NA	NA	NA	NA
Fluoranthene	50*	NA	NA	NA	NA	NA	NA
Fluorene	50*	NA	NA	NA	NA	NA	NA
Naphthalene	10*	7800D	3400D	5600D	1900D	4200D	3900D
Phenanthrene	50*	NA	NA	NA	NA	NA	NA
Pyrene	50*	NA	NA	NA	NA	NA	NA
Total Non-Carcinogenic PAHs		7,800	3,400	5,600	1,900	4,200	3,900
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ND	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Chrysene	0.002*	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002*	NA	NA	NA	NA	NA	NA
Total Carcinogenic PAHs		--	--	--	--	--	--
Total PAHs		7,800	3,400	5,600	1,900	4,200	3,900

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel: / Site ID: / Sample ID: / Constituent / Date	NY State Ambient Groundwater Quality Standards (GA)	25 Willow Avenue Parcel					
		FPM-OW-03					
		OW-3 03/06/1996	OW-3 04/09/1996	OW-3 05/01/1996	OW-3 06/05/1996	OW-3 07/12/1996	OW-3 08/01/1996
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA	NA
2-Methylphenol	1	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	NA	NA	NA	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	NE	NA	NA	NA	NA	NA	NA
Phenol	1	NA	NA	NA	NA	NA	NA
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	NA
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-03					
Sample ID:	Quality Standards	OW-3	OW-3	OW-3	OW-3	OW-3	OW3-DUPE
Constituent Date	(GA)	09/06/1996	10/03/1996	11/21/1996	04/02/1997	05/07/1997	09/09/1997
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	3200	4200	3400D	3500	2700	4100
Toluene	5	5	7	6	5	6	8
Ethylbenzene	5	230	330	180D	310	240	350
Xylene (total)	5	110	159	144	175	148	199
Total BTEX		3,545	4,696	3,730	3,990	3,094	4,657
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	92	160	120	130	110	170
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	32	52	41	48	39	54
Bromodichloromethane	50	NA	NA	NA	NA	NA	NA
Bromoform	50	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NE	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	63	94	85	93	71	120
Methyl tert-butyl ether	5	5U	5U	2U	5U	5	5U
Tetrachloroethene	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	5	21	29	2U	15	5U	29
n-Propylbenzene	5	13	21	25	27	18	34
p-Isopropyltoluene	5	5	9	8	9	10	11
sec-Butylbenzene	5	5U	12	7	8	7	9
tert-Butylbenzene	5	5U	5U	2U	5U	5U	5U
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA
Acenaphthene	20*	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA
Anthracene	50*	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NE	NA	NA	NA	NA	NA	NA
Fluoranthene	50*	NA	NA	NA	NA	NA	NA
Fluorene	50*	NA	NA	NA	NA	NA	NA
Naphthalene	10*	2700	2400	4400D	5500	4600	6700
Phenanthrene	50*	NA	NA	NA	NA	NA	NA
Pyrene	50*	NA	NA	NA	NA	NA	NA
Total Non-Carcinogenic PAHs		2,700	2,400	4,400	5,500	4,600	6,700
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ND	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Chrysene	0.002*	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002*	NA	NA	NA	NA	NA	NA
Total Carcinogenic PAHs		--	--	--	--	--	--
Total PAHs		2,700	2,400	4,400	5,500	4,600	6,700

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-03					
Sample ID:	Quality Standards	OW-3	OW-3	OW-3	OW-3	OW-3	OW3-DUPE
Constituent Date	(GA)	09/06/1996	10/03/1996	11/21/1996	04/02/1997	05/07/1997	09/09/1997
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA	NA
2-Methylphenol	1	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	NA	NA	NA	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	NE	NA	NA	NA	NA	NA	NA
Phenol	1	NA	NA	NA	NA	NA	NA
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	NA
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel				
Site ID:	Groundwater	FPM-OW-03				FPM-OW-03 (dup)
Sample ID:	Quality Standards	OW3	OW-3	OW-3	OW-3	OW-3A
Constituent Date:	(GA)	10/22/1997	11/24/1997	12/29/1997	01/13/1998	01/13/1998
Volatile Organic Compounds (ug/L)						
BTEX						
Benzene	1.0	2600	3700	2700	2600	2600
Toluene	5	5U	7J	5	50U	20U
Ethylbenzene	5	270	400	250	230	220
Xylene (total)	5	134	205	131	100U	119
Total BTEX		3,004	4,312	3,086	2,830	2,939
Other Volatile Organic Compounds						
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	120	210	130	120	120
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	39	55	41	50U	28
Bromodichloromethane	50	NA	NA	NA	NA	NA
Bromoform	50	NA	NA	NA	NA	NA
Carbon Disulfide	NE	NA	NA	NA	NA	NA
Chlorobenzene	5	NA	NA	NA	NA	NA
Dibromochloromethane	50	NA	NA	NA	NA	NA
Isopropylbenzene	5	89	120	77	85	72
Methyl tert-butyl ether	5	5U	10U	3U	50U	20U
Tetrachloroethene	5	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA
n-Butylbenzene	5	16	10U	3U	50U	20U
n-Propylbenzene	5	26	43	27	50U	20U
p-Isopropyltoluene	5	12	15	10	50U	20U
sec-Butylbenzene	5	5U	10	8	50U	20U
tert-Butylbenzene	5	NA	10U	3U	NA	NA
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA
Acenaphthene	20*	NA	NA	NA	230J	230J
Acenaphthylene	NE	NA	NA	NA	NA	500U
Anthracene	50*	NA	NA	NA	11J	11J
Benzo(g,h,i)perylene	NE	NA	NA	NA	400U	500U
Fluoranthene	50*	NA	NA	NA	800U	500U
Fluorene	50*	NA	NA	NA	77J	75J
Naphthalene	10*	3500	10000	5100	3900#	3100#
Phenanthrene	50*	NA	NA	NA	59J	60J
Pyrene	50*	NA	NA	NA	400U	500U
Total Non-Carcinogenic PAHs		3,500	10,000	5,100	4,277	3,476
Carcinogenic PAHs						
Benz(a)anthracene	0.002*	NA	NA	NA	400U	500U
Benzo(a)pyrene	ND	NA	NA	NA	400U	500U
Benzo(b)fluoranthene	0.002*	NA	NA	NA	400U	500U
Benzo(k)fluoranthene	0.002*	NA	NA	NA	400U	500U
Chrysene	0.002*	NA	NA	NA	400U	500U
Indeno(1,2,3-cd)pyrene	0.002*	NA	NA	NA	400U	500U
Total Carcinogenic PAHs		--	--	--	0	0
Total PAHs		3,500	10,000	5,100	4,277	3,476

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel				
Site ID:	Groundwater	FPM-OW-03				FPM-OW-03 (dup)
Sample ID:	Quality Standards	OW3	OW-3	OW-3	OW-3	OW-3A
Constituent Date:	(GA)	10/22/1997	11/24/1997	12/29/1997	01/13/1998	01/13/1998
Other Semivolatile Compounds						
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA
2-Methylphenol	1	NA	NA	NA	NA	NA
4-Methylphenol	1	NA	NA	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA
Dibenzofuran	NE	NA	NA	NA	NA	NA
Phenol	1	NA	NA	NA	NA	NA
Metals (ug/L)						
Aluminum	0	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA
Total Cyanide (ug/L)						
Cyanide, Total	200	NA	NA	NA	NA	NA
Other Analyses						
TDS (mg/L)	NE	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-04					
Sample ID:	Quality Standards	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4
Constituent Date	(GA)	11/15/1993	12/07/1993	05/12/1994	12/07/1995	01/03/1996	02/01/1996
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	NA	5U	22	22	36	29
Toluene	5	NA	110	110	180	12	62
Ethylbenzene	5	NA	9	10U	4	2U	<10
Xylene (total)	5	NA	62	22	27	6	19
Total BTEX		--	181	154	233	54	110
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	5U	10U	NA	NA	NA
1,1,2-Trichloroethane	1	NA	5U	10U	NA	NA	NA
1,1-Dichloroethane	5	NA	5U	10U	NA	NA	NA
1,2,4-Trimethylbenzene	5	NA	20	NA	4	2	10U
1,2-Dichloroethane	0.6	NA	5U	10U	NA	NA	NA
1,3,5-Trimethylbenzene	5	NA	25	NA	4	2	10U
Bromodichloromethane	50	NA	5U	10U	NA	NA	NA
Bromoform	50	NA	5U	10U	NA	NA	NA
Carbon Disulfide	NE	NA	NA	10U	NA	NA	NA
Chlorobenzene	5	NA	5U	10U	NA	NA	NA
Dibromochloromethane	50	NA	5U	10U	NA	NA	NA
Isopropylbenzene	5	NA	15	NA	15	4	21
Methyl tert-butyl ether	5	NA	NA	NA	1U	7	10U
Tetrachloroethene	5	NA	5U	10U	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	10U	NA	NA	NA
n-Butylbenzene	5	NA	5U	NA	1U	2U	10U
n-Propylbenzene	5	NA	5U	NA	4	2U	10U
p-Isopropyltoluene	5	NA	5U	NA	1	2U	10
sec-Butylbenzene	5	NA	5U	NA	1U	2U	10U
tert-Butylbenzene	5	NA	5U	NA	1U	2U	10U
trans-1,3-Dichloropropene	0.4	NA	NA	10U	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	5J	NA	10U	NA	NA	NA
Acenaphthene	20*	35	NA	41	NA	NA	NA
Acenaphthylene	NE	10U	NA	10U	NA	NA	NA
Anthracene	50*	2J	NA	10U	NA	NA	NA
Benzo(g,h,i)perylene	NE	10U	NA	10U	NA	NA	NA
Fluoranthene	50*	2J	NA	10U	NA	NA	NA
Fluorene	50*	4J	NA	10U	NA	NA	NA
Naphthalene	10*	14	23	10U	23	72	190
Phenanthrene	50*	4J	NA	10U	NA	NA	NA
Pyrene	50*	2J	NA	10U	NA	NA	NA
Total Non-Carcinogenic PAHs		68	23	41	23	72	190
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	10U	NA	10U	NA	NA	NA
Benzo(a)pyrene	ND	10U	NA	10U	NA	NA	NA
Benzo(b)fluoranthene	0.002*	10U	NA	10U	NA	NA	NA
Benzo(k)fluoranthene	0.002*	10U	NA	10U	NA	NA	NA
Chrysene	0.002*	10U	NA	10U	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002*	10U	NA	10U	NA	NA	NA
Total Carcinogenic PAHs		0	--	0	--	--	--
Total PAHs		68	23	41	23	72	190

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel: / Site ID: / Sample ID: / Constituent / Date	NY State Ambient Groundwater Quality Standards (GA)	25 Willow Avenue Parcel					
		FPM-OW-04					
		OW-4 11/15/1993	OW-4 12/07/1993	OW-4 05/12/1994	OW-4 12/07/1995	OW-4 01/03/1996	OW-4 02/01/1996
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	6J	NA	10U	NA	NA	NA
2-Methylphenol	1	5J	NA	10U	NA	NA	NA
4-Methylphenol	1	7J	NA	10U	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	10U	NA	10U	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	NE	1J	NA	10U	NA	NA	NA
Phenol	1	30	NA	10U	NA	NA	NA
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	NA
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-04					
Sample ID:	Quality Standards	OW-4	OW-4	OW-4	OW-4	OW-4	OW-4
Constituent Date	(GA)	03/06/1996	04/09/1996	05/01/1996	06/05/1996	07/12/1996	08/01/1996
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	27	24	48	22	47	32
Toluene	5	45	46	28	29	23	30
Ethylbenzene	5	5	2	3	3	8	1U
Xylene (total)	5	31	12	17	16	37	15
Total BTEX		108	84	96	70	115	77
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	8	1U	7	4	4	10
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	12	1U	8	8	9	5
Bromodichloromethane	50	NA	NA	NA	NA	NA	NA
Bromoform	50	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NE	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	32	18	19	8	18	15
Methyl tert-butyl ether	5	1U	1U	6	1U	1U	1U
Tetrachloroethene	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	5	1U	1U	1U	1U	1U	1U
n-Propylbenzene	5	6	5	4	2	3	4
p-Isopropyltoluene	5	6	9	1U	1U	1U	1U
sec-Butylbenzene	5	1U	1U	1U	1U	1U	1U
tert-Butylbenzene	5	1U	1U	1U	1U	1U	1U
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA
Acenaphthene	20*	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA
Anthracene	50*	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NE	NA	NA	NA	NA	NA	NA
Fluoranthene	50*	NA	NA	NA	NA	NA	NA
Fluorene	50*	NA	NA	NA	NA	NA	NA
Naphthalene	10*	78D	1U	10	16	11	7
Phenanthrene	50*	NA	NA	NA	NA	NA	NA
Pyrene	50*	NA	NA	NA	NA	NA	NA
Total Non-Carcinogenic PAHs		78	0	10	16	11	7
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ND	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Chrysene	0.002*	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002*	NA	NA	NA	NA	NA	NA
Total Carcinogenic PAHs		--	--	--	--	--	--
Total PAHs		78	0	10	16	11	7

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel: / Site ID: / Sample ID: / Constituent / Date	NY State Ambient Groundwater Quality Standards (GA)	25 Willow Avenue Parcel					
		FPM-OW-04					
		OW-4 03/06/1996	OW-4 04/09/1996	OW-4 05/01/1996	OW-4 06/05/1996	OW-4 07/12/1996	OW-4 08/01/1996
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA	NA
2-Methylphenol	1	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	NA	NA	NA	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	NE	NA	NA	NA	NA	NA	NA
Phenol	1	NA	NA	NA	NA	NA	NA
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	NA
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-04					
Sample ID:	Quality Standards	OW-4	OW-4	OW-4	OW-4	OW-4	OW4-DUPE
Constituent Date:	(GA)	09/06/1996	10/03/1996	11/21/1996	04/02/1997	05/07/1997	09/09/1997
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	40	35	30	35	38	63
Toluene	5	10	18	6	40	12	4
Ethylbenzene	5	3	2	1	2	1	4
Xylene (total)	5	20	15	4	8	3	10
Total BTEX		73	68	41	85	54	81
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	5	5	1	2	1	4
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	5	3	1	2	2	2
Bromodichloromethane	50	NA	NA	NA	NA	NA	NA
Bromoform	50	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NE	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	12	10 U	13	20	15	14
Methyl tert-butyl ether	5	2U	5	1	3	1	2U
Tetrachloroethene	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	5	2U	20 U	1U	1U	260	2U
n-Propylbenzene	5	2U	7	3	4	3	3
p-Isopropyltoluene	5	2U	2	1U	1U	1U	2U
sec-Butylbenzene	5	2U	2U	1U	1	1U	2U
tert-Butylbenzene	5	2U	2U	1U	1U	1U	2U
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	NA
Acenaphthene	20*	NA	NA	NA	NA	NA	NA
Acenaphthylene	NE	NA	NA	NA	NA	NA	NA
Anthracene	50*	NA	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	NE	NA	NA	NA	NA	NA	NA
Fluoranthene	50*	NA	NA	NA	NA	NA	NA
Fluorene	50*	NA	NA	NA	NA	NA	NA
Naphthalene	10*	37	46	4	6	19	93
Phenanthrene	50*	NA	NA	NA	NA	NA	NA
Pyrene	50*	NA	NA	NA	NA	NA	NA
Total Non-Carcinogenic PAHs		37	46	4	6	19	93
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(a)pyrene	ND	NA	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	0.002*	NA	NA	NA	NA	NA	NA
Chrysene	0.002*	NA	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	0.002*	NA	NA	NA	NA	NA	NA
Total Carcinogenic PAHs		--	--	--	--	--	--
Total PAHs		37	46	4	6	19	93

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-04					
Sample ID:	Quality Standards	OW-4	OW-4	OW-4	OW-4	OW-4	OW4-DUPE
Constituent Date:	(GA)	09/06/1996	10/03/1996	11/21/1996	04/02/1997	05/07/1997	09/09/1997
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA	NA
2-Methylphenol	1	NA	NA	NA	NA	NA	NA
4-Methylphenol	1	NA	NA	NA	NA	NA	NA
Benzoic acid	NE	NA	NA	NA	NA	NA	NA
Benzyl alcohol	NE	NA	NA	NA	NA	NA	NA
Butylbenzylphthalate	50*	NA	NA	NA	NA	NA	NA
Carbazole	NE	NA	NA	NA	NA	NA	NA
Dibenzofuran	NE	NA	NA	NA	NA	NA	NA
Phenol	1	NA	NA	NA	NA	NA	NA
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	NA	NA	NA	NA	NA	NA
Barium	1,000	NA	NA	NA	NA	NA	NA
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	NA	NA	NA	NA	NA	NA
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	NA	NA	NA	NA	NA	NA
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	NA	NA	NA	NA	NA	NA
Silver	50	NA	NA	NA	NA	NA	NA
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	NA
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-04				FPM-OW-05	
Sample ID:	Quality Standards	OW4	OW4	OW-4	OW-4	OW-5	CFOW05-01
Constituent Date	(GA)	10/22/1997	11/24/1997	12/29/1997	01/13/1998	01/13/1998	03/30/1999
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	72	30	52	39	1100	850
Toluene	5	1U	2	1U	0.8J	3500	2400
Ethylbenzene	5	2	1U	1U	1U	160	330
Xylene (total)	5	2	2U	2U	1J	860	2000
Total BTEX		76	32	52	40.8	5,620	5,580
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA	100U
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA	18J
1,1-Dichloroethane	5	NA	NA	NA	NA	NA	21J
1,2,4-Trimethylbenzene	5	1U	1U	1	1U	90	NA
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA	100U
1,3,5-Trimethylbenzene	5	1U	1U	1	1U	32	NA
Bromodichloromethane	50	NA	NA	NA	NA	NA	10J
Bromoform	50	NA	NA	NA	NA	NA	10J
Carbon Disulfide	NE	NA	NA	NA	NA	NA	100U
Chlorobenzene	5	NA	NA	NA	NA	NA	100U
Dibromochloromethane	50	NA	NA	NA	NA	NA	11J
Isopropylbenzene	5	12	14	11	12	25U	NA
Methyl tert-butyl ether	5	1U	1U	1U	0.9J	240	NA
Tetrachloroethene	5	NA	NA	NA	NA	NA	12J
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA	10J
n-Butylbenzene	5	4	1U	1U	1U	25U	NA
n-Propylbenzene	5	4	3	2	3	25U	NA
p-Isopropyltoluene	5	1U	1U	1U	1U	25U	NA
sec-Butylbenzene	5	1U	1U	1U	1U	25U	NA
tert-Butylbenzene	5	NA	1U	1U	NA	NA	NA
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA	12J
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	NA	NA	NA	NA	NA	13
Acenaphthene	20*	NA	NA	NA	60	18J	11J
Acenaphthylene	NE	NA	NA	NA	NA	NA	2J
Anthracene	50*	NA	NA	NA	2J	11J	10U
Benzo(g,h,i)perylene	NE	NA	NA	NA	10U	4J	10UJ
Fluoranthene	50*	NA	NA	NA	3J	18J	10U
Fluorene	50*	NA	NA	NA	5J	20	2J
Naphthalene	10*	94	530	2	2#	340#	66
Phenanthrene	50*	NA	NA	NA	3J	39	10
Pyrene	50*	NA	NA	NA	3J	17J	3J
Total Non-Carcinogenic PAHs		94	530	2	78	467	107
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	NA	NA	NA	10U	6J	10U
Benzo(a)pyrene	ND	NA	NA	NA	10U	4J	10U
Benzo(b)fluoranthene	0.002*	NA	NA	NA	10U	3J	10UJ
Benzo(k)fluoranthene	0.002*	NA	NA	NA	10U	4J	10UR
Chrysene	0.002*	NA	NA	NA	10U	6J	10U
Indeno(1,2,3-cd)pyrene	0.002*	NA	NA	NA	10U	4J	10U
Total Carcinogenic PAHs		--	--	--	0	27	0
Total PAHs		94	530	2	78	494	107

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel: / Site ID: / Sample ID: / Constituent / Date	NY State Ambient Groundwater Quality Standards (GA)	25 Willow Avenue Parcel					
		FPM-OW-04				FPM-OW-05	
		OW4	OW4	OW-4	OW-4	OW-5	CFOW05-01
		10/22/1997	11/24/1997	12/29/1997	01/13/1998	01/13/1998	03/30/1999
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	NA	NA	NA	NA	NA	8J
2-Methylphenol	1	NA	NA	NA	NA	NA	4J
4-Methylphenol	1	NA	NA	NA	NA	NA	4J
Benzoic acid	NE	NA	NA	NA	NA	NA	11J
Benzyl alcohol	NE	NA	NA	NA	NA	NA	10U
Butylbenzylphthalate	50*	NA	NA	NA	NA	NA	10U
Carbazole	NE	NA	NA	NA	NA	NA	2J
Dibenzofuran	NE	NA	NA	NA	NA	NA	10U
Phenol	1	NA	NA	NA	NA	NA	51
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	450.
Arsenic	25	NA	NA	NA	NA	NA	25.0U
Barium	1,000	NA	NA	NA	NA	NA	23.7B
Calcium	NE	NA	NA	NA	NA	NA	46900
Chromium	50	NA	NA	NA	NA	NA	1.0U
Cobalt	5	NA	NA	NA	NA	NA	2.0U
Copper	200	NA	NA	NA	NA	NA	1.0U
Iron	300	NA	NA	NA	NA	NA	279.
Lead	25	NA	NA	NA	NA	NA	3.9U
Magnesium	35,000*	NA	NA	NA	NA	NA	2030B
Manganese	300	NA	NA	NA	NA	NA	3.6B
Nickel	100,000	NA	NA	NA	NA	NA	15.8U
Potassium	NE	NA	NA	NA	NA	NA	25400J
Selenium	10	NA	NA	NA	NA	NA	4.0U
Silver	50	NA	NA	NA	NA	NA	2.0U
Sodium	20,000	NA	NA	NA	NA	NA	113000
Vanadium	14	NA	NA	NA	NA	NA	6.8B
Total Cyanide (ug/L)							
Cyanide, Total	200	NA	NA	NA	NA	NA	434
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	741
Salinity (psu)	NE	NA	NA	NA	NA	NA	0.640

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel				
Site ID:	Groundwater	FPM-OW-05	FPM-OW-06			FPM-OW-07
Sample ID:	Quality Standards	CF-OW-05	OW-6	CFOW06-01	CF-OW-06	OW-7
Constituent Date:	(GA)	10/12/1999	01/13/1998	03/31/1999	10/07/1999	01/13/1998
Volatile Organic Compounds (ug/L)						
BTEX						
Benzene	1.0	440	20	1J	120	0.6J
Toluene	5	820	2	0.5J	7	1U
Ethylbenzene	5	210	23	2J	33	1U
Xylene (total)	5	680	16	52	27	2U
Total BTEX		2,150	61	55.5	187	0.6
Other Volatile Organic Compounds						
1,1,1-Trichloroethane	5	NA	NA	0.3J	NA	NA
1,1,2-Trichloroethane	1	NA	NA	5U	NA	NA
1,1-Dichloroethane	5	NA	NA	5U	NA	NA
1,2,4-Trimethylbenzene	5	NA	44	NA	NA	0.6J
1,2-Dichloroethane	0.6	NA	NA	5U	NA	NA
1,3,5-Trimethylbenzene	5	NA	4	NA	NA	1U
Bromodichloromethane	50	NA	NA	5U	NA	NA
Bromoform	50	NA	NA	5U	NA	NA
Carbon Disulfide	NE	NA	NA	5U	NA	NA
Chlorobenzene	5	NA	NA	5U	NA	NA
Dibromochloromethane	50	NA	NA	5U	NA	NA
Isopropylbenzene	5	NA	14	NA	NA	1U
Methyl tert-butyl ether	5	NA	12	NA	NA	1
Tetrachloroethene	5	NA	NA	5U	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	5U	NA	NA
n-Butylbenzene	5	NA	1U	NA	NA	1U
n-Propylbenzene	5	NA	2	NA	NA	1U
p-Isopropyltoluene	5	NA	1	NA	NA	1U
sec-Butylbenzene	5	NA	1U	NA	NA	1U
tert-Butylbenzene	5	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	NA	NA	5U	NA	NA
Semivolatile Organic Compounds (ug/L)						
Non-Carcinogenic PAHs						
2-Methylnaphthalene	NE	34	NA	10U	10U	NA
Acenaphthene	20*	19J	7J	0.5J	0.9J	10U
Acenaphthylene	NE	6J	NA	10U	0.7J	NA
Anthracene	50*	8J	1J	10U	0.6J	10U
Benzo(g,h,i)perylene	NE	20U	1J	10UJ	0.3J	10U
Fluoranthene	50*	5J	2J	10U	0.3J	0.5J
Fluorene	50*	17J	3J	10U	0.5J	10U
Naphthalene	10*	140	32#	4J	2J	2#
Phenanthrene	50*	19J	5J	10U	10U	10U
Pyrene	50*	4J	3J	10U	0.4J	0.6J
Total Non-Carcinogenic PAHs		252	54	4.5	5.7	3.1
Carcinogenic PAHs						
Benz(a)anthracene	0.002*	1J	1J	10U	10U	10U
Benzo(a)pyrene	ND	0.3J	1J	10U	10U	10U
Benzo(b)fluoranthene	0.002*	0.2J	1J	10UJ	10U	10U
Benzo(k)fluoranthene	0.002*	0.3J	1J	10UR	10UJ	10U
Chrysene	0.002*	1J	1J	10U	10U	10U
Indeno(1,2,3-cd)pyrene	0.002*	20U	1J	10U	0.3J	10U
Total Carcinogenic PAHs		2.8	6	0	0.3	0
Total PAHs		254	60	4.5	6	3.1

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel				
Site ID:	Groundwater	FPM-OW-05	FPM-OW-06			FPM-OW-07
Sample ID:	Quality Standards	CF-OW-05	OW-6	CFOW06-01	CF-OW-06	OW-7
Constituent Date:	(GA)	10/12/1999	01/13/1998	03/31/1999	10/07/1999	01/13/1998
Other Semivolatile Compounds						
2,4-Dimethylphenol	50*	17J	NA	2J	0.4J	NA
2-Methylphenol	1	8J	NA	10U	10U	NA
4-Methylphenol	1	19J	NA	10U	10U	NA
Benzoic acid	NE	13J	NA	50UR	53U	NA
Benzyl alcohol	NE	3J	NA	10U	10U	NA
Butylbenzylphthalate	50*	20U	NA	10U	10U	NA
Carbazole	NE	17J	NA	10U	1J	NA
Dibenzofuran	NE	8J	NA	10U	10U	NA
Phenol	1	87	NA	10U	4J	NA
Metals (ug/L)						
Aluminum	0	NA	NA	41.4B	NA	NA
Arsenic	25	12.2	NA	6.0U	5.5B	NA
Barium	1,000	36.4B	NA	526.	567.	NA
Calcium	NE	NA	NA	54100	NA	NA
Chromium	50	2.0U	NA	1.0U	2.0U	NA
Cobalt	5	NA	NA	2.0U	NA	NA
Copper	200	NA	NA	2.5B	NA	NA
Iron	300	NA	NA	8810	NA	NA
Lead	25	3.4J	NA	3.8U	4.4J	NA
Magnesium	35,000*	NA	NA	30200	NA	NA
Manganese	300	NA	NA	191.	NA	NA
Nickel	100,000	NA	NA	11.5U	NA	NA
Potassium	NE	NA	NA	12500J	NA	NA
Selenium	10	8.0J	NA	4.0U	11.7J	NA
Silver	50	1.2U	NA	2.0U	1.0U	NA
Sodium	20,000	NA	NA	96100	NA	NA
Vanadium	14	NA	NA	2.0U	NA	NA
Total Cyanide (ug/L)						
Cyanide, Total	200	568J	NA	96	118J	NA
Other Analyses						
TDS (mg/L)	NE	NA	NA	705	NA	NA
Salinity (psu)	NE	NA	NA	0.670	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-07		RW-01		RW-02	
Sample ID:	Quality Standards	CFOW07-01	CF-OW-07	CFRW01-01	CF-RW-01	CFRW02-01	CF-RW-02
Constituent Date:	(GA)	03/29/1999	10/05/1999	03/31/1999	10/07/1999	03/29/1999	10/06/1999
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	5U	5U	5U	5U	5U	3J
Toluene	5	5U	5U	5	5U	5U	5U
Ethylbenzene	5	5U	5U	5U	5U	5U	1J
Xylene (total)	5	5U	5U	5U	5U	5U	5U
Total BTEX		0	0	5	0	0	4
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	5U	NA	5U	NA	5U	NA
1,1,2-Trichloroethane	1	5U	NA	5U	NA	5U	NA
1,1-Dichloroethane	5	5U	NA	5U	NA	5U	NA
1,2,4-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	5U	NA	5U	NA	5U	NA
1,3,5-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	5U	NA	5U	NA	5U	NA
Bromoform	50	5U	NA	5U	NA	5U	NA
Carbon Disulfide	NE	5U	NA	5U	NA	0.3J	NA
Chlorobenzene	5	5U	NA	5U	NA	3J	NA
Dibromochloromethane	50	5U	NA	5U	NA	5U	NA
Isopropylbenzene	5	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	5	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	5U	NA	5U	NA	5U	NA
cis-1,3-Dichloropropene	5	5U	NA	5U	NA	5U	NA
n-Butylbenzene	5	NA	NA	NA	NA	NA	NA
n-Propylbenzene	5	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	5	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	5	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	5U	NA	5U	NA	5U	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	10U	11U	10U	10U	10U	11U
Acenaphthene	20*	0.9J	0.3J	0.9J	0.5J	10U	11U
Acenaphthylene	NE	10U	11U	10U	0.2J	10U	0.3J
Anthracene	50*	10U	0.2J	10U	0.4J	10U	11U
Benzo(g,h,i)perylene	NE	10U	11U	10UJ	0.4J	10U	0.2J
Fluoranthene	50*	10U	11U	10U	0.3J	10U	0.2J
Fluorene	50*	10U	0.2J	10U	1J	10U	11U
Naphthalene	10*	0.3J	0.2J	10U	10U	10U	0.2J
Phenanthrene	50*	10U	0.2J	10U	10U	10U	11U
Pyrene	50*	10U	11U	3J	1J	0.2J	0.2J
Total Non-Carcinogenic PAHs		1.2	1.1	3.9	3.8	0.2	1.1
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	10U	11U	10U	0.2J	10U	0.2J
Benzo(a)pyrene	ND	10U	11U	10U	0.2J	10U	11U
Benzo(b)fluoranthene	0.002*	10U	11U	10UJ	10U	10U	0.2J
Benzo(k)fluoranthene	0.002*	10U	11UJ	10UR	10UJ	10U	0.3J
Chrysene	0.002*	10U	11U	10U	0.4J	10U	0.3J
Indeno(1,2,3-cd)pyrene	0.002*	10U	11U	10U	10U	10U	0.1J
Total Carcinogenic PAHs		0	0	0	0.8	0	1.1
Total PAHs		1.2	1.1	3.9	4.6	0.2	2.2

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel					
Site ID:	Groundwater	FPM-OW-07		RW-01		RW-02	
Sample ID:	Quality Standards	CFOW07-01	CF-OW-07	CFRW01-01	CF-RW-01	CFRW02-01	CF-RW-02
Constituent Date:	(GA)	03/29/1999	10/05/1999	03/31/1999	10/07/1999	03/29/1999	10/06/1999
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	10U	11U	10U	10U	10U	11U
2-Methylphenol	1	10U	11U	10U	10U	10U	11U
4-Methylphenol	1	10U	11U	10U	10U	10U	11U
Benzoic acid	NE	50UR	54UJ	50UR	50U	50UR	57UJ
Benzyl alcohol	NE	10U	11U	10U	10U	10U	11U
Butylbenzylphthalate	50*	10U	11U	10U	10U	10U	11U
Carbazole	NE	10U	11U	10U	10U	10U	11U
Dibenzofuran	NE	10U	11U	10U	10U	10U	11U
Phenol	1	10U	11U	10U	10U	10U	11U
Metals (ug/L)							
Aluminum	0	27.9B	NA	124.B	NA	528.	NA
Arsenic	25	13.8U	4.0U	6.0U	4.0U	6.0U	4.0U
Barium	1,000	159.B	228.	148.B	238.	114.B	150.B
Calcium	NE	111000	NA	75800	NA	48100	NA
Chromium	50	1.0U	2.0U	1.0U	2.0U	3.8B	2.0U
Cobalt	5	6.6B	NA	2.0U	NA	2.0U	NA
Copper	200	1.0U	NA	1.0U	NA	3.2B	NA
Iron	300	4530	NA	6490	NA	1580	NA
Lead	25	2.2U	4.9J	7.1U	3.0U	8.6U	5.1J
Magnesium	35,000*	51200	NA	27300	NA	44900	NA
Manganese	300	2330	NA	981.	NA	292.	NA
Nickel	100,000	16.4U	NA	7.7U	NA	34.6B	NA
Potassium	NE	11900J	NA	4720J	NA	3690J	NA
Selenium	10	4.0U	20.3J	4.0U	14.2J	4.0U	5.8J
Silver	50	2.0U	1.3U	2.0U	1.1U	2.0U	1.2U
Sodium	20,000	93900	NA	60700	NA	13700	NA
Vanadium	14	4.3B	NA	2.0U	NA	2.0U	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	274	444J	514	270	15.9	10 UR
Other Analyses							
TDS (mg/L)	NE	882	NA	510	NA	361	NA
Salinity (psu)	NE	0.840	NA	0.480	NA	0.310	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel						
Site ID:	Groundwater	RW-03		RW-06		RW-13	RW-15	RW-16
Sample ID:	Quality Standards	CFRW03-01	CF-RW-03	CFRW06-01	CF-RW-06	CF-RW-13	CF-RW-15	CF-RW-16
Constituent Date:	(GA)	03/30/1999	10/04/1999	03/30/1999	10/04/1999	10/06/1999	10/06/1999	10/12/1999
Volatile Organic Compounds (ug/L)								
BTEX								
Benzene	1.0	5U	5U	5U	5U	81	5U	5U
Toluene	5	0.4J	5U	0.3J	5U	0.5J	0.7J	0.6J
Ethylbenzene	5	5U	5U	5U	5U	17	5U	5U
Xylene (total)	5	5U	5U	5U	5U	12	5U	5U
Total BTEX		0.4	0	0.3	0	110.5	0.7	0.6
Other Volatile Organic Compounds								
1,1,1-Trichloroethane	5	5U	NA	5U	NA	NA	NA	NA
1,1,2-Trichloroethane	1	5U	NA	5U	NA	NA	NA	NA
1,1-Dichloroethane	5	5U	NA	5U	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	5U	NA	5U	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	5U	NA	5U	NA	NA	NA	NA
Bromoform	50	5U	NA	5U	NA	NA	NA	NA
Carbon Disulfide	NE	5U	NA	5U	NA	NA	NA	NA
Chlorobenzene	5	5U	NA	5U	NA	NA	NA	NA
Dibromochloromethane	50	5U	NA	5U	NA	NA	NA	NA
Isopropylbenzene	5	NA	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	5	NA	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	5U	NA	5U	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	5U	NA	5U	NA	NA	NA	NA
n-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA
n-Propylbenzene	5	NA	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	5	NA	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5	NA	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	5U	NA	5U	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)								
Non-Carcinogenic PAHs								
2-Methylnaphthalene	NE	10U	10U	10U	10U	41	11U	10U
Acenaphthene	20*	10U	10U	10U	10U	16J	11U	10U
Acenaphthylene	NE	10U	10U	10U	10U	0.6J	11U	10U
Anthracene	50*	10U	10U	10U	10U	0.7J	11U	10U
Benzo(g,h,i)perylene	NE	10U	10U	10U	10U	20U	11U	10U
Fluoranthene	50*	10U	10U	10U	10U	20U	11U	10U
Fluorene	50*	10U	10U	10U	10U	6J	11U	10U
Naphthalene	10*	10U	10U	10U	10U	150	11U	10U
Phenanthrene	50*	10U	10U	10U	10U	4J	11U	10U
Pyrene	50*	10U	10U	10U	10U	0.3J	11U	10U
Total Non-Carcinogenic PAHs		0	0	0	0	218.6	0	0
Carcinogenic PAHs								
Benz(a)anthracene	0.002*	10U	10U	10U	10U	20U	11U	10U
Benzo(a)pyrene	ND	10U	10U	10U	10U	20U	11U	10U
Benzo(b)fluoranthene	0.002*	10U	10U	10U	10U	20U	11U	10U
Benzo(k)fluoranthene	0.002*	10U	10UJ	10U	10UJ	20UJ	11UJ	10UJ
Chrysene	0.002*	10U	10U	10U	10U	20U	11U	10U
Indeno(1,2,3-cd)pyrene	0.002*	10U	10U	10U	10U	20U	11U	10U
Total Carcinogenic PAHs		0	0	0	0	0	0	0
Total PAHs		0	0	0	0	218.6	0	0

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel						
Site ID:	Groundwater	RW-03		RW-06		RW-13	RW-15	RW-16
Sample ID:	Quality Standards	CFRW03-01	CF-RW-03	CFRW06-01	CF-RW-06	CF-RW-13	CF-RW-15	CF-RW-16
Constituent Date:	(GA)	03/30/1999	10/04/1999	03/30/1999	10/04/1999	10/06/1999	10/06/1999	10/12/1999
Other Semivolatile Compounds								
2,4-Dimethylphenol	50*	10U	10U	10U	10U	20U	11U	10U
2-Methylphenol	1	10U	10U	10U	10U	20U	11U	10U
4-Methylphenol	1	10U	10U	10U	10U	20U	11U	10U
Benzoic acid	NE	50UR	50UJ	50UR	50UJ	100U	54UJ	50U
Benzyl alcohol	NE	10U	10U	10U	10U	20U	11U	10U
Butylbenzylphthalate	50*	10U	10U	10U	10U	20U	0.2J	10U
Carbazole	NE	10U	10U	10U	10U	20U	11U	10U
Dibenzofuran	NE	10U	10U	10U	10U	20U	11U	10U
Phenol	1	10U	10U	10U	10U	1J	11U	10U
Metals (ug/L)								
Aluminum	0	1250	NA	69.8B	NA	NA	NA	NA
Arsenic	25	8.8U	6.3B	6.1U	4.0U	4.0U	9.8B	4.0U
Barium	1,000	71.8B	94.2B	74.7B	241.	730.	294.	161.B
Calcium	NE	69000	NA	41000	NA	NA	NA	NA
Chromium	50	9.0B	3.2U	1.4B	2.0U	2.0U	2.0U	2.0U
Cobalt	5	3.4B	NA	2.0U	NA	NA	NA	NA
Copper	200	4.9B	NA	1.4B	NA	NA	NA	NA
Iron	300	3330	NA	238.	NA	NA	NA	NA
Lead	25	6.4U	13.9	2.3U	3.0U	3.2J	3.0U	3.6J
Magnesium	35,000*	33200	NA	35700	NA	NA	NA	NA
Manganese	300	421.	NA	13.3B	NA	NA	NA	NA
Nickel	100,000	68.1	NA	11.6U	NA	NA	NA	NA
Potassium	NE	4980J	NA	7100J	NA	NA	NA	NA
Selenium	10	4.0U	5.6J	4.0U	10.7J	8.9J	5.5J	5.0U
Silver	50	2.0U	1.3U	2.0U	1.0U	1.0U	1.2U	1.0UJ
Sodium	20,000	27000	NA	101000	NA	NA	NA	NA
Vanadium	14	2.8B	NA	2.0U	NA	NA	NA	NA
Total Cyanide (ug/L)								
Cyanide, Total	200	10U	10UR	10U	22J	10UR	10UR	10.0U
Other Analyses								
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel			Northwest Parcels		
Site ID:	Groundwater	RW-17	RW-18		RW-08	RW-09	RW-10
Sample ID:	Quality Standards	CF-RW-17	CF-RW-18	CF-RW-81-DUPE	CF-RW-08	CF-RW-09	CF-RW-10
Constituent Date	(GA)	01/17/2002	01/17/2002	01/17/2002	10/05/1999	10/08/1999	10/08/1999
Volatile Organic Compounds (ug/L)							
BTEX							
Benzene	1.0	360	820	790	5U	5U	5U
Toluene	5	1100 J	52	53	5U	5U	5U
Ethylbenzene	5	1800 J	1300	1300	5U	5U	5U
Xylene (total)	5	1900	1000	1100	5U	5U	5U
Total BTEX		5160.00	3172.00	3243.00	0	0	0
Other Volatile Organic Compounds							
1,1,1-Trichloroethane	5	NA	NA	NA	NA	NA	NA
1,1,2-Trichloroethane	1	NA	NA	NA	NA	NA	NA
1,1-Dichloroethane	5	NA	NA	NA	NA	NA	NA
1,2,4-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA
1,2-Dichloroethane	0.6	NA	NA	NA	NA	NA	NA
1,3,5-Trimethylbenzene	5	NA	NA	NA	NA	NA	NA
Bromodichloromethane	50	NA	NA	NA	NA	NA	NA
Bromoform	50	NA	NA	NA	NA	NA	NA
Carbon Disulfide	NE	NA	NA	NA	NA	NA	NA
Chlorobenzene	5	NA	NA	NA	NA	NA	NA
Dibromochloromethane	50	NA	NA	NA	NA	NA	NA
Isopropylbenzene	5	NA	NA	NA	NA	NA	NA
Methyl tert-butyl ether	5	NA	NA	NA	NA	NA	NA
Tetrachloroethene	5	NA	NA	NA	NA	NA	NA
cis-1,3-Dichloropropene	5	NA	NA	NA	NA	NA	NA
n-Butylbenzene	5	NA	NA	NA	NA	NA	NA
n-Propylbenzene	5	NA	NA	NA	NA	NA	NA
p-Isopropyltoluene	5	NA	NA	NA	NA	NA	NA
sec-Butylbenzene	5	NA	NA	NA	NA	NA	NA
tert-Butylbenzene	5	NA	NA	NA	NA	NA	NA
trans-1,3-Dichloropropene	0.4	NA	NA	NA	NA	NA	NA
Semivolatile Organic Compounds (ug/L)							
Non-Carcinogenic PAHs							
2-Methylnaphthalene	NE	870 J	660 J	720 J	10U	10U	11U
Acenaphthene	20*	170 J	160 J	160 J	10U	10U	11U
Acenaphthylene	NE	1000 U	1000 U	1000 U	10U	10U	11U
Anthracene	50*	1000 U	1000 U	1000 U	10U	0.1J	11U
Benzo(g,h,i)perylene	NE	1000 U	1000 U	1000 U	10U	0.2J	11U
Fluoranthene	50*	1000 U	1000 U	1000 U	10U	0.4J	11U
Fluorene	50*	1000 U	1000 U	1000 U	10U	10U	11U
Naphthalene	10*	7100	5100	5300	10U	10U	11U
Phenanthrene	50*	1000 U	1000 U	1000 U	10U	0.4J	11U
Pyrene	50*	1000 U	1000 U	1000 U	10U	0.4J	11U
Total Non-Carcinogenic PAHs		8140	5920	6180	0	1.5	0
Carcinogenic PAHs							
Benz(a)anthracene	0.002*	1000 U	1000 U	1000 U	10U	0.2J	11U
Benzo(a)pyrene	ND	1000 U	1000 U	1000 U	10U	0.3J	11U
Benzo(b)fluoranthene	0.002*	1000 U	1000 U	1000 U	10U	0.2J	11U
Benzo(k)fluoranthene	0.002*	1000 U	1000 U	1000 U	10UJ	0.3J	11UJ
Chrysene	0.002*	1000 U	1000 U	1000 U	10U	0.3J	11U
Indeno(1,2,3-cd)pyrene	0.002*	1000 U	1000 U	1000 U	10U	10U	11U
Total Carcinogenic PAHs		0	0	0	0	1.3	0
Total PAHs		8140	5920	6180	0	2.8	0

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Parcel:	NY State Ambient	25 Willow Avenue Parcel			Northwest Parcels		
Site ID:	Groundwater	RW-17	RW-18		RW-08	RW-09	RW-10
Sample ID:	Quality Standards	CF-RW-17	CF-RW-18	CF-RW-81-DUPE	CF-RW-08	CF-RW-09	CF-RW-10
Constituent Date	(GA)	01/17/2002	01/17/2002	01/17/2002	10/05/1999	10/08/1999	10/08/1999
Other Semivolatile Compounds							
2,4-Dimethylphenol	50*	1000 UJ	1000 UJ	1000 UJ	10U	10U	11U
2-Methylphenol	1	1000 UJ	1000 UJ	1000 UJ	10U	10U	11U
4-Methylphenol	1	1000 UJ	1000 UJ	1000 UJ	0.5J	10U	11U
Benzoic acid	NE	2200 R	2200 R	2200 R	50UJ	50U	53U
Benzyl alcohol	NE	1000 U	1000 U	1000 U	10U	10U	11U
Butylbenzylphthalate	50*	1000 U	1000 U	1000 U	10U	10U	11U
Carbazole	NE	1000 U	1000 U	1000 U	10U	10U	11U
Dibenzofuran	NE	1000 U	1000 U	1000 U	10U	10U	11U
Phenol	1	1000 UJ	1000 UJ	1000 UJ	10U	10U	11U
Metals (ug/L)							
Aluminum	0	NA	NA	NA	NA	NA	NA
Arsenic	25	7 U	7 U	7 U	14.8	5.4B	4.0U
Barium	1,000	280	325	317	177.B	186.B	468
Calcium	NE	NA	NA	NA	NA	NA	NA
Chromium	50	1.6 J	1.5 U	1.5 U	2.0U	2.0U	2.0U
Cobalt	5	NA	NA	NA	NA	NA	NA
Copper	200	NA	NA	NA	NA	NA	NA
Iron	300	NA	NA	NA	NA	NA	NA
Lead	25	3.4 U	3.4 U	3.4 U	28.8	35.6	3.0U
Magnesium	35,000*	NA	NA	NA	NA	NA	NA
Manganese	300	NA	NA	NA	NA	NA	NA
Nickel	100,000	NA	NA	NA	NA	NA	NA
Potassium	NE	NA	NA	NA	NA	NA	NA
Selenium	10	6.9 U	6.9 U	6.9 U	21.2J	14.1J	8.5J
Silver	50	1.4 R	1.4 R	1.4 R	1.2U	1.0U	1.0U
Sodium	20,000	NA	NA	NA	NA	NA	NA
Vanadium	14	NA	NA	NA	NA	NA	NA
Total Cyanide (ug/L)							
Cyanide, Total	200	3 U	3 U	5.9 J	10UR	10UR	10UR
Other Analyses							
TDS (mg/L)	NE	NA	NA	NA	NA	NA	NA
Salinity (psu)	NE	NA	NA	NA	NA	NA	NA

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Constituent	Parcel: Site ID: Sample ID: Date	NY State Ambient Groundwater Quality Standards (GA)	Northwest Parcels RW-11 CF-RW-11 10/11/1999	 RW-12 CF-RW-12 10/11/1999
Volatile Organic Compounds (ug/L)				
BTEX				
Benzene		1.0	5U	5U
Toluene		5	0.4J	5U
Ethylbenzene		5	1J	5U
Xylene (total)		5	2J	5U
Total BTEX			3.4	0
Other Volatile Organic Compounds				
1,1,1-Trichloroethane		5	NA	NA
1,1,2-Trichloroethane		1	NA	NA
1,1-Dichloroethane		5	NA	NA
1,2,4-Trimethylbenzene		5	NA	NA
1,2-Dichloroethane		0.6	NA	NA
1,3,5-Trimethylbenzene		5	NA	NA
Bromodichloromethane		50	NA	NA
Bromoform		50	NA	NA
Carbon Disulfide		NE	NA	NA
Chlorobenzene		5	NA	NA
Dibromochloromethane		50	NA	NA
Isopropylbenzene		5	NA	NA
Methyl tert-butyl ether		5	NA	NA
Tetrachloroethene		5	NA	NA
cis-1,3-Dichloropropene		5	NA	NA
n-Butylbenzene		5	NA	NA
n-Propylbenzene		5	NA	NA
p-Isopropyltoluene		5	NA	NA
sec-Butylbenzene		5	NA	NA
tert-Butylbenzene		5	NA	NA
trans-1,3-Dichloropropene		0.4	NA	NA
Semivolatile Organic Compounds (ug/L)				
Non-Carcinogenic PAHs				
2-Methylnaphthalene		NE	7J	10U
Acenaphthene		20*	1J	10U
Acenaphthylene		NE	0.6J	10U
Anthracene		50*	0.4J	10U
Benzo(g,h,i)perylene		NE	11U	10U
Fluoranthene		50*	0.8J	10U
Fluorene		50*	2J	10U
Naphthalene		10*	3J	10U
Phenanthrene		50*	11U	10U
Pyrene		50*	0.7J	10U
Total Non-Carcinogenic PAHs			15.5	0
Carcinogenic PAHs				
Benz(a)anthracene		0.002*	0.2J	10U
Benzo(a)pyrene		ND	11U	10U
Benzo(b)fluoranthene		0.002*	11U	10U
Benzo(k)fluoranthene		0.002*	11UJ	10UJ
Chrysene		0.002*	0.2J	10U
Indeno(1,2,3-cd)pyrene		0.002*	11U	10U
Total Carcinogenic PAHs			0.4	0
Total PAHs			15.9	0

Table 4-4 (continued)
Groundwater Analytical Results
OU-2
Clifton Former MGP Site

Constituent	Parcel: Site ID: Sample ID: Date	NY State Ambient Groundwater Quality Standards (GA)	Northwest Parcels RW-11 CF-RW-11 10/11/1999	 RW-12 CF-RW-12 10/11/1999
Other Semivolatile Compounds				
2,4-Dimethylphenol		50*	11U	10U
2-Methylphenol		1	11U	10U
4-Methylphenol		1	12	10U
Benzoic acid		NE	28J	50U
Benzyl alcohol		NE	1J	10U
Butylbenzylphthalate		50*	11U	10U
Carbazole		NE	0.5J	10U
Dibenzofuran		NE	0.4J	10U
Phenol		1	38	10U
Metals (ug/L)				
Aluminum		0	NA	NA
Arsenic		25	7.4B	4.5B
Barium		1,000	181.B	128.B
Calcium		NE	NA	NA
Chromium		50	2.0U	2.0U
Cobalt		5	NA	NA
Copper		200	NA	NA
Iron		300	NA	NA
Lead		25	6.3J	3.0U
Magnesium		35,000*	NA	NA
Manganese		300	NA	NA
Nickel		100,000	NA	NA
Potassium		NE	NA	NA
Selenium		10	5.9J	8.6J
Silver		50	1.0U	1.0U
Sodium		20,000	NA	NA
Vanadium		14	NA	NA
Total Cyanide (ug/L)				
Cyanide, Total		200	38.8J	10UR
Other Analyses				
TDS (mg/L)		NE	NA	NA
Salinity (psu)		NE	NA	NA

Only detected analytes are shown on the table
* guidance value
N - spiked sample recovery was not within control limits (metals)
NE - not established
NA - not analyzed
J - estimated value
D - identifies all compounds in the analysis completed at secondary dilution factor
U - indicates not detected to the reporting limit for organic analysis and the method detection limit for inorganic analysis
UJ - estimated detection limit
(dup) - indicates duplicate sample
Shading/bolding indicates an exceedance of established New York State ambient groundwater quality standards (GA)
ND - indicates standard is applicable to analyte detection limit
R - the reported results or detection limits are estimated or rejected based upon the recovery
B - analyte was found within the laboratory method blank as well as the sample; it indicates possible sample contamination and warns the data user to use caution when applying the results of this analyte (organics); or indicates analyte result was between IDL and contract required detection limit (metals)
- Naphthalene was tested by and reported under the VOC and SVOC analyses. The higher concentration is reported.
mg/L - milligrams/liter, ug/L - micrograms/liter
psu - practical salinity units
JB - estimated detection limit/analyte was found within laboratory method blank
a - indicates tar sample from bottom of RW-7
BTEX is benzene, toluene, ethylbenze, and xylene
PAHs are polycyclic aromatic hydrocarbons

Prepared By: AMM/SJG
Checked By: PHH/LEW
Revised By: KHS 1/17/2005

Table 4-5
Storm Sewer Analytical Results
OU-2
Clifton Former MGP Site

Constituent	Site ID: / Sample ID: / Date:	STRM-01 / CF-STRM-01 / 01/18/2002	STRM-02 / CF-STRM-02 / 01/18/2002	STRM-03 / CF-STRM-03 / 01/18/2002
Volatile Organic Compounds (ug/l)				
BTEX				
Benzene		5 U	340	200
Toluene		10	11	19
Ethylbenzene		5 U	200	100
Xylene (total)		5 U	110	68
Total BTEX		10	661	387
Total Petroleum Aromatic Hydrocarbons (ug/l)				
Non-Carcinogenic PAHs				
Naphthalene		11 U	280	240
2-Methylnaphthalene		11 U	31 J	33 J
Acenaphthylene		11 U	40 U	43 U
Acenaphthene		11 U	15 J	15 J
Fluorene		11 U	8 J	7 J
Phenanthrene		11 U	17 J	13 J
Anthracene		11 U	4 J	4 J
Fluoranthene		0.6 J	7 J	5 J
Pyrene		0.6 J	9 J	7 J
Total Non-Carcinogenic PAHs		1.2	371	324
Carcinogenic PAHs				
Benz(a)anthracene		11 U	40 U	43 UJ
Chrysene		11 U	40 U	43 UJ
Benzobfluoranthene		11 U	40 U	43 UJ
Benzokfluoranthene		11 U	40 U	43 UJ
Benzoapyrene		11 U	40 U	43 UJ
Indeno1,2,3-cdpyrene		11 U	40 U	43 UJ
Dibenzoa,hanthracene		11 U	40 U	43 UJ
Benzog,h,iperylene		11 U	40 U	43 UJ
Total Carcinogenic PAHs		0	0	0
Total PAHs		1.2	371	324
Other Semivolatile Organic Compounds (ug/l)				
2-Methylphenol		0.4 J	40 UJ	43 UJ
4-Methylphenol		11 UJ	17 J	9 J
Benzoic acid		24 R	88 R	94 R
bis2-Ethylhexylphthalate		11 U	40 U	29 J
Phenol		11 UJ	3 J	2 J
Inorganics (ug/l)				
Barium		188	192	166
Chromium		2.4 J	9.5	5.3
Lead		18 U	62	13.1 U
Silver		1.4 R	1.4 R	1.4 R
Total Cyanide (ug/l)				
Cyanide		14.5	164	110
Other (mg/l)				
Hardness as CaCO3		352	372	322
Hardness, Calcium		218	220	192
Hardness, Magnesium		134	151	130
Hydrogen ion		7.03 J	7.05 J	7.18 J

Notes:

Only detected analytes are shown on the table

J - estimated value

U - indicates not detected to the reporting limit for organic analysis and the method detection limit for

R - the reported results or detection limits are estimated or rejected based upon the recovery

mg/L - milligrams/liter

ug/L - micrograms/liter

BTEX is benzene, toluene, ethylbenze, and xylene

PAHs are polycyclic aromatic hydrocarbons

CPAHs are carcinogenic PAHs

Prepared by: SJG

Checked by: KEA

Table 4-6
Sub Slab Soil Vapor Analytical Results - Summary of Detected Compounds
25 Willow Avenue, Clifton Former MGP Site

Constituent	Site/ Site ID/ Date												
	SG-01 CF-SG-01 6/11/2003	SG-02 CF-SG-02 6/11/2003	SG-03 CF-SG-03 6/11/2003	SG-03 CF-SG-6/11/03 6/11/2003	SG-04 CF-SG-04 6/11/2003	SG-05 CF-SG-05 6/11/2003	SG-06 CF-SG-06 6/11/2003	SG-07 CF-SG-07 6/11/2003	SG-08 CF-SG-08 6/11/2003	SG-09 CF-SG-09 6/11/2003	SG-10 CF-SG-10 6/11/2003	SG-11 CF-SG-11 6/11/2003	SG-12 CF-SG-12 6/11/2003
Volatile Organic Compounds (VOC) (ug/m3)													
1,1,1-Trichloroethane	**25000**	**3800**	**4900**	**5100**	**6600**	**9700**	**4500**	**21000**	**940J**	**6000**	**1800**	**76**	**10U**
1,1-Dichloroethane	**5400**	**370**	**25**	**25**	<14U	**350**	**220**	**580**	**39J**	**150**	<3.6U	<3.7U	<3.5U
1,1-Dichloroethylene	**2800**	**180**	**230**	**220**	**320**	**470**	**220**	**750**	**86J**	**320**	**140**	**8.1**	<3.4U
Acetone	<160U	<33U	<34U	<34U	<34U	<48U	**60**	<110U	**100J**	**59**	**26**	**24**	**28**
Benzene	<56U	<11U	<12U	<12U	<11U	<16U	<12U	<37U	**11J**	<11U	<2.8U	<2.9U	<2.8U
Benzene, 1,2,4-trimethyl	<85U	<17U	<18U	<18U	<17U	<25U	<18U	<57U	**11J**	<17U	<4.4U	<4.5U	<4.3U
Carbon Disulfide	<220U	<43U	<45U	<45U	<44U	<63U	<46U	<140U	<12U	<43U	**22**	<11U	<11U
Chloroform	<85U	<17U	<18U	<18U	<17U	<25U	<18U	<56U	<4.5U	<17U	**66**	<4.4U	<4.2U
Ethanol	<130U	**95**	<27U	<27U	<27U	<38U	<28U	<87U	**22J**	<26U	<6.7U	<6.8U	<6.5U
Isopropanol	<170U	<34U	<36U	<36U	<35U	<50U	<36U	<110U	**11J**	<34U	<8.7U	<8.9U	<8.5U
M/P-xylenes	<75U	<15U	<16U	<16U	<15U	<22U	**20**	<50U	**78J**	<15U	<3.9U	<4.0U	<3.8U
Methyl bromide	<67U	<13U	<14U	<14U	<14U	<20U	<14U	<45U	**6.3J**	<13U	<3.4U	<3.5U	<3.4U
Methyl chloride	<36U	<7.2U	<7.5U	<7.5U	<7.3U	<10U	<7.7U	<24U	**2.8J**	<7.2U	<1.8U	**2.1**	<1.8U
Methyl ethyl ketone	<200U	<41U	<43U	<43U	<42U	<60U	<44U	<140U	**17J**	<41U	<10U	<11U	<10U
Methyl tert-butyl ether	<250U	<50U	<52U	<52U	<51U	<73U	<54U	<170U	**27J**	<50U	<13U	<13U	<12U
Methylene Chloride	<60U	<12U	<13U	<13U	<12U	<18U	<13U	<40U	<3.2U	<12U	<3.1U	**3.1J**	<3.0U
n-Hexane	<240U	<49U	<51U	<51U	<50U	<72U	<52U	<160U	**15J**	<49U	<12U	<13U	<12U
o-Xylene	<75U	<15U	<16U	<16U	<15U	<22U	<16U	<50U	**20J**	<15U	<3.9U	<4.0U	<3.8U
Styrene	<74U	<15U	<15U	<15U	<15U	<22U	<16U	<49U	**4.9J**	<15U	<3.8U	<3.9U	<3.7U
Tetrachloroethylene	**500**	**960**	<25U	<25U	**110**	**84**	<25U	<78U	<6.3U	<24U	<6.0U	<6.2U	<5.9U
Toluene	<65U	<13U	<14U	<14U	<13U	<19U	**26**	<44U	**57J**	<13U	<3.4U	**3.7**	**3.6**
Vinyl Chloride	**120**	<8.9U	<9.3U	<9.3U	<9.1U	<13U	<9.5U	<30U	<2.4U	<8.9U	<2.3U	<2.3U	<2.2U

Notes:

Bold, Highlighted values indicate detected compounds
U - indicates not detected to the reporting limit
J - estimated value
ug/m3 - micrograms per cubic meter

Table 4-7
Analytical Data Statistical Summary--Surface Soil
OU-2
Clifton Former MGP Site

	NY Recommended Soil Cleanup Objectives (RSCO)	Number of Samples Analyzed	Number of Detections	Minimum Detected Concentration	Maximum Detected Concentration	Average (Based on detected values and 1/2 detection limit for nondetects)	Frequency of Exceedance of NY RSCO
Volatile Organic Compounds (ug/kg)							
Benzene	60	10	3	0.2	0.5	2	0
Toluene	1500	10	5	0.2	0.8	2	0
Semivolatile Organic Compounds (ug/kg)							
Acenaphthene	50000	10	9	23	280	504	0
Acenaphthylene	41000	10	10	61	3900	972	0
Anthracene	50000	10	10	160	2800	881	0
Benz[a]anthracene	224	10	10	380	9400	2400	10
Benzo[a]pyrene	61	10	10	450	8800	2306	10
Benzo[b]fluoranthene	1100	10	10	520	8200	2201	5
Benzo[g,h,i]perylene	50000	10	10	61	3100	632	0
Benzo[k]fluoranthene	1100	10	10	850	10000	3069	8
Chrysene	400	10	10	550	12000	2903	10
Dibenz[a,h]anthracene	14	10	9	46	1600	337	9
Fluoranthene	50000	10	10	540	12000	3128	0
Fluorene	50000	10	9	28	380	532	0
Indeno[1,2,3-cd]pyrene	3200	10	10	72	4000	809	1
Methylnaphthalene,2-	36400	10	9	19	190	485	0
Naphthalene	13000	10	9	17	220	495	0
Phenanthrene	50000	10	10	390	5200	1745	0
Pyrene	50000	10	10	600	13000	3397	0
Benzoic acid	2700	10	8	37	1400	3069	0
Benzyl alcohol	NE	10	2	130	4200	1179	0
Bis(2-ethylhexyl)phthalate	50000	10	2	470	29000	3350	0
Butyl benzyl phthalate	50000	10	9	61	1300	421	0
Carbazole	NE	10	10	69	710	241	0
Dibenzofuran	6200	10	9	26	280	478	0
Isophorone	4400	10	1	33	33	789	0
Methylphenol, 4-	900	10	1	38	38	812	0
Nitroaniline,3-	500	10	1	260	260	3971	0
Inorganics (mg/kg)							
Arsenic	7.5	10	10	5.6	26.4	10	8
Barium	300	10	10	59.9	160	113	0
Cadmium	1	10	9	0.23	1.7	1	4
Chromium	10	10	10	18.8	66.1	32	10
Lead	500	10	10	169	744	338	1
Mercury	0.1	10	10	0.18	0.82	0	10
Selenium	2	10	10	1.1	2.4	2	3
Silver	SB	10	4	0.2	0.47	0	0
Cyanide, Total	NE	10	2	1.18	2.74	1	0
Total Organic Carbon	NE	10	10	15000	105000	51240	0

Table 4-7
Analytical Data Statistical Summary -- Subsurface Soil
OU-2
Clifton Former MGP Site

	NY Recommended Soil Cleanup Objectives (RSCO)	Number of Samples Analyzed	Number of Detections	Minimum Detected Concentration	Maximum Detected Concentration	Average (Based on detected values and 1/2 detection limit for nondetects)	Frequency of Exceedance of NY RSCO
Volatile Organic Compounds (ug/kg)							
Benzene	60	127	70	1	1000000	29313	47
Toluene	1500	127	57	0.4	2100000	51174	44
Ethylbenzene	5500	127	82	0.5	1500000	64287	40
Xylene, total	1200	127	81	1	1800000	78810	73
Butanone,2-	300	5	1	47	47	13268	1
Butylbenzene, n-	NE	16	9	72	10000	1871	0
Butylbenzene, tert-	NE	8	7	5.3	4200	635	0
Butylbenzene,sec-	NE	16	3	65	1700	554	0
Carbon tetrachloride	600	13	1	580	580	5151	0
Isopropyl benzene	NE	16	10	98	87000	6365	0
Isopropyltoluene,4-	NE	16	13	2.7	10000	1490	0
Methyl-2-pentanone,4-	1000	5	1	1400	1400	13295	1
Methylene chloride	100	13	1	18	18	5116	1
Naphthalene	13000	16	14	9.7	1400000	134759	11
Propylbenzene, n-	NE	16	10	4.1	24000	2353	0
Styrene	NE	13	6	8.3	1000	5253	0
Trimethylbenzene,1,2,4-	NE	16	14	1.5	470000	33542	0
Trimethylbenzene,1,3,5-	NE	16	14	15	180000	12998	0
Semivolatile Organic Compounds (ug/kg)							
Acenaphthene	50000	128	72	20	1700000	75351	31
Acenaphthylene	41000	120	73	2	3300000	99361	36
Anthracene	50000	128	63	2	1700000	63151	30
Benz[a]anthracene	224	128	76	4	1700000	61688	71
Benzo[a]pyrene	61	128	69	14	1500000	51062	65
Benzo[b]fluoranthene	1100	128	65	13	590000	32205	64
Benzo[g,h,i]perylene	50000	128	56	79	3600000	65716	22
Benzo[k]fluoranthene	1100	128	64	22	870000	39765	64
Chrysene	400	128	73	3	2200000	66559	65
Dibenz[a,h]anthracene	14	128	33	33	2600000	52187	33
Fluoranthene	50000	128	64	5	1900000	92755	28
Fluorene	50000	128	59	18	3200000	131663	31
Indeno[1,2,3-cd]pyrene	3200	128	60	12	3200000	58214	46
Methylnaphthalene,2-	36400	110	56	22	26000000	708460	39
Naphthalene	13000	128	89	7	27000000	833425	84
Phenanthrene	50000	128	82	4	14000000	381597	49
Pyrene	50000	128	84	3	4700000	162150	44
Benzoic acid	2700	74	8	53	560	353476	5
Bis(2-ethylhexyl)phthalate	50000	88	3	11	440	79516	0
Carbazole	NE	88	20	9	160000	33668	0
Dibenzofuran	6200	88	46	12	890000	36256	25
Di-n-butyl phthalate	8100	88	1	18	18	79516	0
Di-n-octyl phthalate	50000	88	1	5	5	79516	0
Methylphenol, 4-	900	88	3	42	100000	65301	1
N-Nitrosodiphenylamine	NE	88	1	470	470	79475	0
Phenol	30	88	9	8	80000	65063	8
Chlordane, trans-	540	3	2	5.8	160	56	0
Pesticides (ug/kg)							
DDE,4,4-	2100	3	2	26	680	236	2
DDT,4,4-	2100	3	2	0.31	9.4	337	1
Dieldrin	44	3	1	15	15	339	0
Endosulfan sulfate	1000	3	1	2100	2100	704	1
Heptachlor	100	3	1	1.6	1.6	168	0
Heptachlor epoxide	20	3	1	640	640	215	1

Table 4-7
Analytical Data Statistical Summary -- Subsurface Soil
OU-2
Clifton Former MGP Site

	NY Recommended Soil Cleanup Objectives (RSCO)	Number of Samples Analyzed	Number of Detections	Minimum Detected Concentration	Maximum Detected Concentration	Average (Based on detected values and 1/2 detection limit for nondetects)	Frequency of Exceedance of NY RSCO
Inorganics (mg/kg)							
Aluminum	NE	3	3	297	4420	2902	0
Arsenic	7.5	109	102	1.1	61.3	5	11
Barium	300	109	107	8.7	1430	87	84
Beryllium	0.16	3	2	0.18	0.25	0	2
Cadmium	1	109	42	0.16	63.7	1	9
Calcium	NE	3	3	816	2110	1592	0
Chromium	10	109	107	4.2	192	42	107
Cobalt	30	3	3	0.72	28.1	17	0
Copper	25	3	3	13.8	28.3	19	1
Iron	2000	3	3	1560	22400	15153	2
Lead	500	109	108	3.5	1380	48	2
Magnesium	NE	3	3	176	44200	24592	0
Manganese	NE	3	3	18.6	396	212	0
Mercury	0.1	108	37	0.00098	3.6	0	19
Nickel	13	3	3	13.7	541	313	3
Potassium	NE	3	3	57.8	997	575	0
Selenium	2	109	34	0.64	59.6	2	15
Silver	SB	109	12	0.2	58.1	1	0
Sodium	NE	3	1	202	202	117	0
Thallium	NE	3	1	1.2	1.2	1	0
Vanadium	150	3	3	13.5	16.2	15	1
Zinc	20	3	3	30.4	208	90	3
Cyanide, Total	NE	91	19	0.848	139	5	0
Total Organic Carbon	NE	8	8	402	56200	8676	0
TCLP SVOCs (mg/L)							
Methylphenol, 4-	NE	1	1	0.19	0.19	0.19	0
Methylphenol,2-	NE	1	1	0.13	0.13	0.13	0
Pyridine	NE	1	1	0.004	0.004	0.004	0

Table 4-7
Analytical Data Statistical Summary--Groundwater
OU-2
Clifton Former MGP Site

	NYS Ambient Groundwater Quality Standards (GA) (AGWQS)	Number of Samples Analyzed	Number of Detections	Minimum Detected Concentration	Maximum Detected Concentration	Average (Based on detected values and 1/2 detection limit for nondetects)	Frequency of Exceedance of NYS AGWQS
Volatile Organic Compounds (ug/kg)							
Benzene	1	67	50	0.6	8300	1124	48
Toluene	5	67	51	0.3	3500	132	35
Ethylbenzene	5	67	43	1	1800	131	28
Xylene, total	5	67	47	1	2000	158	42
Bromodichloromethane	50	11	1	10	10	4	0
Bromoform	50	11	1	10	10	4	0
Butylbenzene, n-	5	41	7	3	260	11	5
Butylbenzene, tert-	5	34	2	12	17	2	2
Butylbenzene,sec-	5	41	7	1	12	3	6
Carbon disulfide	NE	9	1	0.3	0.3	8	0
Chlorobenzene	5	11	1	3	3	7	0
Dibromochloromethane	50	11	1	11	11	4	0
Dichloroethane,1,1-	5	11	1	21	21	5	1
Dichloroethane,1,2-	0.6	11	1	61	61	14	1
Dichloropropene, cis-1,3	5	9	1	10	10	4	1
Dichloropropene, trans-1,3	0.4	9	1	12	12	4	1
Isopropyl benzene	5	41	37	4	170	44	36
Isopropyltoluene,4-	5	41	24	1	40	8	19
Methyl tert-butyl ether	5	39	12	0.9	240	9	5
Propylbenzene, n-	5	41	32	2	43	11	17
Tetrachloroethene	5	11	1	12	12	4	1
Trichloroethane,1,1,1-	5	11	1	0.3	0.3	7	0
Trichloroethane,1,1,2-	1	11	1	18	18	4	1
Trimethylbenzene,1,2,4-	5	41	35	0.6	500	68	23
Trimethylbenzene,1,3,5-	5	41	34	1	290	38	23
Semivolatile Organic Compounds (ug/kg)							
Acenaphthene	20	33	20	0.3	230	29	8
Acenaphthylene	NE	28	7	0.2	6	40	0
Anthracene	50	33	13	0.1	11	34	0
Benz[a]anthracene	0.002	33	8	0.2	6	40	8
Benzo[a]pyrene	NE	33	6	0.2	4	40	0
Benzo[b]fluoranthene	0.002	33	6	0.2	3	40	6
Benzo[g,h,i]perylene	NE	33	6	0.2	4	41	0
Benzo[k]fluoranthene	0.002	33	6	0.3	4	40	6
Chrysene	0.002	33	8	0.2	6	40	8
Fluoranthene	50	33	12	0.2	18	47	0
Fluorene	50	33	14	0.2	77	39	1
Indeno[1,2,3-cd]pyrene	0.002	33	5	0.1	4	41	5
Methylnaphthalene,2-	NE	28	9	5	870	75	0
Naphthalene	10	69	54	0.2	10000	1488	41
Phenanthrene	50	33	12	0.2	59	39	1
Pyrene	50	33	16	0.2	17	40	0
Benzoic acid	NE	24	5	11	2200	207	0
Benzyl alcohol	NE	24	2	1	3	46	0
Butyl benzyl phthalate	50	28	1	0.2	0.2	41	0
Carbazole	NE	24	4	0.5	17	47	0
Dibenzofuran	NE	28	5	0.4	12	41	0
Dimethylphenol, 2,4-	50	28	6	0.4	20	41	0
Methylphenol, 4-	1	28	5	0.5	19	42	4
Methylphenol,2-	1	28	3	4	8	41	3
Phenol	1	28	7	1	87	47	6

Table 4-7
Analytical Data Statistical Summary--Groundwater
OU-2
Clifton Former MGP Site

Inorganics (ug/L except where noted)							
Aluminum	0	7	7	27.9	1250	356	7
Arsenic	25	24	8	4.5	14.8	5	0
Barium	1000	24	24	23.7	730	233	0
Calcium	NE	7	7	41000	111000	63700	0
Chromium	50	24	4	1.4	9	1	0
Cobalt	5	7	2	3.4	6.6	2	1
Copper	200	7	4	1.4	4.9	2	0
Iron	300	7	7	238	8810	3608	5
Lead	25	24	10	3.2	35.6	6	2
Magnesium	35000	7	7	2030	51200	32076	3
Manganese	300	7	7	3.6	2330	605	3
Nickel	100	7	2	34.6	68.1	19	0
Potassium	NE	7	7	3690	25400	10041	0
Selenium	10	24	14	5.5	21.2	7	6
Silver	50	24	3	1.4	1.4	1	0
Sodium	20000	7	7	13700	113000	72200	6
Vanadium	14	7	3	2.8	6.8	3	0
Cyanide, Total	200	24	11	15.9	568	119	6
Total Dissolved Solids (mg/L)	NE	7	7	361	882	612	0
Salinity (PSU)	NE	5	5	0.31	0.84	1	0

Table 7-1
Summary of Subsurface Soil Data - 25 Willow Avenue
Clifton Former MGP Human Health Risk Assessment

Compound	Frequency of Detect	Minimum[1]	Maximum[1]	Average[2]	EPC	95% UCL or Maximum	TAGM[3]	Site EPC Exceeds TAGM?
Volatile Organic Compounds								
Benzene	37/44	0.002	1000	56	1000	Max	0.06	yes
Toluene	32/44	0.0004	1800	85	1800	Max	1.5	yes
Ethylbenzene	39/44	0.0007	1500	119	1500	Max	5.5	yes
Xylenes	38/44	0.002	1800	126	1800	Max	1.2	yes
Non-carcinogenic PAHs								
2-Methylnaphthalene	25/35	0.56	26000	1810	26000	Max	36.4	yes
Acenaphthene	38/45	0.03	1500	110	1500	Max	50	yes
Acenaphthylene	38/45	0.026	3300	197	3300	Max	41	yes
Anthracene	30/45	0.17	1700	107	1700	Max	50	yes
Benzo(ghi)perylene	34/45	0.17	3600	139	994	95% UCL	50	yes
Fluoranthene	32/45	0.17	1800	144	1800	Max	50	yes
Fluorene	34/45	0.17	3200	271	3200	Max	50	yes
Naphthalene	43/45	0.007	27000	1654	27000	Max	13	yes
Phenanthrene	42/45	0.008	14000	757	14000	Max	50	yes
Pyrene	42/45	0.008	4700	335	4700	Max	50	yes
Carcinogenic PAHs								
Benz(a)anthracene	41/45	0.006	1700	123	1700	Max	0.224	yes
Benzo(a)pyrene	38/45	0.032	1500	106	1500	Max	0.061	yes
Benzo(b)fluoranthene	38/45	0.015	590	55	590	Max	1.1	yes
Benzo(k)fluoranthene	37/45	0.025	870	84	870	Max	1.1	yes
Chrysene	40/45	0.04	2200	143	2200	Max	0.4	yes
Dibenz(a,h)anthracene	26/45	0.17	2600	92	368	95% UCL	0.014	yes
Indeno(1,2,3-cd)pyrene	35/45	0.17	3200	118	685	95% UCL	3.2	yes
Other Semi-volatile Organic Compounds								
4-Methylphenol	2/34	0.042	10	105	10	Max	0.9	yes
Benzoic acid	2/34	0.053	0.25	688	0.25	Max	None	NA
Carbazole	14/34	0.16	160	41	160	Max	None	NA
Dibenzofuran	26/34	0.025	890	86	890	Max	6.2	yes
Phenol	3/34	0.008	80	105	80	Max	0.03	yes
Inorganic Compounds								
Aluminum	1/1	297	297	297	297	Max	SB	NA
Arsenic	32/34	1.4	19.4	5.9	7.4	95% UCL	7.5	no
Barium	31/34	23.4	1430	115	143	95% UCL	300	no
Cadmium	17/34	0.22	5.5	0.78	1.3	95% UCL	1	yes
Chromium	32/34	4.2	89	33	57	95% UCL	10	yes
Copper	1/1	28	28	28	28	Max	25	yes
Iron	1/1	1560	1560	1560	1560	Max	2000	no
Lead	33/34	4.2	606	84	153	95% UCL	SB	NA
Manganese	1/1	19	19	19	19	Max	SB	yes
Mercury	23/34	0.012	3.6	0.37	1.1	95% UCL	0.1	yes
Nickel	1/1	14	14	14	14	Max	13	yes
Selenium	15/34	0.84	7.0	1.7	2.4	95% UCL	2	yes
Vanadium	1/1	16	16	16	16	Max	150	yes
Zinc	1/1	208	208	208	208	Max	20	yes
Cyanide (total)	19/34	0.666	139	18	101	95% UCL	None	NA

Notes:

PAHs - polycyclic aromatic hydrocarbons

[1] Minimum/maximum of detected concentrations.

[2] Calculated using one-half the detection limit for results reported as non-detect.

[3] NYSDEC Technical and Administrative Guidance Memorandum #4046, Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994.

Units are in milligrams per kilogram (mg/kg) or parts per million (ppm).

NA = not applicable

UCL = upper confidence limit of the arithmetic mean

SB = site background

EPC = exposure point concentration

As per TAGM 4046, total VOCs must not exceed 10 mg/kg and total SVOCs must not exceed 500 mg/kg.

Bold italic text indicates that compound was selected as a chemical of potential concern following the criteria set forth in Section 7.1.3 of the document.

Table 7-2
Summary of Subsurface Soil Data - Willow Avenue
Clifton Former MGP Human Health Risk Assessment

Compound	Frequency of Detect	Minimum[1]	Maximum[1]	Average[2]	EPC	95% UCL or Maximum	TAGM[3]	Site EPC Exceeds TAGM?
Volatile Organic Compounds								
Benzene	3/8	0.003	3.9	0.5	3.9	Max	0.06	yes
Toluene	2/8	0.0008	0.001	0.7	0.001	Max	1.5	no
Ethylbenzene	4/8	0.0006	43	5.4	43	Max	5.5	yes
Xylenes (total)	5/8	0.003	47	5.9	47	Max	1.2	yes
Non-carcinogenic PAHs								
2-Methylnaphthylene	2/8	0.2	120	23	120	Max	36.4	yes
Acenaphthene	4/8	0.025	26	81	26	Max	50	no
Acenaphthylene	3/8	0.016	3.2	32	3.2	Max	41	no
Anthracene	2/8	0.014	0.21	56	0.21	Max	50	no
Benzo(ghi)perylene	1/8	1.5	1.5	2.8	1.5	Max	50	no
Fluoranthene	3/8	0.018	1.7	2.8	1.7	Max	50	no
Fluorene	1/8	0.018	0.018	2.6	0.018	Max	50	no
Naphthalene	4/8	0.063	150	19	150	Max	13	yes
Phenanthrene	4/8	0.016	17	2.4	17	Max	50	no
Pyrene	4/8	0.022	9.2	1.5	9.2	Max	50	no
Carcinogenic PAHs								
Benzo(a)anthracene	4/8	0.011	1.8	0.82	1.8	Max	0.224	yes
Benzo(a)pyrene	3/8	0.024	2.0	0.73	2.0	Max	0.061	yes
Benzo(b)fluoranthene	3/8	0.18	1.5	0.48	1.5	Max	1.1	yes
Benzo(k)fluoranthene	2/8	0.026	1.4	2.7	1.4	Max	1.1	yes
Chrysene	3/8	0.017	3.3	0.75	3.3	Max	0.4	yes
Dibenzo(a,h)anthracene	1/8	0.84	0.84	2.7	0.84	Max	0.014	yes
Indeno(1,2,3-cd)pyrene	2/8	0.017	1.6	2.8	1.6	Max	3.2	no
Other Semi-volatile Organic Compounds								
Dibenzofuran	2/8	0.22	1.8	0.40	1.8	Max	6.2	no
Inorganic Compounds								
Aluminum	1/1	4420	4420	4420	4420	Max	SB	NA
Arsenic	7/8	1.2	6.3	2.2	6.3	Max	7.5	no
Barium	8/8	42.1	319	84	319	Max	300	yes
Chromium	8/8	22.9	70	51	70	Max	10	yes
Copper	1/1	14	14	14	14	Max	25	no
Iron	1/1	22400	22400	22400	22400	Max	2000	yes
Lead	8/8	4	19	9.8	19	Max	SB	NA
Manganese	1/1	396	396	396	396	Max	SB	NA
Mercury	1/8	0.058	0.058	0.058	0.058	Max	0.1	no
Nickel	1/1	541	541	541	541	Max	13	yes
Selenium	8/8	1.1	2.4	1.7	2.4	Max	2	yes
Silver	7/8	0.29	0.40	0.34	0.40	Max	SB	NA
Vanadium	1/1	14.8	14.8	14.8	14.8	Max	150	no
Zinc	1/1	30.4	30.4	30.4	30.4	Max	20	yes

Notes:
PAHs - polycyclic aromatic hydrocarbons
[1] Minimum/maximum of detected concentrations.
[2] Calculated using one-half the detection limit for results reported as non-detect.
[3] NYSDEC Technical and Administrative Guidance Memorandum #4046, Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994.
Units are in milligrams per kilogram (mg/kg) or parts per million (ppm).
NA = not applicable
UCL = upper confidence limit of the arithmetic mean
SB = site background
EPC = exposure point concentration
As per TAGM 4046, total VOCs must not exceed 10 mg/kg and total SVOCs must not exceed 500 mg/kg.
Bold italic text indicates that compound was selected as a chemical of potential concern following the criteria set forth in Section 7.1.3 of the document

Table 7-3
Summary of Subsurface Soil Data - Other Off-Site Parcels
Clifton Former MGP Human Health Risk Assessment

Compound	Frequency of Detect	Minimum[1]	Maximum[1]	Average[2]	EPC	95% UCL or Maximum	TAGM[3]	Site EPC Exceeds TAGM?
Volatile Organic Compounds								
Benzene	4/17	0.047	8.5	1.4	8.5	Max	0.06	yes
Toluene	4/17	0.076	43	3.0	43	Max	1.5	yes
Ethylbenzene	7/17	0.16	640	44	640	Max	5.5	yes
Xylenes (total)	6/17	0.53	1000	63	1000	Max	1.2	yes
Non-carcinogenic PAHs								
2-Methylnaphthylene	5/9	0.022	130	23	130	Max	36.4	yes
Acenaphthene	12/17	0.035	1200	81	1200	Max	50	yes
Acenaphthylene	7/9	0.027	190	32	190	Max	41	yes
Anthracene	15/17	0.014	810	56	810	Max	50	yes
Benzo(ghi)perylene	13/17	0.079	260	26	260	Max	50	yes
Fluoranthene	15/17	0.046	1900	131	1900	Max	50	yes
Fluorene	11/17	0.034	890	61	890	Max	50	yes
Naphthalene	13/17	0.018	1600	240	1600	Max	13	yes
Phenanthrene	15/17	0.041	3800	252	3800	Max	50	yes
Pyrene	16/17	0.004	1500	108	1500	Max	50	yes
Carcinogenic PAHs								
Benzo(a)anthracene	15/17	0.037	640	51	640	Max	0.224	yes
Benzo(a)pyrene	15/17	0.075	540	41	540	Max	0.061	yes
Benzo(b)fluoranthene	15/17	0.058	460	36	460	Max	1.1	yes
Benzo(k)fluoranthene	15/17	0.057	390	32	390	Max	1.1	yes
Chrysene	15/17	0.052	450	40	450	Max	0.4	yes
Dibenzo(a,h)anthracene	8/17	0.033	51	29	51	Max	0.014	yes
Indeno(1,2,3-cd)pyrene	14/17	0.057	240	24	240	Max	3.2	yes
Other Semi-volatile Organic Compounds								
4-Methylphenol	1/5	0.078	0.078	5.9	0.078	Max	0.9	no
Benzoic acid	2/5	0.076	0.14	28	0.14	Max	None	NA
Carbazole	4/5	0.009	11	2.3	11	Max	None	NA
Dibenzofuran	4/5	0.012	33	6.7	33	Max	6.2	yes
Phenol	1/5	0.017	0.017	5.9	0.017	Max	0.03	no
Inorganic Compounds								
Arsenic	9/9	2.0	8.8	4.6	8.8	Max	7.5	yes
Barium	9/9	8.7	112	55	112	Max	300	no
Cadmium	1/9	0.22	0.22	0.27	0.22	Max	1	no
Chromium	9/9	8.6	63	28	63	Max	10	yes
Lead	9/9	3.8	1380	198	1380	Max	SB	NA
Mercury	4/9	0.073	0.69	0.15	0.69	Max	0.1	yes
Selenium	2/9	1.4	1.4	0.79	1.4	Max	2	no

Notes:
PAHs - polycyclic aromatic hydrocarbons
[1] Minimum/maximum of detected concentrations.
[2] Calculated using one-half the detection limit for results reported as non-detect.
[3] NYSDEC Technical and Administrative Guidance Memorandum #4046, Determination of Soil Cleanup Objectives and Cleanup Levels, January 24, 1994.
Units are in milligrams per kilogram (mg/kg) or parts per million (ppm).
NA = not applicable
UCL = upper confidence limit of the arithmetic mean
SB = site background
EPC = exposure point concentration
As per TAGM 4046, total VOCs must not exceed 10 mg/kg and total SVOCs must not exceed 500 mg/kg.
Bold italic text indicates that compound was selected as a chemical of potential concern following the criteria set forth in Section 7.1.3 of the document.

Table 7-4
Summary of Groundwater Data - 25 Willow Avenue
Clifton Former MGP Human Health Risk Assessment

Compound	Frequency of Detect	Minimum[1]	Maximum[1]	Average[2]	EPC	95% UCL or Maximum	TOGS[3]	Site EPC Exceeds TOGS?
Volatile Organic Compounds								
Benzene	53/65	0.0003	8.3	1.3	8.3	Max	0.001	yes
Toluene	52/65	0.0003	3.5	0.14	0.16	95% UCL	0.005	yes
Ethylbenzene	45/65	0.001	1.8	0.14	1.3	95% UCL	0.005	yes
Xylenes (total)	49/65	0.001	2.0	0.17	0.65	95% UCL	0.005	yes
Non-carcinogenic PAHs								
2-Methylnaphthylene	8/23	0.005	0.87	0.09	0.20	95% UCL	None	NA
Acenaphthene	20/29	0.0003	0.23	0.04	0.23	Max	0.02	yes
Acenaphthylene	6/24	0.0002	0.006	0.06	0.006	Max	None	NA
Anthracene	12/29	0.0002	0.011	0.04	0.011	Max	0.05	no
Benzo(ghi)perylene	5/29	0.0002	0.004	0.05	0.004	Max	None	no
Fluoranthene	10/29	0.0002	0.018	0.06	0.018	Max	0.05	no
Fluorene	14/29	0.0002	0.077	0.05	0.077	Max	0.05	yes
Naphthalene	56/67	0.0002	10	1.7	10	Max	0.01	yes
Phenanthrene	12/29	0.0002	0.06	0.05	0.06	Max	0.05	yes
Pyrene	14/29	0.0002	0.017	0.05	0.017	Max	0.05	no
Carcinogenic PAHs								
Benzo(a)anthracene	6/29	0.0002	0.006	0.05	0.006	Max	0.000002	yes
Benzo(a)pyrene	5/29	0.0002	0.004	0.05	0.004	Max	ND	NA
Benzo(b)fluoranthene	5/29	0.0002	0.003	0.05	0.003	Max	0.000002	yes
Benzo(k)fluoranthene	5/29	0.0003	0.004	0.05	0.004	Max	0.000002	yes
Chrysene	6/29	0.0003	0.006	0.05	0.006	Max	0.000002	yes
Indeno(1,2,3-cd)pyrene	5/29	0.0003	0.004	0.05	0.004	Max	0.000002	yes
Other Semi-volatile Organic Compounds								
2,4-Dimethylphenol	6/23	0.0004	0.02	0.05	0.02	Max	0.05	no
2-Methylphenol	3/23	0.004	0.008	0.05	0.008	Max	None	NA
4-Methylphenol	3/23	0.004	0.019	0.05	0.019	Max	None	NA
Benzoic acid	2/17	0.011	0.013	0.03	0.013	Max	None	NA
Benzyl alcohol	1/19	0.003	0.003	0.06	0.003	Max	None	NA
Carbazole	3/19	0.001	0.017	0.06	0.017	Max	None	NA
Dibenzofuran	4/23	0.001	0.012	0.05	0.012	Max	None	NA
Phenol	6/23	0.001	0.087	0.06	0.087	Max	0.005	yes
Inorganic Compounds								
Aluminum	7/7	0.0279	1.25	0.36	1250	Max	None	NA
Arsenic	6/19	0.0035	0.0122	0.005	0.007	95% UCL	0.025	no
Barium	19/19	0.0237	0.73	0.23	0.43	95% UCL	1	no
Cadmium	2/19	0.00065	0.00065	0.001	0.00065	95% UCL	0.005	no
Chromium	5/19	0.00075	0.009	0.002	0.002	95% UCL	0.05	no
Copper	4/7	0.0014	0.0049	0.002	0.0049	Max	0.2	no
Iron	7/7	0.24	8.8	3.6	8.8	Max	0.3	yes
Lead	9/19	0.0017	0.014	0.003	0.005	95% UCL	0.025	no
Manganese	7/7	0.0036	2.3	0.60	2.3	Max	0.3	yes
Nickel	2/7	0.035	0.068	0.02	0.068	Max	0.1	no
Selenium	11/19	0.00345	0.02	0.01	0.01	95% UCL	0.01	no
Vanadium	3/7	0.0028	0.0068	0.0026	0.0068	Max	None	NA
Cyanide, Total	12/19	0.016	3.7	0.0004	0.568	95% UCL	0.2	yes

Notes:

[1] Minimum/maximum of detected concentrations.

[2] Calculated using one-half the detection limit for results reported as non-detect.

[3]NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, (TOGS 1.1.1) June 1998.

Values presented are for Class GA groundwater.

Units are in milligrams per liter (mg/L) or parts per million (ppm).

NA = not applicable

UCL = upper confidence limit of the arithmetic mean

EPC = exposure point concentration

Bold italic text indicates that compound was selected as a chemical of potential concern following the criteria set forth in Section 7.1.3 of the document.

Table 7-5
Summary of Groundwater Data - Off-Site Data
Clifton Former MGP Human Health Risk Assessment

Compound	Frequency of Detect	Minimum[1]	Maximum[1]	Average[2]	EPC	95% UCL or Maximum	TOGS[3]	Site EPC Exceeds TOGS?
Volatile Organic Compounds								
Toluene	1/5	0.0004	0.0004	0.0021	0.0004	Max	0.005	no
Ethylbenzene	1/5	0.001	0.001	0.0022	0.001	Max	0.005	no
Xylenes (total)	1/5	0.002	0.0	0.0024	0.002	Max	0.005	no
Non-carcinogenic PAHs								
2-Methylnaphthylene	1/5	0.007	0.007	0.006	0.01	Max	None	NA
Acenaphthene	1/6	0.001	0.001	0.0043	0.001	Max	0.02	no
Acenaphthylene	1/5	0.0006	0.0006	0.0042	0.0006	Max	None	NA
Anthracene	2/5	0.0001	0.0004	0.0032	0.0004	Max	0.05	no
Benzo(ghi)perylene	1/5	0.0002	0.0002	0.0042	0.0002	Max	None	no
Fluoranthene	2/5	0.0004	0.0008	0.0033	0.0008	Max	0.05	no
Fluorene	1/5	0.002	0.002	0.0045	0.002	Max	0.05	no
Naphthalene	1/5	0.003	0.003	0.0047	0.003	Max	0.01	no
Phenanthrene	1/5	0.0004	0.0004	0.0043	0.0004	Max	0.05	no
Pyrene	2/5	0.0004	0.0007	0.0033	0.0007	Max	0.05	no
Carcinogenic PAHs								
Benzo(a)anthracene	2/5	0.0002	0.0002	0.0032	0.0002	Max	0.000002	yes
Benzo(a)pyrene	1/5	0.0003	0.0003	0.0043	0.0003	Max	ND	NA
Benzo(b)fluoranthene	1/5	0.0002	0.0002	0.0042	0.0002	Max	0.000002	yes
Benzo(k)fluoranthene	1/5	0.0003	0.0003	0.0043	0.0003	Max	0.000002	yes
Chrysene	2/5	0.0002	0.0003	0.0032	0.0003	Max	0.000002	yes
Other Semi-volatile Organic Compounds								
4-Methylphenol	2/5	0.0005	0.012	0.0040	0.012	Max	None	NA
Benzoic acid	1/5	0.028	0.028	0.026	0.028	Max	None	NA
Benzyl alcohol	1/5	0.001	0.001	0.0043	0.001	Max	None	NA
Carbazole	1/5	0.0005	0.0005	0.0042	0.0005	Max	None	NA
Dibenzofuran	1/5	0.0004	0.0004	0.0042	0.0004	Max	None	NA
Phenol	1/5	0.038	0.038	0.0051	0.038	Max	0.005	yes
Inorganic Compounds								
Arsenic	4/5	0.0045	0.015	0.0048	0.015	Max	0.025	no
Barium	5/5	0.13	0.47	0.23	0.47	Max	1	no
Lead	3/5	0.0063	0.036	0.0031	0.036	Max	0.025	yes
Selenium	5/5	0.0059	0.021	0.012	0.02	Max	0.01	yes
Cyanide, Total	1/5	0.04	0.04	0.000012	0.04	Max	0.2	no

Notes:

[1] Minimum/maximum of detected concentrations.

[2] Calculated using one-half the detection limit for results reported as non-detect.

[3] NYSDEC Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations, (TOGS 1.1.1) June 1998.

Values presented are for Class GA groundwater.

Units are in milligrams per liter (mg/L) or parts per million (ppm).

NA = not applicable

UCL = upper confidence limit of the arithmetic mean

EPC = exposure point concentration

Bold italic text indicates that compound was selected as a chemical of potential concern following the criteria set forth in Section 7.1.3 of the document

Table 7-6
Exposure Matrix for the Clifton Former MGP Site – OU-2

Media		Outdoor Air		Indoor Air	Surface Soil		Subsurface Soil		Groundwater		
Potential Exposure Pathway		Vapor Inhalation	Particulate Inhalation	Accumulated Vapor Inhalation	Dermal Contact	Ingestion	Dermal Contact	Ingestion	Dermal Contact	Ingestion	Inhalation of Vapors
Location	Receptor										
Nearby Off-Site	Resident Adult [1]	√	√	√	√	√	√ [2]	√ [2]	√ [2]	∅	√ [2]
	Resident Child [1]	√	√	√	√	√	∅	∅	∅	∅	∅
	Utility Workers [1]	√	√	∅	√	√	√	√	√	∅	√
On/Off-Site	Construction Worker [1]	√	∅	∅	√	√	√	√	√	∅	√
25 Willow Avenue	Commercial Worker	∅	∅	√	√[3]	∅	∅	∅	∅	∅	∅
	Trespassers – Adult, Adolescent, and Child	∅	∅	∅	√[3]	∅	∅	∅	∅	∅	∅
	Adult and Child Visitors	∅	∅	√	∅	∅	∅	∅	∅	∅	∅
Biotic Receptors											
Plants – Off-Site		∅	∅	∅	√	∅	∅	∅	∅	∅	∅
Wildlife – Off-Site		∅	∅	∅	√	√	∅	∅	∅	∅	∅

∅ Incomplete Pathway/Route
√ Potentially Complete Pathway/Route
[1] Future exposure scenario.
[2] Direct contact with subsurface soil and groundwater are considered potentially complete exposure pathways in the event that a resident engages in excavation work in their yard.
[3] Surface soil is included as contact with tar bubbles in pavement cracks at the site.

Table 7-7
Derivation of Toxicological Benchmarks for Meadow Vole

Chemical	Test Organism	Endpoint	NOAELt (mg/kg/day)	Reference for Test Species	NOAEL for Meadow Vole (mg/kg/day)	Toxicological Benchmark for Meadow Vole (mg/kg)
1,2,4-Trimethylbenzene	Rat	NOAEL	14.8	IRIS	24.9	218
1,3,5-Trimethylbenzene[a]	Rat	NOAEL	14.8	IRIS	24.9	218
Ethylbenzene	Rat	NOAEL	136	IRIS	228.4	2003
Isopropylbenzene	Rat	NOAEL	110	IRIS	184.7	1620
Styrene	Dog	NOAEL	200	IRIS	824.4	7231
n-Butylbenzene[b]	Mouse	NOAEL	26	ORNL	23.6	207
n-Propylbenzene[b]	Mouse	NOAEL	26	ORNL	23.6	207
p-Isopropyltoluene[b]	Mouse	NOAEL	26	ORNL	23.6	207
sec-Butylbenzene[b]	Mouse	NOAEL	26	ORNL	23.6	207
tert-Butylbenzene[b]	Mouse	NOAEL	26	ORNL	23.6	207
2,4-Dimethylphenol	Mouse	LD50 (809 mg/kg)	2.91	NTP	2.6	23
2-Methylnaphthalene	Rat	LD50 (1630 mg/kg)	2.61	NTP	4.4	38
2-Methylphenol	Rat	NOAEL	50	IRIS	84.0	737
3-Nitroaniline	Mouse	LD50 (308 mg/kg)	1.13	NTP	1.0	9
4-Chloroaniline	Rat	LOAEL (12.5 mg/kg/day)	1.25	IRIS	2.1	18
4-Methylphenol	Rat	NOAEL	5.00	HEAST	8.4	74
Acenaphthylene[c]	Mouse	NOAEL	175	HEAST	159.0	1395
Acenaphthene	Mouse	NOAEL	175	IRIS	159.0	1395
Anthracene	Mouse	NOAEL	1000	IRIS	908.7	7971
Benzo(a)anthracene[e]	Mouse	NOAEL	1	ORNL	0.9	8
Benzo(b)fluoranthene[d]	Mouse	NOAEL	125	IRIS	113.6	996
Benzo(g,h,i)perylene[f]	Mouse	NOAEL	75	IRIS	68.2	598
Benzo(k)fluoranthene[d]	Mouse	NOAEL	125	IRIS	113.6	996
Benzoic acid	Dog	LD50 (2000 mg/kg)	0.95	NTP	3.9	34
Benzyl alcohol	Rabbit	NOAEL	143	HEAST	435.9	3824
Butylbenzylphthalate	Rat	NOAEL	159	IRIS	267.0	2342
Carbazole	Rat	LDLo (500 mg/kg)	4.00	NTP	6.7	59
Chrysene[e]	Mouse	NOAEL	1	ORNL	0.9	8
Di-n-butylphthalate	Rat	NOAEL	125	IRIS	209.9	1841
Di-n-octylphthalate	Rat	LOAEL (175 mg/kg/day)	17.5	HEAST	29.4	258
Dibenzo(a,h)anthracene[e]	Mouse	NOAEL	1	ORNL	0.9	8
Dibenzofuran[e]	Mouse	NOAEL	1	ORNL	0.9	8
Fluoranthene	Mouse	NOAEL	125	IRIS	113.6	996
Fluorene	Mouse	NOAEL	125	IRIS	113.6	996
Hexachlorobenzene	Rat	NOAEL	0.08	IRIS	0.1	1
Indeno(1,2,3-cd)pyrene[d]	Mouse	NOAEL	125	IRIS	113.6	996
Isophorone	Dog	NOAEL	150	IRIS	618.3	5423
Naphthalene	Rat	NOAEL	100	IRIS	167.9	1473
N-nitrosodiphenylamine	Rat	LD50 (2500 mg/kg)	4.00	NTP	6.7	59
Phenanthrene	Mouse	LD50 (700 mg/kg)	2.6	NTP	2.3	20
Phenol	Rat	NOAEL	60.0	IRIS	100.8	884
Pyrene	Mouse	NOAEL	75	IRIS	68.2	598
Cobalt	Rat	LDLo (750 mg/kg)	6.00	NTP	10.1	88
Silver[g]	Rat	NOAEL	1	ORNL	1.7	15
Endosulfan sulfate[h]	Rat	NOAEL	0.15	ORNL	0.3	2

To convert mg diet/kg body weight, divide the diet component by the food factor times the uncertainty factor

Sources:

IRIS: USEPA, 2000:

HEAST: USEPA, 1997.

NTP: National Toxicology Program's Chemical Health and Safety Data Website: http://ntp-server.niehs.nih.gov/Main_Pages/Chem-HS.html

ORNL; Oak Ridge National Laboratory, Sample et al. 1996.

a Value for 1,2,4-Trimethylbenzene used
b Value for toluene used
c Value for acenaphthene used
d Value for fluoranthene used
e Value for benzo(a)pyrene used
f Value for pyrene used
g Value for cadmium used
h Value for endosulfan used

Table 7-8
Comparison of Clifton Surface Soil Data to Toxicological Benchmark Values

Chemical	Toxicological Benchmark			Surface Soil *	
	Earth Worms	Terrestrial Plants	Meadow Vole	Frequency of Detection	Range of Detected Concentrations
Volatile Organic Compounds (µg/kg)					
1,2,4-Trimethylbenzene			218,027	10/37	1.5-470000
1,3,5-Trimethylbenzene			218,027	11/41	2-180000
Acetone			147,800	12/47	0.4-1000000
Benzene			210,800	14/42	0.2-4400
Carbon Tetrachloride			236,500	10/53	2-1500000
Ethylbenzene			2,003,493	12/38	0.5-640000
Isopropylbenzene			1,620,473	6/41	3-87000
Methylene Chloride			86,500	2/38	18-21
Styrene			7,231,242	17/53	0.3-1800000
Toluene		200,000	207,900	26/57	0.2-1800000
Xylene (total)			2,512	11/38	6-1000000
n-Butylbenzene			207,246	6/37	83-10000
n-Propylbenzene			207,246	6/37	4.1-24000
p-Isopropyltoluene			207,246	8/37	1-10000
sec-Butylbenzene			207,246	1/37	1700-1700
tert-Butylbenzene			207,246	5/53	140-4200
Semi-Volatile Organic Compounds (µg/kg)					
2,4-Dimethylphenol			23,215	11/51	27-26000000
2-Methylnaphthalene			38,420	26/51	9-860000
3-Nitroaniline			9,002	1/51	260-260
4-Methylphenol			73,658	16/51	5-1500000
Acenaphthene		20,000	1,394,923	45/61	7-3300000
Acenaphthylene			1,394,923	55/57	20-230000
Anthracene			7,970,991	59/61	29-1700000
Benzo(a)anthracene			7,971	61/61	63-1500000
Benzo(a)pyrene			8,000	60/61	43-590000
Benzo(b)fluoranthene			996,374	59/61	32-3600000
Benzo(g,h,i)perylene			597,824	57/61	49-870000
Benzo(k)fluoranthene			996,374	49/61	30-70000
Benzoic acid			34,277	17/50	23-1400
Benzyl alcohol			3,823,965	3/50	89-4200
Butylbenzylphthalate			2,342,319	28/51	19-13000
Carbazole			58,926	44/51	24-2200000
Chrysene			7,971	44/61	190-90000
Di-n-butylphthalate		200,000	1,841,446	1/51	1300-1300
Di-n-octylphthalate			257,802	14/51	13-2600000
Dibenzo(a,h)anthracene			7,971	42/61	22-890000
Dibenzofuran			7,971	25/51	8-19000
Diethylphthalate		100,000	36,648,000	16/51	140-270000
Fluoranthene			4,398,000	57/61	18-3200000

Table 7-8
Comparison of Clifton Surface Soil Data to Toxicological Benchmark Values

Chemical	Toxicological Benchmark			Surface Soil *	
	Earth Worms	Terrestrial Plants	Meadow Vole	Frequency of Detection	Range of Detected Concentrations
Fluorene	30,000		996,374	48/61	5-3200000
Hexachlorobenzene			1,179	1/51	400-400
Indeno(1,2,3-cd)pyrene			996,374	42/61	50-50000
Isophorone			5,423,432	1/51	33-33
N-Nitrosodiphenylamine	20,000		1,473,157	13/51	11-27000000
Naphthalene			58,926	53/61	12-14000000
Phenanthrene			20,459	43/61	100-420000
Phenol	30,000	70,000	883,894	17/51	130-4700000
Pyrene			597,824	45/61	230-200000
bis(2-Ethylhexyl)phthalate			146,000	17/35	79-29000
Inorganic Compounds (mg/kg)					
Antimony		5	1	15/16	1.6-16.8
Arsenic	60	10	1.008	48/49	3.5-340
Barium		500	79.6	33/34	59.9-537
Beryllium		10	9.75	6/16	0.19-1.4
Cadmium	20	4	14.255	28/34	0.21-816
Chromium	0.4	1	40,449	34/34	0.72-138
Cobalt		20	88,389	1/1	28.3-28.3
Copper	50	100	224.8	1/1	1560-1560
Lead	500	50	118.23	34/34	98.6-2740
Manganese		500	1,301	14/16	0.042-1.3
Mercury	0.1	0.3	19.21	34/34	0.13-13.7
Nickel	200	30	591.15	1/1	57.8-57.8
Selenium	70	1	2.956	32/49	0.2-4.7
Silver		2	15	13/34	0.2-202
Thallium		1	0.111	1/1	16.2-16.2
Vanadium		2	2.881	1/1	208-208
Zinc	200	50	2364.6	9/9	1080-65600
Cyanide			954.2	11/52	0.83-33.6
Pesticides (mg/kg)					
Dieldrin			296	1/1	2100-2100
Endosulfan sulfate			2,210	1/1	640-640
Heptachlor			1,921	1/1	160-160

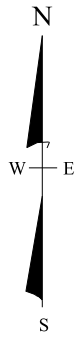
Notes:
* Surface soil includes soils collected to a depth of 4 feet below ground surface
Bolded values are derived benchmarks. See Table 7-8.

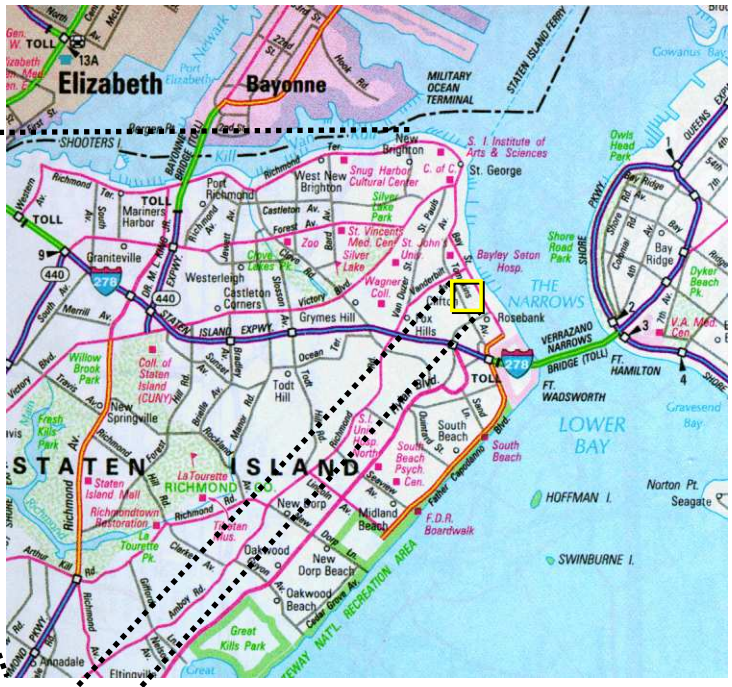
Table 7-8
Comparison of Clifton Surface Soil Data to Toxicological Benchmark Values

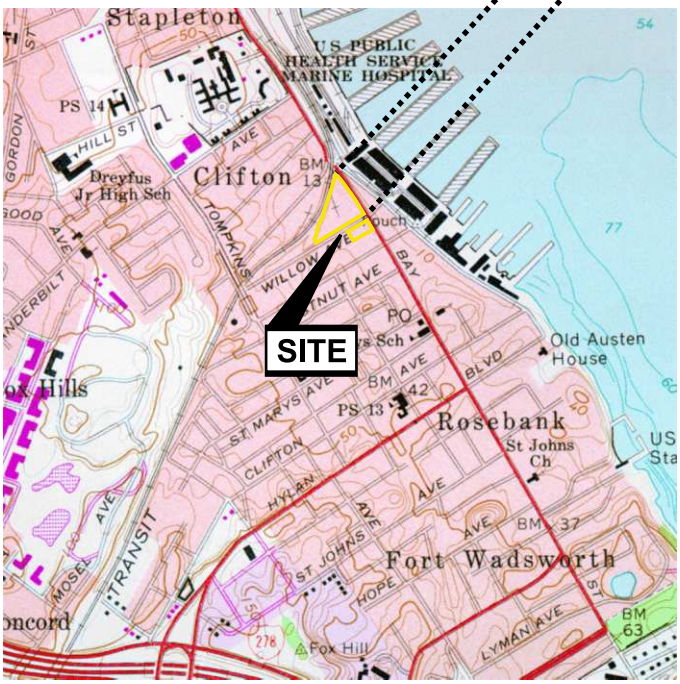
Chemical	Toxicological Benchmark			Surface Soil *	
	Earth Worms	Terrestrial Plants	Meadow Vole	Frequency of Detection	Range of Detected Concentrations
Fluorene	30,000		996,374	48/61	5-3200000
Hexachlorobenzene			1,179	1/51	400-400
Indeno(1,2,3-cd)pyrene			996,374	42/61	50-50000
Isophorone			5,423,432	1/51	33-33
N-Nitrosodiphenylamine	20,000		1,473,157	13/51	11-27000000
Naphthalene			58,926	53/61	12-14000000
Phenanthrene			20,459	43/61	100-420000
Phenol	30,000	70,000	883,894	17/51	130-4700000
Pyrene			597,824	45/61	230-200000
bis(2-Ethylhexyl)phthalate			146,000	17/35	79-29000
Inorganic Compounds (mg/kg)					
Antimony		5	1	15/16	1.6-16.8
Arsenic	60	10	1.008	48/49	3.5-340
Barium		500	79.6	33/34	59.9-537
Beryllium		10	9.75	6/16	0.19-1.4
Cadmium	20	4	14.255	28/34	0.21-816
Chromium	0.4	1	40,449	34/34	0.72-138
Cobalt		20	88,389	1/1	28.3-28.3
Copper	50	100	224.8	1/1	1560-1560
Lead	500	50	118.23	34/34	98.6-2740
Manganese		500	1,301	14/16	0.042-1.3
Mercury	0.1	0.3	19.21	34/34	0.13-13.7
Nickel	200	30	591.15	1/1	57.8-57.8
Selenium	70	1	2.956	32/49	0.2-4.7
Silver		2	15	13/34	0.2-202
Thallium		1	0.111	1/1	16.2-16.2
Vanadium		2	2.881	1/1	208-208
Zinc	200	50	2364.6	9/9	1080-65600
Cyanide			954.2	11/52	0.83-33.6
Pesticides (mg/kg)					
Dieldrin			296	1/1	2100-2100
Endosulfan sulfate			2,210	1/1	640-640
Heptachlor			1,921	1/1	160-160

Notes:
* Surface soil includes soils collected to a depth of 4 feet below ground surface
Bolded values are derived benchmarks. See Table 7-8.

Figures







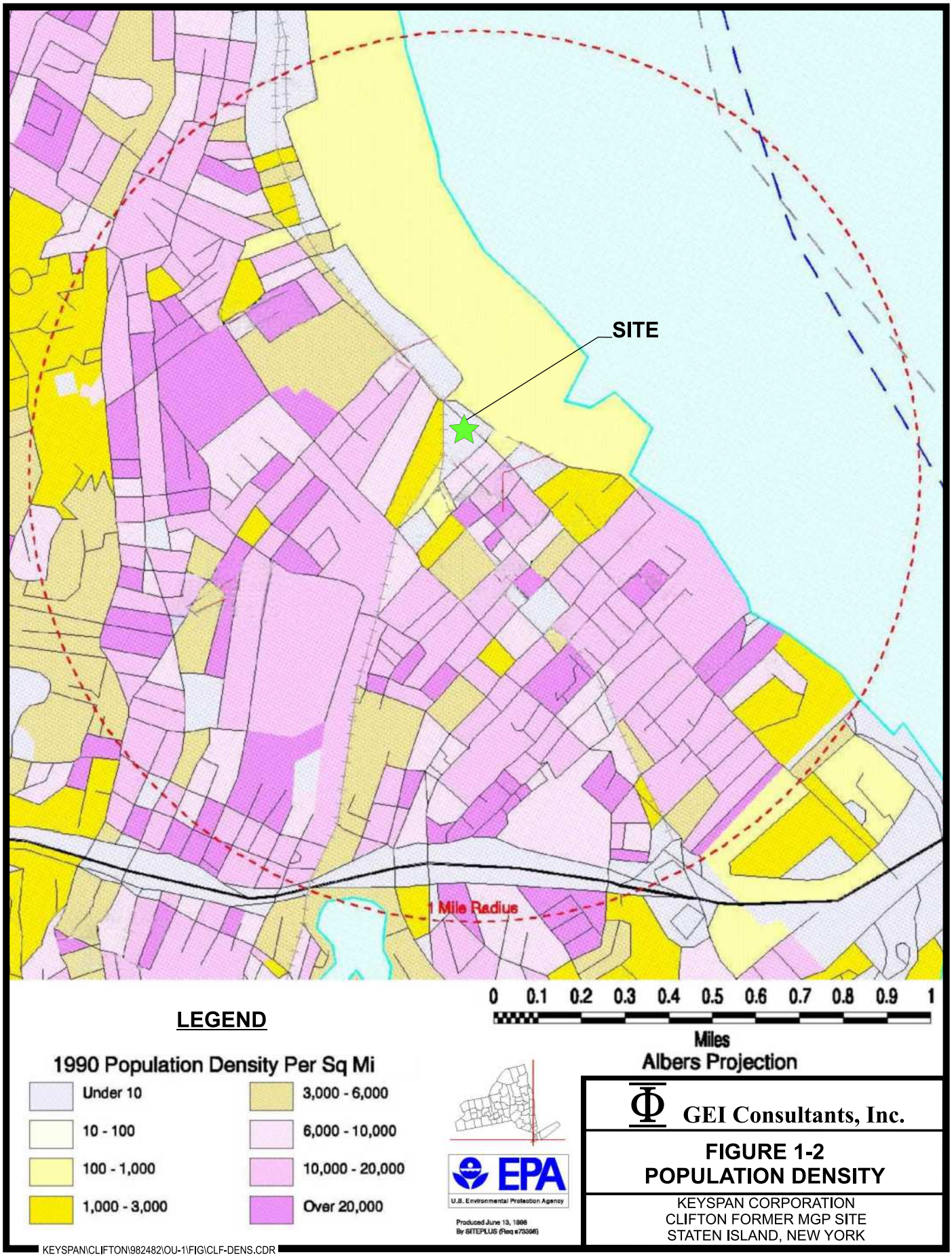
SOURCE: USGS TOPOGRAPHIC MAP, THE NARROWS, N.Y.-N.J., PHOTOREVISED 1981.

GEI Consultants, Inc.

FIGURE 1-1
SITE LOCATION MAP

KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE
STATEN ISLAND, NEW YORK

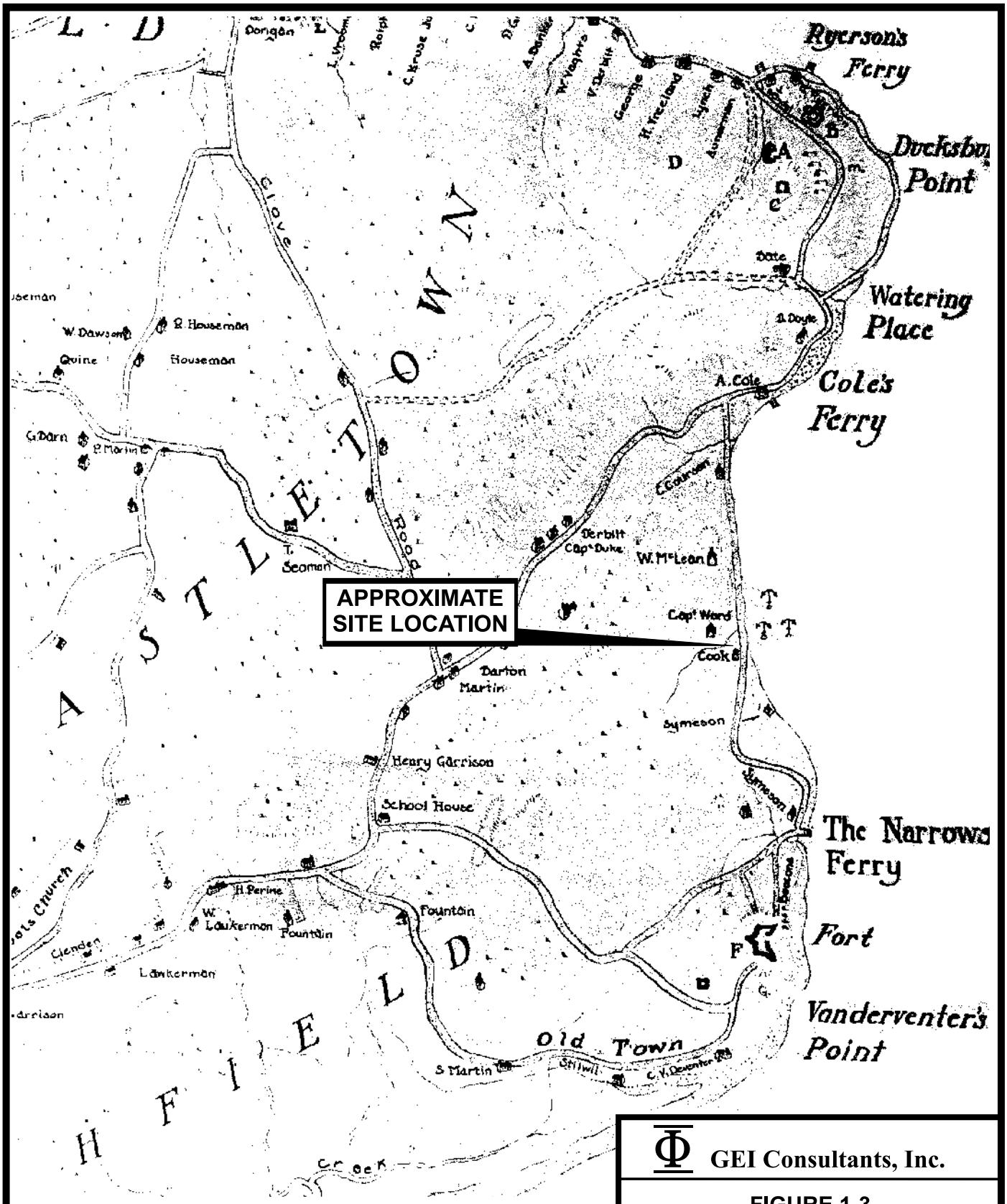
KEYSPAN\CLIFTON\982482\OU-1\FIG\CLF-SLOC.CDR



GEI Consultants, Inc.

FIGURE 1-2
POPULATION DENSITY

KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE
STATEN ISLAND, NEW YORK



SOURCE: A MAP OF STATEN ISLAND DURING THE REVOLUTION 1775-1783

COMPILED FROM: THE TAYLOR & SKINNER MAP 1781
PLAN NO. 31 DU COMP ANGLO-HESSOIS DONS STATEN ISL. DE 1780-1783
THE HESSIAN MAP C. 1777

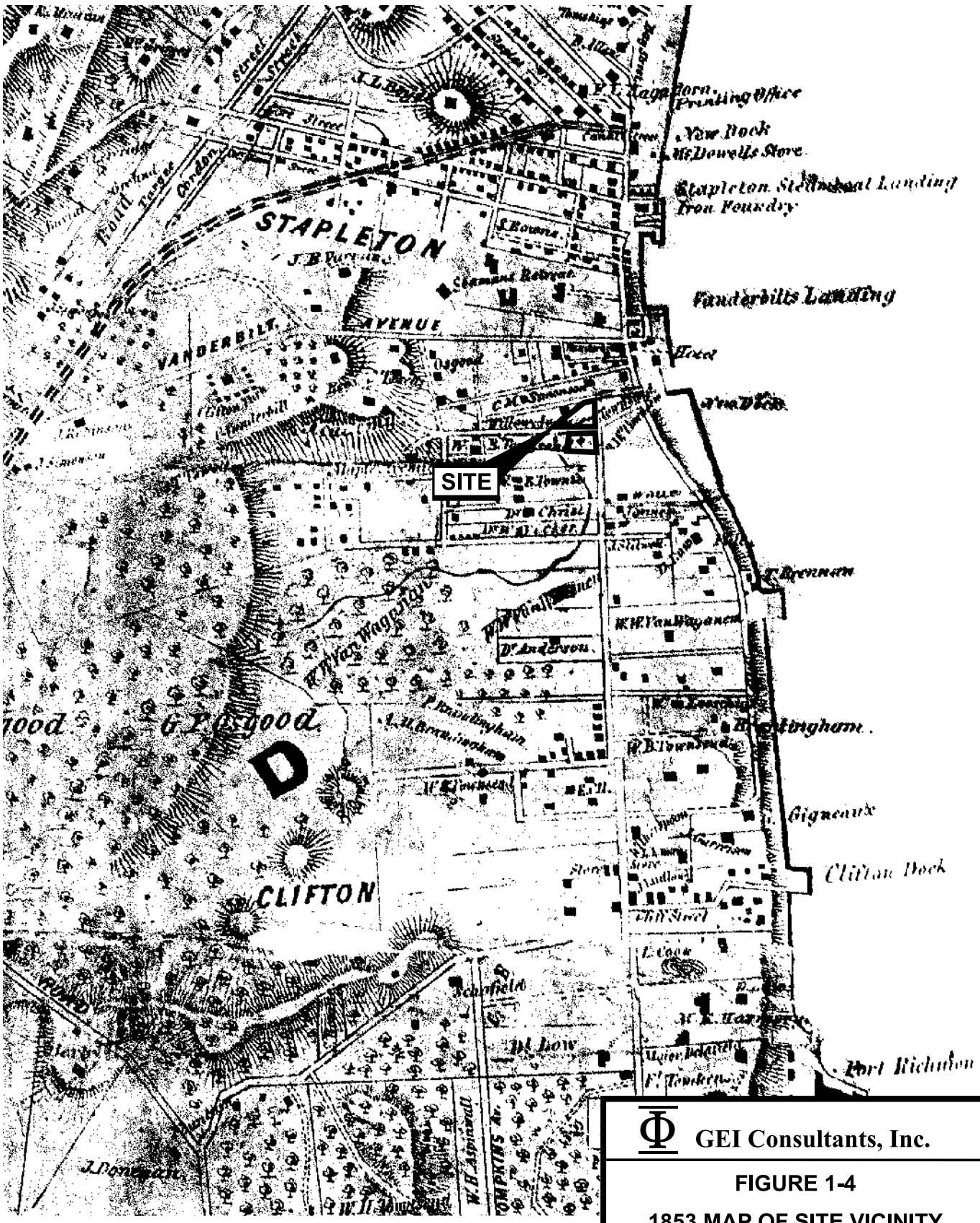
PROVIDED BY: STATEN ISLAND INSTITUTE OF ARTS AND SCIENCES.

KEYSPAN\CLIFTON\982482\OU-1\FIG\CLF-HIST.CDR

GEI Consultants, Inc.

FIGURE 1-3
1775-1783 MAP OF SITE VICINITY

KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE
STATEN ISLAND, NEW YORK



SOURCE: MAP OF STATEN ISLAND OR RICHMOND COUNTY, N.Y. SURVEY DRAWN AND PUBLISHED BY JAMES BUTLER

PROVIDED BY: STATEN ISLAND INSTITUTE OF ARTS AND SCIENCES.

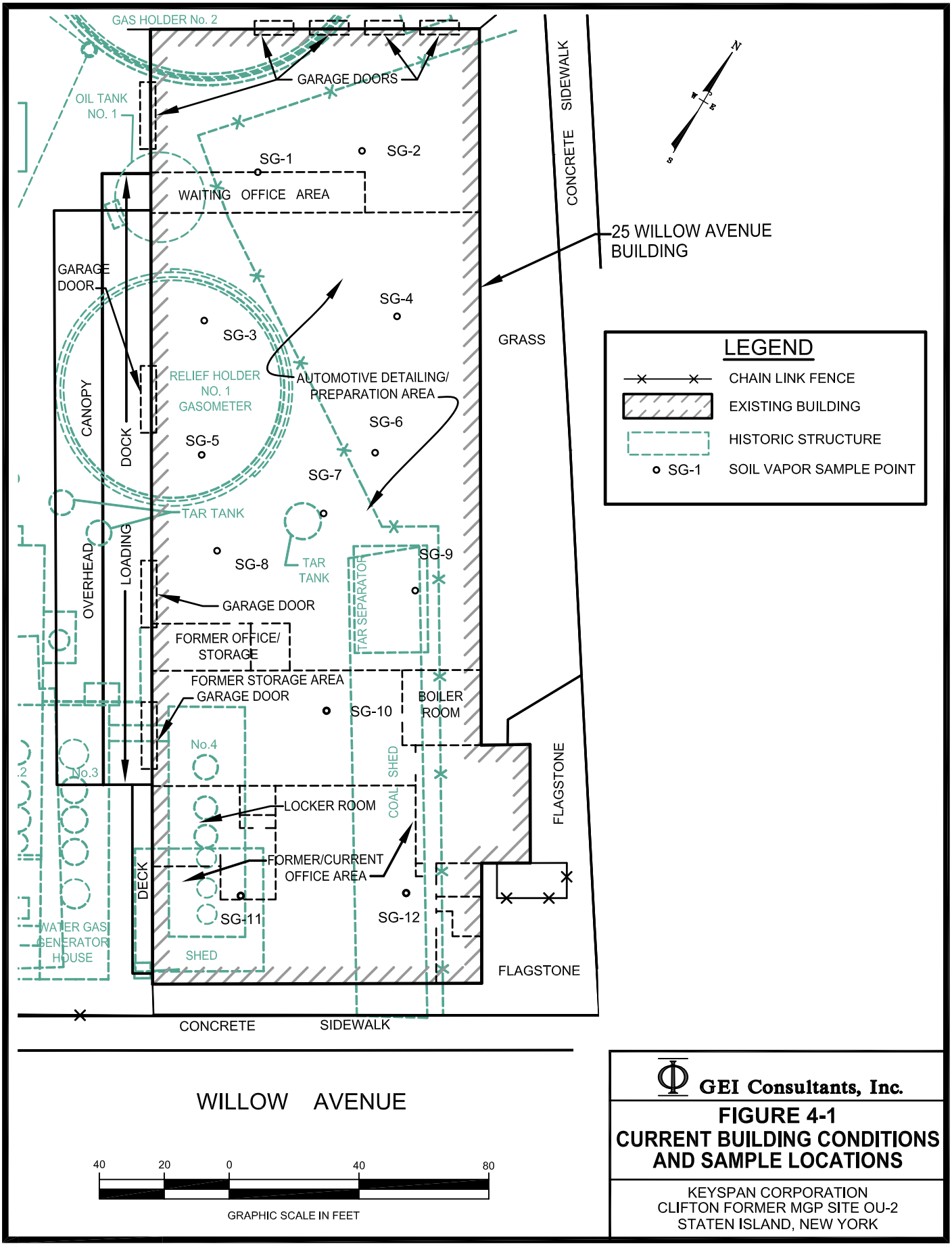
KEYSPAN\CLIFTON\982482\OU-1\FIG\CLF-HIST.CDR

GEI Consultants, Inc.

FIGURE 1-4

1853 MAP OF SITE VICINITY

KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE
STATEN ISLAND, NEW YORK

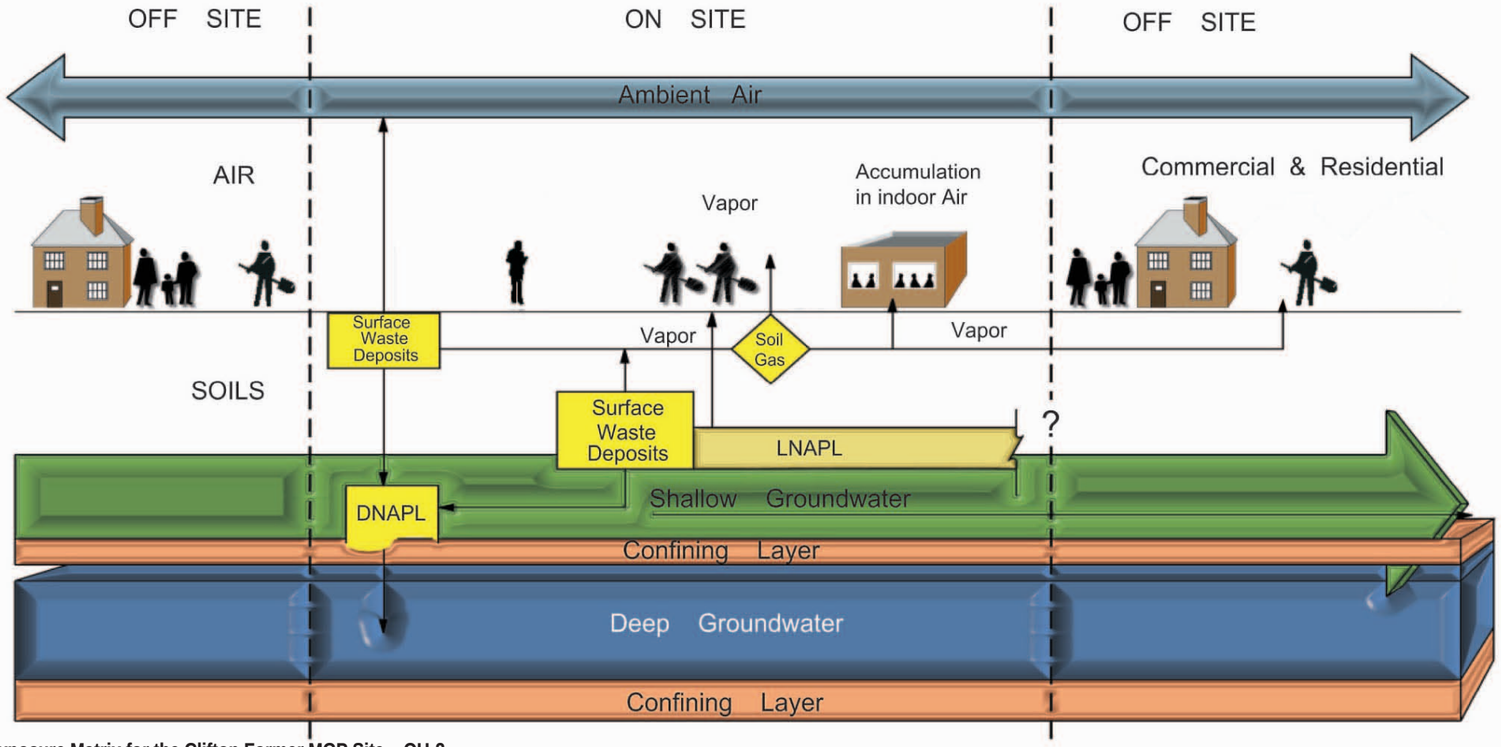


KEYSPAN\CLIFTON\982482\1007\OU-2\FIGS\CLF-BUILDING

GEI Consultants, Inc.

FIGURE 4-1
CURRENT BUILDING CONDITIONS AND SAMPLE LOCATIONS

KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK



KEY:

- Commercial Worker/Visitor
- Construction Worker/ Utility Worker
- Residents
- Trespasser

LNAPL - Light Non-Aqueous Phase Liquid

DNAPL - Dense Non-Aqueous Phase Liquid

→ Contaminant Transport Route

Exposure Matrix for the Clifton Former MGP Site – OU-2

Media		Outdoor Air		Indoor Air	Surface Soil		Subsurface Soil		Groundwater		
Potential Exposure Pathway		Vapor Inhalation	Particulate Inhalation	Accumulated Vapor Inhalation	Dermal Contact	Ingestion	Dermal Contact	Ingestion	Dermal Contact	Ingestion	Inhalation of Vapors
Location	Receptor										
Nearby Off-Site	Resident Adult [1]	√	√	√	√	√	√ [2]	√ [2]	√ [2]		√ [2]
	Resident Child [1]	√	√	√	√	√					
	Utility Workers [1]	√	√		√	√	√	√	√		√
On/Off-Site	Construction Worker [1]	√	√		√	√	√	√	√		√
25 Willow Avenue	Commercial Worker			√	√[3]						
	Trespassers – Adult, Adolescent, and Child				√[3]						
	Adult and Child Visitors			√							
Biotic Receptors											
Plants – Off-Site					√						
Wildlife – Off-Site					√	√					

Incomplete Pathway/Route

√ Potentially Complete Pathway/Route

[1] Future exposure scenario.

[2] Direct contact with subsurface soil and groundwater are considered potentially complete exposure pathways in the event that a resident engages in excavation work in their yard.

[3] Surface soil is included as contact with tar bubbles in pavement cracks at the site.

\\Ctmiddat\projects\06392\docs\reports\Clifton\QHEA and FWIA\Figure7-1.pdf

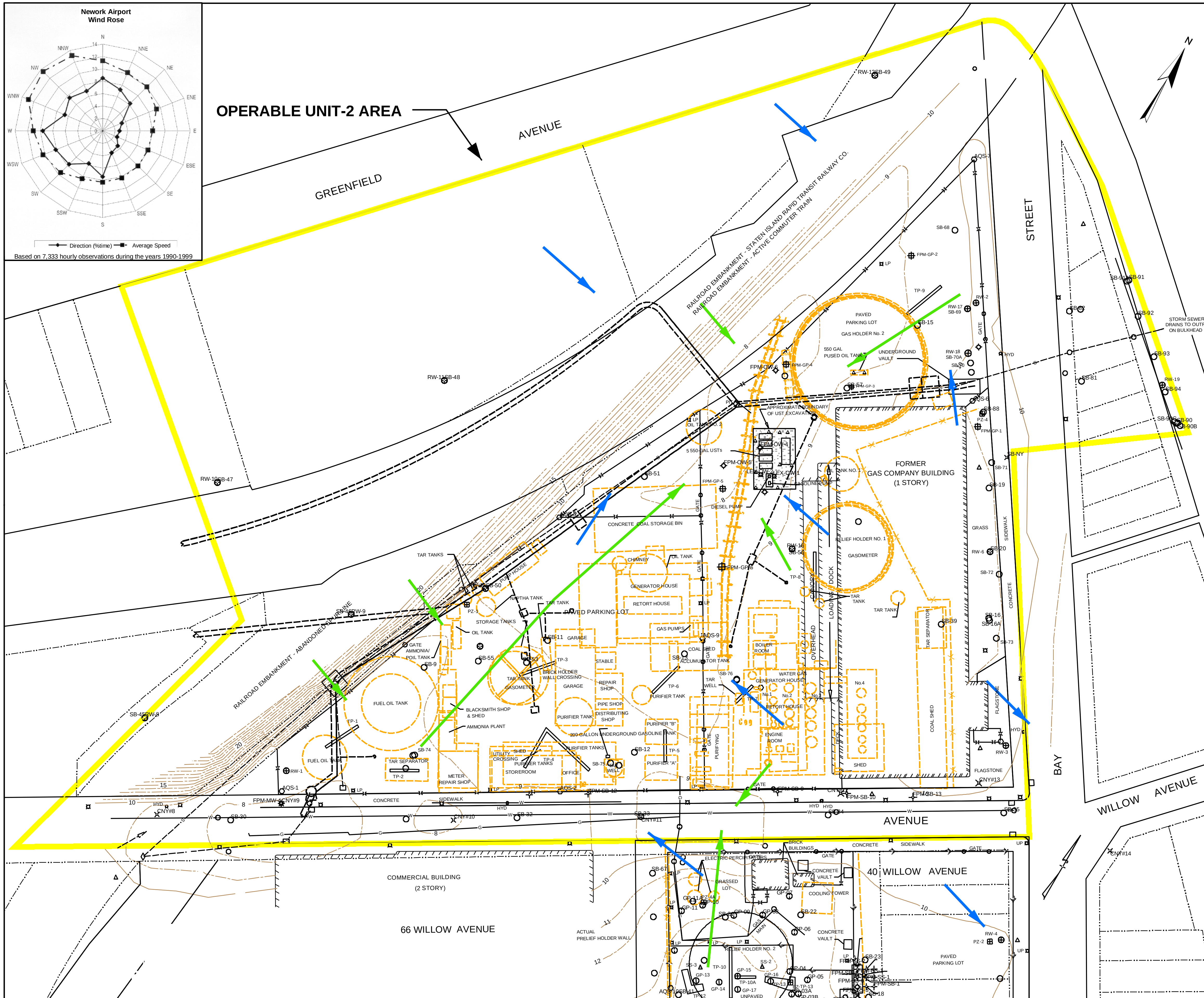
Compiled by:

VHB

Vanasse Hangen Brustlin, Inc.

KEYSPAN

Figure 7-1
Conceptual Risk System Model
OU-2
Former Manufactured Gas Plant Site
Borough of Staten Island
New York City, New York



Legend

AQS-1	RI AIR QUALITY SAMPLE LOCATION
SS-1	RI AIR SOIL SAMPLE LOCATION
RW-1	RI MONITORING WELL LOCATION
TP-7	RI TEST PIT LOCATION
SB-14	RI SOIL BORING LOCATION
PZ-3	RI PIEZOMETER LOCATION
STRM-03	RI STORM SEWER SAMPLE LOCATION
GP-1	FEASIBILITY STUDY (FS) SUPPORT GEOPROBE LOCATION
LEX-SS-1	PREVIOUS LEXICON SIDEWALL SOIL SAMPLE LOCATION
LEX-OW-1	PREVIOUS LEXICON MONITORING WELL LOCATION
FPM-OW-1	PREVIOUS FANNING PHILLIPS & MOLNAR MONITORING WELL LOCATION
FPM-GP-1	PREVIOUS FANNING PHILLIPS & MOLNAR GEOPROBE/PIEZOMETER LOCATION
SS-NY	PREVIOUS SOIL BORING LOCATION
FPM-SB-1	PREVIOUS FANNING PHILLIPS & MOLNAR SOIL BORING LOCATION
CNY#1	PREVIOUS CITY OF NEW YORK SOIL BORING LOCATION

GROUNDWATER DIRECTION
SURFACE DRAINAGE
W WATER LINE
S SEWER LINE
G GAS LINE
CHAIN LINK FENCE
CONTOURS
DRAINAGE
OFFSITE-BOUND
HISTORIC FEATURES
EXISTING BUILDING/STRUCTURE
EXCAVATION BOUNDARY
OPERABLE UNIT-2 AREA

BASEMAP SOURCE: "SITE PLAN, TOPOGRAPHY AND HISTORIC STRUCTURES WITHIN OPERABLE UNIT-1 (OU-1) AND OPERABLE UNIT-2 (OU-2)" PLATE 1, prepared by GEI Consultants, Inc, Sept. 2002

80 40 0 80 Feet

Vanasse Hangen Brustlin, Inc.
Transportation Land Development Environmental Services

PREPARED FOR KEYSPAN

FORMER CLIFTON MANUFACTURED GAS PLANT SITE
BOROUGH OF STATEN ISLAND
NEW YORK CITY, NEW YORK

CURRENT SITE PLAN - OU-2

SCALE = 1:960 (1"=80')
DATE: FEBRUARY 2003

FIGURE 7-2A

Legend

- GROUNDWATER DIRECTION
- SURFACE DRAINAGE
- OPERABLE UNIT-2 AREA

BASEMAP SOURCE: Aerial Photograph taken 12/5/53
(Provided by GEI Consultants, Inc. 3/29/2000)

80 40 0 80 Feet

N

Vanasse Hangen Brustlin, Inc.
Transportation Land Development Environmental Services

PREPARED FOR KEYSPAN

FORMER CLIFTON MANUFACTURED GAS PLANT SITE
BOROUGH OF STATEN ISLAND
NEW YORK CITY, NEW YORK

HISTORIC AERIAL PHOTO - OU-2

SCALE = 1:960 (1"=80')

DATE: FEBRUARY 2003

FIGURE 7-2B

Sources:
Historic Sites, Offsite Receptors - Environmental Data Resources, Inc., Aug 2002
USGS Topographic Maps: The Narrows and Jersey City, NY-NJ, Photorevised 1981
US Fish and Wildlife National Wetlands Inventory
Fresh Water Wetlands and Protected Species - NYSDEC

N

1,100 550 0 1,100 Feet

Vanasse Hangen Brustlin, Inc.
Transportation Land Development Environmental Services

PREPARED FOR KEYSPAN

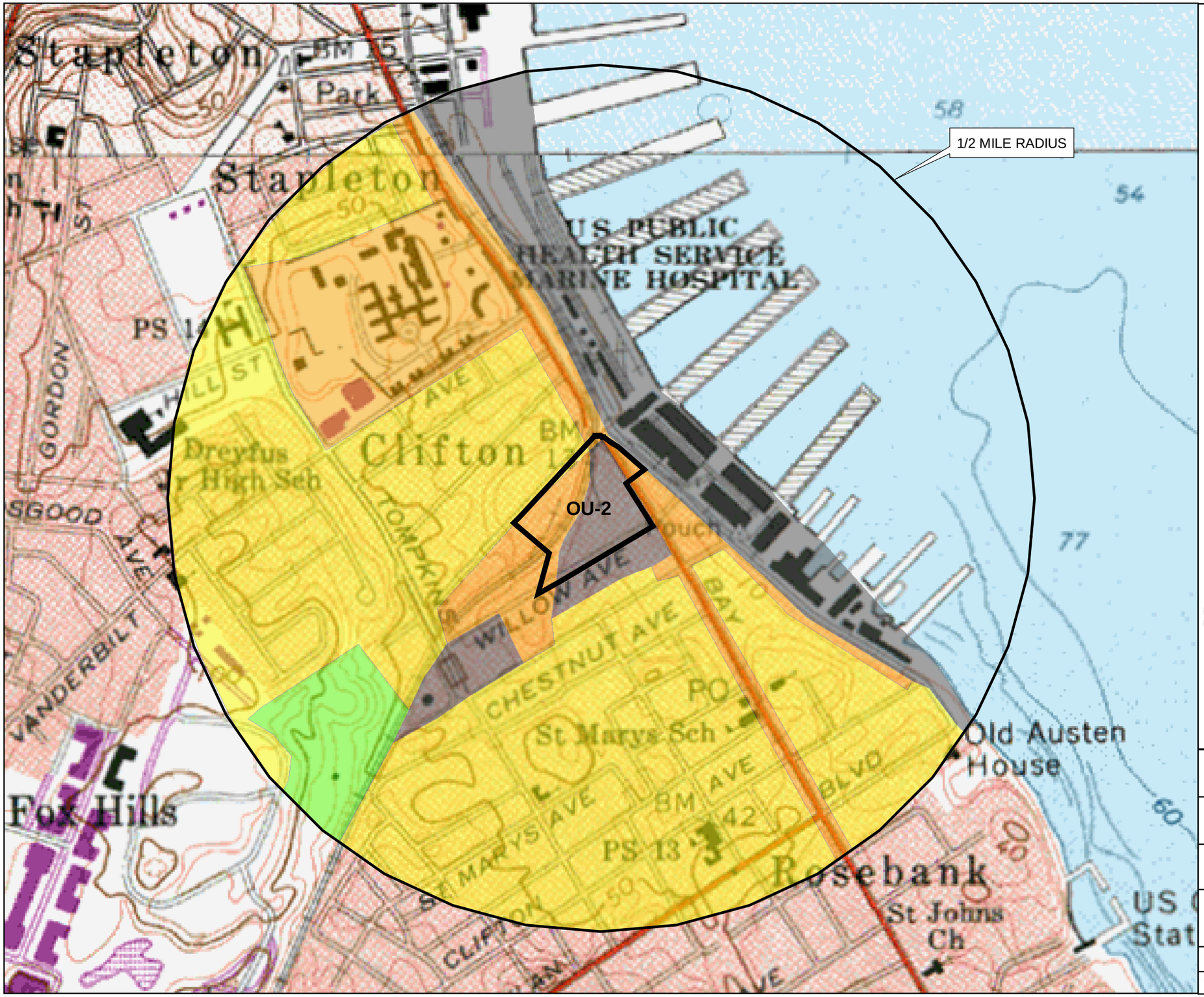
FORMER CLIFTON MANUFACTURED GAS PLANT SITE
BOROUGH OF STATEN ISLAND
NEW YORK CITY, NEW YORK

ENVIRONMENTAL ATTRIBUTES AND SENSITIVE RECEPTORS - OU-2

SCALE = 1:13200 (1"=1,100')

DATE: FEBRUARY 2003

FIGURE 7-2C



Legend

- OPERABLE UNIT 2 AREA
- Commercial
- Industrial
- Residential
- Woodland

Basemap Source:
USGS Topographic Maps: The Narrows and Jersey City, NY-NJ, Photorevised 1981

N

600 300 0 600 Feet

VHB *Vanasse Hangen Brustlin, Inc.*
Transportation Land Development Environmental Services

PREPARED FOR KEYSPAN

FORMER CLIFTON MANUFACTURED GAS PLANT SITE
BOROUGH OF STATEN ISLAND
NEW YORK CITY, NEW YORK

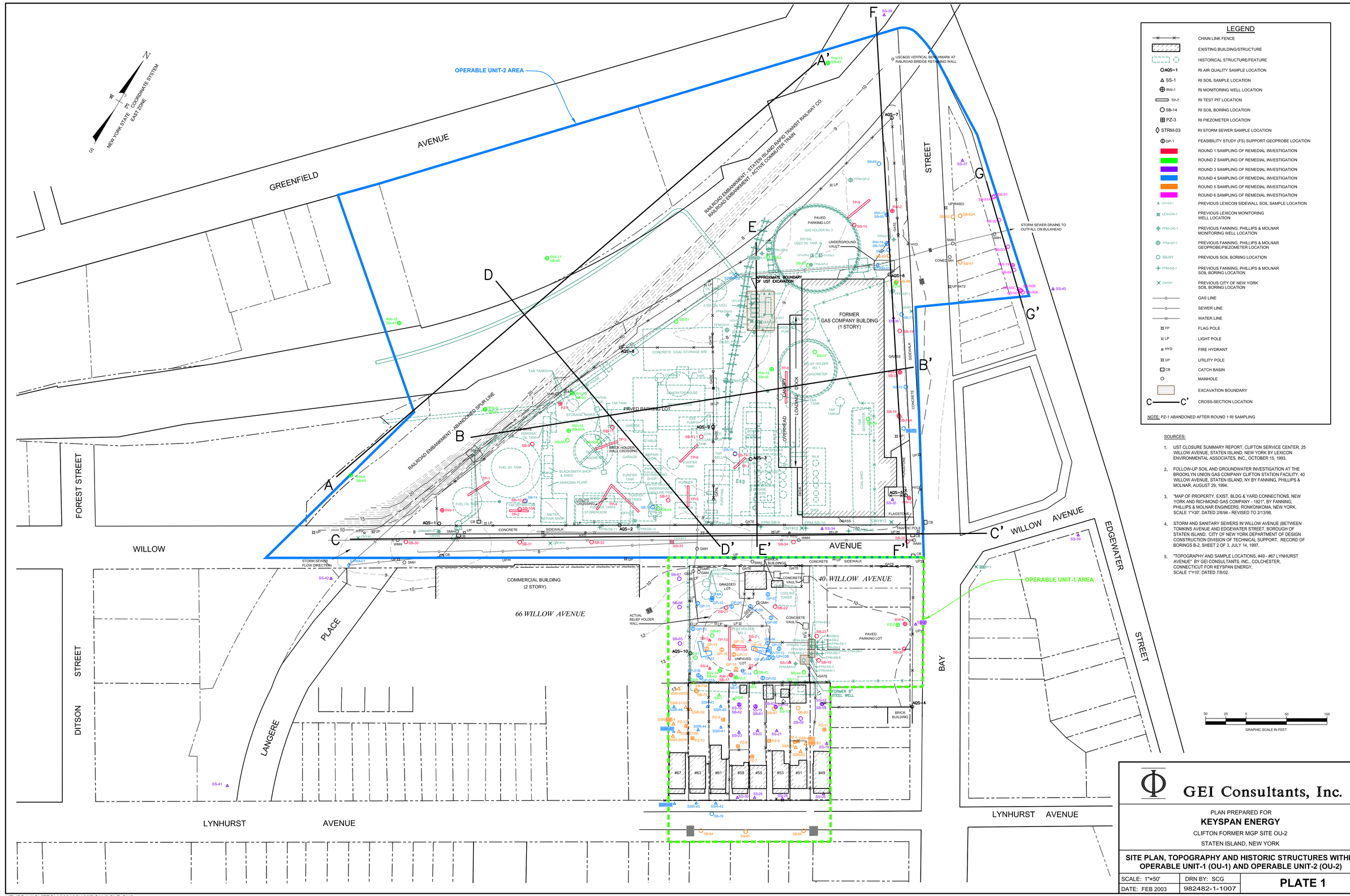
LAND COVER/LAND USE MAP - OU-2

SCALE = 1:7200 (1"=600')

DATE: FEBRUARY 2003

FIGURE 7-2D

Plates



LEGEND

- CHAIN LINK FENCE
- EXISTING BUILDING/STRUCTURE
- HISTORICAL STRUCTURE/FEATURE
- AQS-1 — RI AIR QUALITY SAMPLE LOCATION
- SS-1 — RI SOIL SAMPLE LOCATION
- RW-1 — RI MONITORING WELL LOCATION
- TP-7 — RI TEST PIT LOCATION
- SB-14 — RI SOIL BORING LOCATION
- PZ-3 — RI PIEZOMETER LOCATION
- STRM-03 — RI STORM SEWER SAMPLE LOCATION
- GP-1 — FEASIBILITY STUDY (FS) SUPPORT GEOPROBE LOCATION
- ROUND 1 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 2 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 3 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 4 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 5 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 6 SAMPLING OF REMEDIAL INVESTIGATION
- LEX-SS-1 — PREVIOUS LEXICON SIDEWALL SOIL SAMPLE LOCATION
- LEX-OW-1 — PREVIOUS LEXICON MONITORING WELL LOCATION
- FPM-OW-1 — PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- FPM-GP-1 — PREVIOUS FANNING, PHILLIPS & MOLNAR GEOPROBE/PIEZOMETER LOCATION
- SB-NY — PREVIOUS SOIL BORING LOCATION
- FPM-SB-1 — PREVIOUS FANNING, PHILLIPS & MOLNAR SOIL BORING LOCATION
- CNY91 — PREVIOUS CITY OF NEW YORK SOIL BORING LOCATION
- G — GAS LINE
- S — SEWER LINE
- W — WATER LINE
- FP — FLAG POLE
- LP — LIGHT POLE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- CB — CATCH BASIN
- MANHOLE
- EXCAVATION BOUNDARY
- C ——— C' — CROSS-SECTION LOCATION

NOTE: PZ-1 ABANDONED AFTER ROUND 1 RI SAMPLING

SOURCES:

1. UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
3. "MAP OF PROPERTY, EXIST. BLDG & YARD CONNECTIONS, NEW YORK AND RICHMOND GAS COMPANY - 1921", BY FANNING, PHILLIPS & MOLNAR ENGINEERS, RONKONKOMA, NEW YORK, SCALE 1"=30', DATED 2/8/94 - REVISED TO 2/13/98.
4. STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET, BOROUGH OF STATEN ISLAND. CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT. RECORD OF BORINGS B-2, SHEET 2 OF 3. JULY 14, 1997.
5. "TOPOGRAPHY AND SAMPLE LOCATIONS, #49 - #67 LYNHURST AVENUE" BY GEI CONSULTANTS, INC., COLCHESTER, CONNECTICUT FOR KEYSPAN ENERGY, SCALE 1"=10'. DATED 7/8/02.

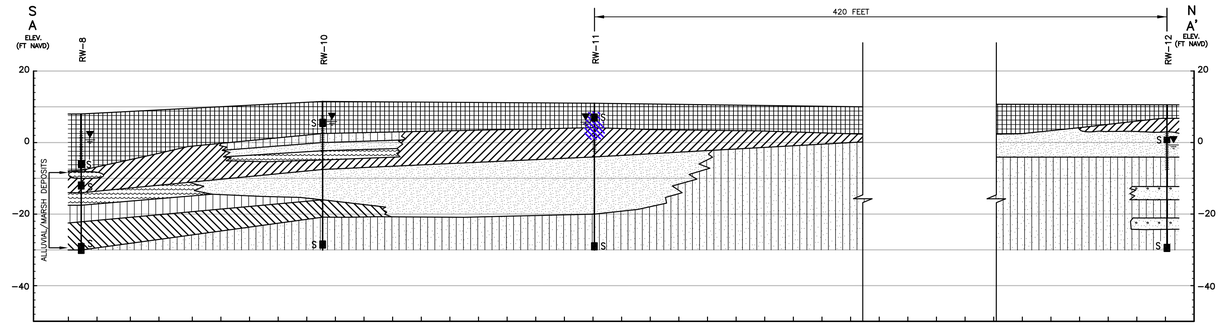
GEI Consultants, Inc.

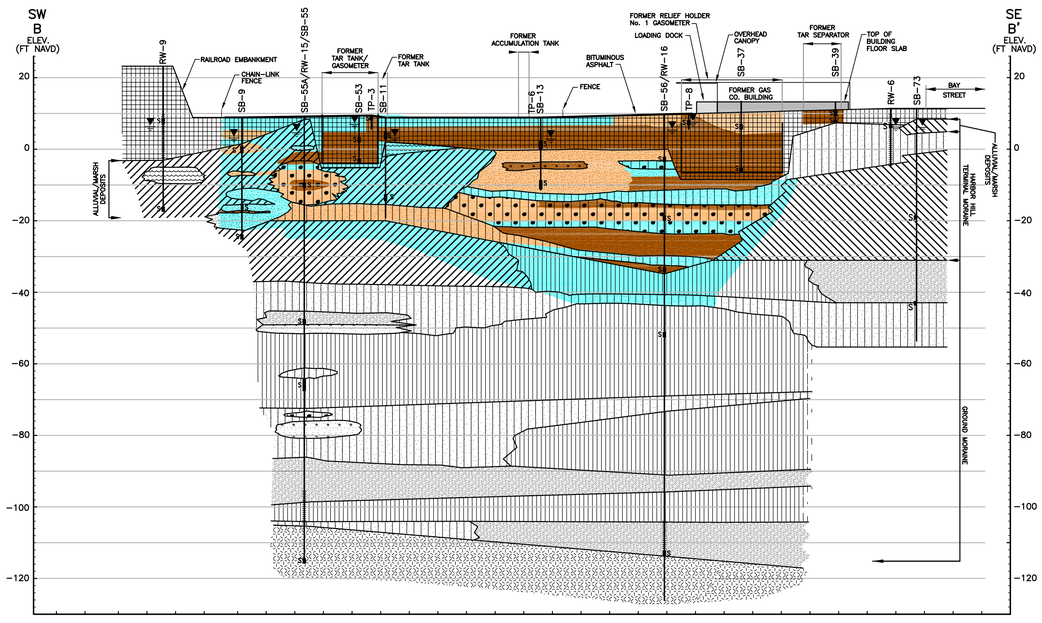
PLAN PREPARED FOR
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

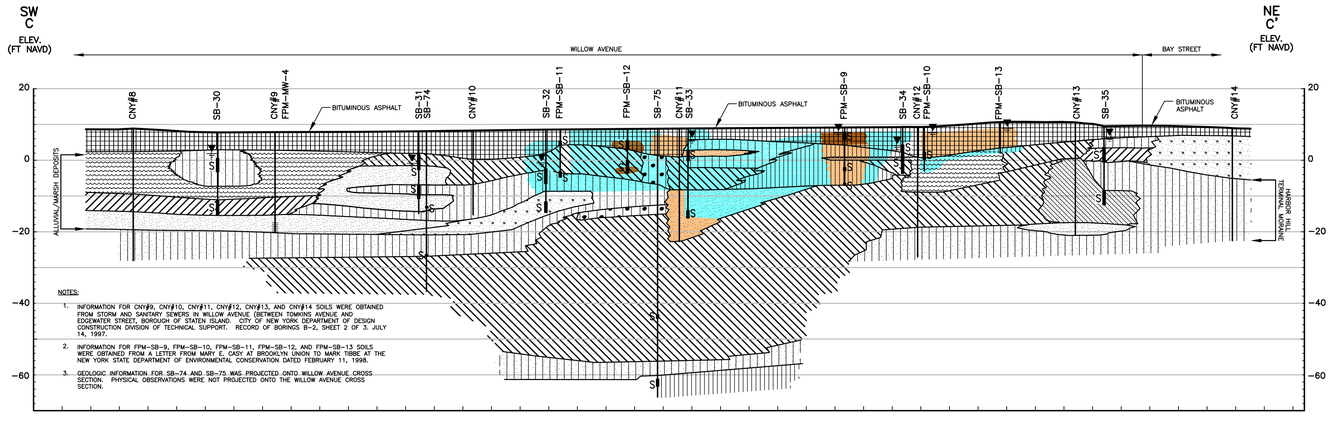
SITE PLAN, TOPOGRAPHY AND HISTORIC STRUCTURES WITHIN OPERABLE UNIT-1 (OU-1) AND OPERABLE UNIT-2 (OU-2)

SCALE: 1"=50'	DRN BY: SCG	**PLATE 1**
DATE: FEB 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\CLF-OU2





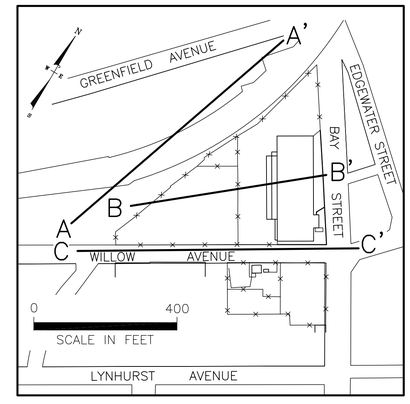


NOTES:

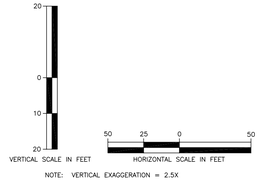
1. INFORMATION FOR CNY#9, CNY#10, CNY#11, CNY#12, CNY#13, AND CNY#14 SOILS WERE OBTAINED FROM STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET, BOROUGH OF STATEN ISLAND. CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT. RECORD OF BORINGS B-2, SHEET 2 OF 3, JULY 14, 1997.
2. INFORMATION FOR FPM-SB-9, FPM-SB-10, FPM-SB-11, FPM-SB-12, AND FPM-SB-13 SOILS WERE OBTAINED FROM A LETTER FROM MARY E. CADY AT BROOKLYN UNION TO MARK TIRRE AT THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION DATED FEBRUARY 11, 1998.
3. GEOLOGIC INFORMATION FOR SB-74 AND SB-75 WAS PROJECTED ONTO WILLOW AVENUE CROSS SECTION. PHYSICAL OBSERVATIONS WERE NOT PROJECTED ONTO THE WILLOW AVENUE CROSS SECTION.

LEGEND

- ALLUVIAL/MARSH DEPOSITS
  - GRAVELLY-SAND
  - SAND (shallow)
  - SILT (shallow)
  - SILT-CLAY
  - GRAVELLY SILT
  - PEAT
- GLACIAL DEPOSITS
  - SILT (deep)
  - SILT-SAND
  - SAND, SILT, CLAY
  - SILT-CLAY
  - SAND (deep)
  - GRAVELLY-SAND
- WEATHERED BEDROCK
  - SAPROLITE (weathered bedrock)
- FILL
  - FILL
- CONTACT
- OBSERVED APPARENT GROUNDWATER TABLE
- BOUNDARY IS APPROXIMATED
- SB-55/RW-15 — SOIL BORING/ MONITORING WELL IDENTIFICATION
- S — ANALYTICAL SOIL SAMPLE INTERVAL
- WELL SCREEN INTERVAL
- SHEEN AND TAR/ NAPHTHA ODORS
- TAR STAINING, TAR BLEBS/SHEEN AND TAR/NAPHTHA ODORS
- TAR SATURATED, SOIL MATRIX, TAR/NAPHTHA ODORS
- PETROLEUM STAINING, SHEENS AND ODORS



TRANSECT LOCATION



NOTE: VERTICAL EXAGGERATION = 2.5X

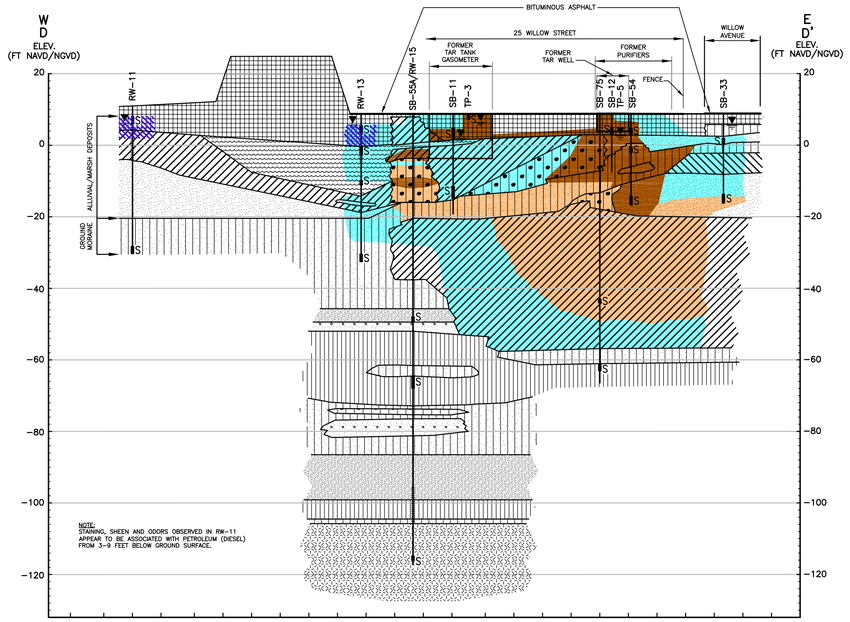
GEI Consultants, Inc.

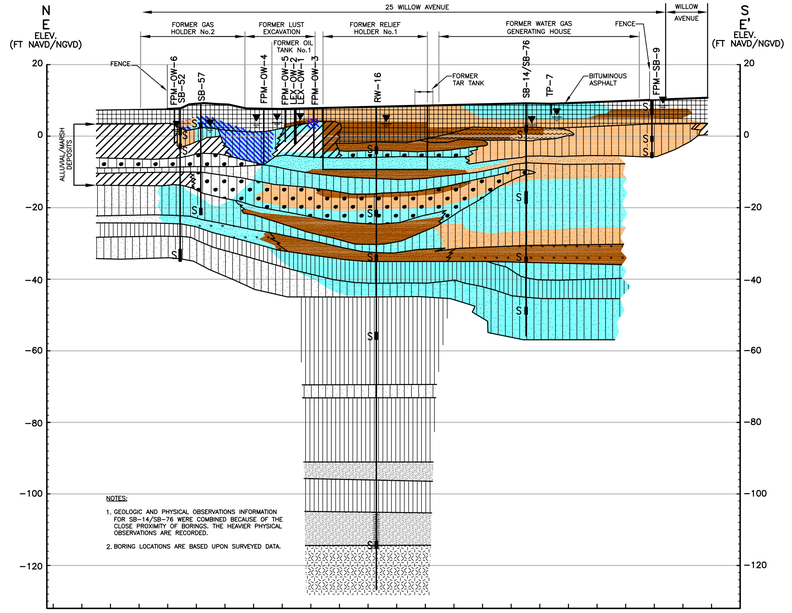
PLAN PREPARED FOR
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

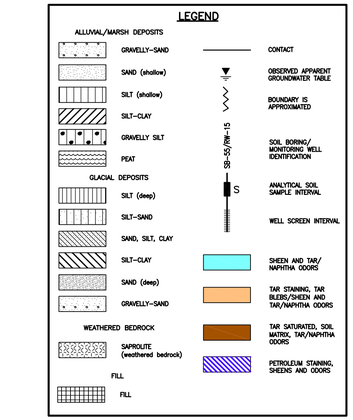
CROSS-SECTIONS A-A', B-B' AND C-C'

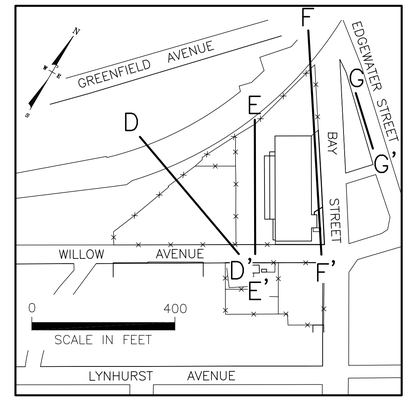
SCALE: AS NOTED	DRN BY: SCG	PLATE 2
DATE: FEB 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\CLF-XSAC









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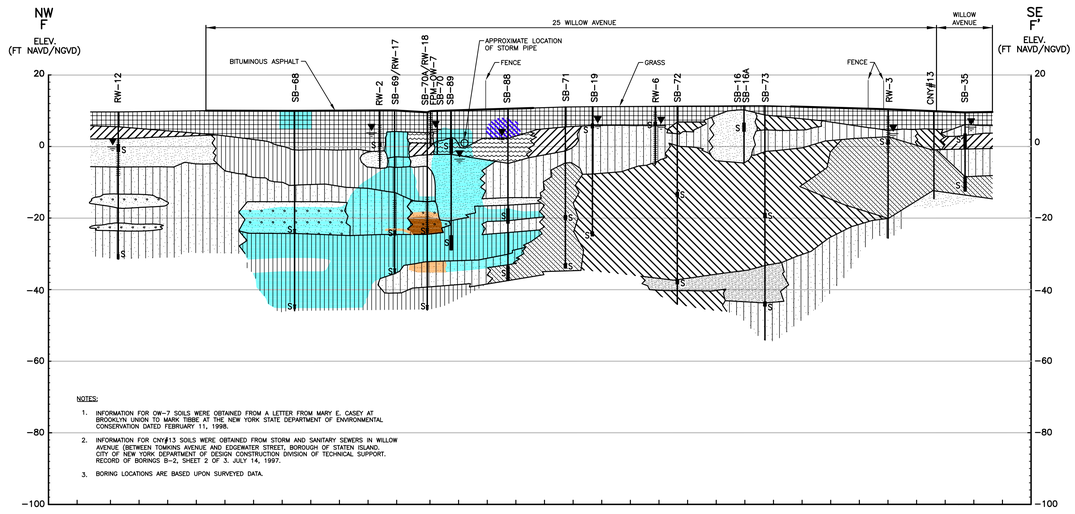
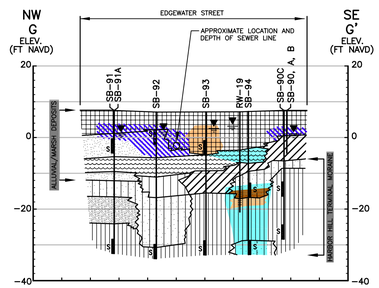
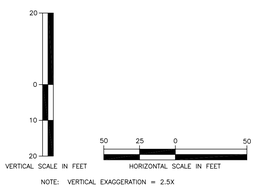






NOTE: VERTICAL EXAGGERATION = 2.5X

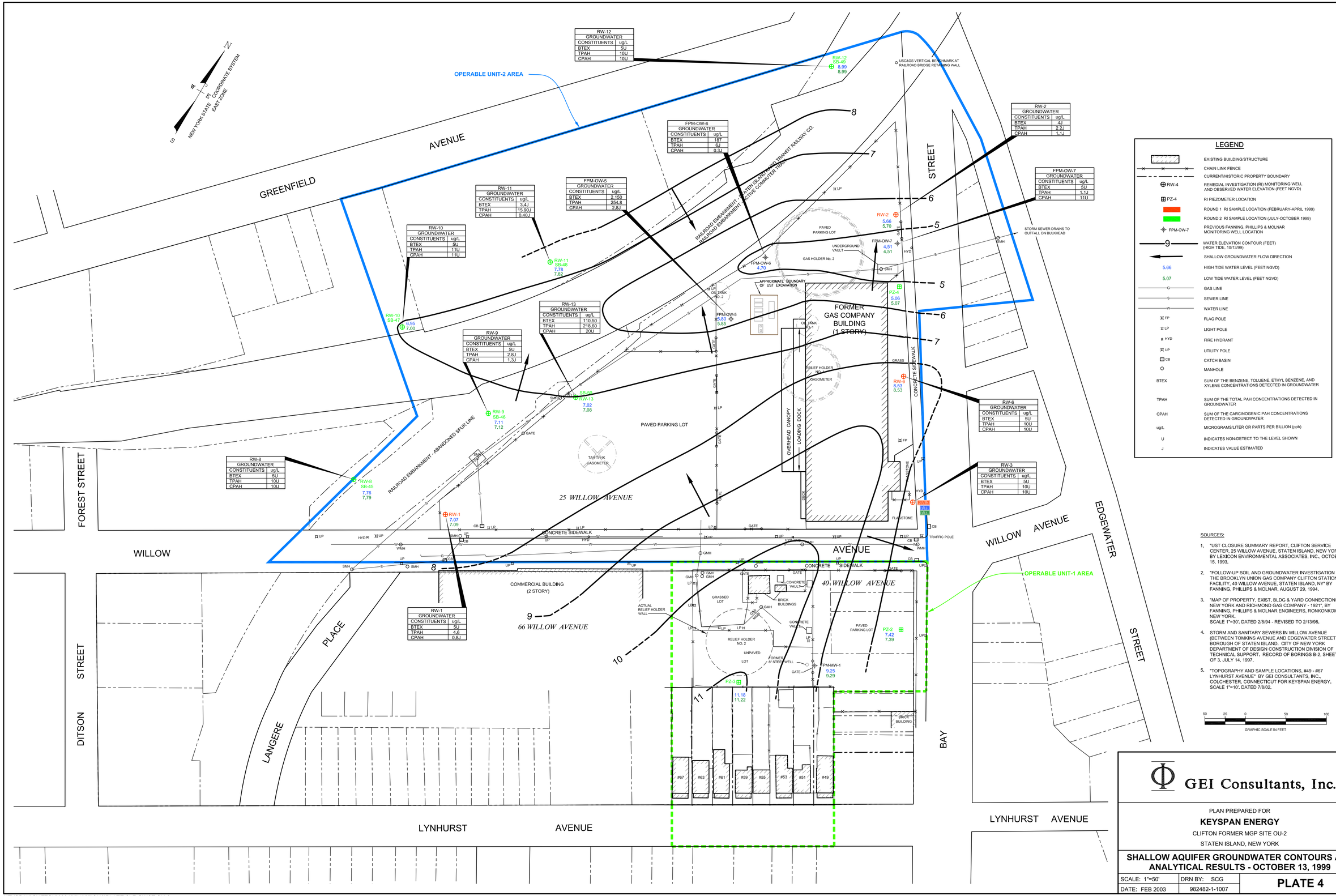
GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

CROSS-SECTIONS D-D', E-E', F-F' AND G-G'

SCALE: AS NOTED	DRN BY:SCG	PLATE 3
DATE: FEB 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\CLF-XSDG



LEGEND

- EXISTING BUILDING/STRUCTURE
- CHAIN LINK FENCE
- CURRENT/HISTORIC PROPERTY BOUNDARY
- RW-4 — REMEDIAL INVESTIGATION (RI) MONITORING WELL AND OBSERVED WATER ELEVATION (FEET NGVD)
- PZ-4 — RI PIEZOMETER LOCATION
- ROUND 1 RI SAMPLE LOCATION (FEBRUARY–APRIL 1999)
- ROUND 2 RI SAMPLE LOCATION (JULY–OCTOBER 1999)
- FPM-OW-7 — PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- 9 — WATER ELEVATION CONTOUR (FEET) (HIGH TIDE, 10/13/99)
- SHALLOW GROUNDWATER FLOW DIRECTION
- 5,66 — HIGH TIDE WATER LEVEL (FEET NGVD)
- 5,07 — LOW TIDE WATER LEVEL (FEET NGVD)
- G — GAS LINE
- S — SEWER LINE
- W — WATER LINE
- FP — FLAG POLE
- LP — LIGHT POLE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- CB — CATCH BASIN
- MANHOLE
- BTEX — SUM OF THE BENZENE, TOLUENE, ETHYL BENZENE, AND XYLENE CONCENTRATIONS DETECTED IN GROUNDWATER
- TPAH — SUM OF THE TOTAL PAH CONCENTRATIONS DETECTED IN GROUNDWATER
- CPAH — SUM OF THE CARCINOGENIC PAH CONCENTRATIONS DETECTED IN GROUNDWATER
- ug/L — MICROGRAMS/LITER OR PARTS PER BILLION (ppb)
- U — INDICATES NON-DETECT TO THE LEVEL SHOWN
- J — INDICATES VALUE ESTIMATED

SOURCES:

1. "UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK" BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. "FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY" BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
3. "MAP OF PROPERTY, EXIST, BLDG & YARD CONNECTIONS, NEW YORK AND RICHMOND GAS COMPANY - 1921", BY FANNING, PHILLIPS & MOLNAR ENGINEERS, RONKONKOMA, NEW YORK, SCALE 1"=30', DATED 2/8/94 - REVISED TO 2/13/98.
4. STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET), BOROUGH OF STATEN ISLAND, CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT, RECORD OF BORINGS B-2, SHEET 2 OF 3, JULY 14, 1997.
5. "TOPOGRAPHY AND SAMPLE LOCATIONS, #49 - #67 LYNHURST AVENUE" BY GEI CONSULTANTS, INC., COLCHESTER, CONNECTICUT FOR KEYSPAN ENERGY, SCALE 1"=10', DATED 7/8/02.

50 25 0 50 100
GRAPHIC SCALE IN FEET

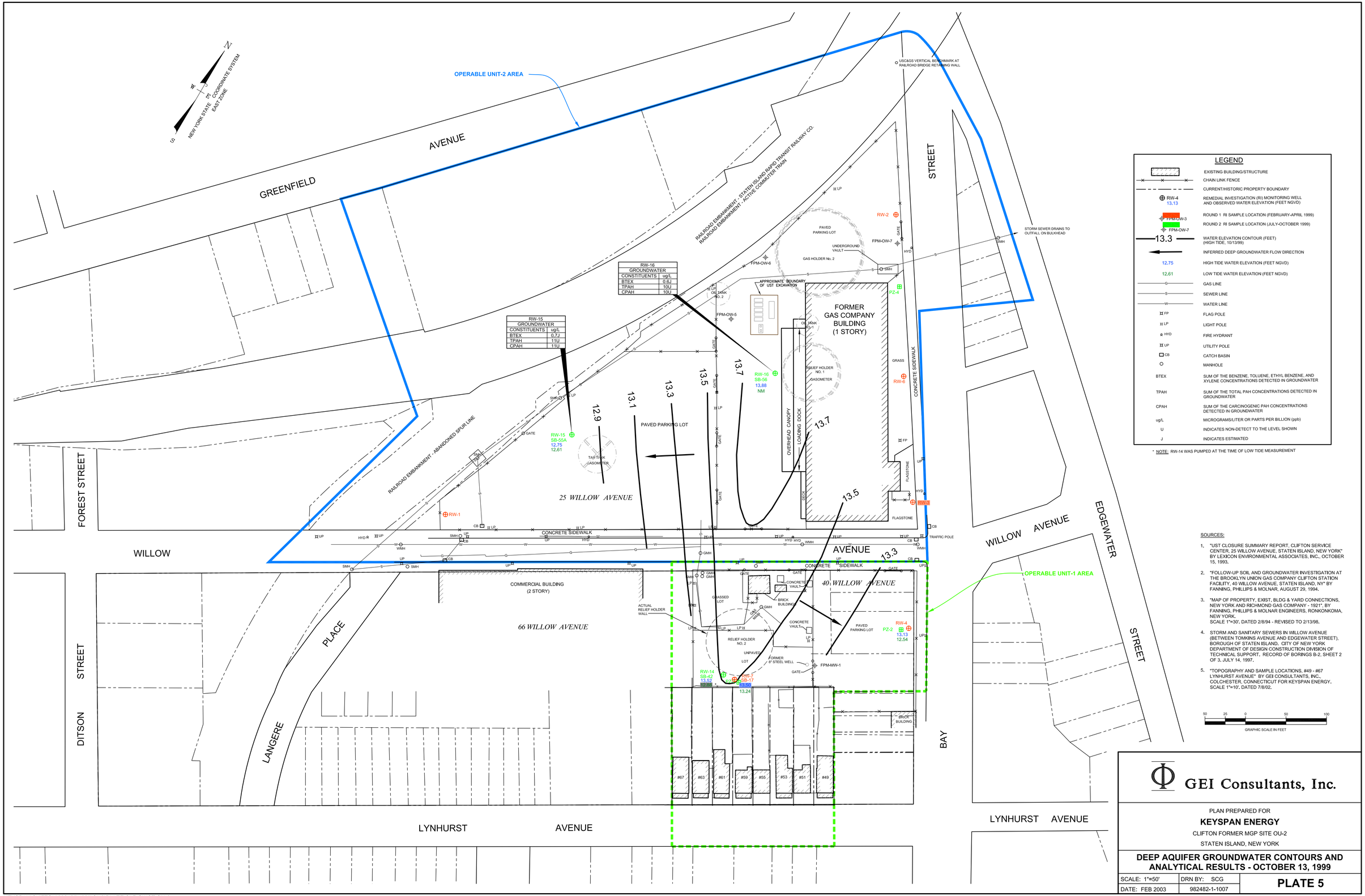
GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

SHALLOW AQUIFER GROUNDWATER CONTOURS AND ANALYTICAL RESULTS - OCTOBER 13, 1999

SCALE: 1"=50'	DRN BY: SCG	**PLATE 4**
DATE: FEB 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU2\PLATE\CLF-GWCT OU-2



LEGEND

- EXISTING BUILDING/STRUCTURE
- CHAIN LINK FENCE
- CURRENT/HISTORIC PROPERTY BOUNDARY
- RW-4 / 13.13 — REMEDIAL INVESTIGATION (RI) MONITORING WELL AND OBSERVED WATER ELEVATION (FEET NGVD)
- FPM-OW-3 — ROUND 1 RI SAMPLE LOCATION (FEBRUARY-APRIL 1999)
- FPM-OW-7 — ROUND 2 RI SAMPLE LOCATION (JULY-OCTOBER 1999)
- 13.3 — WATER ELEVATION CONTOUR (FEET) (HIGH TIDE, 10/13/99)
- INFERRED DEEP GROUNDWATER FLOW DIRECTION
- 12.75 — HIGH TIDE WATER ELEVATION (FEET NGVD)
- 12.61 — LOW TIDE WATER ELEVATION (FEET NGVD)
- G — GAS LINE
- S — SEWER LINE
- W — WATER LINE
- FP — FLAG POLE
- LP — LIGHT POLE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- CB — CATCH BASIN
- MANHOLE
- BTEX — SUM OF THE BENZENE, TOLUENE, ETHYL BENZENE, AND XYLENE CONCENTRATIONS DETECTED IN GROUNDWATER
- TPAH — SUM OF THE TOTAL PAH CONCENTRATIONS DETECTED IN GROUNDWATER
- CPAH — SUM OF THE CARCINOGENIC PAH CONCENTRATIONS DETECTED IN GROUNDWATER
- ug/L — MICROGRAMS/LITER OR PARTS PER BILLION (ppb)
- U — INDICATES NON-DETECT TO THE LEVEL SHOWN
- J — INDICATES ESTIMATED

* NOTE: RW-14 WAS PUMPED AT THE TIME OF LOW TIDE MEASUREMENT

SOURCES:

1. "UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK" BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. "FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY" BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
3. "MAP OF PROPERTY, EXIST, BLDG & YARD CONNECTIONS, NEW YORK AND RICHMOND GAS COMPANY - 1921", BY FANNING, PHILLIPS & MOLNAR ENGINEERS, RONKONKOMA, NEW YORK, SCALE 1"=30', DATED 2/8/94 - REVISED TO 2/13/98.
4. STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET), BOROUGH OF STATEN ISLAND, CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT, RECORD OF BORINGS B-2, SHEET 2 OF 3, JULY 14, 1997.
5. "TOPOGRAPHY AND SAMPLE LOCATIONS, #49 - #67 LYNHURST AVENUE" BY GEI CONSULTANTS, INC., COLCHESTER, CONNECTICUT FOR KEYSPAN ENERGY, SCALE 1"=10', DATED 7/8/02.

50 25 0 50 100
GRAPHIC SCALE IN FEET

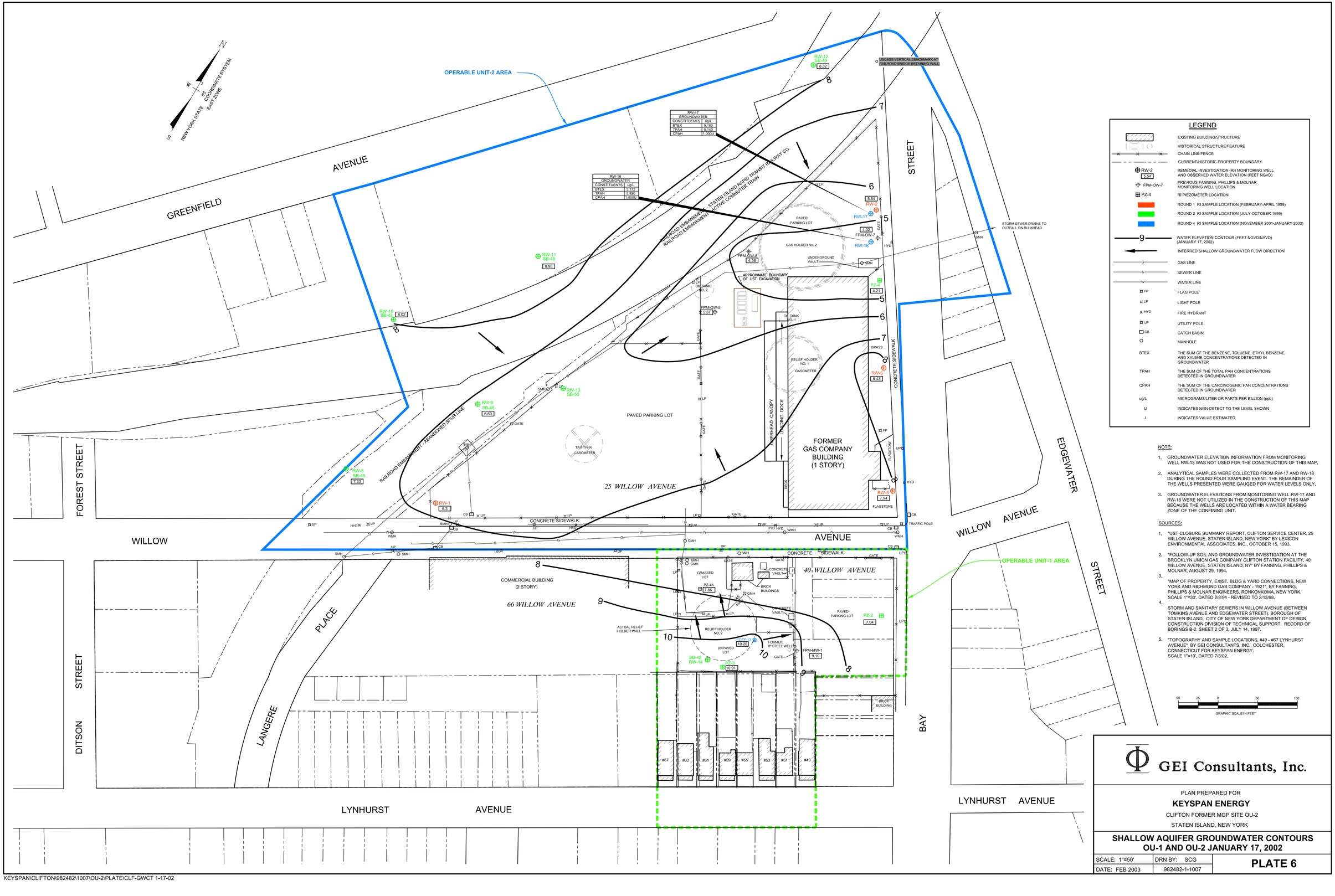
GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

DEEP AQUIFER GROUNDWATER CONTOURS AND ANALYTICAL RESULTS - OCTOBER 13, 1999

SCALE: 1"=50'	DRN BY: SCG	**PLATE 5**
DATE: FEB 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU2\PLATE\CLF-GWCT OU-2



LEGEND

- EXISTING BUILDING/STRUCTURE
- HISTORICAL STRUCTURE/FEATURE
- CHAIN LINK FENCE
- CURRENT/HISTORIC PROPERTY BOUNDARY
- RW-2 / 5.54 — REMEDIAL INVESTIGATION (RI) MONITORING WELL AND OBSERVED WATER ELEVATION (FEET NGVD)
- FPM-OW-7 — PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- PZ-4 — RI PIEZOMETER LOCATION
- ROUND 1 RI SAMPLE LOCATION (FEBRUARY–APRIL 1999)
- ROUND 2 RI SAMPLE LOCATION (JULY–OCTOBER 1999)
- ROUND 4 RI SAMPLE LOCATION (NOVEMBER 2001–JANUARY 2002)
- 9 — WATER ELEVATION CONTOUR (FEET NGVD/NAVD) (JANUARY 17, 2002)
- INFERRED SHALLOW GROUNDWATER FLOW DIRECTION
- G — GAS LINE
- S — SEWER LINE
- W — WATER LINE
- FP — FLAG POLE
- LP — LIGHT POLE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- CB — CATCH BASIN
- MANHOLE
- BTEX — THE SUM OF THE BENZENE, TOLUENE, ETHYL BENZENE, AND XYLENE CONCENTRATIONS DETECTED IN GROUNDWATER
- TPAH — THE SUM OF THE TOTAL PAH CONCENTRATIONS DETECTED IN GROUNDWATER
- CPAH — THE SUM OF THE CARCINOGENIC PAH CONCENTRATIONS DETECTED IN GROUNDWATER
- ug/L — MICROGRAMS/LITER OR PARTS PER BILLION (ppb)
- U — INDICATES NON-DETECT TO THE LEVEL SHOWN
- J — INDICATES VALUE ESTIMATED

NOTE:

1. GROUNDWATER ELEVATION INFORMATION FROM MONITORING WELL RW-13 WAS NOT USED FOR THE CONSTRUCTION OF THIS MAP.
2. ANALYTICAL SAMPLES WERE COLLECTED FROM RW-17 AND RW-18 DURING THE ROUND FOUR SAMPLING EVENT. THE REMAINDER OF THE WELLS PRESENTED WERE GAUGED FOR WATER LEVELS ONLY.
3. GROUNDWATER ELEVATIONS FROM MONITORING WELL RW-17 AND RW-18 WERE NOT UTILIZED IN THE CONSTRUCTION OF THIS MAP BECAUSE THE WELLS ARE LOCATED WITHIN A WATER BEARING ZONE OF THE CONFINING UNIT.

SOURCES:

1. "UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK" BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. "FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY" BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
3. "MAP OF PROPERTY, EXIST. BLDG & YARD CONNECTIONS, NEW YORK AND RICHMOND GAS COMPANY - 1921", BY FANNING, PHILLIPS & MOLNAR ENGINEERS, RONKONKOMA, NEW YORK, SCALE 1"=30', DATED 2/8/94 - REVISED TO 2/13/98.
4. STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET), BOROUGH OF STATEN ISLAND, CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT, RECORD OF BORINGS B-2, SHEET 2 OF 3, JULY 14, 1997.
5. "TOPOGRAPHY AND SAMPLE LOCATIONS, #49 - #67 LYNHURST AVENUE" BY GEI CONSULTANTS, INC., COLCHESTER, CONNECTICUT FOR KEYSPAN ENERGY, SCALE 1"=10', DATED 7/8/02.

50 25 0 50 100
GRAPHIC SCALE IN FEET

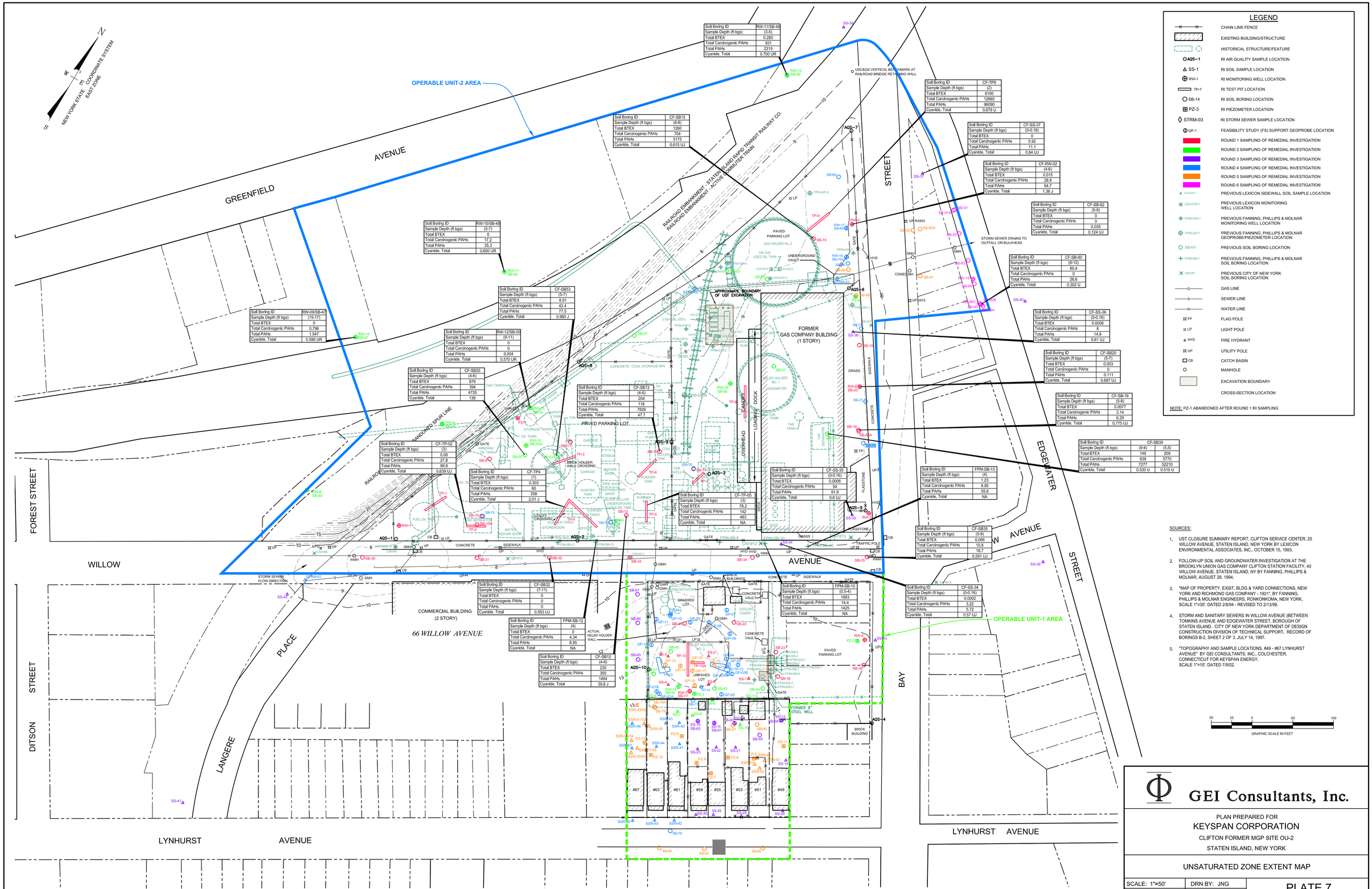
GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

SHALLOW AQUIFER GROUNDWATER CONTOURS OU-1 AND OU-2 JANUARY 17, 2002

SCALE: 1"=50'	DRN BY: SCG	**PLATE 6**
DATE: FEB 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\PLATE\CLF-GWCT 1-17-02



Soil Boring ID	RW-11/SB-49
Sample Depth (ft bgs)	(3-5)
Total BTEX	0.285
Total Carcinogenic PAHs	931
Total PAHs	2319
Cyanide, Total	0.700 UR

Soil Boring ID	CF-SB15
Sample Depth (ft bgs)	(6-8)
Total BTEX	1260
Total Carcinogenic PAHs	704
Total PAHs	5175
Cyanide, Total	0.615 UJ

Soil Boring ID	RW-10/SB-48
Sample Depth (ft bgs)	(5-7)
Total BTEX	0
Total Carcinogenic PAHs	17.2
Total PAHs	35.3
Cyanide, Total	0.600 UR

Soil Boring ID	RW-09/SB-47
Sample Depth (ft bgs)	(15-17)
Total BTEX	0
Total Carcinogenic PAHs	0.796
Total PAHs	1.547
Cyanide, Total	0.590 UR

Soil Boring ID	CF-SB53
Sample Depth (ft bgs)	(5-7)
Total BTEX	8.01
Total Carcinogenic PAHs	42.4
Total PAHs	77.5
Cyanide, Total	0.980 J

Soil Boring ID	RW-12/SB-50
Sample Depth (ft bgs)	(9-11)
Total BTEX	0
Total Carcinogenic PAHs	0
Total PAHs	0.004
Cyanide, Total	0.570 UR

Soil Boring ID	CF-SB55
Sample Depth (ft bgs)	(4-6)
Total BTEX	876
Total Carcinogenic PAHs	394
Total PAHs	4735
Cyanide, Total	139

Soil Boring ID	CF-SB13
Sample Depth (ft bgs)	(4-6)
Total BTEX	204
Total Carcinogenic PAHs	116
Total PAHs	7826
Cyanide, Total	47.7

Soil Boring ID	CF-TP02
Sample Depth (ft bgs)	(3)
Total BTEX	0.08
Total Carcinogenic PAHs	27.8
Total PAHs	99.9
Cyanide, Total	0.639 UJ

Soil Boring ID	CF-TP4
Sample Depth (ft bgs)	(1)
Total BTEX	0.303
Total Carcinogenic PAHs	60
Total PAHs	258
Cyanide, Total	2.01 J

Soil Boring ID	CF-TP05
Sample Depth (ft bgs)	(3)
Total BTEX	78.2
Total Carcinogenic PAHs	142
Total PAHs	483
Cyanide, Total	NA

Soil Boring ID	CF-SS-35
Sample Depth (ft bgs)	(0-0.16)
Total BTEX	0.0006
Total Carcinogenic PAHs	54
Total PAHs	91.9
Cyanide, Total	0.6 UJ

Soil Boring ID	CF-TP9
Sample Depth (ft bgs)	(2)
Total BTEX	6100
Total Carcinogenic PAHs	12660
Total PAHs	96090
Cyanide, Total	0.679 U

Soil Boring ID	CF-SS-37
Sample Depth (ft bgs)	(0-0.16)
Total BTEX	0
Total Carcinogenic PAHs	5.92
Total PAHs	11.1
Cyanide, Total	0.64 UJ

Soil Boring ID	CF-RW-02
Sample Depth (ft bgs)	(4-6)
Total BTEX	0.015
Total Carcinogenic PAHs	28.9
Total PAHs	64.7
Cyanide, Total	1.36 J

Soil Boring ID	CF-SB-82
Sample Depth (ft bgs)	(5-9)
Total BTEX	0
Total Carcinogenic PAHs	0
Total PAHs	0.035
Cyanide, Total	0.124 UJ

Soil Boring ID	CF-SB-90
Sample Depth (ft bgs)	(9-12)
Total BTEX	60.4
Total Carcinogenic PAHs	0
Total PAHs	26.6
Cyanide, Total	0.302 U

Soil Boring ID	CF-SS-36
Sample Depth (ft bgs)	(0-0.16)
Total BTEX	0.0008
Total Carcinogenic PAHs	8
Total PAHs	14.9
Cyanide, Total	0.61 UJ

Soil Boring ID	CF-SB20
Sample Depth (ft bgs)	(5-7)
Total BTEX	0.003
Total Carcinogenic PAHs	0
Total PAHs	0.111
Cyanide, Total	0.687 UJ

Soil Boring ID	CF-SB-16
Sample Depth (ft bgs)	(5-8)
Total BTEX	0.0077
Total Carcinogenic PAHs	3.14
Total PAHs	6.29
Cyanide, Total	0.775 UJ

Soil Boring ID	CF-SB39	
Sample Depth (ft bgs)	(0-4)	(5.5)
Total BTEX	149	209
Total Carcinogenic PAHs	839	5770
Total PAHs	7277	52210
Cyanide, Total	0.530 U	0.510 U

Soil Boring ID	FPM-SB-13
Sample Depth (ft bgs)	(4)
Total BTEX	1.23
Total Carcinogenic PAHs	8.95
Total PAHs	55.6
Cyanide, Total	NA

Soil Boring ID	CF-SS35
Sample Depth (ft bgs)	(5-9)
Total BTEX	0.066
Total Carcinogenic PAHs	10.8
Total PAHs	18.7
Cyanide, Total	0.591 UJ

Soil Boring ID	CF-SS-34
Sample Depth (ft bgs)	(0-0.16)
Total BTEX	0.0002
Total Carcinogenic PAHs	3.22
Total PAHs	5.72
Cyanide, Total	0.57 UJ

Soil Boring ID	CF-SB32
Sample Depth (ft bgs)	(7-11)
Total BTEX	0
Total Carcinogenic PAHs	0
Total PAHs	0
Cyanide, Total	0.583 UJ

Soil Boring ID	FPM-SB-12
Sample Depth (ft bgs)	(4)
Total BTEX	0
Total Carcinogenic PAHs	4.34
Total PAHs	8.95
Cyanide, Total	NA

Soil Boring ID	CF-SB12
Sample Depth (ft bgs)	(4-6)
Total BTEX	230
Total Carcinogenic PAHs	300
Total PAHs	1464
Cyanide, Total	39.8 J

Soil Boring ID	FPM-SB-10
Sample Depth (ft bgs)	(0.5-4)
Total BTEX	1683
Total Carcinogenic PAHs	14.4
Total PAHs	1425
Cyanide, Total	NA

LEGEND

- CHAIN LINK FENCE
- EXISTING BUILDING/STRUCTURE
- HISTORICAL STRUCTURE/FEATURE
- AQS–1 RI AIR QUALITY SAMPLE LOCATION
- SS-1 RI SOIL SAMPLE LOCATION
- RW-1 RI MONITORING WELL LOCATION
- TP-7 RI TEST PIT LOCATION
- SB-14 RI SOIL BORING LOCATION
- PZ-3 RI PIEZOMETER LOCATION
- STRM-03 RI STORM SEWER SAMPLE LOCATION
- GP-1 FEASIBILITY STUDY (FS) SUPPORT GEOPROBE LOCATION
- ROUND 1 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 2 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 3 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 4 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 5 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 6 SAMPLING OF REMEDIAL INVESTIGATION
- LEX-SS-1 PREVIOUS LEXICON SIDEWALL SOIL SAMPLE LOCATION
- LEX-OW-1 PREVIOUS LEXICON MONITORING WELL LOCATION
- FPM-OW-1 PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- FPM-GP-1 PREVIOUS FANNING, PHILLIPS & MOLNAR GEOPROBE/PIEZOMETER LOCATION
- SB-NY PREVIOUS SOIL BORING LOCATION
- FPM-SB-1 PREVIOUS FANNING, PHILLIPS & MOLNAR SOIL BORING LOCATION
- CNY#1 PREVIOUS CITY OF NEW YORK SOIL BORING LOCATION
- G GAS LINE
- S SEWER LINE
- W WATER LINE
- FP FLAG POLE
- LP LIGHT POLE
- HYD FIRE HYDRANT
- UP UTILITY POLE
- CB CATCH BASIN
- MANHOLE
- EXCAVATION BOUNDARY
- CROSS-SECTION LOCATION

NOTE: PZ-1 ABANDONED AFTER ROUND 1 RI SAMPLING

SOURCES:

1. UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
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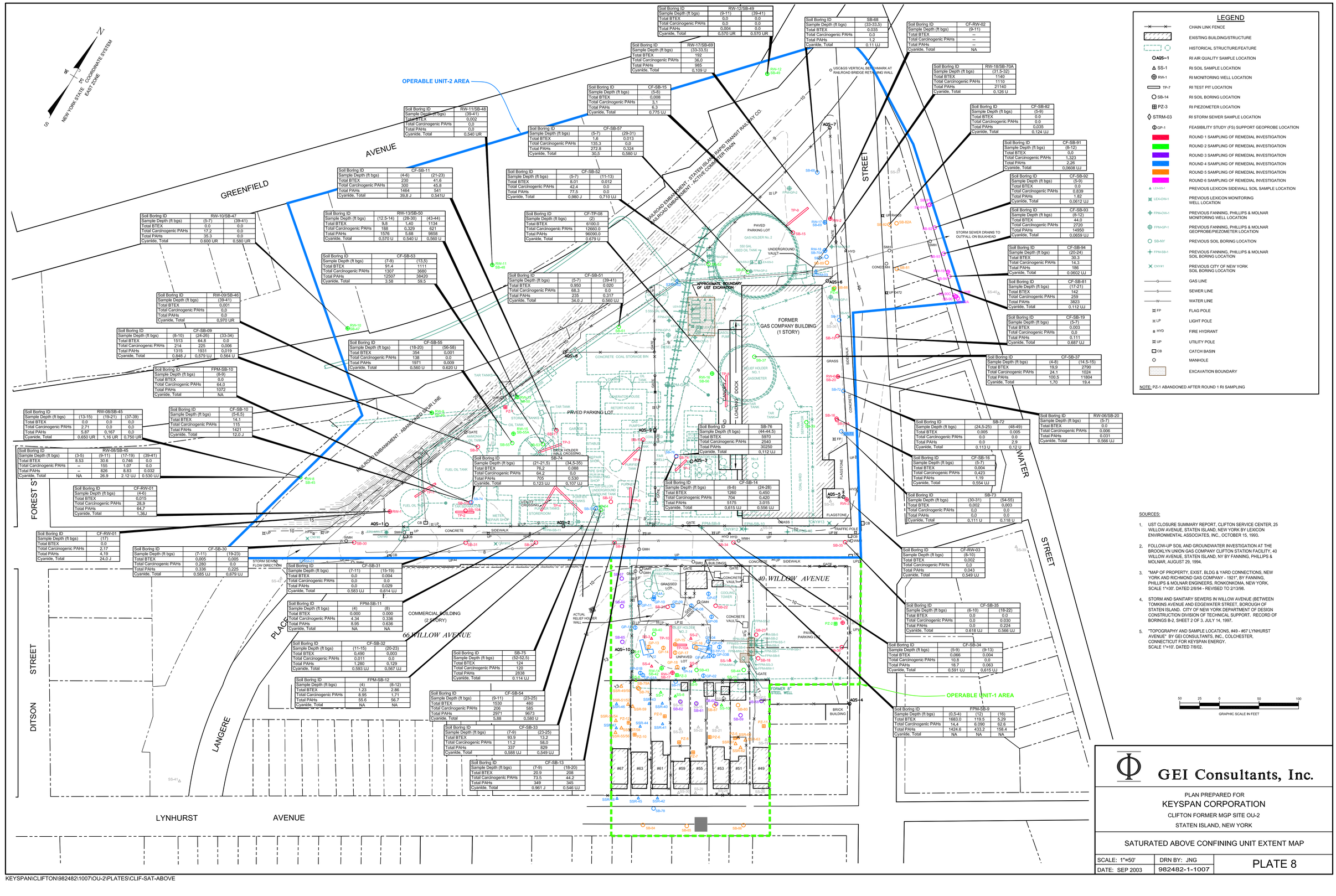
GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

UNSATURATED ZONE EXTENT MAP

SCALE: 1"=50'	DRN BY: JNG	PLATE 7
DATE: SEP 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\PLATES\CLIF-UNSAT



Soil Boring ID	RW-12/SB-49	
Sample Depth (ft bgs)	(9-11)	(39-41)
Total BTEX	0,0	0,0
Total Carcinogenic PAHs	0,0	0,0
Total PAHs	0,004	0,0
Cyanide, Total	0,570 UR	0,570 UR

Soil Boring ID	RW-17/SB-69
Sample Depth (ft bgs)	(33-33,5)
Total BTEX	192
Total Carcinogenic PAHs	36,0
Total PAHs	985
Cyanide, Total	0,109 U

Soil Boring ID	SB-68
Sample Depth (ft bgs)	(33-33,5)
Total BTEX	0,035
Total Carcinogenic PAHs	0,0
Total PAHs	1,2
Cyanide, Total	0,11 UJ

Soil Boring ID	CF-RW-02
Sample Depth (ft bgs)	(9-11)
Total BTEX	--
Total Carcinogenic PAHs	--
Total PAHs	--
Cyanide, Total	NA

Soil Boring ID	RW-18/SB-70A
Sample Depth (ft bgs)	(31,5-32)
Total BTEX	1140
Total Carcinogenic PAHs	1110
Total PAHs	21140
Cyanide, Total	0,126 U

Soil Boring ID	CF-SB-15
Sample Depth (ft bgs)	(5-8)
Total BTEX	0,008
Total Carcinogenic PAHs	3,1
Total PAHs	6,3
Cyanide, Total	0,775 UJ

Soil Boring ID	RW-11/SB-48
Sample Depth (ft bgs)	(39-41)
Total BTEX	0,002
Total Carcinogenic PAHs	0,0
Total PAHs	0,0
Cyanide, Total	0,540 UR

Soil Boring ID	CF-SB-57	
Sample Depth (ft bgs)	(5-7)	(29-31)
Total BTEX	1,6	0,013
Total Carcinogenic PAHs	135,3	0,0
Total PAHs	272,8	0,324
Cyanide, Total	30,5	0,580 U

Soil Boring ID	CF-SB-82
Sample Depth (ft bgs)	(5-9)
Total BTEX	0,0
Total Carcinogenic PAHs	0,0
Total PAHs	0,035
Cyanide, Total	0,124 UJ

Soil Boring ID	CF-SB-91
Sample Depth (ft bgs)	(8-12)
Total BTEX	0,0
Total Carcinogenic PAHs	1,323
Total PAHs	2,26
Cyanide, Total	0,0608 UJ

Soil Boring ID	CF-SB-11	
Sample Depth (ft bgs)	(4-6)	(21-23)
Total BTEX	230	41,6
Total Carcinogenic PAHs	300	45,8
Total PAHs	1464	541
Cyanide, Total	39,8 J	0,541U

Soil Boring ID	CF-SB-52	
Sample Depth (ft bgs)	(5-7)	(11-13)
Total BTEX	8,01	0,012
Total Carcinogenic PAHs	42,4	0,0
Total PAHs	77,5	0,0
Cyanide, Total	0,980 J	0,710 UJ

Soil Boring ID	CF-SB-92
Sample Depth (ft bgs)	(5-9)
Total BTEX	0,0
Total Carcinogenic PAHs	0,839
Total PAHs	1,82
Cyanide, Total	0,0612 UJ

Soil Boring ID	RW-10/SB-47		
Sample Depth (ft bgs)	(5-7)	(39-41)	
Total BTEX	0,0	0,0	
Total Carcinogenic PAHs	17,2	0,0	
Total PAHs	35,3	0,0	
Cyanide, Total	0,600 UR	0,580 UR	

Soil Boring ID	RW-13/SB-50		
Sample Depth (ft bgs)	(12,5-14)	(28-30)	(43-44)
Total BTEX	9,8	1,40	1134
Total Carcinogenic PAHs	188	0,329	621
Total PAHs	1576	5,68	9858
Cyanide, Total	0,570 U	0,540 U	0,560 U

Soil Boring ID	CF-TP-08
Sample Depth (ft bgs)	(2)
Total BTEX	6100,0
Total Carcinogenic PAHs	12660,0
Total PAHs	96090,0
Cyanide, Total	0,679 U

Soil Boring ID	CF-SB-94
Sample Depth (ft bgs)	(20-24)
Total BTEX	30,3
Total Carcinogenic PAHs	14,3
Total PAHs	186
Cyanide, Total	0,0602 UJ

Soil Boring ID	CF-SB-53	
Sample Depth (ft bgs)	(7-9)	(13,5)
Total BTEX	91,4	1111
Total Carcinogenic PAHs	1307	3680
Total PAHs	12507	38420
Cyanide, Total	3,58	59,5

Soil Boring ID	CF-SB-51	
Sample Depth (ft bgs)	(5-7)	(39-41)
Total BTEX	0,950	0,020
Total Carcinogenic PAHs	68,3	0,0
Total PAHs	235	0,317
Cyanide, Total	34,0 J	0,560 UJ

Soil Boring ID	CF-SB-81
Sample Depth (ft bgs)	(17-21)
Total BTEX	142
Total Carcinogenic PAHs	259
Total PAHs	3823
Cyanide, Total	0,112 UJ

Soil Boring ID	RW-09/SB-46
Sample Depth (ft bgs)	(39-41)
Total BTEX	0,001
Total Carcinogenic PAHs	0,0
Total PAHs	0,0
Cyanide, Total	0,970 UR

Soil Boring ID	CF-SB-09		
Sample Depth (ft bgs)	(8-10)	(24-26)	(33-34)
Total BTEX	1513	64,8	0,0
Total Carcinogenic PAHs	214	225	0,006
Total PAHs	1315	1931	0,019
Cyanide, Total	0,848 J	0,579 UJ	0,564 U

Soil Boring ID	CF-SB-55	
Sample Depth (ft bgs)	(18-20)	(56-58)
Total BTEX	354	0,001
Total Carcinogenic PAHs	138	0,0
Total PAHs	1971	0,009
Cyanide, Total	0,560 U	0,620 U

Soil Boring ID	CF-SB-19
Sample Depth (ft bgs)	(5-7)
Total BTEX	0,003
Total Carcinogenic PAHs	0,0
Total PAHs	0,111
Cyanide, Total	0,687 UJ

Soil Boring ID	FPM-SB-10
Sample Depth (ft bgs)	(8-9)
Total BTEX	0,0
Total Carcinogenic PAHs	64,0
Total PAHs	1072
Cyanide, Total	NA

Soil Boring ID	CF-SB-37	
Sample Depth (ft bgs)	(4-8)	(14,5-15)
Total BTEX	19,9	2790
Total Carcinogenic PAHs	24,1	1024
Total PAHs	100,5	11804
Cyanide, Total	1,70	19,4

Soil Boring ID	RW-08/SB-45			
Sample Depth (ft bgs)	(3-5)	(9-11)	(17-19)	(39-41)
Total BTEX	8,53	30,6	0,746	0,0
Total Carcinogenic PAHs	--	155	1,07	0,0
Total PAHs	--	826	8,83	0,032
Cyanide, Total	NA	26,9	2,12 UJ	0,530 UJ

Soil Boring ID	CF-SB-10
Sample Depth (ft bgs)	(5-6,5)
Total BTEX	14,1
Total Carcinogenic PAHs	115
Total PAHs	1421
Cyanide, Total	12,0 J

Soil Boring ID	SB-76
Sample Depth (ft bgs)	(44-44,5)
Total BTEX	5970
Total Carcinogenic PAHs	2540
Total PAHs	30250
Cyanide, Total	0,112 UJ

Soil Boring ID	SB-72	
Sample Depth (ft bgs)	(24,5-25)	(48-49)
Total BTEX	0,0	0,005
Total Carcinogenic PAHs	0,0	0,0
Total PAHs	0,0	2,9
Cyanide, Total	0,113 U	0,12 U

Soil Boring ID	RW-06/SB-20
Sample Depth (ft bgs)	(5-7)
Total BTEX	0,0
Total Carcinogenic PAHs	0,006
Total PAHs	0,031
Cyanide, Total	0,566 UJ

Soil Boring ID	CF-SB-16
Sample Depth (ft bgs)	(5-7)
Total BTEX	0,004
Total Carcinogenic PAHs	0,423
Total PAHs	1,19
Cyanide, Total	0,554 UJ

Soil Boring ID	SB-74	
Sample Depth (ft bgs)	(21-21,5)	(34,5-35)
Total BTEX	76,2	0,088
Total Carcinogenic PAHs	64,2	0,0
Total PAHs	705	0,530
Cyanide, Total	0,123 UJ	0,107 UJ

Soil Boring ID	CF-SB-14	
Sample Depth (ft bgs)	(6-8)	(24-28)
Total BTEX	1260	0,450
Total Carcinogenic PAHs	704	0,420
Total PAHs	5175	0,915
Cyanide, Total	0,615 UJ	0,556 UJ

Soil Boring ID	SB-73	
Sample Depth (ft bgs)	(30-31)	(54-55)
Total BTEX	0,002	0,003
Total Carcinogenic PAHs	0,0	0,0
Total PAHs	0,0	0,0
Cyanide, Total	0,111 U	0,118 U

Soil Boring ID	CF-RW-01
Sample Depth (ft bgs)	(4-6)
Total BTEX	0,015
Total Carcinogenic PAHs	28,9
Total PAHs	64,7
Cyanide, Total	1,36J

Soil Boring ID	CF-RW-01
Sample Depth (ft bgs)	(17)
Total BTEX	0,0
Total Carcinogenic PAHs	2,17
Total PAHs	4,19
Cyanide, Total	24,0 J

Soil Boring ID	CF-SB-30	
Sample Depth (ft bgs)	(7-11)	(19-23)
Total BTEX	0,005	0,005
Total Carcinogenic PAHs	0,280	0,0
Total PAHs	0,336	0,225
Cyanide, Total	0,585 UJ	0,679 UJ

Soil Boring ID	CF-SB-31	
Sample Depth (ft bgs)	(7-11)	(15-19)
Total BTEX	0,0	0,004
Total Carcinogenic PAHs	0,0	0,0
Total PAHs	0,0	0,029
Cyanide, Total	0,583 UJ	0,614 UJ

Soil Boring ID	FPM-SB-11	
Sample Depth (ft bgs)	(4)	(8)
Total BTEX	0,000	0,000
Total Carcinogenic PAHs	4,34	0,336
Total PAHs	8,95	0,636
Cyanide, Total	NA	NA

Soil Boring ID	CF-SB-32	
Sample Depth (ft bgs)	(11-15)	(20-23)
Total BTEX	0,490	0,003
Total Carcinogenic PAHs	0,011	0,0
Total PAHs	1,280	0,129
Cyanide, Total	0,593 UJ	0,567 UJ

Soil Boring ID	FPM-SB-12	
Sample Depth (ft bgs)	(4)	(8-12)
Total BTEX	1,23	2,86
Total Carcinogenic PAHs	8,95	1,71
Total PAHs	55,6	56,7
Cyanide, Total	NA	NA

Soil Boring ID	SB-75
Sample Depth (ft bgs)	(52-52,5)
Total BTEX	124
Total Carcinogenic PAHs	120
Total PAHs	2838
Cyanide, Total	0,114 UJ

Soil Boring ID	CF-SB-54	
Sample Depth (ft bgs)	(9-11)	(23-25)
Total BTEX	1530	460
Total Carcinogenic PAHs	206	585
Total PAHs	2971	9673
Cyanide, Total	5,88	0,580 U

Soil Boring ID	CF-SB-33	
Sample Depth (ft bgs)	(7-9)	(23-25)
Total BTEX	93,9	13,2
Total Carcinogenic PAHs	11,2	58,0
Total PAHs	337	829
Cyanide, Total	0,588 UJ	0,549 UJ

Soil Boring ID	CF-SB-13	
Sample Depth (ft bgs)	(7-9)	(18-20)
Total BTEX	20,9	208
Total Carcinogenic PAHs	73,5	44,2
Total PAHs	349	345
Cyanide, Total	0,961 J	0,546 UJ

Soil Boring ID	CF-SB-35	
Sample Depth (ft bgs)	(6-10)	(18-22)
Total BTEX	0,0	0,0
Total Carcinogenic PAHs	0,0	0,030
Total PAHs	0,0	0,224
Cyanide, Total	0,618 UJ	0,566 UJ

Soil Boring ID	CF-SB-34	
Sample Depth (ft bgs)	(5-9)	(9-13)
Total BTEX	0,066	0,004
Total Carcinogenic PAHs	10,8	0,0
Total PAHs	18,7	0,063
Cyanide, Total	0,591 UJ	0,615 UJ

Soil Boring ID	FPM-SB-9		
Sample Depth (ft bgs)	(0,5-4)	(12)	(16)
Total BTEX	1683,0	119,5	5,29
Total Carcinogenic PAHs	14,4	6.090	62,6
Total PAHs	1424,6	433,2	158,4
Cyanide, Total	NA	NA	NA

Soil Boring ID	CF-RW-03
Sample Depth (ft bgs)	(8-10)
Total BTEX	0,002
Total Carcinogenic PAHs	0,0
Total PAHs	0,043
Cyanide, Total	0,549 UJ

LEGEND

- CHAIN LINK FENCE
- EXISTING BUILDING/STRUCTURE
- HISTORICAL STRUCTURE/FEATURE
- AQS-1 RI AIR QUALITY SAMPLE LOCATION
- SS-1 RI SOIL SAMPLE LOCATION
- RW-1 RI MONITORING WELL LOCATION
- TP-7 RI TEST PIT LOCATION
- SB-14 RI SOIL BORING LOCATION
- PZ-3 RI PIEZOMETER LOCATION
- STRM-03 RI STORM SEWER SAMPLE LOCATION
- GP-1 FEASIBILITY STUDY (FS) SUPPORT GEOPROBE LOCATION
- ROUND 1 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 2 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 3 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 4 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 5 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 6 SAMPLING OF REMEDIAL INVESTIGATION
- LEX-SS-1 PREVIOUS LEXICON SIDEWALL SOIL SAMPLE LOCATION
- LEX-OW-1 PREVIOUS LEXICON MONITORING WELL LOCATION
- FPM-OW-1 PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- FPM-GP-1 PREVIOUS FANNING, PHILLIPS & MOLNAR GEOPROBE/PIEZOMETER LOCATION
- SB-NY PREVIOUS SOIL BORING LOCATION
- FPM-SB-1 PREVIOUS FANNING, PHILLIPS & MOLNAR SOIL BORING LOCATION
- CNY#1 PREVIOUS CITY OF NEW YORK SOIL BORING LOCATION
- G GAS LINE
- S SEWER LINE
- W WATER LINE
- FP FLAG POLE
- LP LIGHT POLE
- HYD FIRE HYDRANT
- UP UTILITY POLE
- CB CATCH BASIN
- MANHOLE
- EXCAVATION BOUNDARY

NOTE: PZ-1 ABANDONED AFTER ROUND 1 RI SAMPLING

SOURCES:

1. UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
3. "MAP OF PROPERTY, EXIST, BLDG & YARD CONNECTIONS, NEW YORK AND RICHMOND GAS COMPANY - 1921", BY FANNING, PHILLIPS & MOLNAR ENGINEERS, RONKONKOMA, NEW YORK. SCALE 1"=30'. DATED 2/8/94 - REVISED TO 2/13/98.
4. STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET, BOROUGH OF STATEN ISLAND. CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT. RECORD OF BORINGS B-2, SHEET 2 OF 3. JULY 14, 1997.
5. "TOPOGRAPHY AND SAMPLE LOCATIONS, #49 - #67 LYNHURST AVENUE" BY GEI CONSULTANTS, INC., COLCHESTER, CONNECTICUT FOR KEYSPAN ENERGY. SCALE 1"=10'. DATED 7/8/02.

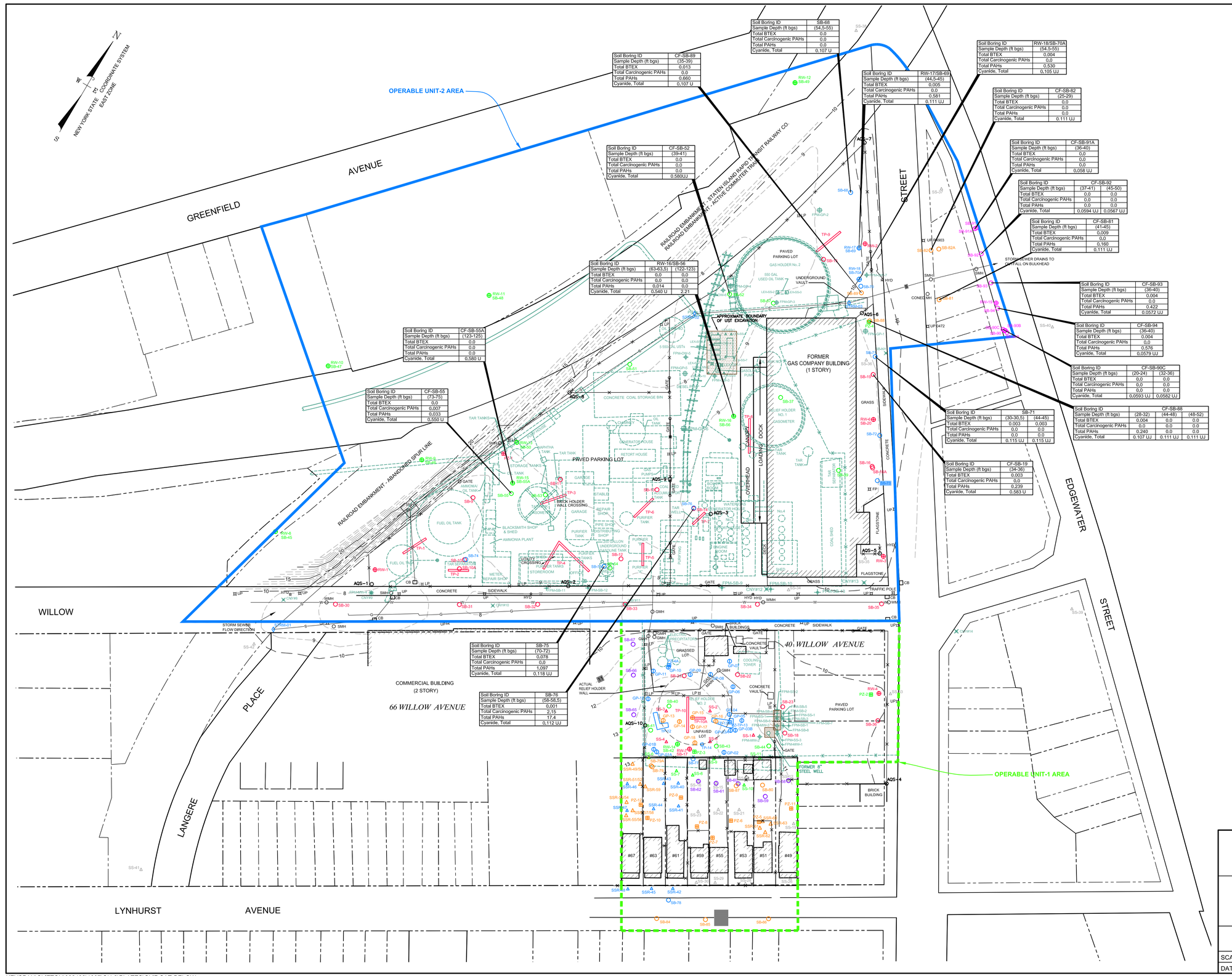
GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

SATURATED ABOVE CONFINING UNIT EXTENT MAP

SCALE: 1"=50'	DRN BY: JNG	PLATE 8
DATE: SEP 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\PLATES\CLIF-SAT-ABOVE



Soil Boring ID	CF-SB-89
Sample Depth (ft bgs)	(35-39)
Total BTEX	0.013
Total Carcinogenic PAHs	0,0
Total PAHs	0.660
Cyanide, Total	0,107 U

Soil Boring ID	SB-68
Sample Depth (ft bgs)	(54,5-55)
Total BTEX	0.0
Total Carcinogenic PAHs	0,0
Total PAHs	0.0
Cyanide, Total	0,107 U

Soil Boring ID	RW-17/SB-69
Sample Depth (ft bgs)	(44,5-45)
Total BTEX	0.005
Total Carcinogenic PAHs	0,0
Total PAHs	0,581
Cyanide, Total	0.111 UJ

Soil Boring ID	RW-18/SB-70A
Sample Depth (ft bgs)	(54,5-55)
Total BTEX	0,004
Total Carcinogenic PAHs	0,0
Total PAHs	0,530
Cyanide, Total	0,105 UJ

Soil Boring ID	CF-SB-82
Sample Depth (ft bgs)	(25-29)
Total BTEX	0,0
Total Carcinogenic PAHs	0,0
Total PAHs	0,0
Cyanide, Total	0,111 UJ

Soil Boring ID	CF-SB-91A
Sample Depth (ft bgs)	(36-40)
Total BTEX	0,0
Total Carcinogenic PAHs	0,0
Total PAHs	0,0
Cyanide, Total	0,058 UJ

Soil Boring ID	CF-SB-92	
Sample Depth (ft bgs)	(37-41)	(45-50)
Total BTEX	0,0	0,0
Total Carcinogenic PAHs	0,0	0,0
Total PAHs	0,0	0,0
Cyanide, Total	0,0594 UJ	0,0567 UJ

Soil Boring ID	CF-SB-81
Sample Depth (ft bgs)	(41-45)
Total BTEX	0,009
Total Carcinogenic PAHs	0,0
Total PAHs	0,160
Cyanide, Total	0,111 UJ

Soil Boring ID	CF-SB-93
Sample Depth (ft bgs)	(36-40)
Total BTEX	0,004
Total Carcinogenic PAHs	0,0
Total PAHs	0,422
Cyanide, Total	0,0572 UJ

Soil Boring ID	CF-SB-94
Sample Depth (ft bgs)	(36-40)
Total BTEX	0,004
Total Carcinogenic PAHs	0,0
Total PAHs	0,576
Cyanide, Total	0,0579 UJ

Soil Boring ID	CF-SB-90C
Sample Depth (ft bgs)	(20-24) (32-36)
Total BTEX	0,0 0,0
Total Carcinogenic PAHs	0,0 0,0
Total PAHs	0,0 0,0
Cyanide, Total	0,0593 UJ 0,0582 UJ

Soil Boring ID	SB-71		
Sample Depth (ft bgs)	(30-30,5)	(44-45)	
Total BTEX	0,003	0,003	
Total Carcinogenic PAHs	0,0	0,0	
Total PAHs	0,0	0,0	
Cyanide, Total	0,115 UJ	0,115 UJ	

Soil Boring ID	CF-SB-88		
Sample Depth (ft bgs)	(28-32)	(44-48)	(48-52)
Total BTEX	0,004	0,0	0,0
Total Carcinogenic PAHs	0,0	0,0	0,0
Total PAHs	0,240	0,0	0,0
Cyanide, Total	0,107 UJ	0,111 UJ	0,111 UJ

Soil Boring ID	CF-SB-19
Sample Depth (ft bgs)	(34-36)
Total BTEX	0,003
Total Carcinogenic PAHs	0,0
Total PAHs	0,239
Cyanide, Total	0,583 U

Soil Boring ID	RW-16/SB-56
Sample Depth (ft bgs)	(63-63,5) (122-123)
Total BTEX	0,0 0,0
Total Carcinogenic PAHs	0,0 0,0
Total PAHs	0,014 0,0
Cyanide, Total	0,540 U 2,21

Soil Boring ID	CF-SB-55A
Sample Depth (ft bgs)	(123-125)
Total BTEX	0,0
Total Carcinogenic PAHs	0,0
Total PAHs	0,0
Cyanide, Total	0,580 U

Soil Boring ID	CF-SB-55
Sample Depth (ft bgs)	(73-75)
Total BTEX	0,0
Total Carcinogenic PAHs	0,007
Total PAHs	0,033
Cyanide, Total	0,550 U

Soil Boring ID	CF-SB-52
Sample Depth (ft bgs)	(39-41)
Total BTEX	0,0
Total Carcinogenic PAHs	0,0
Total PAHs	0,0
Cyanide, Total	0,580UJ

Soil Boring ID	SB-75
Sample Depth (ft bgs)	(70-72)
Total BTEX	0,078
Total Carcinogenic PAHs	0,0
Total PAHs	1,097
Cyanide, Total	0,118 UJ

Soil Boring ID	SB-76
Sample Depth (ft bgs)	(58-58,5)
Total BTEX	0,001
Total Carcinogenic PAHs	2,15
Total PAHs	17,4
Cyanide, Total	0,112 UJ

LEGEND

- CHAIN LINK FENCE
- EXISTING BUILDING/STRUCTURE
- HISTORICAL STRUCTURE/FEATURE
- AQS-1 RI AIR QUALITY SAMPLE LOCATION
- SS-1 RI SOIL SAMPLE LOCATION
- RW-1 RI MONITORING WELL LOCATION
- TP-7 RI TEST PIT LOCATION
- SB-14 RI SOIL BORING LOCATION
- PZ-3 RI PIEZOMETER LOCATION
- STRM-03 RI STORM SEWER SAMPLE LOCATION
- GP-1 FEASIBILITY STUDY (FS) SUPPORT GEOPROBE LOCATION
- ROUND 1 SAMPLING OF REMEDIAL INVESTIGATION
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- FPM-OW-1 PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- FPM-GP-1 PREVIOUS FANNING, PHILLIPS & MOLNAR GEOPROBE/PIEZOMETER LOCATION
- SB-NY PREVIOUS SOIL BORING LOCATION
- FPM-SB-1 PREVIOUS FANNING, PHILLIPS & MOLNAR SOIL BORING LOCATION
- CNY#1 PREVIOUS CITY OF NEW YORK SOIL BORING LOCATION
- G GAS LINE
- S SEWER LINE
- W WATER LINE
- FP FLAG POLE
- LP LIGHT POLE
- HYD FIRE HYDRANT
- UP UTILITY POLE
- CB CATCH BASIN
- MANHOLE
- EXCAVATION BOUNDARY

NOTE: PZ-1 ABANDONED AFTER ROUND 1 RI SAMPLING

SOURCES:

1. UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
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5. "TOPOGRAPHY AND SAMPLE LOCATIONS, #49 - #67 LYNHURST AVENUE" BY GEI CONSULTANTS, INC., COLCHESTER, CONNECTICUT FOR KEYSPAN ENERGY. SCALE 1"=10'. DATED 7/8/02.

50 25 0 50 100
GRAPHIC SCALE IN FEET

GEI Consultants, Inc.

PLAN PREPARED FOR
KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE OU-2
STATEN ISLAND, NEW YORK

SATURATED BELOW CONFINING UNIT EXTENT MAP

SCALE: 1"=50'	DRN BY: JNG	PLATE 9
DATE: SEP 2003	982482-1-1007	

KEYSPAN\CLIFTON\982482\1007\OU-2\PLATES\CLIF-SAT-BELOW

Appendix A

Supplemental Remedial Investigation Work Plans and NYSDEC Approval Letters

KEYSPAN ENERGY

KeySpan Energy
One MetroTech Center
Brooklyn, New York 11201-3850

July 26, 1999

Mr. Amen M. Omorogbe, P.E.
Project Manager
Bureau of Construction Services
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

RE: Remedial Investigation--Clifton Former MGP Site
Staten Island, New York
Amendment to the Work Plan

Dear Mr. Omorogbe:

KeySpan Energy (KeySpan) is submitting this proposed amendment to the remedial investigation Work Plan for the above-referenced site. As you know, between February 20 and April 6, 1999, GEI Consultants, Inc., Atlantic Environmental Division (GEI/Atlantic), conducted the field investigation at the Clifton former manufactured gas plant site located at 25 and 40 Willow Ave., Staten Island.

The field investigation included:

- three surface-soil samples (an addition to the original Work Plan designed to provide additional characterization data);
- 11 test pit excavations;
- 27 borings;
- six monitoring wells (three hand-dug piezometers were installed as an addition to better define the water table);
- six permeability tests;
- 42 subsurface-soil samples collected for analysis;
- nine groundwater samples;
- two rounds of water table measurement; and
- nine air quality stations were monitored routinely during the test pit work.

The preliminary findings of the investigation were presented to you during our meeting on June 8, 1999. Based upon these findings and the decisions made during our meeting, we plan further efforts to complete the site investigation. Specifically, additional field work will be conducted to:

- characterize the subsurface soils within specific former MGP structures;
- characterize subsurface soils to a confining layer or bedrock at approximately 175 feet;
- characterize groundwater within the lower aquifer;

to evaluate the groundwater flow conditions to the northwest of the former MGP in an area where a former streambed may have existed. Each boring/well is anticipated to be completed to an estimated depth of 40 feet bgs.

Soil borings SB-50, 51, and 52 will be drilled on-site along the westerly property line to an anticipated depth of 40 feet. Each boring will be placed downgradient of previously observed soil impacts and will be placed adjacent to the sewer line that roughly parallels the westerly property line. The borings will evaluate the horizontal and vertical extent of possible subsurface soil impacts.

Shallow soil borings SB-53 and SB-54 will be drilled within the former tar tank/gasometer and near a former tar well. Boring SB-55, also near the tar tank/gasometer is planned as part of the deep investigation discussed below. Each boring will be completed to the bottom of the structure (anticipated to be 25 feet bgs). An additional soil boring SB-57 will be installed within gas holder number 2.

Piezometer PZ-3 will also be installed adjacent to the storm sewer line, near the north corner of the Saturn dealership building. The piezometer will aid in interpretation of groundwater flow as it approaches the storm sewer.

The sampling procedures section (below) describes the methods of sample collection and the analyses to be performed on the samples collected. Table 1 specifies the laboratory analyses per boring/well location.

Deep Soil and Groundwater Investigation

Three deep soil borings/monitoring wells will be completed to provide characterization of the subsurface soils and groundwater adjacent to former gas holder foundations. Each deep boring will be sampled continuously to the top of the bedrock or a significant confining layer. Based on available geologic information, it is assumed that bedrock is the first confining layer and it may be encountered at depths as great as 175 feet bgs.

Soil boring/well SB-42 (previously mentioned) will be completed adjacent to the former relief holder No. 2 located at 40 Willow Avenue. Soil boring/monitoring well SB-55 will be completed adjacent to the former tar tank/gasometer located near the southwest corner of the property (25 Willow Avenue). SB-56 will be completed adjacent to the former relief holder No. 1 near test pit TP-8 adjacent to the loading dock. If substantial contamination is identified in borings 37,38, or 56, or if either boring 52 or the new boring to be located within Holder #2 identify substantial contamination, a field decision, with the concurrence of the NYSDEC monitor, will be made regarding placement and location of an additional deep well.

At each location, soil sampling will be conducted until the vertical extent of MGP impacts has been reached. Soil samples will be continuously collected and field screened with an OVA-PID (headspace method). Each sample will be described in the field and observations of odor, tar, staining, etc. will be

Groundwater Sampling

Approximately two weeks after the installation and development of the last additional monitoring well, groundwater samples will be collected from each newly installed well and from each well previously sampled during the March/April 1999 sampling event. Two synoptic rounds of depth to groundwater measurements will be made: one at high tide and one at low tide.

For the deep monitoring wells, artesian conditions are anticipated. Before these wells (five total) are sampled, a well riser extension will be used to measure the piezometric surface.

Sampling Procedures

All soil and groundwater samples will be collected in accordance with the procedures specified in GEI/Atlantic's RI/FS Work Plan for the site, dated November 1998. All work performed will be conducted in accordance with GEI/Atlantic's site-specific health and safety plan and in accordance with the quality control/quality assurance procedures specified in the work plan.

Two soil samples from each boring will be collected for laboratory analyses of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), total cyanide, and RCRA 8 metals (metals) Generally, the soil sample exhibiting the greatest degree of contamination and a soil sample from beneath the observed MGP-impacted soil in each boring will be submitted for analyses.

For the deep soil borings (SB-42, SB-55, and SB-56), if vertically discrete zones of contamination are encountered, additional soil samples may be collected for laboratory analyses to document the magnitude and extent of the observed contamination.

Groundwater will be analyzed for VOCs, SVOCs, total cyanide, and the eight RCRA metals.

As we discussed, the best date for Keyspan to begin this additional sampling is July 26th, based on drillers' schedules and other considerations.

Please provide your comments to me at the above address or email tbell@keyspanenergy.com. If you have any questions or need additional information, I can be reached at (718)403-3053.

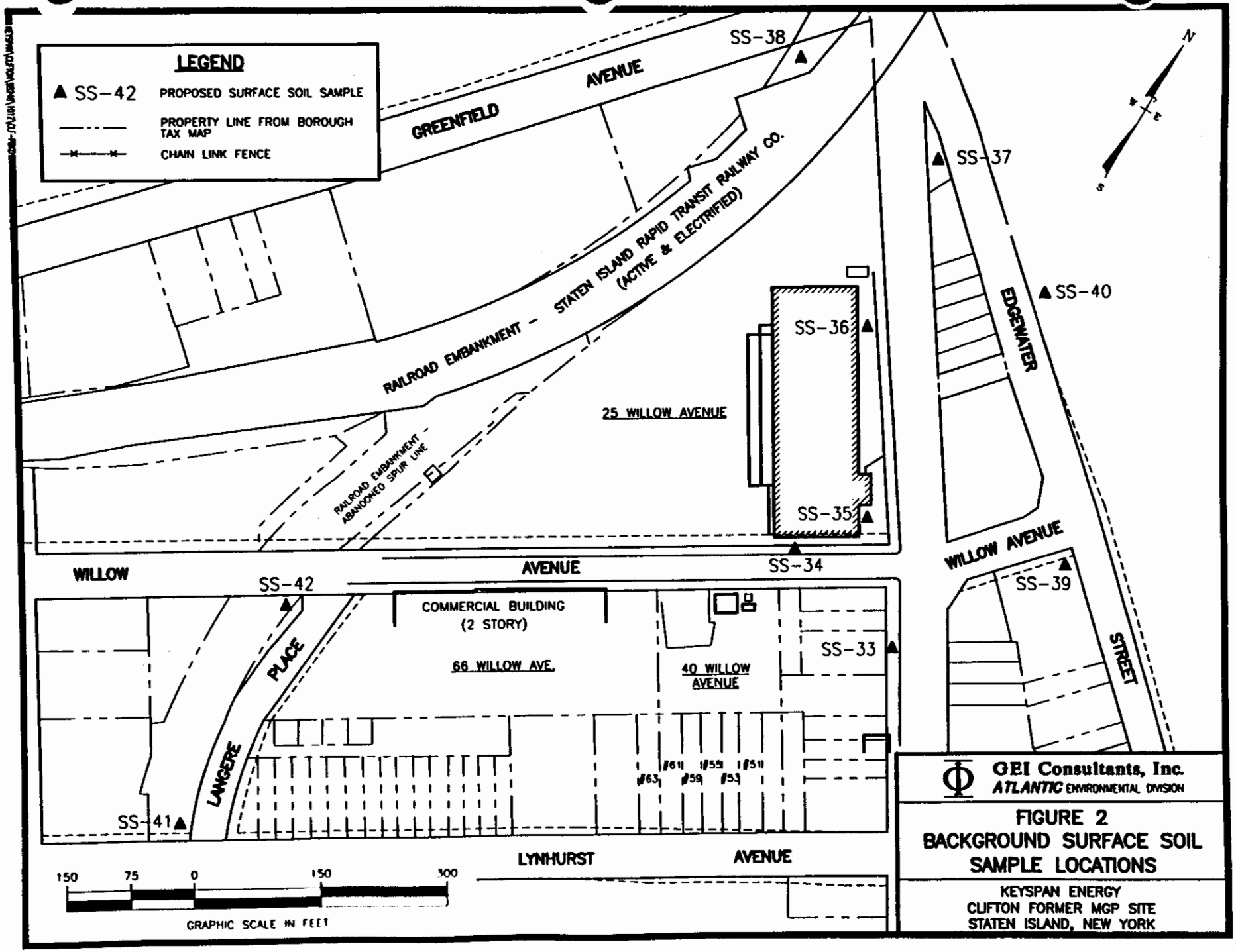
Very truly yours,

Tracey L. Bell

Tracey L. Bell
Director

TABLE 1 (continued)
Proposed Sample Summary

Sample ID (Depth)	Location Rationale	Analysis
SB-50/RW-13 (40)	Situated along the westerly property boundary (hydraulically downgradient of 'shallow' impacts) to provide horizontal and vertical characterization of subsurface soils.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples. 1 groundwater sample
SB-51 (40)	Situated along the westerly property boundary (hydraulically downgradient of 'shallow' impacts) to provide horizontal and vertical characterization of subsurface soils.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples
SB-52	Situated near existing well OW-6 to provide horizontal and vertical characterization of subsurface soils.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples
SB-53 (25)	Situated within the former tar tank/gasometer in the southwestern portion of the site to evaluate its depth and contents.	VOCs, SVOCs, total cyanide, RCRA 8 metals, TCLP organics - 2 soil samples
SB-54 (25)	Situated within the former tar well to evaluate its potential presence, contents, depth, and integrity.	VOCs, SVOCs, total cyanide, RCRA 8 metals, TCLP organics - 2 soil samples
SB-42/RW-14 (175)	Situated adjacent to RW-7 to evaluate the vertical extent of impacts observed in RW-7 and to determine whether site impacts have migrated to the top of bedrock or a confining layer.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples. 1 groundwater sample
SB-55/RW-15 (175)	Situated adjacent to the former tar tank/gasometer near the southwestern corner of the site to provide horizontal and vertical characterization of subsurface soils and to determine whether site impacts have migrated to the top of bedrock or a confining layer.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples. 1 groundwater sample
SB-56/RW-16 (175)	Situated adjacent to former relief holder No. 1 to determine whether site impacts have migrated to the top of bedrock or a confining layer.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples, 1 groundwater sample
SB-57 (25)	Situated within former holder No. 2 to determine impacts resulting from the holder.	VOCs, SVOCs, total cyanide, RCRA 8 metals - 2 soil samples


LEGEND
SS-42 PROPOSED SURFACE SOIL SAMPLE
PROPERTY LINE FROM BOROUGH TAX MAP
CHAIN LINK FENCE
SS-38
GREENFIELD AVENUE
RAILROAD EMBANKMENT - STATEN ISLAND RAPID TRANSIT RAILWAY CO. (ACTIVE & ELECTRIFIED)
SS-37
SS-40
EDGEWATER
SS-36
25 WILLOW AVENUE
RAILROAD EMBANKMENT ABANDONED SPUR LINE
SS-35
SS-34
WILLOW AVENUE
WILLOW
SS-42
COMMERCIAL BUILDING (2 STORY)
66 WILLOW AVE.
40 WILLOW AVENUE
SS-33
SS-39
STREET
PLACE
LANGERE
SS-41
#61
#59
#53
#63
#59
#53
LYNHURST AVENUE
150 75 0 150 300
GRAPHIC SCALE IN FEET
GEI Consultants, Inc.
ATLANTIC ENVIRONMENTAL DIVISION
FIGURE 2
BACKGROUND SURFACE SOIL SAMPLE LOCATIONS
KEYSPAN ENERGY
CLIFTON FORMER MGP SITE
STATEN ISLAND, NEW YORK

Sincerely,

Amen M. Omorogbe, P.E.
Project Manager
Central Field Services Section
Bureau of Construction Services
Division of Environmental Remediation

cc: Steven Bates/W. Kuehner - NYSDOH
P. Carella, DFWMR
R. Gardineer/J. O'Connell - NYSDEC, Region 2

FILE

July 22, 1999

Mr. Amen M. Omorogbe, P.E.
Project Manager
Bureau of Construction Services
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

RE: Remedial Investigation--Clifton Former MGP Site
RI/FS Supplementary Work Plan
Response to Comments

Dear Mr. Omorogbe:

Thank you for your review of the Clifton Supplementary RI/FS Workplan. Our response to your comments is as follows:

a. Borings SB-37, 38, and 39 are located inside the existing buildings and will be advanced using a geoprobe rig. If contamination is found consistently down to the planned depth of 25 feet, it will be difficult to advance the borings a great deal further due to the limitations of the geoprobe system. There is not room for any other type of apparatus within the building. However, we believe that some concerns about contamination at depth will be addressed by deep well SB-56, located immediately next to the building and the considerations discussed below.

b. This comment is accepted with the condition that if an intermediate confining layer is encountered, a sump will only be installed if the layer is of sufficient thickness that there will be no concern about drilling through the layer.

c. GP-3 was a piezometer that was installed in the early 90's to determine groundwater flow direction. No analytical data was collected from GP-3, however drilling logs indicate that some staining and small amounts of free product were encountered during installation of the 7' boring. As requested, we will add one approximately 25 foot boring to the workplan, located within Gas Holder 2.

With regard to borings 42,52,55,and 56, we would like to note that 42, 55, and 56 are already scheduled to go to the deep confining layer (estimated at 172 feet below grade.) Pending the discussion below (in item d.), vertical characterization would be conducted to the depths projected for each of the remaining boreholes proposed in the workplan.

November 11,1999

Mr. Amen M. Omorogbe, P.E.
Project Manager
Bureau of Construction Services
Division of Environmental Remediation
New York State Department of Environmental Conservation
50 Wolf Road
Albany, NY 12233-7010

RE: Remedial Investigation -- Clifton Former MGP Site
Staten Island, New York
Amendment to the Work Plan

Dear Mr. Omorogbe:

KeySpan Energy (KeySpan) is submitting this proposed amendment to the Remedial Investigation (RI) Work Plan for the above-referenced site. This amendment addresses surface- and subsurface-soil sampling at parcels adjacent to the KeySpan property located at 40 Willow Avenue, Staten Island, New York.

The overall objectives of this proposed work scope are two-fold: to obtain additional surface-soil data as requested by the New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH); and to evaluate the potential presence of MGP-related contaminants in the subsurface beneath seven residential and one commercial parcel adjacent to the KeySpan 40 Willow Avenue parcel. We have assumed that the findings from this scope of work will be incorporated into the final RI report for the Clifton former manufactured gas plant (MGP) site. The details of the amended scope are provided below.

SCOPE OF WORK

All soil samples will be collected in accordance with the procedures specified in GEI's RI/FS Work Plan for the site, dated November 1998. All work performed will be conducted in accordance with GEI's site-specific Health and Safety Plan (HASP) and in accordance with the quality control/quality assurance procedures specified in the Work Plan.

Each soil sample will be logged by the GEI field representative and screened for total volatile organic compound (VOC) content using a photoionization detector (PID). All field observations will be recorded in the field notebook and the samples will be handled in accordance with the procedures specified in the RI Work Plan.

Two soil samples from each boring will be submitted to STL for analysis of BTEX, SVOCs, TCN, and RCRA 8 Metals using the same methods as described above. In each boring, if contamination is observed, then the shallowest sample exhibiting evidence of contamination, and the apparent "most heavily contaminated" sample will be submitted for analysis. If contamination is not observed in a boring, then the 0- to 2-foot soil sample and the water table interface soil sample will be submitted for analysis.

SURVEY

After completion of all the subsurface investigations, a surveyor will measure the horizontal location and vertical elevation of each boring and surface-soil sample point.

SCHEDULE

We anticipate that the scope of work can be completed in five field days (one day for surface-soil sampling and four days for the subsurface-soil sampling). Mobilization to the field will occur within one week of obtaining legal access to all of the parcels. KeySpan will notify you of the intended start date. This schedule assumes that accessing each sampling location will not cause significant delays and that the drilling and surface-soil sampling will be performed during one continuous field mobilization effort.

Please provide your comments to me at the above address or email tbell@keyspanenergy.com. If you have any questions or need additional information, I can be reached at (718) 403-3053.

Very truly yours,

Tracey L. Bell
Director

AO/ts
bcc: J. Van Hoesen
G. Cross
A. Omorogbe
Dayfile
a:Tbell.Work Plan.wpd

along Bay Street (Figure 1). Completion of these borings will promote an understanding of the potential for tar migration from either Relief Holder No. 1 or the former tar separator toward New York Harbor atop the till surface.

At a minimum, one soil boring (SB-70) will be completed as a 2-inch diameter PVC monitoring well to evaluate the groundwater quality discharging from the site along the former stream trace. If no tar is present in the other borings, they will be grouted upon completion. If tar is present in a particular boring, the vertical extent of tar will be evaluated to the extent practical. Additionally, if tar is in a particular boring along Bay Street, a 2-inch diameter PVC monitoring well will be installed with a sump beneath the screen interval to serve as a potential point of tar recovery.

Up to two soil samples from each boring will be submitted to Severn Trent Laboratories (STL) in Shelton, Connecticut for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), poly-nuclear aromatic hydrocarbons (PAHs), RCRA 8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), and total cyanide. STL is an approved New York State ELAP laboratory.

Quality assurance/quality control samples will include laboratory-blind duplicate samples, matrix spike/matrix spike duplicate (MS/MSD) samples, equipment rinsate blank samples, and trip blank samples. The blind duplicate, MS/MSD, and rinsate blank samples will be collected at a frequency of one per 20 soil samples. Trip blanks will be submitted at a frequency of one trip blank set per day of sample shipment to the laboratory. Trip blank samples will be analyzed for BTEX; the other QA/QC samples will be analyzed for BTEX, PAHs, and RCRA 8 metals.

Following installation of the well at boring SB-70 and any other completed well installations, each well will be developed in accordance with the methods described in the NYSDEC-approved November 9, 1998 RI Work Plan. Groundwater samples from each newly installed well will be collected no sooner than two weeks after development. Each groundwater sample collected will be analyzed for BTEX, PAHs, RCRA 8 metals, and total cyanide. One blind duplicate sample, one MS/MSD, and one equipment rinsate blank sample will be collected and analyzed for BTEX, PAHs, RCRA 8 metals and total cyanide. One trip blank sample (for BTEX analysis) will be submitted per day of sampling.

STL will provide New York State Category B data deliverables for the soil and groundwater samples. The analytical results will be validated in accordance with New York requirements. Data will be provided in both electronic and printed format. The analytical results will be incorporated into the existing site-wide database.

Immediately prior to the start of groundwater sampling activities, a full round of groundwater elevations and storm sewer invert elevations will be collected from the existing and newly

Lynhurst Avenue Residential Parcels

One approximately 40-foot deep soil boring (SB-77) will be completed between Relief Holder No. 2 and the residential properties on Lynhurst Avenue. The boring is proposed to be located approximately 20 feet from the fence line between the residential lots and the 40 Willow Avenue parcel (Figure 2). The actual location of the proposed boring will be dependant upon physical constraints and negotiated access to the residential lot(s). However, completing the boring on #55, #59, or #61 Lynhurst Avenue would adequately address NYSDEC's request to evaluate deeper potential extent of tar from Relief Holder No. 2. Up to two soil samples from this boring will be collected for analysis of BTEX, PAHs, RCRA 8 metals, and total cyanide.

NYSDEC requested completion of one deep boring to approximately 90 feet bgs "south of Lynhurst Avenue to establish the extent of off-site impact." Residential dwellings are present on the southern side of Lynhurst Avenue; therefore, the only potential location to drill a deep boring would be within Lynhurst Avenue. The depth of this boring will be extended beyond the requested 90 foot depth to intercept the top of the saprolite (weathered bedrock) estimated to be approximately 125 to 135 feet bgs. By extending this boring to the top of saprolite, we will document the presence/absence of any potential tar throughout the vertical extent of the soil profile. The depth and hydrogeologic conditions at this site require the use of a sonic drilling rig to efficiently complete this soil boring.

As Figure 2 shows, there are significant overhead and underground utilities located within Lynhurst Avenue that will have to be cleared and potentially relocated prior to this boring being drilled. The presence of these utilities will dictate the actual location of the boring. Based on a site visit conducted by GEI, a drilling contractor, and Mr. Jack Rodak of KeySpan, we believe a potential boring location would be in the vicinity of # 58 Lynhurst Avenue, provided that the overhead electric lines could be adequately shielded.

40 Willow Avenue – Relief Holder No. 2

Twelve GeoProbe® soil borings (GP-01 through GP-12) are proposed to refine the extent of tar impacts immediately surrounding Relief Holder No. 2 on the 40 Willow Avenue parcel. As requested, an additional boring (GP-12) was placed on-site between borings SB-65 and SB-66. In light of NYSDEC comments provided on September 26, 2001, each boring will be completed to a maximum depth of 45 feet bgs. The data from these borings will be used to more adequately refine any volume estimates of soils that may require remediation in the future. Figure 3 shows the proposed boring locations along with previous boring and well locations.

Soil samples will be collected continuously from each boring using 4-foot long Macrocore® samplers. If sample volume permits, soil samples for potential laboratory analyses will be collected at 2-ft depth increments, otherwise, the samples will be collected at 4-foot sample

total petroleum hydrocarbons (TPH), total cyanide, and amenable cyanide. The analytical results from the groundwater treatment evaluation will not be validated.

Survey

The locations and elevations of each newly completed soil boring, monitoring well, and storm sewer sampling point will be surveyed by a New York State licensed surveyor. These survey data will be incorporated into the site survey database.

RI Report Revision

The newly obtained data will be incorporated into the site-wide database and will be used to supplement the understanding of site conditions. Following evaluation of the geologic, hydrogeologic, soil and groundwater analytical data, the existing RI report will be revised and submitted for NYSDEC review and approval. The revised RI report will include new boring, well, and test pit completion logs, summaries of laboratory data, laboratory data reports, and an evaluation and discussion of the mobility of dissolved phase contaminants and DNAPL tar. The report will also include a revised groundwater contour map for the upper (water table) aquifer and a top of till contour map based on the borings that intercepted the till unit.

Schedule

A detailed project schedule will be prepared and provided to NYSDEC once a project start date has been established. Issues affecting the start date include negotiation of access agreements, utility clearance, and the availability of the sonic drilling rig. The schedule will address the field activities, data evaluation, report preparation, review, revision, and report submittal dates.

Field activities to drill the planned soil borings and complete the monitoring well installations can commence following NYSDEC approval of this work scope. However, given that a sonic drilling rig is required to complete at least a portion of the work, the actual start date may depend on the availability of the sonic drilling contractor. At last assessment, the sonic drilling rig could be available approximately one month from receipt of approval to proceed with the work plan.

GEI is evaluating the most time and cost-effective combination of drilling methods (hollow stem auger, sonic, and geoprobe) to complete the scope of work. The selected drilling methods will directly affect the duration of the drilling program. At this time, we believe that the drilling activities can be conducted between approximately four weeks (assuming mostly hollow stem methods) and 2½ weeks (assuming mostly sonic drilling methods).

Groundwater sampling can commence two weeks after installation of the last new monitoring well. Laboratory analytical results will be provided on a standard three-week turnaround basis.

New York State Department of Environmental Conservation

Division of Environmental Remediation

Bureau of Western Remedial Action, 11th Floor
625 Broadway, Albany, New York 12233-7010

Phone: (518) 402-9662 · **FAX:** (518) 402-9679

Website: www.dec.state.ny.us

October 11, 2001

Mrs. Tracey Bell
Manager
Environmental Asset Management
KeySpan Energy
One Metro Tech Center
Brooklyn, New York 11201-3850

Dear Mrs. Bell:

Re: Former Clifton MGP Site
Remedial Investigation
Site # 2-43-023

The NYSDEC has reviewed the revision to the Supplemental Remedial Investigation (RI) Work Plan for the referenced site dated October 9, 2001. This revision addresses our comments to include one additional boring location next to Relief Holder #2 on the 40 Willow Avenue parcel and to drive all borings around the holder to approximately 45 feet below grade. Following the incorporation of this revision, the Work Plan is acceptable and hereby approved.

Please forward a schedule to perform the field work to this office within 15 days of the date of this letter. If you have any questions, please call me at (518) 402-9662.

Sincerely,

Amen M. Omorogbe, P.E.
Project Manager
Manufactured Gas Plants Remedial Section
Division of Environmental Remediation

cc: S. Haskins - NYSDOH

GEI Consultants, Inc.

May 15, 2002
982482-1-1012

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

860 · 537 · 0751
860 · 537 · 6347 Fax

Mr. Amen M. Omorogbe, P.E.
Project Manager MGP Remedial Section
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7010

Re: Former Clifton, Staten Island MGP Site
Supplemental Remedial Investigation (RI) Revised Work Plan

Dear Mr. Omorogbe:

On behalf of our client, KeySpan Energy (KeySpan), GEI Consultants, Inc. (GEI) is submitting this interim data deliverable and revised work plan to conduct supplemental remedial investigations and feasibility study (FS) support investigations at the former manufactured gas plant (MGP) site located at 25 and 40 Willow Avenue, Clifton, Staten Island, New York. This work plan has been revised to incorporate comments on the initial March 14, 2002 work plan as provided by the New York State Department of Environmental Conservation (NYSDEC) in their letter dated April 12, 2002 and comments provided by the New York State Department of Health in their letter dated April 26, 2002 (as transmitted via email by NYSDEC on May 13, 2002).

Included as part of this submittal are:

- Table 1 - Chemical data summary tables for subsurface soil samples collected in November and December 2001
- Table 2 - Chemical data summary tables for surface soil samples collected on the residential parcels on Lynhurst Avenue in November 2001
- Plate 1 - An updated site-wide base map showing all explorations completed to date
- Plate 2 - Updated cross sections A-A' and F-F' from the August 2000 Draft RI Report
- Plate 3 - Four cross sections completed around Relief Holder No. 2 on the 40 Willow Avenue parcel
- Plate 4 - Photographic documentation of the test pits completed around Relief Holder No. 2 in December of 2001

Soil samples will be collected continuously from the ground surface within each boring using 4-foot long MacroCore® samplers. A discrete sampler device will be used during the collection of all MacroCore® samples. Up to two soil samples from each boring will be submitted to Severn Trent Laboratories (STL) in Shelton, Connecticut for analysis of benzene, toluene, ethylbenzene, and xylenes (BTEX), poly-nuclear aromatic hydrocarbons (PAHs), RCRA-8 metals (arsenic, barium, cadmium, chromium, lead, mercury, selenium, and silver), and total cyanide (TCN). STL is an approved New York State ELAP laboratory. Each subsurface soil boring will be back-filled with bentonite chips and hydrated with water upon completion.

QA/QC samples will include one laboratory-blind duplicate sample, one matrix spike/matrix spike duplicate (MS/MSD) sample, one equipment rinsate blank sample, and one trip blank sample per day of sample shipment to the STL. Trip blank samples will be analyzed for BTEX; the other QA/QC samples will be analyzed for BTEX, PAHs, and RCRA-8 metals, and TCN.

STL will provide New York State Category B data deliverables for the soil samples. The analytical results will be validated in accordance with New York requirements. Data will be provided in both electronic and printed format. The analytical results will be incorporated into the existing site-wide database.

Groundwater Assessment and Evaluation of Volatilization Potential to Indoor Air - Lynhurst Avenue Residential Parcels

KeySpan proposes evaluating whether the presence of deep MGP residuals beneath the residential parcels abutting the 40 Willow Avenue parcel potentially affects the indoor air of the residential dwellings. If VOCs are present in the groundwater beneath the dwellings, a potential exists for volatile compounds to volatilize to the indoor air of the dwellings. To carry out this evaluation, groundwater samples will be collected from temporary piezometer (micro-well) locations (PZ-5 through PZ-12) adjacent to each of the residential dwellings (49 through 67 Lynhurst Avenue) and the volatile concentrations of the groundwater samples will be used to estimate indoor air concentrations (Figure 1). This exposure analysis will use a model developed by the United States Environmental Protection Agency (EPA) for estimating indoor air exposure concentrations and the associated health risks from subsurface vapor transport into buildings. The model is based on the analytical solutions of Johnson and Ettinger in "Heuristic Model for Predicting the Intrusion Rate of Contaminant Vapors into Buildings" (1991, *Environ. Sci. Tech.* 25(8): 1445-1452).

The groundwater samples will be collected through temporary micro-wells installed by Geoprobe® methods adjacent to the residential dwellings. Each micro-well will

Lynhurst Avenue. Based upon visual and analytical findings (Table 1) from boring SB-78, the proposed borings will be completed to be approximately 50 to 60 feet bgs.

Because of limited space within the street, these soil borings will be installed using a track or truck-mounted Geoprobe®. Soil samples will be collected continuously from each boring using 4-foot long MacroCore® samplers equipped with a discrete sampler device. Up to two soil samples from each boring will be submitted to STL for analysis of BTEX, PAHs, RCRA-8 metals, and TCN.

QA/QC samples will include one laboratory-blind duplicate sample, one MS/MSD sample, one equipment rinsate blank sample, and trip blank samples. Trip blanks will be submitted at a frequency of one trip blank set per day of sample shipment to the laboratory. Trip blank samples will be analyzed for BTEX; the other QA/QC samples will be analyzed for BTEX, PAHs, and RCRA-8 metals, and TCN.

Off-Site Evaluation of Tar Migration from 25 Willow Avenue Parcel

Soil borings SB-68 through SB-73, completed in December 2001, evaluated the presence and integrity of the glacial till layer along Bay Street that serves as a confining layer to vertical tar migration (Figure 2). Plate 2 shows the geologic and physical observations from these borings. The glacial till surface was encountered approximately 8 to 15 feet bgs along the southern portion of the 25 Willow Avenue parcel in borings SB-71, SB-72, and SB-73. No MGP-related odors or visual impacts were noted in these borings. The shallow depth of the confining till and the lack of observed MGP residuals demonstrates that tar is not migrating from the 25 Willow Avenue site toward Bay Street in the vicinity of these borings.

To the north, the confining glacial till was encountered deeper at approximately 33 to 41 feet bgs in borings SB-68, SB-69 (RW-17), and SB-70A (RW-18). MGP residuals were present in borings SB-69 (RW-17) and SB-70A (RW-18) within well-sorted gravelly-sand located above the confining glacial till. This gravelly-sand likely represents a glacial outwash channel with its axis oriented northeasterly.

During a groundwater sampling event in January 2002, approximately 2 feet of a tar/water mixture was gauged within the bottom of RW-18. Discrete tar blebs were also observed in the water from well RW-17. Both wells are screened above the confining till within the inferred glacial stream channel.

To evaluate the potential lateral extent of tar to the northeast of borings SB-69 (RW-17) and SB-70A (RW-18), three borings (SB-81 through SB-83) will be completed across Bay Street on a triangular shaped parcel between Bay Street and Edgewater Street. Each boring will be advanced approximately 10 feet into the till

Feasibility Studies (FS) and Interim Remedial Measure (IRM) Support Investigations

In addition to the supplemental RI activities described above, GEI will conduct additional work to support the FS for the 40 Willow Avenue parcel and to support the IRM planned to remediate lead in soils on the Lynhurst Avenue residential parcels.

Photographs/Sketch Lynhurst Avenue Residential Properties

To support the lead removal IRM, GEI will photograph, document, and sketch the backyards for the residential parcels located at #49 through #67 Lynhurst Avenue. This information will assist in the estimate of the potential areas for lead-impacted surficial soils to be removed at the parcels.

Former Relief Holder #2 Floor Profile

In November 2001, twelve Geoprobe® borings were completed around Relief Holder No. 2 on the 40 Willow Avenue parcel to provide refined extent of tar information for use in the FS. Three test pits were also completed in December 2001 to confirm the location, size, and integrity of the holder walls (Figure 1). Plate 3 presents cross sections for the borings completed around the relief holder and Plate 4 presents photographic documentation of the test pit activities.

In addition to the twelve Geoprobe® borings and three test pits already completed, additional data will be collected to support the feasibility study. To determine the configuration of the holder floor, and therefore, refine the materials volume estimate within the holder, a transect of Geoprobe® borings will be completed across the holder floor. Approximately six Geoprobe® borings (GP-13 through GP-18) will be completed inside the former Relief Holder No. 2 located on 40 Willow Street parcel. Figure 1 shows the proposed boring locations. Four borings (GP-13 through GP-16) will be drilled in a northeast to southwest transect to obtain information regarding the elevation and the geometry of the bottom of Relief Holder No. 2. Two additional borings (GP-17 and GP-18) will be completed inside the holder wall to determine the degree of tar present.

Each boring will be advanced until the bottom of the holder is encountered (approximately 20 feet bgs). Soil samples will be collected continuously from each boring using 4-foot long MacroCore® samplers equipped with a discrete sampler device. The samples will be described and screened in the field. No analytical soil samples will be collected from these borings.

- Soil investigation-Lynhurst Avenue residential parcels and groundwater assessment and evaluation of volatilization potential to indoor air-Lynhurst Avenue parcels, and photographs/sketch Lynhurst Avenue properties for interim remedial measure (IRM) activities will tentatively started on June 3, 2002 and completed by Friday June 7, 2002.

Issues affecting the start date include negotiation of access agreements, utility clearance for the offsite borings, and NYSDEC review and approval of this work plan letter. The schedule will address the field activities, data evaluation, report preparation, review, revision, and report submittal dates.

If you have any questions or require any additional information, please contact Ms. Tracey Bell at 718-403-3053 or by email at tbell@keyspanenergy.com.

Sincerely,

GEI CONSULTANTS, INC.

David B. Terry, P.G., LEP
Project Manager

DBT:amm
Enclosures
c: T. Bell
L. Liebs
J:\WPROC\Dbt\KEYSPAN\CLIFTON\Supplemental RI\CliftonRI REV Work Plan5-15-02 DBT Comment.doc

include at a minimum the following columns: Media, Class of Contaminant, Contaminant of Concern, Concentration range in parts per billion, Frequency of exceeding and a column for SCG values for each contaminant. Additionally, please provide separately, a column for carcinogenic PAHs including the following Indeno(1,2,3-cd) pyrene, Benzo(a)anthracene, Benzo(a)pyrene, Benzo(b)fluoranthene, Benzo(k)flouranthene, Chrysene, and Dibenzo(a,h)anthracene.

Please note that additional comments may be forthcoming from the New York State Department of Health. If you have any questions, please call me at (518) 402-9662.

Sincerely,

Amen M. Omorogbe, P.E.
Project Manager
Manufactured Gas Plants Remedial Section
Division of Environmental Remediation

cc: G. Laccetti/S. Selmer - NYSDOH

GEI Consultants, Inc.

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415
Ph: (860) 537-0751
Fax: (860) 537-6347

November 4, 2002
982482-1-1001

Mr. Amen M. Omorogbe, P.E.
Project Manager MGP Remedial Section
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7010

Re: Former Clifton, Staten Island MGP Site
Supplemental Remedial Investigation (RI) Work Plan–Edgewater Street

Dear Mr. Omorogbe:

On behalf of our client, KeySpan Energy (KeySpan), GEI Consultants, Inc. (GEI) is submitting this work plan to conduct supplemental remedial investigations adjacent to the former manufactured gas plant (MGP) site located at 25 Willow Avenue within Operable Unit 2 (OU-2), Clifton, Staten Island, New York. Following your review of this work plan, please contact Ms. Tracey Bell at KeySpan with your approval or if you have any questions regarding this proposed scope of work.

Work Plan

The work described herein will be conducted in accordance with the procedures specified in the New York State Department of Environmental Conservation (NYSDEC)-approved November 9, 1998 RI Work Plan for the site. In addition, the work will be conducted following the quality assurance/quality control (QA/QC) procedures established in the approved RI work plan. All field activities will comply with the health and safety procedures specified in the NYSDEC-approved site-specific Health and Safety Plan.

Off-Site Evaluation of Tar Migration from 25 Willow Avenue Parcel

Soil borings SB-81 and SB-82/82A were previously completed in May 2002 to evaluate the lateral and vertical presence of tar beneath Bay Street to the northeast of the 25 Willow Avenue parcel; within Operable Unit 2 (OU-2). Drilling observations revealed tar residuals in soil boring (SB-81) within a discrete interval located approximately from 13 feet to 21 feet below ground surface (bgs). Laboratory analyses revealed elevated levels of the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene xylene

Following the installation of the monitoring well (RW-19), the monitoring well will be developed in accordance with methods described within the NYSDEC-approved November 9, 1998 RI Work Plan. Groundwater samples will be collected no sooner than two weeks after development. Each groundwater sample will be collected and analyzed for BTEX, PAHs, RCRA-8 metals, and total cyanide. Quality assurance samples will include one equipment rinse blank to be analyzed for BTEX, PAHs, RCRA-8 metals and total cyanide. One trip blank sample will be submitted for BTEX analysis.

STL will provide New York State Category B data deliverables for the soil and groundwater samples. The analytical results will be validated in accordance with New York requirements. Data will be provided in both electronic and printed format. The analytical results will be incorporated into the existing site-wide database.

The proposed borings will be located within Edgewater Street right-of-way (ROW). Space within the Edgewater Street ROW is limited and significant underground utilities are anticipated within portions of the ROW. The presence of these utilities will dictate the actual location of the borings. Each boring location was preliminarily marked out by GEI personnel during a subcontractor meeting in October 2002.

Survey

The locations and elevations of each newly completed soil boring and monitoring well will be surveyed by a New York State licensed surveyor. These survey data will be incorporated into the site survey database.

RI Report Revision

The newly obtained data will be incorporated into the site-wide database, will be used to supplement the understanding of site conditions, and will be incorporated into the RI report for Operable Unit-2. Following evaluation of the analytical data and assuming that no further investigations are required, the existing RI report will be revised and submitted for NYSDEC review and approval. The revised RI report will include new boring completion logs, summaries of laboratory data, laboratory data reports, and an evaluation and discussion of the mobility of dissolved phase contaminants and DNAPL tar.

Schedule

Field activities to drill the planned soil borings can commence following NYSDEC approval of this work scope. The field program is currently scheduled to start on the week of November 11 and drilling activities will last for approximately one week. Issues affecting the start date include utility clearance for the borings, potential utility conflicts based upon the utility mark-outs, and NYSDEC review and approval of this work plan letter.

New York State Department of Environmental Conservation

Division of Environmental Remediation

Bureau of Western Remedial Action, 11th Floor
625 Broadway, Albany, New York 12233-7010

Phone: (518) 402-9662 · **FAX:** (518) 402-9679

Website: www.dec.state.ny.us

November 7, 2002

Mrs. Tracey Bell
Manager
Environmental Asset Management
KeySpan Energy
One Metro Tech Center
Brooklyn, New York 11201-3850

Re: Former Clifton MGP Site
Supplemental Remedial Investigation (RI) Work Plan
Edgewater Street
Site # 2-43-023

Dear Mrs. Bell:

The New York State Department of Environmental Conservation has reviewed the November 4, 2002 supplemental RI Work Plan to install five borings along the Edgewater Street right of way to evaluate the lateral extent of site related contaminants in the direction of surface water body north of the site. Based on our review, the proposed borings are acceptable and hereby approved. We would also like to caution you on the presence of overhead electrical wires at the proposed boring locations which may or may not impede the installation of the borings.

Please notify this office of the start of the boring activities. If you have any questions, please call me at (518) 402-9662.

Sincerely,

Amen M. Omorogbe, P.E.
Project Manager
Manufactured Gas Plants Remedial Section
Division of Environmental Remediation

KeySpan Corporation
Environmental Asset Management
One Metrotech Center, 15th Floor
Brooklyn, NY 11201-3850

April 16, 2003

Mr. Amen M. Omorogbe, P.E.
Project Manager MGP Remedial Section
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7010

Re: Draft Sub-Slab Soil Vapor Sampling and Vapor Intrusion Analysis Work Plan
Former Clifton, Staten Island MGP Site
Operable Unit 2 (OU-2)
Staten Island, New York

Dear Mr. Omorogbe:

On behalf of our client, KeySpan Energy (KeySpan), GEI Consultants, Inc. (GEI) is submitting this work plan for soil vapor sampling and vapor intrusion analysis associated with the occupied commercial building at KeySpan's former Clifton manufactured gas plant (MGP) in Staten Island, New York (the Site). The scope of this work will include the installation of sub-slab monitoring ports for soil vapor sampling, collection of sub-slab soil vapor samples, and a building assessment. An analysis of the soil vapor data will be completed based on recent updates to the Johnson and Ettinger model (Johnson *et al.* 1998; USEPA, 2000 and 2002; MADEP, 2002), to evaluate whether a complete human exposure pathway exists for potential vapor migration into the existing building. The results of sampling activities will be summarized in a letter report that documents the collection of and analytical results of the soil vapor sampling. Both the soil vapor findings and Vanasse Hagen Brustlin, Inc, (VHB) exposure pathway analysis will be incorporated into the existing draft RI Report for OU-2.

The remainder of this document presents the proposed work plan for additional investigations. Figures 1 presents the proposed soil vapor sampling. Following your review of this work plan, please contact Ms. Tracey Bell, with KeySpan, with your approval or if you have any questions.

BACKGROUND

As part of the remedial investigation (RI), numerous soil borings were advanced within, and adjacent to, the existing commercial building (Figure 1, attached). Some subsurface soil samples were observed to be saturated with tar and contained elevated concentrations of volatile organic compounds (VOCs). These soil data indicate that concentrations of MGP contaminants may be

present in sub-surface soil vapor below the commercial building at concentrations that could adversely affect indoor air quality.

To assess whether contaminants beneath a building may be affecting indoor air quality, samples of either indoor air or sub-slab soil vapor are typically collected. Indoor air sampling would enable a direct determination of indoor air quality but is not recommended at this time because on-going commercial activities by the building occupants may also affect the quality of indoor air. Therefore, the potential impacts resulting from intrusion of MGP-contaminated vapor may not be accurately identified by indoor air samples. Collecting soil gas samples from beneath the slab to directly characterize the intrusive vapor will avoid the complications caused by occupant activities, but will require a subsequent analysis to estimate the magnitude of the potential impact of vapor intrusion on indoor air quality.

For this investigation, potential soil vapor intrusion will be assessed by utilizing sample ports through the slab and to collect sub-slab vapor samples. The vapor intrusion rate and impact on indoor air quality can be then estimated using a recently published U.S. Environmental Protection Agency (USEPA) model that is based on the analytical solutions of Johnson and Ettinger.

SCOPE OF WORK

The work described herein will be conducted in accordance with the procedures specified in the New York State Department of Environmental Conservation (NYSDEC)-approved November 9, 1998 RI Work Plan for the site. In addition, the work will be conducted following the quality assurance/quality control (QA/QC) procedures established in the approved RI work plan. All field activities will comply with the health and safety procedures specified in the NYSDEC-approved site-specific Health and Safety Plan.

Task 1: Installation of Sub-slab Monitoring Ports

GEI proposes to install 12 monitoring ports in the concrete slab throughout the commercial building. Proposed locations for the ports are shown on Figure 1. These locations were based on a grid spacing of about 50 feet and were adjusted to target particular subsurface structures associated with the former MGP. However, actual sample locations will be based upon site constraints. After the ports are installed, sub-slab vapor quality will be screened using a low-level PID and the differential sub-slab vapor pressure will be measured using a digital manometer. Each port will be constructed by drilling through the slab, installing Teflon® tubing with stainless steel fittings at the surface, and grouting around the slab penetration to form a vapor-tight seal. The sampling parts will be accessible for future sampling, if needed.

Task 2: Sub-slab Soil Vapor Sampling and Building Assessment

Sub-slab soil vapor samples will be collected from each of the 12 ports using a certified-clean Summa canister with a 6-liter capacity, in accordance with USEPA Standard Operating Procedure No. 2042: "Soil Gas Sampling". Each Summa canister air sample will be collected over an approximate 8-hour timeframe through a calibrated flow control valve provided by the laboratory. Samples will be shipped to Air Toxics Ltd in Folsom, CA and analyzed for volatile organic compounds, including naphthalene, by method TO-15. One duplicate sample will be collected, for a total of 13 samples. In addition to the Summa sampling, sub-slab vapor will be screened during the sampling event using a low-level PID and the relative sub-slab vapor pressure will be measured using a digital manometer.

A building assessment will be conducted to collect the additional information necessary for a vapor intrusion analysis. Information collected will include: frequency and size of slab cracks, width of floor-wall seam gap, slab thickness and dimensions, depth to soil below the slab, thickness of vadose zone, estimated building air exchange rate, and the interior building volume. The findings of the building assessment will be documented on field observation forms and representative digital photographs will be taken to document the physical condition of the floor slab.

Task 3: Presentation of Sampling and Assessment Results

GEI will validate the laboratory analytical results of the Summa canister sampling and present the results in a letter report. The report will also include a figure showing the locations of the monitoring ports and summary tables of the PID, manometer, Summa sampling, and building assessment data. The findings along with VHB's exposure pathway analysis will be incorporated into the current draft RI Report for OU-2

Schedule

A tentative project schedule for the upcoming scope of work is attached as part of this work plan submittal. Field activities include the installation of the sub-slab vapor port within the building and sampling can commence following NYSDEC approval of this work scope. The field program is currently tentatively anticipated to start in May and installation and sampling activities is anticipated to last for approximately two to three days.

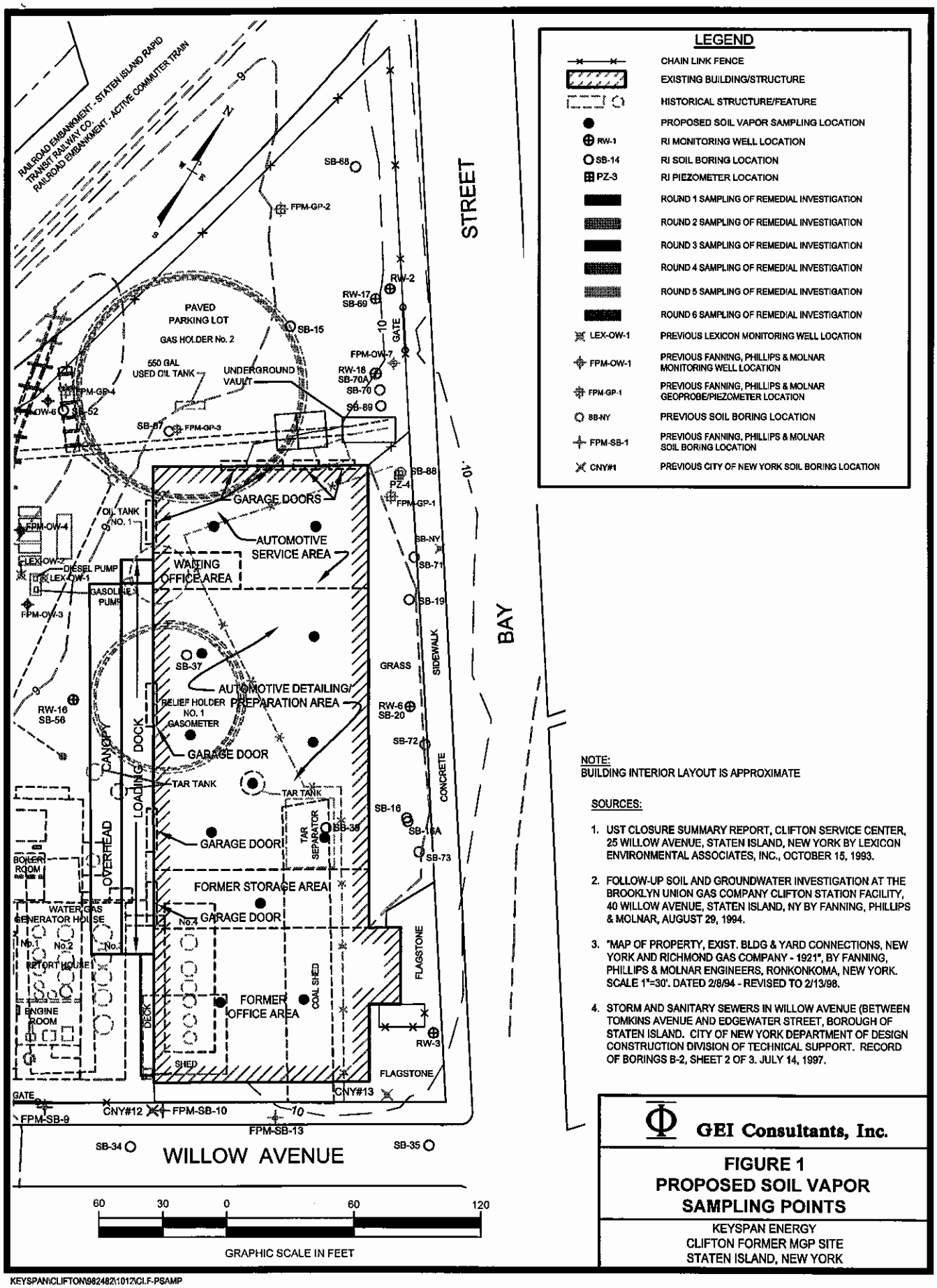
Issues affecting the start date include utility clearance for the borings, and NYSDEC review and approval of this work plan letter.

If you have any questions, or require any additional information, feel free to contact me at 718-403-3053.

Sincerely,

Tracey Bell
Senior Environmental Engineer

Enclosure



NOTE:
BUILDING INTERIOR LAYOUT IS APPROXIMATE

SOURCES:

1. UST CLOSURE SUMMARY REPORT, CLIFTON SERVICE CENTER, 25 WILLOW AVENUE, STATEN ISLAND, NEW YORK BY LEXICON ENVIRONMENTAL ASSOCIATES, INC., OCTOBER 15, 1993.
2. FOLLOW-UP SOIL AND GROUNDWATER INVESTIGATION AT THE BROOKLYN UNION GAS COMPANY CLIFTON STATION FACILITY, 40 WILLOW AVENUE, STATEN ISLAND, NY BY FANNING, PHILLIPS & MOLNAR, AUGUST 29, 1994.
3. "MAP OF PROPERTY, EXIST. BLDG & YARD CONNECTIONS, NEW YORK AND RICHMOND GAS COMPANY - 1921", BY FANNING, PHILLIPS & MOLNAR ENGINEERS, RONKONKOMA, NEW YORK. SCALE 1"=30'. DATED 2/8/94 - REVISED TO 2/13/98.
4. STORM AND SANITARY SEWERS IN WILLOW AVENUE (BETWEEN TOMKINS AVENUE AND EDGEWATER STREET, BOROUGH OF STATEN ISLAND. CITY OF NEW YORK DEPARTMENT OF DESIGN CONSTRUCTION DIVISION OF TECHNICAL SUPPORT. RECORD OF BORINGS B-2, SHEET 2 OF 3. JULY 14, 1997.

GEI Consultants, Inc.

FIGURE 1
PROPOSED SOIL VAPOR SAMPLING POINTS

KEYSPAN ENERGY
CLIFTON FORMER MGP SITE
STATEN ISLAND, NEW YORK

KEYSPAN\CLIFTON\982482\1012\CLF-PSAMP

KeySpan Corporation
Environmental Asset Management
One Metro Tech Center
15th Floor
Brooklyn, NY 11201

October 20, 2003
982482-1-1001

Mr. Amen M. Omorogbe, P.E.
Project Manager, Manufactured Gas Plant Remedial Section
New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway
Albany, New York 12233-7010

Re: Clifton, Staten Island Former Manufactured Gas Plant (MGP) Site
Supplemental Remedial Investigation (RI) Work Plan
1 Edgewater Street

Dear Mr. Omorogbe:

KeySpan Corporation (KeySpan) is submitting this work plan to conduct supplemental remedial investigation (RI) activities at 1 Edgewater Street, which is located to the northeast of the former manufactured gas plant (MGP) site at 25 Willow Avenue (Operable Unit 2 [OU-2]), Clifton, Staten Island, New York. The work plan has been prepared in partial response to the June 19, 2003 New York State Department of Environmental Conservation (NYSDEC) and New York State Department of Health (NYSDOH) comments on the Draft Remedial Investigation Report (Draft RI Report) addressing OU-2. The work plan specifically addresses NYSDEC Comment #6 and describes a proposed scope to delineate the extent of tar northeast of Edgewater Street, where tar impacts have previously been observed.

Following your review of this work plan, please contact me with your approval or if you have any questions regarding the proposed scope of work.

Work Plan

The work described herein will be conducted in accordance with the procedures specified in the New York State Department of Environmental Conservation (NYSDEC)-approved November 9, 1998 RI Work Plan for the site. In addition, the work will be conducted following the quality assurance/quality control (QA/QC) procedures established in the approved RI work plan. All field activities will comply with the health and safety procedures specified in the NYSDEC-approved site-specific Health and Safety Plan.

Previous Investigations Within Edgewater Street

Soil borings SB-90C, SB-91/91A, SB-92, SB-93 and SB-94 were completed in November of 2002 to evaluate the lateral and vertical occurrence of tar beneath Edgewater Street to the northeast of the 25 Willow Avenue parcel (OU-2). Discrete intervals of tar residuals were observed in soil borings SB-93 and SB-94. In addition, approximately 5.5 feet of accumulated tar was measured in monitoring well RW-19, which was installed adjacent to SB-94. Laboratory analyses revealed elevated levels of the volatile organic compounds (VOCs) benzene, toluene, ethylbenzene, and xylene (BTEX) and semivolatile organic compounds (SVOCs) polycyclic aromatic hydrocarbons (PAHs) in soil samples collected from these borings. No tar residuals were noted in SB-93 below 12 feet bgs or SB-94 below 28 feet bgs to the termination of each of these borings at 40 feet bgs. Only trace levels of BTEX and PAHs were detected at the termination of these borings. Detailed findings from the borings completed in Edgewater Street were presented in the Draft RI Report for OU-2.

Proposed Supplemental RI Activities – 1 Edgewater Street

To evaluate the potential lateral and vertical extent of tar to the northeast of borings SB-93 and SB-94 within Edgewater Street, up to six borings (SB-95 through SB-100) will be completed utilizing a direct push Geoprobe® sampling rig within the paved parking lot of 1 Edgewater Street (Figure 1). Soil borings SB-95 through SB-97 will be drilled first, if tar-related impacts are observed, then borings SB-98 through SB-100 will be drilled. However, if no impacts are observed in the first line of borings, then borings SB-98 through SB-100 will not be required to delineate the extent of impacts. Each proposed boring will be advanced into the glacial till unit approximately 10 feet below the last observed occurrence of tar. Borings are anticipated to be completed to approximately 40 feet bgs. Soil samples will be collected continuously from each boring using 4-foot or 5-foot long MacroCore® samplers equipped with a discrete sampler device.

Drilling equipment (rods and macro-core sampler) will be decontaminated on a temporary decontamination pad located at the site or in the vicinity of the sampling rig. Soil cuttings, decontamination fluids, and personal protective equipment will be collected and stored within 55-gallon United States Department of Transportation (USDOT)-approved drums that will be staged at 40 Willow Avenue.

Up to two soil samples from each boring will be submitted to Severn-Trent Laboratories (STL) in Shelton, Connecticut for analysis of BTEX by United States Environmental Protection Agency (EPA) method 8260, PAHs by EPA method 8270, Resource Conservation Recovery Act (RCRA-8) metals by EPA method 6010, and total cyanide (TCN) by EPA method 9012. STL is a NYSDEC–approved laboratory.

Quality assurance samples to be submitted will include one blind duplicate soil sample, one matrix spike/matrix spike duplicate (MS/MSD) soil sample, and one soil sampling equipment rinsate blank. Each of the quality assurance samples will be collected and analyzed for BTEX, PAHs, RCRA-8 metals and total cyanide. One trip blank sample will be submitted for BTEX analysis per shipment of samples to the laboratory.

If potentially recoverable tar is encountered, a 1.5- or 2-inch inner diameter polyvinyl chloride (PVC) monitoring well (RW-20) will be constructed at the boring location exhibiting the greatest degree of observed tar-related impacts. The well will be constructed with a sump beneath the screen to serve as a potential tar recovery well. If tar is not encountered, then RW-20 will be installed to serve as a downgradient groundwater monitoring point to the northeast of the site. Each boring not completed as a monitoring well will be abandoned with a Portland/bentonite grout mix that will be tremied from the bottom of the boring to the top of the boring and covered with asphalt patch following completion.

Monitoring well (RW-20) will be developed in accordance with methods described within the NYSDEC-approved November 9, 1998 RI Work Plan. The groundwater samples will be collected no sooner than two weeks after development. The groundwater sample will be collected and analyzed for BTEX, PAHs, RCRA-8 metals, and total cyanide. Quality assurance samples will include one groundwater sampling equipment rinsate blank to be analyzed for BTEX, PAHs, RCRA-8 metals and total cyanide. One trip blank sample will be analyzed for BTEX.

If the monitoring well (RW-20) contains tar, the monitoring well will not be sampled and the tar will be gauged, removed and stored within the USDOT-approved 55-gallon drums located on the 40 Willow Avenue Parcel.

STL will provide New York State Category B data deliverables for the soil and groundwater samples that will be provided in both electronic and printed format. The analytical results will be validated in accordance with New York requirements and will be incorporated into the existing site-wide database.

The proposed borings will be located on 1 Edgewater Street, which is a privately owned parcel. Prior to the commencement of the supplemental RI drilling program, KeySpan will obtain property access, on-site utility plans for the proposed area of investigation, and provide notice to the New York City one-call utility clearance for the proposed borings. In addition, GEI will subcontract a utility mark-out subcontractor to identify potential utility concerns at the proposed work area. During drilling activities, GEI will have each boring location hand cleared or cleared with a utility clearance machine to identify potential utility concerns.

The locations and elevations of each newly completed soil boring and monitoring well will be surveyed by a New York State licensed surveyor. These survey data will be incorporated into the site survey database.

Report Preparation

The newly obtained data will be incorporated into the site-wide database and will be used to supplement the understanding of site conditions. The findings from this investigation will include new boring completion logs, summaries of laboratory data, laboratory data reports, and an evaluation and discussion of the mobility of dissolved phase contaminants and tar. These findings will be submitted to NYSDEC as a supplemental letter report to the RI report for OU-2.

Schedule

Field activities can commence following NYSDEC approval of this work scope. The field program is tentatively scheduled to start on the week of November 3rd and drilling activities will last for approximately five days. Issues affecting the start date include obtaining on-site access, utility clearance for the borings, potential utility conflicts based upon the utility mark-outs, and NYSDEC review and approval of this work plan letter.

If you have any questions or require any additional information, please contact me at 718-403-3053 or by email at tbell@keyspanenergy.com.

Sincerely,

KeySpan Corporation

DJ O.T for

Tracey Bell
Manager
Environmental Asset Management

LEW:amm
J:\WPROC\Project\KEYSPAN\CLIFTON\Supplemental RI\Edgewater St\Clifton Supp_RI Edgewater Street 10-8-03.doc

Enclosures

c: L. Liebs-KeySpan
B. McClellan-PS&S
D. Terry-GEI

OPERABLE UNIT-2 AREA

RAILROAD EMBANKMENT - STATEN ISLAND RAPID TRANSIT RAILWAY CO.
RAILROAD EMBANKMENT - ACTIVE COMMUTER TRAIN

STREET

PAVED PARKING LOT

GAS HOLDER No. 2

550 GAL USED OIL TANK

UNDERGROUND VAULT

APPROXIMATE BOUNDARY OF UST EXCAVATION

FORMER GAS COMPANY BUILDING (1 STORY)

25 WILLOW AVENUE

OIL TANK NO. 1

GASOLINE PUMP

RELIEF HOLDER NO. 1

GASOMETER

TAR TANK

TAR SEPARATOR

BOILER ROOM

WATER GAS GENERATOR HOUSE

No.1 No.2 No.3 No.4

REPORT HOUSE

CANOPY

OVERHEAD LOADING DOCK

GATE

HYD

SMH

CONED MH

SIDEWALK

GRASSED AREA

STORM SEWER DRAINS TO OUTFALL ON BULKHEAD

GRASS

CONCRETE

FLAGSTONE

BAY

EDGEWATER STREET

CAMDEN STREET

1 EDGEWATER STREET

AQS-7 AQS-6 AQS-3

SB-68 SB-15 SB-52 SB-57 SB-37 SB-88 SB-39 SB-16 SB-16A SB-19 SB-36 SB-71 SB-72 SB-73 SB-20 SB-56

SB-82 SB-82A SB-81 SB-91 SB-91A SB-92 SB-93 SB-94 SB-90 SB-90A SB-90B SB-90C SB-40 SB-98 SB-95 SB-99/RW-20 SB-96 SB-100 SB-97

SS-37

RW-2 RW-17 SB-69 RW-18 SB-70A SB-70 SB-89 RW-19 RW-6

TP-9 TP-8 TP-7

FPM-GP-2 FPM-GP-4 FPM-GP-3 FPM-GP-1 FPM-OW-6 FPM-OW-7 FPM-OW-4 FPM-OW-2 FPM-OW-3

LEX-SS-1 LEX-SS-2 LEX-SS-3 LEX-SS-4 LEX-SS-5 LEX-SS-6 LEX-SS-7 LEX-SS-8 LEX-SS-9 LEX-SS-10 LEX-OW-1

PZ-4

SB-NY

STRM-03

LP FP HYD

PAVED PARKING LOT

PAVED PARKING LOT

PAVED PARKING LOT

N

NEW YORK STATE COORDINATE SYSTEM EAST ZONE

LEGEND

- CHAIN LINK FENCE
- EXISTING BUILDING/STRUCTURE
- HISTORICAL STRUCTURE/FEATURE
- S — SEWER LINE
- SB-99/RW-20 — PROPOSED SUPPLEMENTAL RI GEOPROBE® BORING CONVERTED TO MONITORING WELL LOCATION
- SB-95 — PROPOSED SUPPLEMENTAL RI GEOPROBE® BORING LOCATION
- AQS-1 — RI AIR QUALITY SAMPLE LOCATION
- SS-1 — RI SOIL SAMPLE LOCATION
- RW-1 — RI MONITORING WELL LOCATION
- TP-7 — RI TEST PIT LOCATION
- SB-14 — RI SOIL BORING LOCATION
- PZ-3 — RI PIEZOMETER LOCATION
- STRM-03 — RI STORM SEWER SAMPLE LOCATION
- ROUND 1 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 2 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 3 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 4 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 5 SAMPLING OF REMEDIAL INVESTIGATION
- ROUND 6 SAMPLING OF REMEDIAL INVESTIGATION
- LEX-SS-1 — PREVIOUS LEXICON SIDEWALL SOIL SAMPLE LOCATION
- LEX-OW-1 — PREVIOUS LEXICON MONITORING WELL LOCATION
- FPM-OW-1 — PREVIOUS FANNING, PHILLIPS & MOLNAR MONITORING WELL LOCATION
- FPM-GP-1 — PREVIOUS FANNING, PHILLIPS & MOLNAR GEOPROBE/PIEZOMETER LOCATION
- SB-NY — PREVIOUS SOIL BORING LOCATION
- FPM-SB-1 — PREVIOUS FANNING, PHILLIPS & MOLNAR SOIL BORING LOCATION
- CNY#1 — PREVIOUS CITY OF NEW YORK SOIL BORING LOCATION
- FP — FLAG POLE
- LP — LIGHT POLE
- HYD — FIRE HYDRANT
- UP — UTILITY POLE
- CB — CATCH BASIN
- MANHOLE
- EXCAVATION BOUNDARY
- APPROXIMATE LATERAL EXTENT OF TAR OBSERVATIONS WITHIN SOIL IN THE VICINITY OF BAY STREET AND EDGEWATER STREET

50 25 0 50 100

GRAPHIC SCALE IN FEET

KEYSPAN\CLIFTON\082482\1007\FIGS\OU-2\CLF-PSAMP

GEI Consultants, Inc.

FIGURE 1
PROPOSED SAMPLE LOCATIONS AT 1 EDGEWATER STREET

KEYSPAN CORPORATION
CLIFTON FORMER MGP SITE
OPERABLE UNIT 2
CLIFTON, STATEN ISLAND, NEW YORK

New York State Department of Environmental Conservation
Division of Environmental Remediation
Bureau of Western Remedial Action, 11th Floor
625 Broadway, Albany, New York 12233-7014
Phone: (518) 402-9662 • **FAX:** (518) 402-9679
Website: www.dec.state.ny.us

Erin M. Crotty
Commissioner

November 3, 2003

Mrs. Tracey Bell
Manager
Environmental Asset Management
KeySpan Energy
One Metro Tech Center
Brooklyn, New York 11201-3850

Dear Mrs. Bell:

Re: Former Clifton MGP Site
Operable Unit 2 (OU-2)
Supplemental Remedial Investigation Work Plan
1 Edgewater Street
Site # 2-43-023

The New York State Department of Environmental Conservation and Health (Departments) have reviewed your October 20, 2003 letter work plan to affect remedial investigation to determine the extent of tar northeast of Edgewater Street as requested in our June 19, 2003 comment letter on the draft remedial investigation report at the referenced site and found it acceptable. The work plan is hereby approved.

Please notify this office at least five business days prior to the start of the field work. If you have any questions, please call me at (518) 402-9564.

Sincerely,

Amen M. Omorogbe, P.E.
Project Manager
Manufactured Gas Plants Remedial Section
Division of Environmental Remediation

cc: S. Selmer - NYSDOH
G. Harris.

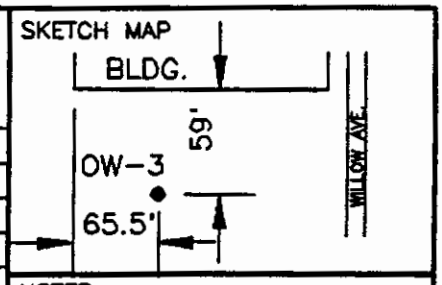
Appendix B

Soil Boring Logs and Monitoring Well Construction Logs

Fanning, Phillips & Molnar
Engineers
Ronkonkoma New York

PROJECT UST OWNER BROOKLYN UNION
LOCATION CLIFTON FACILITY W.O. No. 291-93-01
WELL No. OW-3 TOTAL DEPTH 15' DIAMETER 4"
SURFACE ELEV. — WATER LEVEL INITIAL 2.16 24-hrs 1.85*
SCREEN DIA. 4" LENGTH 15' SLOT SIZE 0.010"
CASING DIA. — LENGTH — TYPE MONOFLEX PVC
DRILLING COMP. ADT, INC DRILLING METHOD HOLLOW STEM AUGER
DRILLER C. PUENTE LOG BY M.T. RAKOVAN DATE DRILLED 11/6/93

SKETCH MAP



NOTES:

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
5	SPLIT SPOON SPLIT SPOON SPLIT SPOON			0-2' TOP 1"-2": BLACK ASPHALT MATERIAL BELOW 2", REDDISH BROWN FINE SAND & SILT. PETROLEUM ODOR; LIGHTER HYDROCARBONS, POSSIBLY WEATHERED GASOLINE. BLOW COUNT: 12-14-14-18 PID READING: 10ppm 2'-4' BLACK FINE SAND & SILT. SATURATED WITH GROUNDWATER. PETROLEUM ODOR; HEAVIER HYDROCARBONS, POSSIBLY COAL TAR OR SIMILAR PRODUCT. BLOW COUNT 8-8-6-8 PID READING: 500ppm
10				4'-6' UPPER PORTION: BLACK SAND & CLAY WITH PETROLEUM ODOR. LOWER PORTION: GRAY SILT & CLAY W/ TRACE OF SAND.NO PETROLEUM ODOR. AT 6': GRAYISH CLAY W/ FINE SAND & DARK BROWN SANDY PEAT. BLOW COUNT: 1-1-P-P PID READING: 19 ppm (UPPER PORTION) 0 ppm (LOWER PORTION)
15				8'-13' REDDISH BROWN CLAY W/FINE SAND. PID READING: 0 ppm
20				
25				4" I.D. PVC MONITORING WELL CONSTRUCTED W/ MONOFLEX SCH.40 PVC WELL SCREEN FROM 0'-15'

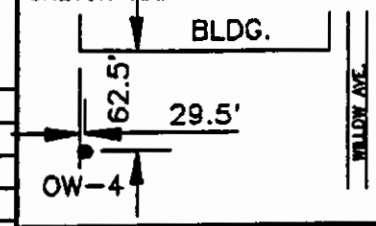
* WATER LEVEL MEASURED ON NOVEMBER 15, 1993

Fanning, Phillips & Molnar
Rankenkemp Engineers New York

PROJECT	UST	OWNER	BROOKLYN UNION
LOCATION	CLIFTON FACILITY	W.O. No.	291-93-01
WELL No.	OW-4	TOTAL DEPTH	15'
SURFACE ELEV.	—	WATER LEVEL INITIAL	1.86
SCREEN DIA.	4"	LENGTH	15'
CASING DIA.	—	LENGTH	—
DRILLING COMP.	ADT, INC	DRILLING METHOD	HOLLOW STEM AUGER
DRILLER	C.PUENTE	LOG BY	M.T. RAKOVAN

DIAMETER 4" | 24-hrs 1.16* | SLOT SIZE 0.020" | TYPE MONOFLEX PVC | DATE DRILLED 11/6/93

SKETCH MAP



NOTES:

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
5				0-7' TANK EXCAVATION BACK FILL MATERIAL COMPOSED OF CRUSHED CONCRETE.
10				7'-15' DARK BROWN, FINE SAND & SILT. SLIGHT PETROLEUM ODOR. PID READING: 0ppm
15				
20				
25				

4" I.D. PVC MONITORING WELL CONSTRUCTED W/ MONOFLEX SCH.40 PVC WELL SCREEN FROM 0'-15'

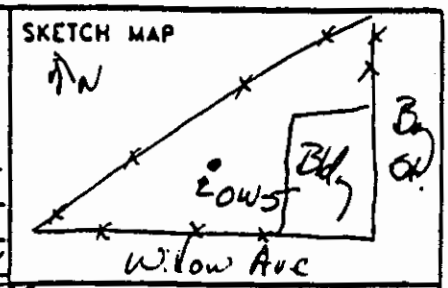
* WATER LEVEL MEASURED ON NOVEMBER 15, 1993

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Rensselaer New York

PROJECT BU/Clifton VCP #V Owner Brooklyn Union
LOCATION Clifton Facility W.O. No. 29+97-B1
WELL No. Bui-5 TOTAL DEPTH 10' DIAMETER 1/2"
SURFACE ELEV. 4.69 WATER LEVEL INITIAL — 24-hrs 2.79
SCREEN DIA. 4" LENGTH 9' SLOT SIZE 0.02"
CASING DIA. — LENGTH — TYPE Sched. 40 PVC
DRILLING COMP. ADT DRILLING METHOD Hollow Stem Auger
DRILLER Tony LOG BY S. Davis DATE DRILLED 4/2/98

SKETCH MAP



NOTES Boring logged from cuttings on auger

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1	8.6		Asphalt / Fill	0-0.5' Asphalt pavement 0.5'-2' Fill - black to red-brown silt, sand, and gravel. Moist.
2				
3			Concrete Frags.	2'-3' Concrete - fragments?
4			Fill	3'-6'? Fill - black sand, silt and gravel, some clay chunks, thin ash layer. Free product coal tar. Strong coal tar odor. wet
5				
6				
7			ML	6'?-10' ML - Grey to green clayey silt w/fine gravel. Moderate coal tar odor. wet.
8				
9				
10	16.0		EOB	

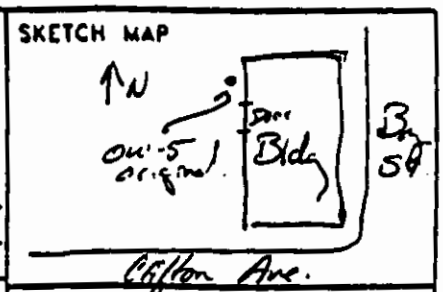
Developed and sampled 4/13/98
Well recovers slowly.

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Rohnert Park — San Francisco

PROJECT BU/Clifton UST FU — OWNER Brooklyn Union
LOCATION Clifton Facility — W.O. No. 291-92-11
WELL No. OW-5 (original) — TOTAL DEPTH 5' — DIAMETER 12"
SURFACE ELEV. — — WATER LEVEL INITIAL — — 24-hrs —
SCREEN DIA. — — LENGTH — — SLOT SIZE —
CASING DIA. — — LENGTH — — TYPE —
DRILLING COMP. ATT — DRILLING METHOD Hollow-Stem Auger
DRILLER Tony — LOG BY S Davis — DATE DRILLED 4/13/98

SKETCH MAP



NOTES Borings logged from cuttings

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1	200 ppm		Asphalt	0-0.3' Asphalt pavement
2	Ø		SM Fill	0.3-4' SM Fill — med brown to light brown silty sand, trace fine gravel. Moist. No odor/stain. Grades to red-brown SM towards bottom.
3	50 60			
4			Coal Tar Ent. Soil	4'-5' Coal tar - contaminated soil
5			Concrete	5' Concrete - cannot get through.

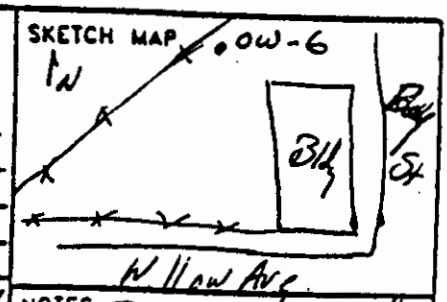
Borings at original OW-5 location advanced and abandoned 4/13/98. No well installed at these locations

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Rancho Cordova, New York

PROJECT Bayview USTFU OWNER Brooklyn Union
LOCATION Clifton Facility W.O. No. 291-92-4C1
WELL No. OW-6 TOTAL DEPTH 9.5' DIAMETER ~12"
SURFACE ELEV. 4.04 WATER LEVEL INITIAL — 24-hrs 1.80
SCREEN DIA. 4" LENGTH 9.5' SLOT SIZE 0.02"
CASING DIA. — LENGTH — TYPE Sch. 40 PVC
DRILLING COMP. ADT DRILLING METHOD Hollow-Stem Auger
DRILLER Tony LOG BY S. Davis DATE DRILLED 1/7/98

SKETCH MAP



NOTES Boring logged from cuttings on auger.

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1	0.5		Fill	0-0.3' Asphalt Pavement.
2	0.6			0.3'-3' Fill- Black sand, silt and gravel. Primarily gravel @ 2-3' Free-product coal tar, strong coal tar oda, wet
3	1.1			
4	0.9			
5				
6			ML	3'-10' ML- Gray-green clayey silt with fine gravel. Slight to moderate coal tar oda. Wet.
7				
8				
9				
10	8.3		EOB.	

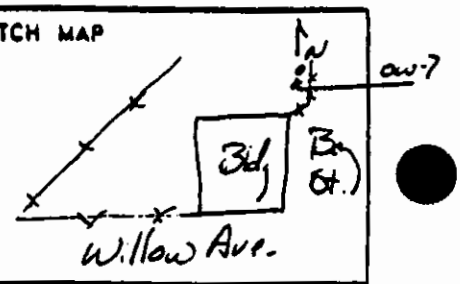
Developed and sampled 1/13/98
Well recovers rapidly.

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Berkeley San Ramon Novato New York

PROJECT Bp/Clifton UST Removal DRILLER Bradley Union
LOCATION Clifton Facility W.O. No. 291-97D 14
WELL No. OW-7 TOTAL DEPTH 10' HOLE DIAMETER ~12"
TOC SURFACE ELEV. 664' WATER LEVEL INITIAL — 24-hrs 5.33
SCREEN DIA. 4" LENGTH 10' SLOT SIZE 0.02"
CASING DIA. — LENGTH — TYPE Sch. 40 PVC
DRILLING COMP. ADT DRILLING METHOD Hollow Stem Auger
DRILLER Tony LOG BY S. Davis DATE DRILLED 1/12/98

SKETCH MAP



NOTES Logged from cuttings on augers

DEPTH (FEET)	SAMPLE NUMBER	PID	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1		7 ppm		Asphalt	0-0.3' Asphalt Pavement
2					0.3'-6' SM - Dark brown silty sand with brick and concrete fragments. Moist to wet. No stain or odor.
3				SM	
4		1.3			
5				▼	
6					6'-10' ML - Red brown sandy silt, trace fine gravel. Wet. No stain or odor. Grades to dark gray-brown at 8'.
7					
8		1.8		ML	
9					
10				EOB	

Developed and purged on 1/13/98. Well recovers very slowly.

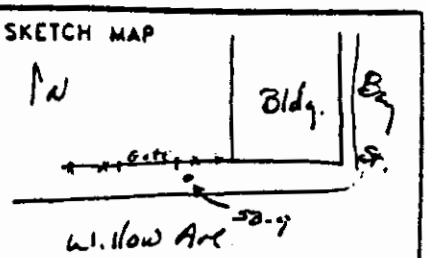
Clifton

DRILLING LOG

Fanning, Phillips & Molnor
Engineers
Rensselaer New York

PROJECT BU/Clifton UST FU OWNER Brooklyn Union
LOCATION Clifton Selkirk W.O. No. 291-97-14
WELL No. SB-9 TOTAL DEPTH 16' DIAMETER 2"
SURFACE ELEV. 6.46' WATER LEVEL INITIAL 6.95' bgs 24-hrs —
SCREEN DIA. 1" LENGTH ~4' SLOT SIZE 0.01"
CASING DIA. — LENGTH — TYPE Sch 40 PVC
DRILLING COMP. ADT DRILLING METHOD Geoprobe
DRILLER Lloyd LOG BY S. Davis DATE DRILLED 1/10/98

SKETCH MAP



NOTES Temp. screen installed to ~4' bgs.

DEPTH (FEET)	SAMPLE ID NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1	1 @ 0-4'		Concrete	0-0.5' Concrete Sidewalk
2				
3			Fill	0.5'-5' Fill - Black sand and silt with fine gravel. Strong coal tar odor. Sheen. Brown/Black free product. Wet.
4	2 @ 4'			
5				
6	3 @ 6-7'			5'-10' ML - Brown to gray silt with organic material. High organic material content from 8-9' bgs. Occasional blebs of free product (coal tar). Moderate coal tar odor. Wet.
7			ML	
8				
9				
10				
11	4 @ 11-12'			
12				
13			ML	
14	5 @ 14-15'			10'-16' ML - Medium gray silt with brown to red-brown silt intervals, with fine gravel. Wet. Minor blebs of free product (coal tar). Minor to moderate coal tar odor. Thin sand lens @ 16'
15				
16			E.O.B.	

Sampled: 0.5-4', @ 12', @ 16

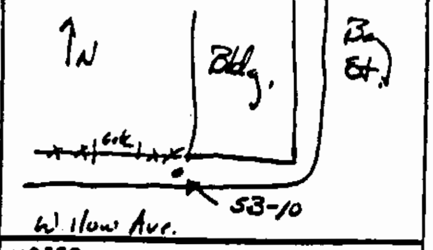
Screen pulled on 1/10/98.
Hole backfilled with bentonite and capped with concrete patch on 1/10/98
Ground elevation surveyed 1/13/98.

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Ronkonkoma New York

PROJECT B/Clifton UST Fill OWNER Brooklyn Union
LOCATION Clifton Facility W.O. No. 29607-14
WELL No. SB-10 TOTAL DEPTH 12 DIAMETER 2"
SURFACE ELEV. 6.54 WATER LEVEL INITIAL 1.07' bg 24-hrs —
SCREEN DIA. — LENGTH — SLOT SIZE —
CASING DIA. — LENGTH — TYPE —
DRILLING COMP. ADT DRILLING METHOD Geoprobe
DRILLER Lloyd LOG BY S. Davis DATE DRILLED 1/10/98

SKETCH MAP



NOTES

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
		PID: ppm	Concrete	0-0.5' Concrete Sidewalk.
1				
2		6.6	Fill	0.5'-9' Fill - Brown to black sand, gravel and silt. Strong coal tar odor. Free-product zones, particularly 8' to 9' bgs. Wet
3				
4				
5				
6				9'-12' ML - Gray to brown silt with organic matter. Slight to moderate coal tar odor. Increasingly dark towards bottom. Wood at bottom. Wet. Peat at ~10.5 to 11.5 feet.
7				
8				
9				
10		116	ML	
11		30	Peat	
12		12	ML / EOB	

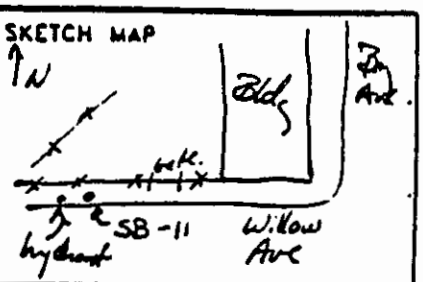
Sampled: 8-9'
Hole backfilled with bentonite and capped with concrete patch on 1/10/98.
Ground elevation surveyed 1/12/98

DRILLING LOG

Fanning, Phillips & Molnor
Engineers
Rensselaer New York

PROJECT Bulkton UST Fac. Owner Brooklyn Union
LOCATION Bulkton Facility W.O. No. 91-GP-141
WELL No. SB-11 TOTAL DEPTH 12' DIAMETER 2"
SURFACE ELEV. 5.94 WATER LEVEL INITIAL dried 24-hrs —
SCREEN DIA. — LENGTH — SLOT SIZE —
CASING DIA. — LENGTH — TYPE —
DRILLING COMP. ADT DRILLING METHOD Geoprobe
DRILLER Lloyd LOG BY S Davis DATE DRILLED 4/6/92

SKETCH MAP



NOTES

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1		PID in ppm	Concrete	0-0.5' Concrete sidewalk
2				0.5' to 12' Poor recovery.
3			Fill	Fill at upper 4' interval
4			~~~?~~	Dark brown/black sand, silt and gravel. Wet. No odor or stain. No free product.
5				ML 4'-12' Samples.
6				Red-brown silt with organic
7				matter. Wet. No odor or stain.
8			ML	No free product.
9				
10				
11				
12			EOB	

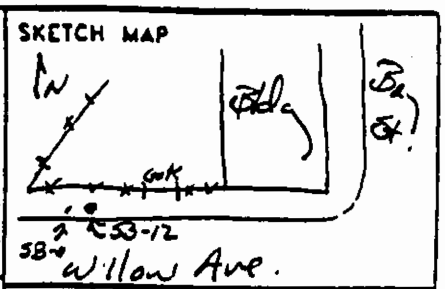
Soiled @ 4'. (8' is duplicate of 4' interval)
Hole caved in after rods pulled.
Backfilled beneath sidewalk with bentonite and capped with concrete/patch.

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Ronkonkoma — New York

PROJECT B/Clifton UST FU — OWNER — Brooklyn Union
LOCATION Clifton Facility — W.O. No. 291-97-14
WELL No. SB-12 — TOTAL DEPTH 12' — DIAMETER 2"
SURFACE ELEV. 6.17 — WATER LEVEL INITIAL 3.8' bgs — 24-hrs —
SCREEN DIA. — — LENGTH — — SLOT SIZE —
CASING DIA. — — LENGTH — — TYPE —
DRILLING COMP. ADT — DRILLING METHOD Geoprobe
DRILLER Lloyd — LOG BY S. Davis — DATE DRILLED 1/6/98

SKETCH MAP



NOTES

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
		PID ppm	Concrete	0-0.5' Concrete Sidewalk
1			Fill	0.5-3.0 Fill - Red-brown silt and sand with gravel. Slight coal tar odor. Fill below new section of sidewalk.
2				
3		8.6	Fill	3.0-5.5 Fill - Black to dark brown gravel, sand and silt with free-product coal tar. Strong coal tar odor. Wet.
4		33.8		
5				
6		126	ML	5.5-12' ML - Red-brown clayey silt, moderately stiff, moderate coal tar odor, sheen and free product on thin sand layers. Decreasing contamination downward. Wet.
7		59.9		
8				
9		~13		
10			(sand)	Thin sand layers with free product.
11		232	ML	
12			E.O.B.	

Sampled 8-12' (MGMSD), and @ 4'
Backfilled with bentonite and capped with concrete 1/6/98

Site Id: SB-09

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/23/99
Remarks: Weather was ,partly/mostly cloudy, sunny and windy very cold (~20 F). Depth to water approximately 5 feet. Changed to Hollow Stem Auger drilling method at 14'-34' bgs. Lynn Willey logged samples 14'-34'.		Ground Elevation: 8.88'	Datum: NGVD
		Contractor: ADT	Total Depth: 34.00'
		Drilling Method: Geoprobe and Hollow Stem Auger	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4		73	0.0 ppm		0.0-0.5: ASPHALT.				
			3.3 ppm		0.5-1.0: Gray/black, FILL, fine to medium SAND, trace fine gravel and asphalt fragments, dry. (FI)			None	
			28.0 ppm		1.0-2.0: Medium to dark brown, medium to fine SAND, trace silt and gravel, dry. Slight tar odors. (SP)			Slight	
					2.0-4.0: Dark gray to black, FILL, medium to very fine-grained SAND, some coal fragments, little silt, slightly moist. Strong tar odors and sheen noted. Headspace analysis of soil at 4' bgs completed (116 ppm). (FI)			Strong	
4-8		83	13.4 ppm		4.0-5.5: Black, medium to fine SAND, some coal fragments, trace silt, wet. Strong tar odors and tar blebs noted. (FI)				
			100.8 ppm						
			74.4 ppm		5.5-6.5: Dark brown to black, fine to very fine SAND, some silt and gravel, little organics and clay, moist. Moderate tar odors.			Moderate	
			300-400 ppm		6.5-7.33: Black, FILL, medium to fine SAND, some coal fragments, trace silt, wet. Strong tar odors and tar blebs noted. (FI)			Strong	
					7.33-8.0: Dark brown to black, fine to very fine SAND, some silt and gravel, little organics, trace clay, moist. Moderate tar odors. Staining noted. (GM)		+	Moderate	
8-12		60	354 ppm						
			74.9 ppm		8.0-9.0: Dark brown to black, fine to very fine SAND, some silt and gravel, little organics, trace clay, wet. Strong tar odors and tar blebs noted. (GM)	8-10 ft		Strong	0
			24.3 ppm	10	9.0-14.0: Dark brown SILT, some organics, little clay, moist. Moderate tar odors. (OL)				
12-16		22	74.9 ppm					Moderate	
			5.6 ppm		14.0-15.0: Black, clayey- SILT, wood particles, moist, cohesive. Tar-like odor. Black tar stains. (OL)		+ +		

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-09

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/23/99
Remarks: Weather was ,partly/mostly cloudy, sunny and windy very cold (~20 F). Depth to water approximately 5 feet. Changed to Hollow Stem Auger drilling method at 14'-34' bgs. Lynn Willey logged samples 14'-34'.		Ground Elevation: 8.88'	Datum: NGVD
		Contractor: ADT	Total Depth: 34.00'
		Drilling Method: Geoprobe and Hollow Stem Auger	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					15.0-16.0: Brown to dark brown, clayey-SILT, 0.2'-thick sand and gravel layer at 15.75', moist, cohesive. (OL)				Moderate	
16-18	1 2 3 1	58	1.8 ppm		16.0-18.0: Brown to dark brown, SILT, some clay, rootlets, trace fine sand in the tip of the spoon, cohesive, slightly moist. Slight swampy odor. (OL)				Slight Swampy Odor	
18-20	1 1 1 2	63			18.0-20.0: Brown to dark brown, SILT, trace fine sand, rootlets, some clay, large pieces of wood at bottom of interval, moist, cohesive. Slight naphtha-like odor. (OL)					
			2-7 ppm		20.0-22.0: Black to brown, medium to very coarse, SAND, some gravel, 1/4" layers of very fine sand noted, some silt, very moist. Slight naphtha-like odor noted. (SW)					-10
20-22	1 1 1 1	42			22.0-23.0: Brown to dark brown, fine to medium SAND, with silt, some gravel fragments, very moist to wet. Naphtha-like odor noted. (SM)				Slight Naphtha Odor	
			8-12 ppm		23.0-24.0: Dark grey to grey, CLAY, moist , dense, compact. Naphtha-like odor. (ML)					
22-24	3 3 2 2	42			24.0-24.8: Grey to black, CLAY, some rounded medium gravel, very plastic, wet, cohesive. Moderate to heavy tar-like odor. (ML)					
			1-14 ppm		24.8-25.15: Medium to coarse, SAND with trace gravel. Moderate to heavy tar-like odor. (SW)					
24-26	3 3 3 3	70	8 ppm		25.15-25.75: Coarse SAND and GRAVEL. Moderate to strong tar-like odor. Tar saturated.(SW)					
			48 ppm	25	25.75-26.0: Dark grey, fine, silty-SAND, some coarse sand. Moderate tar-like odor. Tar saturated.(SM). Note: Tip of spoon: Dark grey, SILT, some medium to coarse sand, plastic, cohesive, some clay, plastic, moderate tar-like odor.	24-26 ft.			Strong to Moderate Tar odors	
			370 ppm							
26-28	3 3 4 4	33	11 ppm		26.0-26.66: Grey, CLAY, some rounded gravel, plastic, cohesive, wet. Slight to moderate tar-like odor. (MH)				Moderate	
			56 ppm		26.66-27.33: Medium to coarse, SAND, some fine gravel, wet. Moderate tar-like odor. Tar stained.(SW)					
					27.33-28.00: Red to red-brown, SILT, SAND, GRAVEL mixture, dry to slightly moist. Odor observed. (GM)					
28-30	3 10 8 8	25	12 ppm		28.00-29.33: Red-brown, very fine SAND, some silt, some clay, fine gravel, some green-grey rock fragments, very moist. Slight tar-like odor. (GM)				Slight Tar Odors	-20
			3-10 ppm		29.33-30.0: Red-brown to grey, fine SAND, some gravel, some silt. Slight tar-like odor noted. (GM)					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-09

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/23/99
Remarks: Weather was ,partly/mostly cloudy, sunny and windy very cold (~20 F). Depth to water approximately 5 feet. Changed to Hollow Stem Auger drilling method at 14'-34' bgs. Lynn Willey logged samples 14'-34'.		Ground Elevation: 8.88'	Datum: NGVD
		Contractor: ADT	Total Depth: 34.00'
		Drilling Method: Geoprobe and Hollow Stem Auger	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-32	8 4 3 3	58			30.0-30.6: Red to red-brown, SILT, some clay, wet, loose. Slight tar-like odor. (MH)				Slight	
			2-7 ppm		30.6-31.0: Large rounded to sub-angular, GRAVEL. (GW)				None	
					31.0-31.4: Fine to medium, SAND, some silt. (SM)				Very Faint	
32-34	5 3 5 5	75			31.4-32.0: Red to red-brown, SILT, some very fine sand, moist, plastic, little clay, cohesive. Very faint tar-like odor. (SM)					
			1-2 ppm		32.0-32.75: Brown, to red-brown, SILT with fine sand, cohesive, plastic. (SM)	33-34 ft.			None	
				35	32.75-34.0: Red to red-brown, SILT, SAND, CLAY mixture, some sub-angular gravel. Dense. (GM)					
					34.0: End of Boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-10

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/23/99	Date Completed: 02/23/99
Remarks: Mostly sunny, slight breeze, cold (25F). Groundwater at approx. 5.5' bgs.		Ground Elevation: 8.81'	Datum: NGVD
		Contractor: ADT	Total Depth: 6.50'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0–4	NA	50	0.0 ppm		0.0–0.5: ASPHALT. (AS)				
			0.0 ppm		0.5–2.0: Dark brown to black, fine to medium SAND, some brick fragments, little coal fragments and gravel, trace fines and ash, wet at 1.0 foot. Headspace VOC analysis performed on soil from 1–2 feet (122 ppm). (FI)			None	
			31.5 ppm		2.0–4.5: Dark brown to black, fine to medium SAND, some brick fragments, little coal fragments and gravel, trace fines and ash, wet. Strong tar odors, tar saturated. (FI)			Strong	
4–6.5	NA	60	21.4 ppm						
			4.5 ppm		4.5–5.0: Medium brown, very fine to medium SAND, some silt, little gravel, trace clay, wet. Slight tar odors. (GM)			Slight	
			59.0 ppm		5.0–6.0: Dark brown to black, fine to medium SAND, some coal fragments, little brick fragments, little gravel, trace fines and ash, wet. Strong tar odors, tar saturated. (FI)	5-6.5 ft.		Strong	
			7.8 ppm		6.0–6.5: Medium brown, fine to medium SAND, some silt, little gravel, trace clay, wet. Slight tar odors. (GM)			Slight	
					6.5: Refusal. End of Boring.				
				10					0

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-10A

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspon Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/23/99	Date Completed: 02/23/99
Remarks: Mostly sunny, breezy, cool (35F). Boring located inside of suspected tar seperator.		Ground Elevation: 8.68'	Datum: NGVD
		Contractor: ADT	Total Depth: 13.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4	NA	0	0.0 ppm		0.0-0.5: ASHPALT.(AS)					
					0.5-2.0: Unknown material (due to no recovery in sampler); fill material suspected.(FI)					
					Encountered void space at 2.0 feet.					
4-8	NA	2	0.0 ppm		4.0: Recovered 0.2' of water saturated sand and gravel. Tar blebs. Sheen noted on water.(GP)				None	
8-12	NA	1			8.0: Recovered 0.1' of water saturated gravel. Brick in sampling shoe. Tar blebs. Sheen noted on water.(GP)					0
				10						
12-13	NA	0			12.0-13.0: No recovery.					
					13.0: Refused at 13' bgs. End of Boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-11

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/23/99	Date Completed: 02/23/99
Remarks: Mostly sunny, slight breeze (35-40F). Groundwater at approx. 4.5-5.0 feet bgs.		Ground Elevation: 8.84'	Datum: NGVD
		Contractor: ADT	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4		58			0.0-0.5: ASPHALT.(AS)				
			24.2 ppm		0.5-2.0: Black, medium to fine, SAND, little coal and brick fragments, trace silt and gravel, dry. Moderate tar odors. (FI)				
			59.8 ppm					Moderate Tar and Petroleum Odors	
			300 ppm		2.0-2.5: Dark brown to black, medium to very fine, SAND, some silt, trace clay, brick and coal fragments, slightly moist. Moderate tar and petroleum odors. (FI)				
					2.5-3.3: Black, coarse to fine, SAND, some coal fragments, slightly moist. Strong tar odors and saturated with tar. (FI)				
					3.3-4.0: Dark brown to black, medium to very fine, SAND, some silt, trace clay, brick and coal fragments, moist. Strong tar odors and tar staining evident. (FI)		+		
4-8		60	347 ppm		4.0-6.0: Black, coarse to fine, SAND, some coal fragments, wet. Strong tar odors and tar saturated soils noted. (FI)	4-6 ft.			
					6.0-7.0: Dark brown to black, fine to very fine, SAND, some silt, little clay, trace gravel. Moderate to strong tar odors. Sheen evident. (SM)			Strong Tar Odors	
			201 ppm		7.0-11.0: Dark brown, PEAT, (silt and organics) Slightly moist. Strong tar odors. (PT)				
			258 ppm						
8-12		13							0
				10					
					11.0-12.0: Light gray, silty-CLAY, trace to little fine gravel, moist. Moderate tar odors. (CL)				
12-16		50	274 ppm		12.0-20.0: Reddish-brown, silty-CLAY, trace fine gravel, moist. Moderate tar odors. (CL)			Moderate Tar Odors	
			308 ppm						
			171 ppm						

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-11

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/23/99	Date Completed: 02/23/99
Remarks: Mostly sunny, slight breeze (35-40F). Groundwater at approx. 4.5-5.0 feet bgs.		Ground Elevation: 8.84'	Datum: NGVD
		Contractor: ADT	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
16-20		50	74 ppm						
			57 ppm						
			208 ppm						-10
20-24		78	183 ppm		20.0-24.0: Brown, silty CLAY, trace fine gravel, moist. Coarse to medium sand lenses saturated with coal tar are present. Moderate to strong tar odors. (CL)			Moderate Tar Odors	
			221 ppm						
			109 ppm			21-23 ft.			
24-28		35		25	24.0-28.0: Reddish-brown, medium to fine SAND, some gravel and silt, moist. Moderate tar odors and slight tar staining noted.				
			86.7 ppm		28.0: End of Boring.				-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-12

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/23/99	Date Completed: 02/23/99
Remarks: Partly cloudy, slight breeze, 30F. Groundwater observed at approximately 5.0 feet.		Ground Elevation: 8.96'	Datum: NGVD
		Contractor: ADT	Total Depth: 24.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4	NA	48	74.9 ppm		0.0-0.5: ASPHALT. (AS)			None	
			249 ppm		0.5-6.0: Dark gray to black, coarse to fine SAND, trace brick and coal fragments, trace gravel, wet. Strong tar odors; tar saturated throughout. (FI)				
			500+ ppm						
4-8	NA	68	400+ ppm					Strong Tar Odors	
			548 ppm			4-6 ft.			
			1000+ ppm		6.0-8.5: Dark brown to black, medium to coarse, SAND, little gravel, trace silt, wet. Strong tar odors; tar saturated throughout. (SW)				
8-12	NA	70	329 ppm						
			30.4 ppm		8.5-10.0: Medium brown, fine to very fine SAND, some silt, trace clay, wet. Moderate tar odors. (SM)			Moderate Tar Odors	0
			461 ppm	10	10.0-11.0: Brown to black, coarse to fine SAND, little gravel, trace silt, wet. Strong tar odors. Tar saturated throughout. (SW)			Strong Tar Odors	
			58 ppm		11.0-16.0: Medium brown, fine to very fine SAND, some silt, trace clay, wet. Moderate tar odors.				
12-16	NA	25	56.4 ppm						
			101.3 ppm					Moderate Tar Odors	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-12

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/23/99	Date Completed: 02/23/99
Remarks: Partly cloudy, slight breeze, 30F. Groundwater o bserved at approximately 5.0 feet.		Ground Elevation: 8.96'	Datum: NGVD
		Contractor: ADT	Total Depth: 24.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
									Moderate Tar Odors	
16-20	NA	0			16.0-24.0: No recovery.					
										-10
20-24	NA	0							Unknown	
					24.0: End of Boring.					
				25						
										-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-13

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/24/99
Remarks: Mostly sunny; slight breeze (35F). Groundwater approx. 6' bgs.		Ground Elevation: 8.84'	Datum: NGVD
		Contractor: ADT	Total Depth: 24.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4	NA	86	0.0 ppm		0.0-0.5: ASPHALT (AS)			None	
					0.5-2.5: Black, coarse to fine SAND, some coal and clinker fragments, little brick fragments, trace silt, dry. Moderate tar and sulfur odors noted. (FI)			Moderate Tar and Sulfur Odors	
			27.4 ppm		2.5-9.0: Black, coarse to fine, SAND, some coal fragments and sea shells, little gravel, trace silt, moist to wet. Moderate tar odors. Tar saturated throughout. (FI)				
4-8	NA	28	67.9 ppm					Moderate To. Odors	
			89.4 ppm		Wet at approx. 6' bgs.				
8-12	NA	43	87.4 ppm			7-9 ft.			0
					9.0-12.5: Reddish-brown, coarse to fine SAND, some gavel, trace silt, moist. Slight to moderate tar odors. (SP)				
			46.4 ppm	10				Slight to Moderate Tar Odors	
12-16	NA	45	104.1 ppm						
					12.5-14.0: Brown to black, GRAVEL, little sand, wet. Strong tar odors. Tar saturated throughout. (GP)			Strong Tar Odors	
			289.0 ppm		14.0-20.0: Reddish-brown, medium to very fine SAND, some gravel, little silt, moist. Slight tar odors. (SP)			Slight Tar Odors	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-13

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/24/99
Remarks: Mostly sunny; slight breeze (35F). Groundwater approx. 6' bgs.		Ground Elevation: 8.84'	Datum: NGVD
		Contractor: ADT	Total Depth: 24.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
			37.8 ppm						
16-20	NA	40			Two separate very coarse to medium SAND LENSES also noted between 16-20 feet. Strong tar odors within coarse lenses. Tar saturated in sand lenses.			Slight Tar Odors	
			564 ppm			18-20 ft.			-10
20-24	NA	0			20.0-24.0: No Recovery.			Unknown	
					24.0: End of Boring.				
				25					-20

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-14

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/24/99
Remarks: Mostly sunny; slight breeze, 40F. Groundwater approx. 6' bgs.		Ground Elevation: 9.21'	Datum: NGVD
		Contractor: ADT	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
16-20	NA	48	143 ppm		15.0-16.5: Red to Red-brown, medium to coarse SAND, some fine to medium gravel and silt. Wet. Tar-stained. Strong tar-like odor. (SW)			+ + + +	Strong Tar Odors	
			76 ppm		16.5-18.5: Red to red-brown SILT, fine SAND and GRAVEL mixture. Dense. Slightly moist. Slight tar-like odor. (GM)				Slight Tar Odors	
			8 ppm		18.5-19.0: Grey, clayey-SILT. Wet. No odors. (ML)				None	
			16 ppm		19.0-20.0: Red to red-brown gravelly-SILT and SAND. Moist. Slight tar-like odor. (GM)					-10
20-24	NA	52	15 ppm		20.0-21.5: Grey, SILT and very fine SAND. Dense. Cohesive. Slight tar-like odor. (SM)					
			10 ppm		21.5-28.0: Red to red-brown SILT, SAND and GRAVEL (f-m) mixture. Dense. Slightly moist. Slight tar-like odor. (GM)					
			15 ppm						Slight Tar Odors	
24-28	NA	38	7.8 ppm							
				25						
			10 ppm			24-28 ft.				
					28.0: End of Boring.					-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-14

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/24/99
Remarks: Mostly sunny; slight breeze, 40F. Groundwater approx. 6' bgs.		Ground Elevation: 9.21'	Datum: NGVD
		Contractor: ADT	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4	NA	57	0.0 ppm		0.0-0.5: ASPHALT. (AS)			None	
			1.9 ppm		0.5-3.5: Dark brown to black, coarse to fine SAND, little brick and coal fragments, little gravel, 2-inch wood chunk at 1' bgs, moist. Slight tar odors. (FI)			Slight Tar Odors	
			3.7 ppm		3.5-4.5: Dark brown to black, coarse to fine SAND, little brick and coal fragments, little gravel, moist, Slight tar odors. Coal tar, stain, and sheen noted. (FI)				
4-8	NA	60			4.5-5.5: Dark brown to black, medium to fine SAND, very moist. Moderate tar odors. Tar staining also evident. (SP)			Moderate Tar Odors	
					5.5-7.0: Black, coarse to fine, GRAVEL, little coarse to fine sand, wet. Strong tar odors. Tar saturated throughout. (GP)				
					7.0-10.5: Brown to black, PEAT, some organics, moist. Strong tar odors. Light staining evident. (PT)	6-8 ft.		Strong Tar Odors	
8-12	NA	40	27 ppm						0
				10					
			48 ppm		10.5-11.5: Grayish-green, medium to very fine SAND, some silt, moist. Moderate tar odors. Tar staining also evident. (SM)				
					11.5-12.0: Brown to black, medium to fine SAND, some silt and fine gravel, moist. Moderate tar odors. Tar staining evident. (SP)				
12-16	NA	38			12.0-15.0: Brown, SILT with fine SAND. Cohesive. Slightly plastic, slightly moist. Moderate tar-like odors. (SM)			Moderate Tar Odors	
			96 ppm						

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/21/99	Date Completed: 02/21/99
Remarks: Mostly sunny, windy, 20F. Groundwater at approx. 6' bgs		Ground Elevation: 9.17'	Datum: NGVD
		Contractor: ADT	Total Depth: 15.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4	NA	60	0.0 ppm		0.0-0.7: ASPHALT. (AS)				None	
			0.0 ppm		0.7-2.0: Dark brown to black, FILL, ash, some gravel and coal-ash clinkers, little brick fragments, concrete chunk in sampler tip, slightly moist. Slight burnt odor. (FI)				Slight Burnt Odor	
			0.0 ppm		2.0-3.0: Concrete (assummed holder pad).(CR)					
					3.0-5.0: Dark brown to black, fine to medium SAND, some gravel and sea shells, little coal and wood fragments, little organics, moist. (FI)				None	
4-8	NA	42	0.0 ppm							
					5.0-8.0: Dark brown to black, SILT/PEAT, much organics, cohesive, wood chips in bottom of sampler. Swampy odor. Headspace analysis of wood chips (0.2 ppm).(PT)	5-8 ft.			Swampy Odor	
			0.2 ppm							
8-12	NA	33			8.0-15.0: Reddish-brown, fine, SAND, some silt and gravel, little clay, moist to wet. (GM)					
			0.0 ppm							0
				10						
12-15	NA	67							None	
					15.0: End of Boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/22/99
Remarks: Mostly sunny and windy, very cold (20F). Groundwater at approx. 5.5' bgs. Refused at 7.6' bgs; See SB-16A for more info.		Ground Elevation: 11.41'	Datum: NGVD
		Contractor: ADT	Total Depth: 7.60'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4	NA	75	0.0 ppm		Initially refused at 0.5' bgs'. Moved 3' NW.				
			0.0 ppm		0.0-0.4: Dark brown, fine to medium, SAND, some organics, little silt, trace gravel (top soil), dry. (SP)				10
			0.0 ppm		0.4-0.7: Dark gray to black coarse to fine SAND, some glass and brick fragments, little ash, trace silt and gravel, dry. (FI)				
			0.0 ppm		0.7-7.6: Medium reddish-brown, coarse to very fine SAND, little gravel, trace silt, slightly moist. (SP)				
4-7.6	NA	100	0.0 ppm					None	
			0.0 ppm						
			0.0 ppm			5-7 fL			
			0.0 ppm						
			0.0 ppm		7.6: Refusal. Offset 2' NW and begin SB-16A.				
				10					0

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-16A

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/22/99
Remarks: Mostly sunny, windy and very cold (20F). Groundwater at approx. 5' bgs. Boring is a continuation of SB-16 due to refusal at 7.6' bgs.		Ground Elevation: 11.38'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 16.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4		0			0.0-8.0: No samples collected. Probed through to 8.0 feet. Offset 2' NW of SB-16 due to refusal. Begin sampling at 8' bgs.					10
4-8		0							Refer to SB-16	
8-12		78	0.0 ppm		8.0-12.0: Medium reddish-brown, coarse to very fine, SAND, little gravel, trace silt, wet. (SP)					
			0.0 ppm							
			0.0 ppm	10						
			0.2 ppm						None	0
12-16		68	0.0 ppm		12.0-16.0: Medium reddish-brown, coarse to very fine, SAND, little silt, wet. (SM)					
			0.0 ppm							
			0.0 ppm							

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-16A

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/22/99
Remarks: Mostly sunny, windy and very cold (20F). Groundwater at approx. 5' bgs. Boring is a continuation of SB-16 due to refusal at 7.6' bgs.		Ground Elevation: 11.38'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 16.00'
		Drilling Method: Geoprobe	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.0 ppm						None	
			0.0 ppm		16.0: End of Boring.					
				25						-10

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-18

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/08/99
Remarks: Partly sunny, breezy (~ 10-15 mph), cold (~30 F) Depth to groundwater approx. 4 feet. Soils from the boring were also logged by Steven Wallett from GEI Consultants, Inc.		Ground Elevation: 10.43'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 84.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4		21	0.0 ppm		Note: Star bit through 0.25' ASPHALT and began sampling 0.0-0.4 with geoprobe. 0.0-2.0: FILL (SILT, some fine to medium sand, some gravel, slightly moist, non-cohesive). (FI)				10
			0.7 ppm		2.0-4.0: Red to red-brown, SILT, fine sand, some gravel, slightly cohesive, slightly moist. (GM) Note: Large piece of gravel noted in the tip of the spoon.			None	
4-7.5		29	0.2 ppm		4.0-5.14: Black, FILL (sandy-SILT, pieces of glass, wet). (FI)				
					5.14-7.0: Brown to dark brown, fine to medium, SAND, some silt, wet. Faint fuel oil odor. (SW)	4-7.5 ft.		Faint Fuel Oil Odor	
			0.2 ppm		7.0-7.5: Black, silty-CLAY, dense, cohesive. (ML) Note: Large, green to light grey, crystaline rock in the tip of the spoon. Geoprobe refusal at 7.5'. Offset 2' towards Bay Street, pushed to 7.5' and commenced drilling.				
7.5-12		85	0.0 ppm		7.5-8.5: Black to olive-green, CLAY, dense, cohesive, slightly moist. (CL)				
					8.5-9.3: Olive-green, CLAY, some silt, some fine sand, moist. (ML)				
					9.3-9.9: Brown, silty-fine to medium, SAND, slightly cohesive, moist. (SM)				
			0.0 ppm	10	9.9-12.0: Brown to red-brown, SILT, SAND, CLAY mixture, some gravel, cohesive, slightly moist. (SC)			None	0
12-16		27	0.0 ppm		12.0-14.5: Brown to red-brown, SILT, some fine sand, trace gravel, trace clay, cohesive, moist. (ML)				
			0.0 ppm		14.5-16.0: Brown to red-brown, very fine sandy SILT, trace gravel, trace clay.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-18

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/08/99
Remarks: Partly sunny, breezy (~ 10-15 mph), cold (~30 F) Depth to groundwater approx. 4 feet. Soils from the boring were also logged by Steven Wollett from GEI Consultants, Inc.		Ground Elevation: 10.43'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 84.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					green crystaline rock fragments at the top of interval. (ML)					
16-20		27	0.0 ppm		16.0-17.25: Red-brown, fine to medium SAND, some fine gravel, some silt, trace clay, wet. (SW)				None	
			0.0 ppm		17.25-22.0: Red to red-brown, SILT, fine SAND, GRAVEL, CLAY mixture, cohesive, slightly moist to moist. (GM)					
20-24		50	0.0 ppm							-10
			0.0 ppm		22.0-27.0: Red to red-brown, SILT, SAND, GRAVEL, CLAY mixture, dense, cohesive, slightly moist. (GM)				None	
24-27		61	0.0 ppm	25						
			0.0 ppm							
					Note: Driller began using drive and wash drilling method using circulating water. No sheen observed on the circulating water. Non-continuous 5' split-spoon sampling.					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-18

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/08/99
Remarks: Partly sunny, breezy (~ 10-15 mph), cold (~30 F) Depth to groundwater approx. 4 feet. Soils from the boring were also logged by Steven Wallett from GEI Consultants, Inc.		Ground Elevation: 10.43'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 84.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-32	50 13 17 15	60	0.0-0.8 ppm		30.0-32.0: Brown, fine SAND and SILT, some clay, trace fine to medium gravel, few coarse angular to sub-angular gravel at 31-32', moist. (GM)				None	-20
35-37	18 40 32 30	42	0.0 ppm	35	35.0-37.0: Red to red-brown, fine SAND, SILT, some clay, some sub-rounded gravel, very tight, moist. (GM)				None	
40-42	10 10 12 12	0	0.0 ppm		40.0-42.0: WASH (fine to medium sand and fine to medium angular gravel, some silts, some clay, wet. (UN)				None	-30

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-18

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy

Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/08/99
Remarks: Partly sunny, breezy (~ 10-15 mph), cold (~30 F) Depth to groundwater approx. 4 feet. Soils from the boring were also logged by Steven Wallett from GEI Consultants, Inc.		Ground Elevation: 10.43'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 84.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-47	22 9 10 20	65	0.0-1.0 ppm		45.0-45.75: Brown, fine to coarse, SAND and fine to coarse GRAVEL, some silt, tight, moist. (SP) 45.75-46.25: Intermittent layers of fine SAND and SILT. Fine to medium sand depositional layering, tight, moist.(SM) 46.25-47.0: Brown, fine to coarse, SAND and SILT, very tight, some fine to medium gravel, some clay, moist. (SM)				None	
50-52	51 R	0			50.0-52.0: NO RECOVERY. Spoon refusal at 50'. Driller believes that cobble zone is at depth. Driving casing to 55' bgs.				Unknown	-40
55-57	29 17 42 36	46	1.3 ppm 0.9 ppm	55	55.0-55.7: Red-brown, fine to coarse SAND, some gravel, some silt, wet. (GM) 55.7-56.8: Red-brown, silty-SAND, some gravel, trace clay, non-cohesive to slightly cohesive, wet. (GM) 56.8-57.0: Dark green, crystalline rock fragments in the tip of spoon.				None	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-18

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/08/99
Remarks: Partly sunny, breezy (~ 10-15 mph), cold (~30 F) Depth to groundwater approx. 4 feet. Soils from the boring were also logged by Steven Wollett from GEI Consultants, Inc.		Ground Elevation: 10.43'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 84.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
60-62	14 36 24 18	50			60.0-62.0: NO RECOVERY. Spoon refusal. Spoon is damaged beyond repair.				Unknown	-50
			0.0-1.0 ppm	65	65.0-67.0: Brown, fine, SAND and SILT, some fine to coarse gravel, large cobble fragments. Slight tar-like odor at 66.0'. (GM)				Slight	
70-72	30 32 32 31	90	25 ppm		70.0-70.9: Fine brown, SAND and SILT, some fine to coarse gravel, large cobble fragments. (GM)				None	-60
			150 ppm		70.9-71.5: COBBLE, GRAVEL, and fine SAND, Slight to moderate tar-like odor. Tar-stained. (GM)				Slight to Moderate Tar Odor	
			216 ppm		71.5-72.0: COBBLE, GRAVEL, and fine SAND, Slight to moderate tar-like odor. Sheen noted. (GW)					
73-76	24 32 32 18	100			73.0-73.9: Red to red-brown, silty-SAND, some gravel, trace clay, moist. Slight to moderate tar-like odor noted. Slight sheen noted. (GM)				Moderate	
					73.9-75.2: Red-brown, fine to medium SAND, trace silt, some gravel, non-cohesive, moist. Slight to moderate tar-like odor-naphthalene. Slight sheen in	73-76 ft.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-18

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy

Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/08/99
Remarks: Partly sunny, breezy (~ 10-15 mph), cold (~30 F) Depth to groundwater approx. 4 feet. Soils from the boring were also logged by Steven Wallett from GEI Consultants, Inc.		Ground Elevation: 10.43'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 84.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			10-20 ppm		discrete veins of interval. (GP)					
					75.2-76.0: Brown, sandy-SILT, dense slightly cohesive, slightly moist. Slight tar-like odor noted. (SM)	73-76 ft.				
76-79	11 15 10 11	25			76.0-79.0: Brown, medium to very coarse, SAND, some angular to sub-angular gravel, some silt, wet. Faint tar-like odor noted (GP)				Slight/ Faint	
			20.0 ppm		Note: Recovered 1.17' of wash in 76-79' interval. Driller is having problems with sand blow-in.					
79-82	41 12 9 22	100	0.5 ppm		79.0-79.9: Brown, medium to coarse GRAVEL, some fine to medium sand, some silt, very wet. Faint tar-like odor. (GP)					
			0.7 ppm		79.9-80.8: Brown, fine to medium, SAND, some silt, very wet. Faint tar-like odor noted. Slight sheen. (SP)					
					80.8-82.0: Brown to light brown, medium to coarse GRAVEL, some fine to coarse sand, wet. Slight tar-like odor noted. Slight sheen at top of the interval. (GP)					-70
82-84	50 40 43 21	0	2.4 ppm		82.0-84.0: WASH (Brown, fine to medium sand, trace silt, trace gravel, wet. Slight tar-like odor noted. (UN)				Slight/ Faint	
			0.5-0.1 ppm		84.0: End of Boring.					
				85	NOTE: Driller unable to advance the roller bit down to depth. Shards of metal are coming out of the wash water. Driller believes that the bottom of the casing is not circular, causing the bit to grind against the casing. Upon removal of the casing, the next to last section of casing was severly ground by the roller bit.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-19

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/25/99
Remarks: Depth to water approx. 5'. A.Brey logged 20'-36'. RW-06 installed next to SB-19.		Ground Elevation: 11.14'	Datum: NGVD
		Contractor: ADT	Total Depth: 36.00'
		Drilling Method: Geoprobe and Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4		63	0.6 ppm		0.0-1.0: Brown silty SAND(top soil), dry.(SM)					
					1.0-1.5: Red FILL, brick, ash, dry.(Fl)					10
			1.1 ppm		1.5-2.5: Tan to dark brown, fine to medium SAND, trace silt. Dry.(Fl)					
					2.5-3.0: Grey, FILL, fine to medium ash.(Fl)					
					3.0-4.0: Red to dark brown, FILL, red brick, wood, ash.(Fl)					
4-8		69	0.1 ppm		4.0-4.5: FILL, ash, brick fragments. Dry.(Fl)					
					4.5-8.0: Tan to red, silty-fine SAND, some fine to medium to coarse gravel, slightly moist to moist, slightly plastic, slightly cohesive.(SM)					
			0.1 ppm			5-7 ft.				
									None	
8-12		85	0.0 ppm		8.0-12.0: Red to red/brown, silty fine SAND, medium gravel, slightly moist, cohesive. (SM)					
			0.0 ppm	10						0
12-16		56	0.0 ppm		12.0-20.0: Red to red/brown, silty fine SAND, trace clay, some fine to medium gravel, large crystalline rock noted at approximately 12' and 15', cohesive, slightly moist.(GM)					
			0.0 ppm		Note: Hollow Stem Auger drilling rig used from 20' until 36'. Continuous sampling with 3" spoons.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-19

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/25/99
Remarks: Depth to water approx. 5'. A.Brey logged 20'-36'. RW-06 installed next to SB-19.		Ground Elevation: 11.14'	Datum: NGVD
		Contractor: ADT	Total Depth: 36.00'
		Drilling Method: Geoprobe and Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
16-20		50	0.0 ppm							
			0.0 ppm							
20-22	7 4 4 10	50	0.0 ppm		20.0-28.0: Reddish-brown, silty-CLAY, trace coarse to medium rounded to sub-angular gravel, some coarse sand, slightly pliable, saturated. (SC)					
			0.0 ppm							-10
22-24	12 4 4 5	40							None	
			10.7 ppm							
24-26	4 4 5 5	80	2.1 ppm							
			0.0 ppm	25						
26-28	4 8 6 8	6			Crushed Sandstone clast at approx. 26.5' bgs.					
			0.0 ppm							
28-30	4 5 5 7	100			28.0-30.0: Reddish-brown, silty CLAY, some coarse sand, trace fine to medium gravel, one sandstone cobble, one quartzite cobble, saturated. (GM)					
			0.0 ppm							
					30.0-36.0: Reddish-brown, silty-CLAY, faint					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-19

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/24/99	Date Completed: 02/25/99
Remarks: Depth to water approx. 5'. A.Brey logged 20'-36'. RW-06 installed next to SB-19.		Ground Elevation: 11.14'	Datum: NGVD
		Contractor: AOT	Total Depth: 36.00'
		Drilling Method: Geoprobe and Hollow Stem Auger	
		Logged By: Lynn Wiley	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-32	5 6 7 7	100	0.0 ppm		rhythmic layering of coarse sand and fine to medium gravel, 1-2" with gravels, then 1-2" without gravel (just sands), quartz cobbles throughout, saturated. (GM)					-20
32-34	4 15 9 9	30	0.0 ppm							
34-36	2 8 10 8	40	0.0 ppm	35		34-36 ft.			None	
					36.0: End of boring.					-30

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-30

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (10-15 mph), ~40 F. Groundwater at approx. 6' bgs.		Ground Elevation: 7.75'	Datum: NGVD
		Contractor: ADT	Total Depth: 23.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0-3.0: ASPHALT, gravel, dense road base.(FI)				
3-7	NA	100	0.3 ppm		3.0-5.0: Brown, fine, SAND, some silt, non-cohesive, dry.(FI)			None	
			1.5 ppm		5.0-6.0: Grey to olive grey, fine to medium, SAND, some silt, some gravel, rock fragments, dry to slightly moist.(SM)				
					6.0-6.5: Dark brown, fine to medium SAND, some silt, some gravel, slightly moist, non-cohesive.(SM)				
7-11	NA	79	1.9 ppm		6.5-7.0: Red to red/brown, SILT, some fine to medium sand, some angular gravel, moist, slightly cohesive.(SM)				0
					7.0-8.0: Brown, sandy-SILT, dense, dry to slightly moist, cohesive.(SC) SAMPLE: CF-SB-30 (7-11).				
					8.0-9.5: Red to red-brown, SILT, SAND, GRAVEL mix, slightly cohesive.(GM)				
			0.9 ppm			7-11 ft.			
				10	9.5-11.0: Brown, SILT, some fine sand, trace gravel, trace clay, dense.(GM)			None	
11-15	NA	48	1.1 ppm		11.0-14.75: Brown to brown-grey, medium to coarse SAND, some silt, some medium to fine angular to sub-angular gravel, wet, non-cohesive.(SM)				
			0.1-0.3 ppm						
					14.75-15.0: Brown, PEAT, some fine to medium sand, some silt, slightly cohesive.(PT)				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-30

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (10-15 mph), ~40 F. Groundwater at approx. 6' bgs.		Ground Elevation: 7.75'	Datum: NGVD
		Contractor: ADT	Total Depth: 23.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-19	NA	65	0.9 ppm		15.0-15.75: Brown to brown-grey, fine to medium SAND, some silt, some angular gravel, wet, non-cohesive.(SM)					
			0.7 ppm		15.75-19.0: Brown, PEAT, with wood fragments, and rootlets, some silt, slightly moist. Slight swampy odor noted. (PT)				Slight Swampy Odors	-10
19-23	NA	60	0.1-0.5 ppm		19.0-20.0: Gray, SILT, some clay, slightly cohesive, slightly moist to dry. (ML)					
			1.3 ppm		20.0-20.5: Gray, SILT, some clay, slightly cohesive. (ML)					
					20.5-23.0: Brown, clayey-SILT, slightly moist, cohesive. (ML)	19-23 ft.			None	
			0.1-0.3 ppm		23.0: End of Boring.					
				25						-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-31

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (~15 mph), warm ~40 F. Groundwater at approx. 9.5' bgs.		Ground Elevation: 8.10'	Datum: Mean Sea Level
		Contractor: ADT	Total Depth: 23.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-19	NA	44	5.0 ppm		15.0-17.5: Red-brown, very fine SAND, some silt, dense, compact, moist to wet. (SM)				None	
			1.3 ppm			15-19 ft.				
					17.5-19.0: Red-brown to grey, alternating layers of red brown/grey layers, fine SAND, trace silt, moist. Slight septic odor noted, (SW) SAMPLE: CF-SB-31 (15'-19').				Slight Septic Odor	-10
19-23	NA	31	0.9 ppm		19.0-20.0: Dark brown, fine to medium, SAND, trace silt, trace gravel, non-cohesive. (SW)					
					20.0-22.5: Red-brown, fine to medium, SAND, trace silt, non-cohesive, moist, alternating layers of red-brown to grey fine sand layers. (SW)				None	
					22.5-23.0: Red-brown, SILT, some fine sand, some gravel, some clay, slightly moist. (ML)					
					23.0: End of Boring.					
				25						-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-32

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (15mph), warm ~40 F. Depth to water approx. 9'.		Ground Elevation: 8.54'	Datum: NGVD
		Contractor: ADT	Total Depth: 23.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0-3.0: ASPHALT and road base (consists of coarse gravel and fill). (FI)				
3-7	NA	79	12.0 ppm		3.0-7.0: Red to red-brown, SILT, some clay, brick, fine sand layer at 6.5', slighly moist, cohesive. Slight tar-like odor. (FI)				
			8.0 ppm					Slight Tar-like Odor	
7-11	NA	71	14.0 ppm		7.0-10.0: Red to red-brown, clayey-SILT, plastic, slightly moist. Slight tar-like odor. (ML)				0
			22-28 ppm						
				10	10.0-10.5: Dark brown to black, SILT, some fine sand, dense, cohesive. Slight tar-like odor. (ML)				
11-15	NA	56	50.0 ppm		10.5-11.0: Red, SILT, some fine sand, plastic, slightly moist. Tar-like odor noted. (ML)			Strong Tar-like Odor	
			707 ppm		11.0-12.0: Brown, fine to medium SAND, some silt, wet. Strong tar-like odor. Tar-stained, sheen, and saturated.(SP)				
			5-9 ppm		12.0-13.25: Brown to red-brown, SILT, SAND and GRAVEL mixture, trace clay, slightly cohesive. Slight tar-like odor noted. (GM)	11-15 IL		Slight Tar-like Odor	
					13.25-15.0: Fine to medium SILT, layers of fine sand, cohesive, slightly plastic. Slight tar-like odor. (SM)				
					Note: Olive-green crystalline rock in spoon tip.				

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-32

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (15mph), warm ~40 F. Depth to water approx. 9'.		Ground Elevation: 8.54'	Datum: NGVD
		Contractor: ADT	Total Depth: 23.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-19	NA	57	13 ppm		15.0-17.0: Red to red-brown, SILT, some fine sand, some clay, cohesive, slightly plastic. Very slight tar-like odor. (ML)				Very Slight Tar-like Odor	
			1.3 ppm		17.0-19.0: Brown, fine to medium, SAND, trace silt, some gravel, wet, non-cohesive. (SW)					-10
19-23	NA	69			19.0-20.3: Brown, fine to medium, SAND, some gravel, some silt, wet, non-cohesive. (SP)				None	
					20.3-21.0: Fine to medium SAND, some silt, wet, non-cohesive. (SP)					
			1.3 ppm		21.0-22.6: Brown, fine to medium, SAND, some silt, some gravel, wet, non-cohesive. (SP)	20-23 ft.				
					22.6-22.7: Red, SILT layer, cohesive, slightly plastic.(ML)					
					22.7-23.0: Brown to black, fine to medium SAND, some silt, moist,non-cohesive.(SP)					
					23.0: End of Boring.					
				25						-20

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-33

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (15 mph), warm (~40F) Depth to groundwater approx. 3'.		Ground Elevation: 8.85'	Datum: NGVD
		Contractor: ADT	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0–3.0: ASPHALT and roadbase. (FI)			Unknown	
3–7	NA	65	2.5 ppm		3.0–4.2: Red to red–brown, fine to medium SAND, some silt, some gravel. Black stain at 3.2'. Slight naphtha–like odor. (SP)		+	Slight Naphtha Odor	
			280 ppm		4.2–5.2: Black to grey, fine to medium, SAND, some silt some gravel, non– cohesive, wet. Tar–stained, slight sheen. (SW)		+		
			68 ppm		5.2–6.2: Brown to tan–brown, fine SAND, some silt, some gravel. Moderate tar–like odor. (SM)		+		
			654 ppm		6.2–7.0: Black to grey, SAND, wet. Moderate to strong tar–like odor, sheen. (SW)			Strong to Mod Tar Odor	
7–11	NA	88	327 ppm		7.0–7.5: Grey, fine to medium, SAND, wet. Moderate to strong tar–like odor. Tar–stained. (SW)		+		
			787 ppm		7.5–8.5: Coarse to very coarse, SAND, some silt, some gravel, non–cohesive. Moderate to strong tar–like odor. Tar–stained, slight sheen noted. (SW)	7-9 IL			
				10	8.5–11.0: Brown to red–brown, SILT, some fine sand, dense. Slight to moderate tar–like odor. Slight sheen (possible groundwater influence). (ML)			Slight to Moderate Tar Odor	
11–15	NA	17	20–27 ppm		11.0–17.2: Red to red–brown, SILT, some clay, some fine sand, slightly moist. Green crystalline rock also noted in the section. (ML)				
			7 ppm					None	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-33

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/01/99	Date Completed: 03/01/99
Remarks: Partly cloudy, breezy (15 mph), warm (~40F) Depth to groundwater approx. 3'.		Ground Elevation: 8.85'	Datum: NGVD
		Contractor: ADT	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-19	NA	40							None	
			6 ppm		17.2-19.0: Red to red-brown, SILT, some gravel, some clay, moist, slightly cohesive. Faint to slight tar-like odor (possible groundwater influence). (GM)				Faint Tar-like Odor	
19-23	NA	0			19.0-23.0: NO RECOVERY. Note: Sample became lodged in the macro-sampler and could not be removed. Rig refusal with macro-sampler. Note: Drillers used a large-bore (1.5", x 2') piston sampler that was driven to 23', and opened at that depth to collect the 23'-25' sample.				Unknown	-10
23-25	NA	96	30 ppm		23.0-24.2: Dark brown to grey, fine to medium, SAND, trace silt, wet. Moderate naphtha-like odor. Slight tar-staining 24.2'.	23-25 ft.			Moderate Tar Odor	
			100 ppm		24.2-24.8: Brown to red-brown, SILT, trace fine sand, some angular to sub-rounded gravel, moist. Moderate tar-like odor. Tar staining around gravel.(GM)			+		
				25	24.8-25.0: Red sand-sized rock fragments with mica flakes (possible sandstone).					-20
					25.0: Geoprobe refusal. End of boring.					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-34

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/02/99
Remarks: Sunny, high clouds, very breezy (~15 mph), ~50 F Depth to groundwater apprx. 5'.		Ground Elevation: 9.38'	Datum: NGVD
		Contractor: ADT	Total Depth: 13.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0–1.0: ASPHALT and road base. (FI)				
1–5	NA	69	3.6 ppm		1.0–2.0: Grey to black, fine, SAND, some silt, some angular gravel, non-cohesive, dry. Slight tar-like odor and black stain. (GM)				
					2.0–3.25: Red to red/brown, fine SAND and SILT, some gravel, trace clay, non-cohesive, dry. Slight tar-like odor. (SM)			Slight Tar-like Odor	
			1.0 ppm		3.25–5.0: Tan to brown, silty-SAND, some fine gravel, slightly cohesive, mottling. Black 2" stain at approximately 5.5'. (SM)				
5–9	NA	63	1.2 ppm		5.0–6.0: Tan to Brown, silty fine SAND, trace gravel, trace clay, slightly cohesive, slightly moist. 1" black stain. (SM)			None	
			0.4 ppm		6.0–7.0: Red to red/brown, fine to medium SAND, some crystaline rock fragments (possibly olivine), dry. (SP)				
					7.0–8.5: Red/brown to brown, SILT, some fine sand, trace clay, gray to red mottling, moist. (ML)	5-9 IL			
			0.0 ppm						
					8.5–9.0: Dark brown, PEAT, some silt, wood in tip of spoon. (PT)				
9–13	NA	60	0.0 ppm		9.0–9.5: Red to red-brown, SILT, some gravel some sand. (SM)				0
				10	9.5–12.5: Gray to olive gray, silty-CLAY, dense, cohesive, slightly moist. Black stain 3–4" at top of clay layer. (ML)				
						9-13 IL		None	
			0.0 ppm		12.5–13.0: Gray, silty CLAY, some angular gravel, cohesive, moist to wet. (CL)				
					13.0–15.0: NO RECOVERY. Refusal at approximately 15' bgs.				
					15.0: End of Boring.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-35

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/02/99
Remarks: Sunny, high clouds, very breezy (~15 mph), ~50 F Depth to water approx. 3'.		Ground Elevation: 9.53'	Datum: NGVD
		Contractor: ADT	Total Depth: 22.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0–2.0: ASHPHALT and roadbase. (AS)			Unknown	
2–6	NA	69	0.7 ppm		2.0–2.8: Red–brown, fine, SAND, some silt, dry to slightly moist, non–cohesive. (SM)				
					2.8–3.3: Black, coarse to very coarse, SAND, some silt, non–cohesive, wet. Black staining through the interval. (SM)		+		
			0.1 ppm		3.3–4.1: Tan, very fine, sandy–SILT, non–cohesive. (SM) 4.1–6.0: Brown, SILT, some very fine sand, trace gravel, rock fragments, slightly cohesive, orange mottling at approximately 6'. (SM)			None	
6–10	NA	50	0.0 ppm		6.0–8.0: Olive–green to grey, very clayey SILT, some gravel, cohesive, some orange mottling. Moist. (ML)				
			0.0 ppm		8.0–10.0: Tan to brown, SILT with trace fine sand, trace clay, trace fine gravel, slightly cohesive, moist. Red rock in spoontip. (ML)	6-10 ft			0
10–14	NA	38	0.0 ppm	10	10.0–18.0: Red to Red–brown, SILT, very fine SAND, fine to medium GRAVEL mixture, trace to some clay, cohesive. Slightly moist to 14', moist below 14'. (GM)				
			0.0 ppm					None	
14–18	NA	35	0.0 ppm						

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-35

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 03/02/99	Date Completed: 03/02/99
Remarks: Sunny, high clouds, very breezy (~15 mph), ~50 F Depth to water approx. 3'.		Ground Elevation: 9.53'	Datum: NGVD
		Contractor: ADT	Total Depth: 22.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
18-22	NA	21	0.0 ppm		18.0-22.0: Red to red-brown, SILT, SAND and CLAY mixture, dense, cohesive. (GM)	18-22 ft.			None None	
				25	22.0: End of Boring					-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-37

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/05/99	Date Completed: 08/05/99
Remarks: Depth to groundwater approximately 8'.		Ground Elevation: 13.18'	Datum: NGVD
		Contractor: ADT	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4	NA	75			0.0-1.0: Concrete slab. Floor of Warehouse.					
					1.0-5.1: Tan, fine to medium SAND, FILL. Dense. Dry. Non-cohesive. (FI)					
			3.2 ppm			None				10
4-8	NA	75								
					5.1-8.0: FILL. Brick fragments and spongy material. Loose. Dry. Non-cohesive. Black stained from 7.5' to 8'. Coal tar odor apparent. (FI)					
			324 ppm			Light			4-8 ft.	
8-12	NA	75			8.0-12.0: FILL. Brick and wood fragments with coarse gravel. Dense. Non-cohesive. Interval is tar-saturated. Water table at approx. 8' bgs.(FI)			+		
			4100 ppm	10		Strong				
12-14.5	NA	100			12.0-14.5: FILL. Coarse gravel and brick fragments. Wet. Saturated with runny semi-viscous tar. Strong coal-tar odor.(FI)					0
			5400 ppm			Strong				
14.5-20	NA	50			14.5-20.0: FILL. Medium to coarse SAND with brick fragments. Saturated with semi-viscous					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-37

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/05/99	Date Completed: 08/05/99
Remarks: Depth to groundwater approximately 8'.		Ground Elevation: 13.18'	Datum: NGVD
		Contractor: ADT	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					tar. Strong tar odor.(FI)					
			5100 ppm			Strong			14.5-19 ft.	
					Refusal at 20' bgs. Possible holder bottom depth. End of Boring.					
				25						-10

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-39

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/05/99	Date Completed: 08/05/99
Remarks: No groundwater encountered during drilling. Concrete apparent at 5.5' bgs with refusal.		Ground Elevation: 13.24'	Datum: NGVD
		Contractor: ADT	Total Depth: 5.50'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4	NA	45			0.0-0.8: Concrete. Clean.				
					0.8-2.0: Brown-tan, fine to medium SAND. Loose. Dry.			None	
			729 ppm		2.0-4.0: Dark brown-black FILL. Coarse gravel. Grains coated with viscous black tar. Strong tar odor.	0-4 ft.		Strong	10
4-5.5	NA	50			4.0-5.5: Black FILL consisting of wood fragments and poorly sorted sand and gravel. Saturated with viscous black tar. Moderate tar odor.			Moderate	
			40 ppm			5.5 ft.			
					Refusal at 5.5' bgs. Presumed to be concrete.				
				10					0

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-51

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/04/99	Date Completed: 08/04/99
Remarks: Groundwater at 5' bgs. Augered through asphalt. Began samples at 1'bgs.		Ground Elevation: 7.87'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–1.0: Asphalt and dry fill.(AS) Augered through and began samples at 1' bgs.					
1–3	30 15 20 19	55	104 ppm		1.0–2.0: Brown to gray, poorly sorted SAND. Concrete dust. Trace rounded gravels. Loose. Dry. Moderate gasoline odor. (FI) 2.0–3.0: Black coal fragments, wood fragments, and fine to medium sand. Trace silt. Strong gasoline odor. (FI)				Strong to Moderate gasoline	
3–5	20 10 4 5	40	41 ppm		3.0–5.0: Dark brown silty fine to medium SAND. Various sized brick and glass fragments. Loose. Slight petroleum odor. (FI)				Slight gasoline	
5–7	2 3 10 7	30	192 ppm		5.0–7.0: Brown to black silty fine to medium SAND. Trace brick and glass. Loose. Brick cobble in shoe. Strong gasoline odor. Some black staining. (FI) Wet at 5' bgs.	5-7 ft.		+ + + + + +	Strong gasoline	
7–9	12 3 5 4	60	134 ppm		7.0–9.0: Brown–gray SILT with some fine to medium sand. Trace clay. Slightly cohesive. Non–plastic. Moderate gasoline/petroleum odors. Trace oil–like staining. (FI)				Moderate gasoline	0
9–11	7 5 4 6	60	68 ppm	10	9.0–10.0: Wet, red–brown medium to coarse SAND. Trace gray and red silt nodules. Loose. Non–cohesive. Faint gasoline odor. (SW) 10.0–12.5: Wet, fine to very fine SAND. Trace gray–brown silt. Non–cohesive. Medium dense. Faint gasoline odor. (SW)					
11–13	2 2 4 4	80	36 ppm		12.5–13.0: Red–brown medium to coarse SAND. Trace silt and gravel. Non–cohesive. Medium dense. Slight gasoline odor. (SW)				Faint gasoline	
13–15	49 35 42 20	65	4 ppm		13.0–15.0: Wet, gray to brown sandy SILT. Trace angular cobbles. Slightly cohesive. Non–plastic. (SM)				None	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-51

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/04/99	Date Completed: 08/04/99
Remarks: Groundwater at 5' bgs. Augered through asphalt. Began samples at 1'bgs.		Ground Elevation: 7.87'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-17	9 12 12 15	60			15.0-16.0: Wet, brown sandy SILT. Soft, Slightly cohesive. Non-plastic. (SM)					
			5.9 ppm		16.0-17.0: Moist, red-brown fine to medium SAND. Trace fine gravel. Non-cohesive. Medium dense. (SW)				None	
17-19	3 9 15 20	25			17.0-19.0: Wet, red-brown fine to medium SAND. Trace gravel and silt. Soft. Non-cohesive. (SW)					-10
			12.9 ppm							
19-21	4 7 14 14	50			19.0-21.0: Moist, SAND as above (17-19) with green/gray silt nodules. 1" black staining lense at 2" from bottom of sample. (SW)					
			4.8 ppm					+		
21-23	2 6 11 14	45			21.0-27.0: Wet, red-brown fine to medium SAND with trace silt and gravel. Non-cohesive. Medium dense. (SW)			+		
			7.1 ppm						None	
23-25	5 10 12 12	30								
			4.4 ppm							
25-27	6 7 11 11	50		25						
			3.9 ppm							
27-29	9 16 16 17	0			27.0-29.0: No recovery.					-20
29-31	6 12 19 20	55			29.0-31.0: Wet, red-brown silty, fine to medium SAND. One cobble. Slightly cohesive. Non-plastic. (SM)				None	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-51

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/04/99	Date Completed: 08/04/99
Remarks: Groundwater at 5' bgs. Augered through asphalt. Began samples at 1'bgs.		Ground Elevation: 7.87'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			3.0 ppm							
31-33	4 5 9 21	45			31.0-33.0: Wet, red-brown SAND. Some stratified silt layers. Non-cohesive. Loose. (SM)					
			1.5 ppm						None	
33-35	8 12 20 31	35			33.0-35.0: Moist, red-brown fine to medium SAND. Some silt. Trace coarse gravel. Dense. Non-cohesive. (SM)					
			1.5 ppm							
35-37	6 12 20 22	35		35	35.0-37.0: Moist, red-brown SILT and some fine SAMD. Trace gravels. Dense. Non-plastic. Slightly cohesive. (SM)					
			1.5 ppm							
37-39	5 9 20 17	50			37.0-39.0: Moist, red-brown silty fine to medium SAND. Trace gravels. Non-cohesive. Medium dense. (SM)					-30
			1.1 ppm						None	
39-41	25 31 40 26	45			39.0-41.0: Wet, red-brown silty SAND. Trace fine to medium gravels. Non-cohesive. Medium dense. (SM)					
			1.2 ppm			39-41 fL				
					41.0: End of Boring. Borehole completed with grout abandonment.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-52

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 07/29/99	Date Completed: 07/30/99
Remarks:		Ground Elevation: 7.58'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–1.0: Asphalt and gravel base. No odors or impacts. Began split spoon sampling at 1' bgs.					
1–3	5 7 13 7	90	5.9 ppm		1.0–3.0: Black FILL. Coal dust, medium to coarse SAND, some gravel and gravel-sized slag. Some sea shells. Non-cohesive. Loose. (FI)					
3–5	3 10 7 5	65	7.9 ppm		3.0–5.0: Black to brown FILL. Silt with some fine to medium sand, coarse-size coal and slag. Wet. Loose. Non-cohesive. Strong mixed tar-like and gasoline odors. Stained soil. (FI)				Strong mixed tar-like and gasoline	
5–7	2 2 2 2	50	110 ppm		5.0–6.2: Wet, black FILL. Gravel, gravel and sand sized coal and slag fragments. Non-cohesive. Moderate naphthalene odor. Sheen noted. (FI)				Moderate naphthalene	
					6.2–7.0: Black stained SILT. Moist. Cohesive. Slightly plastic. Stiff. Black stained. Mixed gasoline and tar-like odors. (FI)	5-7 ft.			Gasoline and tar-like	
7–9	1 1 2 1	85	10.0 ppm		7.0–9.0: Moist, Dark gray and black organic SILT with brown rootlets. Cohesive. Non-plastic. Stiff. Black staining. Slight naphthalene odor. Relic soil horizon. (OL)				Slight naphthalene	0
9–11	3 3 3 2	70	2.0 ppm	10	9.0–10.0: Moist, red-brown gravelly SILT. Trace fine sand. Loose. Non-cohesive. (GM)					
					10.0–11.0: Moist, gray-brown SILT with trace fine sand. Trace rootlets. (SM)					
11–13	2 3 3 2	80	0.7 ppm		11.0–13.0: Moist, gray to dark brown sandy and clayey SILT. Cohesive. Slightly plastic. (ML)	11-13 ft.			None	
13–15	1 2 5 6	75	2.0 ppm		13.0–16.0: Moist, gray to brown clayey SILT with some fine gravel and rootlets. Cohesive. Slightly plastic. Medium stiff. (ML)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-52

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 07/29/99	Date Completed: 07/30/99
Remarks:		Ground Elevation: 7.58'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-17	6 6 12 9	45	2.0 ppm		16.0-17.0: Moist, red-brown sandy SILT with some gravel. Non-cohesive. Loose. (SM)					
17-19	3 4 4 2	70	1.1 ppm		17.0-21.0: Moist, red-brown to gray clayey SILT. Trace fine sand. Cohesive. (ML)				None	-10
19-21	3 9 33 45	70	2.0 ppm							
21-23	4 7 9 7	25	16.6 ppm		21.0-23.0: Moist, red-brown silty fine to medium SAND. Some fine to medium gravel. Slightly cohesive. Soft. Slight naphtholene odor. (SM)					
23-25	3 10 6 6	40	1.3 ppm		23.0-25.0: Moist, red-brown silty fine to medium SAND. Little subrounded fine gravel. Non-cohesive. Soft. Slight naphtholene odor. (SM)				Slight Naphtholene	
25-27	5 5 8 12	80	0.3 ppm	25	25.0-27.0: Wet, red-brown silty fine to medium SAND. Trace fine gravel. Soft. Slightly cohesive. Non-plastic. (SM)					
27-29	1 2 4 8	0			27.0-29.0: No recovery.				None	-20
29-31	7 14 14 17	95			29.0-30.5: Wet, red-brown silty fine to medium SAND. Some fine to medium gravel. Slightly cohesive. Non-plastic. Stiff. Slight naphtholene-like odors (SM)				Slight naphtholene	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-52

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 07/29/99	Date Completed: 07/30/99
Remarks:		Ground Elevation: 7.58'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			3.2 ppm		30.5–32.0: Gray medium to coarse GRAVEL with some fine to coarse SAND. Trace silt, Wet. Slight naphthalene–like odors. (GM)				Slight naphthalene	
31–33	11 12 14 17	75								
			0.1 ppm		32.0–33.0: Moist, red–brown SILT, Non–cohesive. Stiff. Slight naphthalene–like odor. (ML)					
33–35	4 7 18 19	85			33.0–34.0: Wet, red–brown SILT with little medium gravel. Soft. Slightly cohesive. Non–plastic. (GM)					
			0.1 ppm		34.0–35.0: Moist, red–brown SILT with trace fine to medium sand and trace gravel. Non–cohesive. (GM)					
35–37	7 11 13 22	80		35	35.0–37.0: Moist, red–brown SILT with some fine sand. Trace gravel. Non–cohesive. Medium dense. (GM)				None	
			0.1 ppm							
37–39	5 20 56 R/4"	35			Piece of conglomerate–type rock in shoe from about 38' bgs.					–30
			0.6 ppm							
39–41	13 23 22 40	90			39.0–41.0: Moist, red–brown SILT with some fine to medium sand and trace fine to medium gravel. Stiff. Non–cohesive. (GM)				None	
			0.3 ppm			39–41 ft.				
					41.0: End of Boring. Borehole completed with grout abandonment to ground surface.					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-53

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/03/99	Date Completed: 08/03/99
Remarks:		Ground Elevation: 9.27'	Datum: NGVD
		Contractor: ADT	Total Depth: 14.20'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–1.0: Asphalt and dry bedding, fill.(AS)				None	
1–3	5 25 32 37	15	22.7 ppm		1.0–3.0: Wet, FILL. Concrete chunks, Fine to coarse gravel. Some fine to coarse sand. Loose. Non–cohesive. Strong tar–like odor. (FI)					
3–5	35 27 36 12	30	70 ppm		3.0–5.0: Wet, FILL as above(1–3 ft). Tight drilling. Strong tar–like odor. (FI)					
5–7	4 10 6 16	50	241 ppm		5.0–7.0: Wet, gray FILL. Fine to coarse sand, wood fragments, gravel and angular concrete chunks. Non–cohesive. Loose. Strong tar odor. Taffy–like black tar in bottom 2" of sample. (FI)				Strong tar odor	
7–9	6 3 5	40	749 ppm		7.0–8.0: Wet, gray fine to coarse SAND and trace fine gravel. Loose. Non–cohesive. Strong tar/naphthalene–like odors. Tar coated grains. (FI) 8.0–9.0: Wet, brick fragments and cobbles. Tar blebs and sticky, taffy–like tar present. (FI)	7-9 ft.				
9–11	NR	70	554 ppm	10	9.0–10.0: Wet, red and brown brick fragments. Taffy–like tar present. (FI) 10.0–11.0: Black taffy–like tar with some fine sand. Cohesive and plastic, due to tar throughout sample. Strong tar–like odor. (FI)					C
11–13	2 2 2 2	5			11.0–13.0: Moist, red brick fragments and trace gravel. Black taffy–like tar. Strong tar odor. (FI)					
13–13.1	51 R/1"	100	2400 ppm		13.0: Spoon refusal at 13'1". Recovered timbers soaked with taffy–like tar. Strong tar odor. (FI)	13.5 ft.				
14–14.2	51 R/2"	100			14.0: Auger refusal. Split spoon refusal at 14'2". Recovered concrete chunk in spoon. Bottom of holder likely at 14' bgs. End of Boring. (CR)					

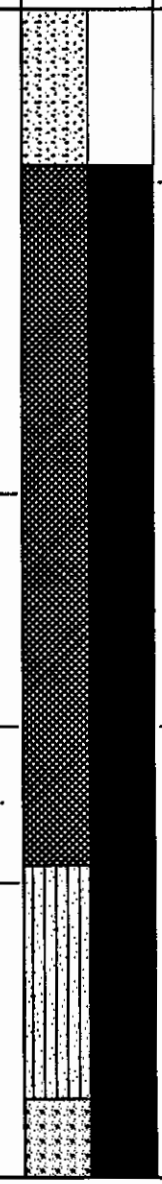
Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-54

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/03/99	Date Completed: 08/03/99
Remarks: Water table at approx. 2' bgs.		Ground Elevation: 9.29'	Datum: NGVD
		Contractor: ADT	Total Depth: 25.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Wilkey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval
					0.0–2.0: Asphalt, concrete chunks and gravel. Augered through to 2' bgs. (FI)	
2–4	2 4 8 2	35	279 ppm		2.0–4.0: Wet, Black fine to medium SAND with trace gravel and trace concrete. Some silt. Saturated with oil and petroleum product. Heavy irridescent sheen. Strong petroleum and naphthalene odors. (FI)	
4–6	2 3 5 6	55	2800 ppm		4.0–6.0: Black, same as above. Saturated with petroleum product. Slight tar staining on gloves.(FI)	4–6 ft.
6–8	12 25 32 16	65	3200 ppm		6.0–8.0: Black stained medium to coarse sand. Some medium to coarse gravel. Trace cobble and silt. Soft. Non–plastic. Saturated with oil/petroleum product. Trace tar staining on gloves. Heavy sheen. Heavy fuel odor mixed with naphthalene odors.(FI)	
8–9	6 4 5 5	100	3500 ppm		8.0–9.0: Red–brown silt. Cohesive. Soft. Tar stained. Strong tar odor. Runny black tar and oil mixture comprises lower 2" of sample.(FI)	
9–11	1 1 1 2	50	3900 ppm	10	9.0–11.0: Gray to black SILT and trace coarse gravel. Trace cobbles. Trace rootlets. Soft. Slightly cohesive. Non–plastic. Saturated with Oil product. Tar coated grains. Runny tar. Strong tar odor.(FI)	9–11 ft.
11–13	18 7 44 10	45	3700 ppm		11.0–13.0: Black stained sandy SILT. Trace cobbles. Soft. Slightly cohesive. Non–plastic. Very strong tar odor. Saturated with runny tar and blebs.(SM)	
13–15	5 10 15 18	55	2600 ppm		13.0–14.0: Red–brown, moist, sandy SILT. Trace gravels. Dense. Non–cohesive. Stained with tar. Sand lenses are saturated with tar. Strong tar odor.(SM)	
					14.0–15.0: Black, fine to coarse SAND. Trace cobbles. Tar saturated. Very strong tar odor.(SW)	



Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-54

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/03/99	Date Completed: 08/03/99
Remarks: Water table at approx. 2' bgs.		Ground Elevation: 9.29'	Datum: NGVD
		Contractor: ADT	Total Depth: 25.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15-17	6 8 12 16	75	2600 ppm		15.0-16.0: Black fine to medium SAND. Trace fine gravel and cobbles. Loose. Tar saturated with a strong tar odor.(SW)			Strong Tar odors	
					16.0-17.0: Moist, red-brown fine sandy SILT. Some fine gravel. Medium dense. Non-cohesive. Tar saturated sand layers. Very strong tar odor.(SM)				
17-19	18 30 51 R/4"	50	3300 ppm		17.0-19.0: Dry, red-brown SILT with some fine to medium sands. Trace fine gravel. Some veins of sheen. Strong tar odor.(SM)				
19-21	16 18 19 25	80	2900 ppm		19.0-21.0: Black-stained, medium to coarse SAND. Trace gravel. Trace cobbles. Loose. Tar saturated. Very strong tar odor.(SW).				-10
21-23	NR	80	2600 ppm		21.0-23.0: Black-stained, fine to medium SAND. Trace silt. Loose. Tar saturated with irridescent sheen. Very strong tar odor.(SW)			Very Strong Tar odors	
23-25	3 18 25 26	90	2200 ppm		23.0-25.0: Black-stained, fine to medium SAND. Trace silt and silt stringers. Loose. Tar saturated with irridescent sheen. Very strong tar odor.(SW)	23-25 ft.			
				25	25.0: End of Boring.				-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-55

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/10/99	Date Completed: 08/11/99
Remarks: Partly Cloudy. Low 70's. Using 5" core barrel with 7-5/8" outer casing. Borehole Abandoned.		Ground Elevation: 9.27'	Datum: NGVD
		Contractor: Boart Longyear	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5	NA	100	210 ppm		0.0-2.5: Black-stained, red and brown moist sandy SILT with little gravel. Tar blebs and strong tar odor noted.(SM)			Strong	
			1243 ppm		2.5-5.0: Red-brown, soft, clayey SILT with trace gravel. Wet. Soft. Heavy sheen. Strong tar odor. Trace black staining. Void spaces filled with tar.(ML)			Tar Odors	
5-15	NA	100	1257 ppm		5.0-8.0: Red-brown to green-gray sandy SILT with little gravel. Wet. Soft. Heavy sheen. Strong tar odor. Tar blebs present throughout. (SM)				
			4080 ppm		8.0-9.5: Dark brown, moist, silty PEAT. Very strong naphthalene odor. Sheen within peat.(PT)			Very	0
			1799 ppm	10	9.5-10.0: Wet, gray-brown silty SAND. Soft. Free tar in void spaces. Very strong tar odor.(SM)			Strong	
					10.0-13.0: Wet, gray sandy SILT. Some gravel. Very soft. Heavy sheen. Completely saturated with low viscosity black tar.(SM)			Tar or	
			1378 ppm					Naphthalene	
					13.0-18.0: Wet, red-brown to gray stained gravelly SILT. Some sand. Moderately stiff. Trace cobbles. Some sand grains coated with tar. Tar odor.(GM)			Odors	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-55

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Farmer MGP	Date Started: 08/10/99	Date Completed: 08/11/99
Remarks: Partly Cloudy. Low 70's. Using 5" core barrel with 7-5/8" outer casing. Borehole Abandoned.		Ground Elevation: 9.27'	Datum: NGVD
		Contractor: Boart Longyear	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-25	NA	100	2600 ppm		18.0-21.0: Tar-saturated silty GRAVEL. Loose. Non-cohesive. Tar odor.(GM)	18-20 ft.			Very Strong Tar Odors	-10
			384 ppm		21.0-25.0: Moist, red-brown gravelly SILT. Some sand, little cobbles. Till. Very stiff. (GM)				Light to Moderate Tar Odors	
25-35	NA	100	506 ppm	25	25.0-30.0: Moist to wet, red-brown sandy SILT. Little fine to medium gravel. Trace clay. Very stiff. Till. Naphthalene odor. Staining on large grains.(SM)					-20
					30.0-32.0: Wet, red-brown silty SAND					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-55

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/10/99	Date Completed: 08/11/99
Remarks: Partly Cloudy. Low 70's. Using 5" core barrel with 7-5/8" outer casing. Borehole Abandoned.		Ground Elevation: 9.27'	Datum: NGVD
		Contractor: Boart Longyear	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					Trace gravel. Medium stiff to soft. (SM)					
					32.0-34.0: Red-brown, silty SAND. Little fine gravel. Medium stiff. (SM)				No Odors	
			3.9 ppm		34.0-35.0: Wet, red-brown fine to coarse SAND. Trace silt. Loose. Non-cohesive. (SW)					
35-55	NA	25		35	35.0-52.0: Sample run from 35' to 52' was mishandled by drillers; fell into drum of tarry cuttings. Visible portion of sample was red-brown silty v. fine to medium SAND. (SM) See RW-15 log for nearby lithology.				Unknown	-30

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-55

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/10/99	Date Completed: 08/11/99
Remarks: Partly Cloudy. Low 70's. Using 5" core barrel with 7-5/8" outer casing. Borehole Abandoned.		Ground Elevation: 9.27'	Datum: NGVD
		Contractor: Boart Longyear	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
								Unknown	
					52.0–55.0: Wet, red-brown gravelly SILT. Hard. Cohesive. Non-plastic. Gravel is medium to coarse with trace cobbles. (GM)				-40
			28 ppm						
55–65	NA	100		55	55.0–58.0: Red-brown clayey SILT. Soft to moderately stiff. (ML)			No odors	
						56–58 ft.			
					58.0–60.0: Wet, red-brown very fine sandy SILT. Trace gravel. (SM)				-50
					60.0–63.0: Wet, red-brown SILT with little				

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-55

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/10/99	Date Completed: 08/11/99
Remarks: Partly Cloudy. Low 70's. Using 5" core barrel with 7-5/8" outer casing. Borehole Abandoned.		Ground Elevation: 9.27'	Datum: NGVD
		Contractor: Boart Longyear	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					fine to coarse gravel. Trace fine sand. (GM)					
			0.9 ppm		63.0–64.0: Wet, red–brown medium SAND and trace silt. Loose. (SW)				No odors	
					64.0–65.0: Moist, red–brown SILT with little coarse gravel and cobbles. Very stiff.(GM)					
65–75	NA	100		65	65.0–75.0: Wet, red–brown gravelly SILT with trace cobbles. Trace fine sand. Cohesive. Non–plastic. (GM)					
			1.4 ppm							–60
					Note: Borehole was abandoned due to faulty installation of 8–5/8" isolation casing to 70' bgs. Borehole was grouted to ground surface.				No odors	
						73–75 ft.				
					75.0: End of Boring					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-57

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 07/30/99	Date Completed: 07/30/99
Remarks:		Ground Elevation: 9.02'	Datum: NGVD
		Contractor: ADT	Total Depth: 31.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–1.0: Asphalt and gravel base. Augered through and commenced sampling at 1' bgs.(FI)				No Odors	
1–3	26 51 R/4"	30	215 ppm		1.0–3.0: FILL. Coal fragments, asphalt, paper. Black-stained silty fine to medium SAND. Some gravel. Strong petroleum odor. Refused at 1.7' bgs on solid concrete; likely to be holder floor. Augered through 12" of concrete. Restart sampling at 3' bgs.			+ +	Strong Petroleum Odors	
3–5	9 8 6 4	40	21 ppm		3.0–5.0: Dry, brown fine-gravelly SILT. Trace brick fragments. Loose. Non-cohesive. (FI)				No odors	
5–7	4 4 2 2	65	115 ppm		5.0–6.5: Wet, black coal, slag and gravel. Slight sheen and mixed fuel oil and naphthalene odors.(FI)	5-7 ft.			Mixed Fuel Oil and Naphthalene Odors	
					6.5–7.0: Black to brown SILT. Soft. Cohesive.(ML)				No Odors	
7–9	1 1 1 1	100	2.7 ppm		7.0–9.5: Wet, black organic SILT and PEAT. Very soft. Cohesive. Non-plastic. Slight petroleum odor. (PT)				Slight Petroleum Odors	0
9–11	1 3 2 2	70	2.4 ppm	10	9.5–11.0: Wet, green-gray to red-brown clayey SILT. Trace fine to medium sand and trace gravels. Very soft. Plastic. Cohesive. (ML)					
11–13	1 17 23 16	60	11.4 ppm		11.0–12.5: Wet, gray-brown to red-brown clayey SILT. Trace fine to medium sand. Very soft. (ML)				No Odors	
					12.5–13.0: Green-gray broken rock/cobble.					
					13.0–14.0: No recovery; Driller advanced augers to 14' inadvertantly.					
14–16	8 12 14 18	80	1.2 ppm		14.0–16.0: Moist, red-brown gravelly SILT with trace fine to medium sand. Cohesive. Non-plastic. (GM)					

Legend: Physicol Observations — None, Sheen, Stain, Heavy

Site Id: SB-57

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 07/30/99	Date Completed: 07/30/99
Remarks:		Ground Elevation: 9.02'	Datum: NGVD
		Contractor: ADT	Total Depth: 31.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					16.0–17.0: Skipped interval.				
17–19	9 16 26 34	60	2.2 ppm		17.0–19.0: Moist, red–brown fine to medium sandy SILT. Till. Little medium to coarse gravel. Dense. Cohesive. Non–plastic. (SM)			No Odors	
19–21	10 12 14 15	65	0.3 ppm		19.0–21.0: Moist, red–brown fine to medium gravelly SILT. Little fine sand. Till. Very stiff. Cohesive. Non–plastic. (GM)				–10
21–23	6 17 21 22	65	1.3 ppm		21.0–25.0: Wet, red–brown gravelly SILT. Little fine to medium sand. Till. Very stiff. Slightly cohesive. (GM)				
23–25	6 11 11 20	60	0.5 ppm						
25–27	17 32 18 9	70	0.3 ppm	25	25.0–27.0: Wet, red–brown silty fine to coarse GRAVEL with some medium to coarse sand. Non–cohesive. Loose. Gravels are subangular to subrounded. (GM)			No Odors	
27–29	10 8 15 20	55	1.0 ppm		27.0–29.0: Wet, red–brown sandy SILT. Some fine to coarse gravel. Medium stiff. Cohesive. Slightly plastic. (SM)				
29–31	6 10 15 34	30	4.1 ppm		29.0–31.0: Wet, sandy SILT as above(27'–29'). Slight naphthalene odors. (SM)	29–31 fL		Slight Naphthalene Odors	–20

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-57

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 07/30/99	Date Completed: 07/30/99
Remarks:		Ground Elevation: 9.02'	Datum: NGVD
		Contractor: ADT	Total Depth: 31.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: David Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
						29-31 ft.			Slight Naphthalene Odors	
				35	31.0: End of Boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-68

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/04/01	Date Completed: 12/05/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.67'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5	NA	100			0.0-4.0: Red-brown to black, SILT, trace to little fine to medium sand, trace gravel, trace white ash, loose, non-cohesive, moist. (FI)				None	
			0.4 ppm		4.0-5.0: Red-brown, SILT, trace to little fine sand, trace cobble, trace to little clay, brown silt nodules noted, slightly cohesive, moist. Faint odor. (ML)				Faint	
5-15	NA	75								
			0.3 ppm							
				10	5.0-15.0: Red-brown, SILT, trace medium to coarse sand, coarse gravel, loose to moderately dense, moist. (ML)				None	0
			0.4 ppm							

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-68

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/04/01	Date Completed: 12/05/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.67'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-25	NA	100	0.4 ppm		15.0-20.0: Red-brown, SILT, trace to little fine to coarse sand, trace gravel (within a matrix), alternating density (moderately dense to loose), dry to slightly moist. (ML)					
				20						
					20.0-24.5: Red-brown, SILT and fine SAND, cohesive, soft, (blocky appearance -appears to be re-worked till). (SM)				None	
					24.5-25.0: Red-brown, fine to medium well-sorted SAND, trace coarse sand, non-cohesive, loose. (SP)					
25-35	NA	100	0.4 ppm		25.0-27.0: Red-brown, medium to coarse well-sorted SAND, trace gravel, loose, non-cohesive, wet. (SP)					
			0.6 ppm							
			8.9 ppm		27.0-33.0: Red-brown, fine well-sorted SAND, non-cohesive, loose, wet. Slight hydr-					-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-68

GEI Consultants, Inc.

Client: Keyspan Energy

Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/04/01	Date Completed: 12/05/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.67'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					thalene odor. (SP)					
			155.1 ppm		33.0-33.5: Red-brown, medium to coarse SAND, trace silt, trace clay, non-cohesive, wet. Slight naphthalene odor. (SP)	33.0-33.5			Slight	
35-45	NA	100			33.5-35.0: Red-brown, SILT, trace to little medium to coarse SAND, trace coarse gravel and cobble within matrix. Moderately dense, moist to wet. Slight naphthalene odor. (ML)					
					35.0-41.0: Red-brown, SILT, trace to little medium to coarse sand, trace to little clay, cohesive, moderately dense, moist. Trace naphthalene odor. (ML)					
				40						-30
					41.0-45.0: Red-brown, SILT, trace to little fine to medium sand, trace cobble, trace clay, very dense, hard, moist. (ML)				None	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-68

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/04/01	Date Completed: 12/05/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 9.67'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45–55	NA	100								
					45.0–51.0: Red–brown, SILT, trace to little sand, trace to little fine to coarse gravel, trace cobbles, trace clay, dense, cohesive, moist. Slight naphthalene odor. (GM)					
			3.1 ppm	50					Slight	
					51.0–55.0: Progresses to Red–brown, SILT, little fine sand, trace gravel, trace cobble, modertely dense, moist. Trace odor. (ML)					
			1.8 ppm		55.0: End of Boring.	54.5–55.0				–50

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-70

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/05/01	Date Completed: 12/05/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.71'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 15.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-15	NA	80			0.0-0.5: ASPHALT (FI).					
			0.0 ppm		0.5-9.0: Dark brown to grey, fine to medium SAND and FILL [includes wood fragments and seashell (oyster-like)], trace to little coarse gravel, little silt, Slight petroleum odor, patchy sheen on water. (FI)				Slight	
			2.4 ppm	10	9.0-10.0: Black to grey, fine to medium sand, little to some clay, soft, saturated. Organic odor. (SC)					0
					10.0-12.0: Grey PEAT, with rootlets, litle silt, trace clay, soft. Organic odor. (PT)				Slight	
			4.1 ppm		12.0-13.0: Grey to red-brown, SILT, little clay, trace sand, trace cobble-size timber noted. (ML)					
			4.4 ppm		13.0-15.0: Grey to red-brown, SILT, trace sand, trace to little clay, trace fine to coarse gravel, trace nodules of grey silt, moist. Slight naphthalene odor. (ML)				Slight	
					15.0: Casing binds up. End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-71

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 11.05'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5	NA	64			0.0-0.8: Dark brown, LOAM, trace rootlets, slightly cohesive, moist. (FI)					10
					0.8-5.0: Brown and gray mix of SILT, fine to coarse sand, gravel and cobbles, non-cohesive, loose, moist. (FI)					
5-15	NA	100	0.5 ppm		5.0-6.8: Dark brown, fine to medium SAND and SILT, trace fine to coarse gravel, timber pieces, FILL, wet. (FI)					
			1.1 ppm						None	
				10	6.8-12.2: Brown to Red-brown SILT and CLAY, few fine gravel, few small cobbles, trace wood fibers, very cohesive, firm, moist. (ML)					0
					12.2-15.0: Red-brown, SILT and CLAY, some fine to coarse sand, few fine to coarse gravel, few small cobbles, very cohesive, firm, dense, moist. (ML)					
			0.5 ppm							

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-71

O'Brien & Gere Engineers, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 11.05'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-25	NA	100	0.5 ppm	20	15.0-25.0: Red-brown SILT and CLAY, some fine to coarse, various-colored sand, few fine to coarse, various-colored gravel, some small, various-colored cobbles, polymict coarse material, till, very cohesive, very dense, moist. (ML)				None	-10
			0.5 ppm							
25-35	NA	100			25.0-35.0: Red-brown SILT and CLAY, some fine to coarse, various-colored sand, few fine to coarse, various-colored gravel, some small, various-colored					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-71

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.05'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.5 ppm		cobbles, till-like material, coarse polymict grains, very cohesive, very dense, moist. (ML)	30-30.5 FT			None	-20
35-45	NA	100	0.3 ppm							
				40	35.0-45.0: Red-brown SILT and CLAY, some fine to coarse sand, few fine to coarse gravel, few small cobbles, coarse grains are polymict, till-like material, very cohesive, very dense, moist. (ML)					-30
			0.5 ppm		45.0: End of boring.	44-45 FT				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-72

Client: Keyspan Energy

Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 11.29'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description (color, density, SOIL, admixture, moisture, other notes, ORIGIN.)	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5	NA	96	0 ppm		0.0-1.7: Brown to dark brown FILL, comprised of sand, silt, and gravel, few rootlets, trace brick, non-cohesive, loose, moist. (FI)					10
			0 ppm		1.7-7.8: Red-brown and buff SILT and very fine SAND, few medium to coarse sand, few fine to coarse gravel, trace small cobbles, native material, trace brick fragments, loose, moist. (ML)					
5-15	NA	100							None	
					7.8-9.5: Red-brown, SILT and CLAY, few fine to coarse sand, few fine to coarse gravel, trace small cobbles, polymict till, very cohesive, dense. (ML)					
			0 ppm	10	9.5-11.1: Red-brown SILT and very fine to fine sand, trace fine to coarse gravel, trace coarse sand, slightly cohesive, firm, moist. (ML)					0
					11.1-15.0: Polymict TILL, red-brown silt and very fine to fine sand, trace fine to coarse gravel, trace coarse sand, slightly cohesive, firm, moist. (ML)					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-72

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.29'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-25	NA	98	0 ppm							
					15.0-25.0: Red-brown SILT and CLAY, few fine to coarse sand, few fine to coarse gravel, trace small cobbles, polymict till, very cohesive, pliable, firm, dense. (ML)					
			0 ppm	20						-10
									None	
						24.5-25 FT				
25-35	NA	100	0 ppm							
					25.0-35.0: Red-brown polymict TILL, red-brown silt and clay, few fine to coarse sand, few fine to coarse gravel, trace small cobbles, very cohesive, very					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-72

GEI Consultants, Inc

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.29'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0 ppm		dense, moist to dry. (ML)				None	-20
35-45	NA	96	0 ppm		35.0-38.6: Red-brown polymict TILL, red-brown silt and clay, few fine to coarse sand, few fine to coarse gravel, trace small cobbles, very cohesive, dense, moist. (ML)					
					38.6-40.4: Red-brown SILT and very fine SAND, some clay, trace coarse sand, trace fine to coarse gravel, slightly cohesive, firm, moist. (ML)					
			0 ppm	40						-30
					40.4-47.7: Red-brown polymict TILL, red-brown silt and very fine sand, some clay, trace coarse sand, trace fine to coarse gravel, cohesive, very dense, moist. (ML)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-72

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.29'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 55.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-55	NA	100	0 ppm							
					47.7-50.9: Brown to medium brown and variously-colored, fine to medium SAND, few coarse sand, trace fine, angular to sub-rounded gravel, non-cohesive, firm, wet. (SP)	48-49 FT				
			0 ppm	50					None	-40
					50.9-55.0: Red-brown CLAY, trace silt, very cohesive, extremely dense, pliable, uniform, moist. (CL)					
					55.0: End of boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-73

OBI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.41'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0–5	NA	100	0 ppm		0.0–3.0: Dark brown, loamy FILL, silt and trace sand, trace brick, rootlets, slightly cohesive, firm. (FI)			None	10
					3.0–7.1: Red–brown SILT and CLAY, few fine to coarse polymict sand, trace fine gravel, very cohesive, dense, moist. (ML)			None	
5–15	NA	100	0 ppm						
			0 ppm	10	7.1–12.6: Red–brown SILT and very fine to fine SAND, few medium to coarse sand, some fine gravel, slightly cohesive, soft, moist. (SM)			None	0
					12.6–15.0: Red–brown SILT and CLAY, few fine to coarse sand, fine to coarse gravel, trace cobbles, polymict, very cohesive, very dense, moist. (ML)			None	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-73

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.41'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15–25	NA	100	0 ppm							
			0 ppm	20					None	10
25–35	NA	100	0 ppm		15.0–39.1: Red–brown CLAY and SILT, little fine to coarse sand, little fine to coarse gravel, trace small cobbles, polymict till, extremely cohesive, extremely dense, slightly moist. (ML)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-73

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.41'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0 ppm			30-31 FT			None	-20
5-45	NA	100	0 ppm							
			0 ppm	40	39.1-44.2: Red-brown SILT and CLAY, some very fine to fine sand, little coarse sand, little fine to coarse gravel, cohesive, firm, moist. (ML)				None	-30
					44.2-45.0: Brown and various-colored, medium to very coarse SAND, little very fine sand and silt, few fine gravel, non-cohesive, loose, wet. (SP)				None	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-73

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 11.41'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-55	NA	100	0 ppm		45.0-47.5: Brown and various-colored, medium to very coarse SAND, trace fine to coarse gravel, some silt, non-cohesive, firm, wet. (SP)				None	
			0 ppm	50	47.5-55.0: Brown and various-colored, fine to medium SAND, few fine to coarse gravel, some silt, non-cohesive, firm, wet. (SP)				None	-40
			0 ppm			54-55 FT				
55-65	NA	40			55.0-65.0: Brown and various-colored fine to medium SAND, some silt, few fine gravel, trace small cobbles, non-cohesive, firm, wet. (SM)				None	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-73

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/12/01	Date Completed: 12/12/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 11.41'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Jamie Jarvis

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
			0 ppm	65.0:	End of boring.				-50 -60
				70					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-74

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/10/01	Date Completed: 12/10/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 8.56'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5	NA	100			0.0-1.5: Red-brown, fine to coarse SAND and fine to coarse GRAVEL [FILL], some silt, trace brick, loose, wet. (FI)			None	
					1.5-4.0: Red-brown, fine to coarse sand and fine gravel, FILL, some silt, trace brick, loose, wet. Slight fuel-oil odor. Black staining, slight sheen. (FI)			Slight	
			200.7 ppm		4.0-5.0: Grey-brown, medium to coarse SAND and fine to coarse GRAVEL, loose, non-cohesive, wet. Black NAPL coating on grains, slight sheen. Moderate tar odor. (GW)			Moderate	
5-10	NA	87							
			68.2 ppm		5.0-8.0: Red-brown, fine SAND and SILT, some coarse sand and fine gravel, cohesive, wet, soft, trace rootlets, light fuel oil/possible naphthalene/tar odor mixed, slight sheen. (SM)			Slight	0
			213.9 ppm	10	8.0-12.5: Red-brown, fine SAND and SILT, some coarse sand and fine gravel, firm, moist. Slight naphthalene/tar odor, trace black-stained stringers. (GM)				
			474 ppm		12.5-14.0: Brown, fine to very coarse SAND and fine GRAVEL, little silt, loose, wet, Trace NAPL on gravels and coarse grains. Moderate naphthalene/tar-like odor. (GP)			Moderate	
					14.0-15.0: Brown, fine to very coarse SAND and fine GRAVEL, little silt, loose, wet. No visual impacts, Slight napthalene/tar-like odor. (GP)			Slight	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-74

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/10/01	Date Completed: 12/10/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 8.56'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15–25	NA	78			15.0–20.0: Brown, fine to very coarse SAND and fine GRAVEL, little silt, loose, wet. No visual impacts. Moderate tar/naphthalene–like odor. (GP)				Moderate	
				20	20.0–21.0: Brown, fine to very coarse SAND and fine to coarse GRAVEL, non–cohesive, wet. Brown NAPL streaks throughout, black staining,tar product, moderate sheen. Moderate tar–like odor. (GW)				Moderate	–10
			587 ppm			21–21.5 FT				
					21.0–25.0: Red–Brown, SILT and CLAY, little fine to medium sand, trace coarse sand and fine gravel, trace very coarse gravel, dense, cohesive,moist. Slight naphthalene/tar–like odor. (ML)				Slight	
25–35	NA	100			25.0–28.0: Dark–brown, fine to medium SAND (uniform), trace coarse sand, non–cohesive, loose, moist. Slight naphthalene–like odor. Trace sheen throughout. (SP)					
					28.0–28.5: Dark brown, fine to medium SAND Uniform, trace coarse sand, trace fine gravel, non–cohesive, loose moist. Moderate tar odor. Brown NAPL (tar) heavily coated gravels. (SP)				Moderate	–20
			210 ppm							

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-74

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/10/01	Date Completed: 12/10/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 8.56'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					28.5–35.0: Red–Brown, SILT and CLAY, some very fine to medium sand, trace coarse sand and fine to coarse gravel, dense, cohesive, moist. Distinct contact. (SC)					
35–45	NA	52	61.8 ppm			34.5–35 FT			None	
			13.5 ppm	40	35.0–45.0: Red–brown, SILT and CLAY, little fine to coarse sand, trace fine and coarse gravel (sub–rounded to sub–angular), very cohesive, tight, moist. (ML)					–30
					45.0: End of Boring					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-75

CRI Consultants, Inc.

ent: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5	NA	100			0.0-3.0: Black-stained SILT and FILL [ash], some fine to coarse gravel, some concrete fragments embedded in silt, some wood fragments throughout, slight cohesive, firm, moist. Moderate fuel-like odor. Trace sheen. (FI)			Moderate	
			654 ppm		3.0: Solid piece of clean wood encountered.				
					3.0-5.0: Concrete, white pulverized with chunks. (FI)			None	
5-15	NA	25							
									0
			3996 ppm	10	5.0-15.0: Black, SILT, fine to coarse sand and fine gravel, and cobbles, mixed fill, wet, Tar saturated, heavy sheen. Moderate tar-like odor. (FI)			Moderate	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-75

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-25	NA	93	2952 ppm		15.0-18.5: Red-brown, SILT, some fine to very coarse sand, some cobbles, slightly cohesive, firm. Tar saturated matrix, strong tar odor. (SM)				Strong	
			1809 ppm	20	18.5-23.0: Red-brown, SILT, some fine sand, trace fine to coarse gravel, trace cobbles, dense, cohesive, firm,fractured, moist, trace black staining in fractures. Slight tar-like odor. (SM)				Slight	-10
			2406 ppm		23.0-25.0: SILT and fine to coarse GRAVEL, trace cobbles, slight cohesive, wet. Trace NAPL tar coating on coarse grains. Slight sheen. Strong tar-like odor. (GM)				Strong	
25-35	NA	100	804 ppm		25.0-32.7: Red-brown, SILT and CLAY, little fine to coarse sand, little fine to coarse gravel, trace cobbles, dense, firm, very cohesive, moist. Trace sheen in micro-fractures, trace NAPL blebs on coarse grains in parting within micro-fractures. Slight MGP/tar-like odor. (ML)				Slight	-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-75

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
			936 ppm						
					32.7-35.0: Red-brown, SILT and CLAY, little fine to coarse sand, little fine to coarse gravel, trace cobbles, dense, firm, very cohesive,moist. Trace NAPL blebs within silt matrix, some black staining, moderate tar like-odor. (ML)			Moderate	
35-45	NA	100	1236 ppm						
					35.0-45.0: Red-brown, SILT and CLAY, little fine to coarse sand, little fine to coarse gravel, trace cobbles, till, dense, firm, very cohesive,moist, Trace NAPL blebs on coarse grains (approx 25% impacted), trace veins of very light sheen near micro-fractures,slight tar-like odor. (ML)				-30
				40				Slight	
			1228 ppm						
			896 ppm						

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-75

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-55	NA	100	895 ppm		45.0-55.0: Red-brown, SILT and CLAY, little fine to coarse sand, little fine to coarse gravel, trace cobbles, till, dense, firm, very cohesive,moist. Approximately a half dozen fractures hoizontal and vertical orientations. Trace NAPL blebs on coarse grains (approximatelt 50% impacted), sheen stringers in fractures, trace staining throughout, NAPL saturated silt sections at 49.5, 50 and 52 feet. Moderate to strong tar-like odor. (ML)					
				50					Moderate	-40
			1005 ppm			52-52.5 FT				
55-65	NA	71	1526 ppm		55.0-58.0: Red-brown, SILT and CLAY, trace coarse sand, gravel, and cobbles, firm, very cohesive, no fractures noted. Slight irredecent sheen, trace NAPL blebs on coarse grains. Slight tar-like odor. (ML)				Slight	
			854 ppm							-50

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-75

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/11/01	Date Completed: 12/11/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 9.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 75.00'
		Drilling Method: Resonant Sonic	
		Logged By: Andrew Brey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					58.0–65.0: Red–brown, CLAY, some silt, little coarse gravel and cobbles (angular to subangular), trace fine to coarse sand, very cohesive, no fractures, wet. Very slight napthalene/tar–like odor. (CL)				Slight	
			100 ppm							
65–75	NA	100	138 ppm							
					65.0–69.0: Red–brown, SILT and very fine SAND, some clay, some medium coarse sand, trace fine to coarse gravel, trace small cobbles, cohesive, firm,wet. (SM)				None	
					69.0–69.3: Brown, fine to medium SAND, trace gravel, non–cohesive, firm,wet. (SP)				None	–60
				70						
			204 ppm			70–72 FT				
					69.3–75.0: Red–brown, SILT, trace coarse to very coarse sand, cohesive, firm, dense, wet. (ML)				None	
					75.0: End of boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-76

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/06/01	Date Completed: 12/06/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5	NA	100			0.0-2.0: Black, SILT (FILL) and coarse SAND, trace coarse gravel, fill consists of wire and wood fragments. Moderate naphthalene odor. Black stained. (SM/FI)					
					2.0-5.0: Black to grey, SILT, FILL, trace to little fine to coarse gravel, trace to little coarse sand, trace clay. Tar (NAPL) coated grains, sheen, moderate to strong tar odor. (ML/FI)				Moderate	
5-15	NA	100	788 ppm							
					5.0-9.0: Grey to black, SILT, trace to little medium to coarse sand, trace fine to coarse gravel, trace cobbles, clay micro layer (0.25 ft), trace clay. Moderate to strong tar odor, blebs and tar-coated grains, sheen in veins. (ML)				Strong	
			622 ppm							
				10	9.0-11.0: Grey, SILT with minor amounts of plant debris, layers of fine to coarse sand. Tar-coated grains. Strong tar odor. (ML)					0
			1017 ppm							
					11.0-18.5: Red-brown to grey, SILT(crumbly), little coarse gravel, trace sand, moderate density, "re-worked till", micro-layers of sand. NAPL blebs, tar-coated grains, moderate sheen in				Strong	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-76

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/06/01	Date Completed: 12/06/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15-25	NA	100			veins. Tar (NAPL) within sand layers. Strong tar odor. (ML)				
			1007 ppm						
				20	18.5-21.0: Grey, CLAY and SILT, trace fine to medium sand and gravel, soft. Slight tar odor. Trace tar (NAPL) in fine sand layers. (ML)			Slight	-10
			596 ppm						
					21.0-25.0: Red-brown, SILT and medium to coarse SAND, some fine to coarse gravel, non-cohesive, moist. Moderate naphthalene odor throughout. Sheen noted from 22.5-25.0. (SM)			Moderate	
25-45	NA	100			Note: Prosonic uses a 20' core barrel on the 25-45' sample run.			Moderate	
					25.0-35.0: Red-brown to brown, medium SAND, little to some silt, little coarse sand and gravel, trace cobble, loose. Moderate				-20

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-76

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/06/01	Date Completed: 12/06/01
Remarks: NA – Indicates Not Applicable		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			582 ppm		naphthalene odor. Patchy sheen at 35 feet. (SM)					
			925 ppm							
					35.0–40.0: Brown to black, SILT and coarse SAND, little coarse gravel, loose. Tar (NAPL) staining and sheen. Tar (NAPL) stains the sample bag. Strong tar odor. (SM)				Strong	
				40						-30
					40.0–44.5: Brown to black, SAND and GRAVEL with little cobbles, loose. Over-powering tar odor. Tar saturated. (GP)				Strong	
			5581 ppm							
			6011 ppm		44.5–45.0: Red-brown, SILT, trace to little cobbles, hard, till-like material [appears to be paleo-soil or former till surface] Patchy sheen, strong tar odor. (ML)	44 to 44.5 FT			Strong	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-76

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/06/01	Date Completed: 12/06/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-55	NA	100								
			787 ppm		45.0-50.0: Red-brown to brown, fine SAND, little silt, non-cohesive, moderate dense to loose, moist. Patchy sheen. Naphthalene-like odor. (SM)					
				50						-40
					50.0-55.0: Red-brown, SILT, little medium to coarse sand, trace coarse gravel and cobble, very dense, dry to slightly moist. Trace naphthalene odor. No sheen observed. (ML)				Slight	
			546 ppm						Slight	
			315 ppm			58 to 58.5 FT				
					55.0-65.0: Red-brown, SILT, some sand, trace clay, soft, wet to saturated. Trace naphthalene odor. Trace tar blebs on plastic sample bag likely water					-50

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-76

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/06/01	Date Completed: 12/06/01
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 65.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					impacts. (SM)					
			311 ppm		65.0: End of boring.					
				70						-60

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-81

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/21/02	Date Completed: 05/22/02
Remarks: 05/21/02 Weather: Mostly sunny, mid 60's 05/22/02 Weather: Sunny, breezy NA – Indicates Not Applicable		Ground Elevation: 9.76'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–5.0: POTHOLED: BRICKS and ASPHALT, brick wall foundation present to 5' bgs. (FI)					
5–9	NA	63			5.0–6.3: Black fine SAND, trace silt, trace fill (coal fragments), trace concrete, non–cohesive, soft, loose, dry. (SM)					
			0.0 ppm		6.3–9.0: Brown fine SAND, trace to little silt, trace clay, cohesive, soft, wet at 5.8'. (SM)				None	
					7.8–8.6: Stringer of black silty CLAY. (ML)					
9–13	NA	0		10	9.0–13.0: No recovery.					0
13–17	NA	56			13.0–16.4: Grey/brown SILT–CLAY, trace to little fine sand, trace fine gravel, trace rootlets, grass particles. Moderate tar/naphthalene odor, sheen in veins. (CL)				Moderate	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-81

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/21/02	Date Completed: 05/22/02
Remarks: 05/21/02 Weather: Mostly sunny, mid 60's 05/22/02 Weather: Sunny, breezy NA - Indicates Not Applicable		Ground Elevation: 9.76'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			2233 ppm		16.4–17.0: Red–brown fine to medium SAND, little silt, trace gravel, non–cohesive, loose. Moderate to strong tar odor, tar–coated grains sheen. (SM)				Strong	
17–21	NA	69			17.0–18.2: Black medium to coarse SAND, trace silt, trace subangular gravel, non–cohesive, loose. Overpowering tar odor, tar blebs, heavily tar coated. (SP)					
			2056 ppm		18.2–21.0: Red–brown SILT, little clay, trace to little sand, cohesive, soft, moist to wet. Moderate tar odor, sheen in veins, stringer of tar at 18.8'. (ML)	17–21 FT			Moderate	
				20						
21–25	NA	83			21.0–25.0: Red–brown to brown SILT, little fine to medium sand, trace coarse sand, trace fine to coarse gravel, slightly cohesive, slightly plastic, moderately dense, moist. Slight naphthalene odor. (ML)					
			3.2 ppm							
25–29	NA	73			25.0–29.0: Red–brown to brown SILT, little fine to medium sand, trace to little fine to coarse gravel, trace gray silt nodules, non–cohesive, medium dense, crumbly, moist. Slight naphthalene–like odor, (ML)				Slight	
			1.7 ppm							
29–33	NA	75								
										–20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-81

Client: Keyspan Energy

Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/21/02	Date Completed: 05/22/02
Remarks: 05/21/02 Weather: Mostly sunny, mid 60's 05/22/02 Weather: Sunny, breezy NA – Indicates Not Applicable		Ground Elevation: 9.76'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			1.3 ppm		29.0–33.0: Red–brown SILT, little fine to medium sand, trace coarse sand, trace fine to coarse gravel, trace very dense clay, damp to moist. Slight naphthalene odor. (SM)					
33–37	NA	42								
			0.0 ppm		33.0–37.0: Red–brown SILT, trace to little clay, little fine to medium sand, trace fine to coarse gravel. Trace naphthalene odor. (ML)					
37–41	NA	94			37.0–38.0: Red–brown to brown SILT, little clay, trace coarse sand, cohesive, soft, wet. Slight naphthalene–like odor. (ML)					
			5.0 ppm		38.0–40.2: Brown to red–brown SILT, trace coarse gravel, trace fine sand, very soft, saturated, liquid. (ML)				Slight	
				40	40.2–41.0: Red–brown to brown SILT, little clay, trace coarse sand, cohesive, soft, wet. Slight naphthalene–like odor. (ML)					–30
41–45	NA	92								
			0.0 ppm		41.0–45.0: Red–brown to brown SILT, trace to little gravel, trace clay, very dense, damp to moist. Slight naphthalene–like odor. (ML)	41–45 FT				
					45.0: End of boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-82

Client: Keyspan Energy			
Project Number:	Project Name: Clifton Former MGP	Date Started: 05/23/02	Date Completed: 05/23/02
Remarks: 05/23/02 Weather: Sunny, 70's, slight breeze. NA – Indicates Not Applicable		Ground Elevation: 9.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 13.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–5.0: Hand cleared.					
5–9	NA	65	0.8 ppm		5.0–9.0: Light brown to brown SILT, little to some clay, trace to little fine sand, cohesive, plastic, soft, wet. (ML)	5-9 FT			None	
9–13	NA	40	1.6 ppm	10	9.0–13.0: Black PEAT, some fine silt, soft, moist, non–cohesive, crumbly. (PT)				None	0
					13.0: End of boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-82A

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number:	Project Name: Clifton Former MGP	Date Started: 05/23/02	Date Completed: 05/23/02
Remarks: 05/23/02 Weather: Sunny, 70's, slight breeze. NA – Indicates Not Applicable		Ground Elevation: 9.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 37.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–5.0: HAND CLEARED. FILL, black fine to medium sand, bricks, slag, little ash. (FI)				None	
					5.0–13.0: Offset geoprobe from SB-82. Pushed to 13–17' interval.					0
				10						
13–17	NA	65			13.0–17.0: Black PEAT, little silt, little clay, wood particles, slightly plastic, soft, damp. Organic odor. (PT)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-82A

Client: Keyspan Energy	
Project Number:	Project Name: Clifton Former MGP
Remarks: 05/23/02 Weather: Sunny, 70's, slight breeze. NA - Indicates Not Applicable	

Date Started: 05/23/02	Date Completed: 05/23/02
Ground Elevation: 9.04'	Datum: NAVD 88
Contractor: ADT/ Diamond	Total Depth: 37.00'
Drilling Method: Geoprobe	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.0 ppm						Odor	
17-21	NA	63			17.0-18.8: Black fine SAND, trace gravel, some black silt, soft, wet/saturated. (SM)					
			0.4 ppm	20	18.8-21.0: Red-brown SILT, little to some fine to medium sand, trace gravel, moderately dense, trace clay, slightly cohesive, moderately dense becomes more dense toward bottom, damp to moist. (SM)				None	-10
21-25	NA	63			21.0-25.0: Red-brown SILT, trace fine sand, trace fine to coarse gravel, very dense, crumbly, damp. (ML)					
			0.0 ppm						None	
25-29	NA	71			25.0-29.0: Red-brown SILT, trace fine to medium sand, trace fine gravel, very dense. (ML)	25-29 FT				
			0.0 ppm						None	
29-33	NA	0								-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-82A

CEI Consultants, Inc.

Client: Keyspan Energy			
Project Number:	Project Name: Clifton Former MGP	Date Started: 05/23/02	Date Completed: 05/23/02
Remarks: 05/23/02 Weather: Sunny, 70's, slight breeze. NA – Indicates Not Applicable		Ground Elevation: 9.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 37.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					29.0–33.0: No recovery in macro–core, soils logged from materials within macro–core shoe. Brown–grey SILT, trace fine sand, trace clay, saturated. (ML)				
					33.0–37.0: No recovery. Sample, macro–core and rods detached from Geoprobe rig and became lodged in hole. Pushed macro down borehole and grouted.				
					37.0: End of boring.				
				40					-30

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-88

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/11/02	Date Completed: 06/11/02
Remarks: Weather - hazy, hot, 90's. NA - Indicates Not Applicable		Ground Elevation: 11.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 48.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4	NA	88			0.0-2.3: Light brown SILT, trace to little fine sand, trace fill (glass, brick), non-cohesive, loose, dry. (FI)				None	10
			11.0 ppm		2.3-4.0: Dark brown to black fine to medium SAND and silt, non-cohesive, loose, moist, tan brick in bottom. Moderate organic odor, black stained. (FI)			+ + + +		
4-8	NA	46			4.0-8.0: Dark brown to black fine to medium SAND and silt, trace tan brick fill, gravel-sized coal, ash, glass within black silt, trace to little fine to coarse sand. Trace petroleum-like (motor oil) organic odor. (FI)				Trace	
			3.0 ppm		7.5: Apparent groundwater table.					
8-12	NA	46			8.0-8.5: Red-brown SILT with medium to coarse sand, non-cohesive, non-plastic, moderately stiff. Organic odor. (SM)					
			5.0 ppm	10	8.5-12.0: Dark brown PEAT, little sand and silt, soft (spongy), damp. Organic odor. (PT)				Odor	0
12-16	NA	56			12.0-14.8: Dark brown PEAT, little brown silt, soft (spongy), damp. Trace organic odor. (PT)				Trace	
			5.0 ppm		14.8-16.0: Black silty CLAY, cohesive, plastic.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-88

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/11/02	Date Completed: 06/11/02
Remarks: Weather - hazy, hot, 90's. NA - Indicates Not Applicable		Ground Elevation: 11.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 48.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					soft, moist. (CL)					
16-20	NA	63								
			9.8 ppm		16.0-20.0: Red-brown SILT, little to some fine to medium sand, trace gravel, trace clay, slightly cohesive, plastic, damp. (SM) 17.3-17.9: Wet.					
					Note: Geoprobe offset from original location by ~6' due to crooked hole.					
20-24	NA	60		20						
			8.3 ppm		20.0-24.0: Red-brown SILT, little to some progressing to and fine to medium sand, trace gravel, non-cohesive, moderately stiff, damp. (SM)				None	-10
24-28	NA	98			24.0-24.5: Red-brown SILT, trace fine to coarse gravel, little fine sand, non-cohesive, stiff, damp. (ML) 24.5-25.8: Brown medium SAND, trace fine gravel, saturated trace to little silt, well sorted. (SP)					
			26.0 ppm		25.8-26.4: SILT and red-brown fine SAND, non-cohesive, medium stiff, loose, wet. (SM) 26.4-28.0: Red-brown SILT, trace fine sand, trace fine gravel, non-cohesive, stiff, damp. (ML)					
28-32	NA	75								
					28.0-32.0: Red-brown SILT, trace little fine sand, trace fine gravel, trace clay, stiff to very stiff. Trace naphthalene-like					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-88

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/11/02	Date Completed: 06/11/02
Remarks: Weather - hazy, hot, 90's. NA - Indicates Not Applicable		Ground Elevation: 11.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 48.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			60.0 ppm		odor. (ML)	28-32 FT			Trace	
					Note: Photovac PID used to screen sub-surface soils malfunctioned, likely resulting in elevated PID readings.					-20
32-36	NA	85			32.0-35.0: Brown SILT and SAND, soft, water saturated. (SM)				None	
			42.2 ppm		35.0-36.0: Red-brown SILT, trace coarse sand, trace gravel, non-cohesive, non-plastic, very stiff, dry. Trace naphthalene odor. (ML)					
36-40	NA	73								
			63.0 ppm		36.0-40.0: Red-brown SILT, trace to little fine to coarse gravel, non-cohesive, with dense stiff. Slight naphthalene-like odor. (ML)				Trace	
40-44	NA	48		40						-30
			91.0 ppm		40.0-44.0: Red-brown SILT, coarse SAND, fine gravel, very stiff, damp. Slight naphthalene odor. (GM)					
44-48	NA	79								

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-88

GEI Consultants, Inc.

ent: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/11/02	Date Completed: 06/11/02
Remarks: Weather – hazy, hot, 90's. NA – Indicates Not Applicable		Ground Elevation: 11.04'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 48.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			8.0 ppm		44.0–48.0: Red–brown SILT, trace to little clay, trace to little coarse sand, trace fine gravel, plastic, moderately stiff to stiff. (ML)	44-48 FT			None	
				50	48.0: End of boring.					-40

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-89

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/19/02	Date Completed: 06/21/02
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.90'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 39.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0-8.0: Borehole SB-89 was cleared by Vac-Tron utility clearance for utility concerns. Fill material was encountered with naphthalene-like odor. (FI)			Trace	
8-12	NA	58			8.0-10.9: Light brown to black, PEAT, wood particles, some to and SILT, moist, Moderate naphthalene and tar like odors. (PT)				
			242.7 ppm	10		8-12 ft.		Moderate	0
					10.9-11.7: Black to gray, medium to coarse SAND, dry. Moderate tar and naphthalene odor. (SW)				
					11.7-12.0: Grey-red to brown SILT and CLAY, some medium to coarse sand. Moderate to strong tar odor. (CL)				
					12.0-15.0: Driller over-drove macro-core sampler. Sampling to commence at 15'.				
					15.0-16.5: Brown, medium to coarse SAND, little				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-89

GEI Consultants, Inc

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/19/02	Date Completed: 06/21/02
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.90'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 39.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-19	NA	58			silt, non-cohesive, non-plastic, soft, moderate naphthalene and tar odor. Patchy sheen from approx-imately 15 to 15.5' below ground surface. (SP)				Moderate	
			139.8 ppm		16.5-17.8: Brown, fine to medium SAND, little to some silt, trace rounded gravel, non-cohesive, non-plastic, wet. (SM) 17.8-19.0: Brown, fine to medium SAND, trace silt, non-cohesive, non-plastic, well sorted, wet. Trace naphthalene odor. (SP)				Trace	
19-23	NA	29		20						-10
			62 ppm		19.0-23.0: Brown, fine to medium SAND, well-sorted, non-cohesive, non-plastic, soft. Trace naphthalene-like odor. (SP)				Trace	
23-27	NA	75								
			30.0 ppm		23.0-27.0: Brown, fine to very fine SAND, non-cohesive, non-plastic, loose, wet to saturated. Slight naphthalene-like odor. (SP)				Trace	
27-31	NA	90			27.0-29.2: Brown, fine to coarse SAND, trace silt, well-sorted, non-cohesive, non-plastic. Trace naphthalene-like odor. (SP)					
			17.8 ppm		29.2-29.7: Brown, medium to coarse SAND, little silt and fine gravel, non-cohesive wet. Trace napthalene-like odor. (SP)					
					29.7-31.0: Red-brown, SILT, some fine to medium					-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-89

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 06/19/02	Date Completed: 06/21/02
Remarks: NA - Indicates Not Applicable		Ground Elevation: 9.90'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 39.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					sand, trace fine and coarse gravel, non-cohesive, moderately stiff, damp. (SM)			None	
31-35	NA	69			31.0-31.2: Brown, sandy-SILT, non-cohesive, moist non-cohesive, non-plastic. Trace napthalene odor. (SM)				
			29 ppm		31.2-35.0: Red-brown, SILT, trace fine to medium sand, trace coarse gravel, non-cohesive, non-plastic, stiff to very stiff. Trace naphthalene odor. (ML)			Trace	
35-39	NA	60							
			23 ppm		35.0-39.0: Red brown, SILT, trace fine to medium SAND, trace coarse gravel, very stiff, non-cohesive, moist. (SM)	35-35 ft.		None	
					39.0: End of Boring.				
				40					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-90

Client: Keyspan Energy			
Project Number: 982482-1-1004	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available		Ground Elevation: 7.59'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 12.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0-4.0: SB-90 cleared by hand for utility concerns.				
					4.0-6.2: Brown silt, little fine sand, non-cohesive, soft, moist. (ML)				
					6.2-6.9: Fill (concrete). (FI)				
					6.9-8.0: Brown silt, trace to little clay, cohesive, moist. Trace petroleum odor. (ML)			None	
4-8	NA	46			8.0-12.0: Brown silt, little clay, little fine sand, cohesive, soft, moist. (ML)				
					12.0: Refusal. Offset to SB-90A - refusal at 12.0 ft. Offset to SB-90B - refusal at 12.0 ft. Offset to SB-90C.				
								Trace	0
8-12	NA	66							
				10				None	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-90C

Client: Keyspan Energy			
Project Number: 982482-1-1007	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available		Ground Elevation: 7.73'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 36.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.5 ppm		12.0-14.4: Red brown silt, non-cohesive, moist. (ML)					
					14.4-16.0: Red brown silt and medium to coarse sand, trace to little gravel, non-cohesive, moist. (ML)					0
					16.0-20.0: Red brown silt, trace medium to coarse sand, trace coarse gravel, trace clay, non-cohesive, dense, dry. (ML)					
			0 ppm	10						
12-16	NA	52			20.0-28.0: Red brown silt, little fine to coarse sand, trace fine gravel, trace clay, cohesive, medium dense, plastic, moist. (ML)				None	
			0.2 ppm							

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-90C

Client: Keyspan Energy			
Project Number: 982482-1-1007	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available		Ground Elevation: 7.73'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 36.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
16-20	NA	25			28.0-36.0: Red brown sitl, little fine to medium sand, little fine and coarse gravel, trace clay, cohesive, dense, moist. (ML)					
			1.5 ppm		36.0: End of boring.					-10
20-24	NA	35		20						
			0 ppm							
24-28	NA	46							none	
			0 ppm							
28-32	NA	38								-20

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-90C

Client: Keyspan Energy			
Project Number: 982482-1-1007	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available		Ground Elevation: 7.73'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 36.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0 ppm							
32-36	NA	77							None	
			0 ppm							
				40						-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-91

Client: Keyspan Energy

Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/15/02	Date Completed: 11/15/02
Remarks: NA-not available		Ground Elevation: 7.65'	Datum: NAVD 88
		Contractor: ADT/ Diamond	Total Depth: 11.50'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4	NA	0			0.0-4.0: SB-91 location was cleared by hand for utility concerns.			None	
4-8	NA	56	3.1 ppm		4.0-6.5: Brown to gray, medium SAND, trace fill (brick), non-cohesive, loose, moist. (FI)			Trace	0
8-11.5	NA	25	17.7 ppm	10	6.5-11.5: Gray, medium SAND, trace to little silt, non-cohesive, loose, wet. Trace petroleum (motor oil-like) odor. (SP) 11.5: Refusal, off set approximately 5' and commence SB-91A.	8-11.5 FT			

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-91A

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/15/02	Date Completed: 11/15/02
Remarks: NA-not available		Ground Elevation: 7.57'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					Note: SEE SB-91 for geologic observations from 0.0-11.5.					
				10						0
12-16	NA	37			12.0-13.3: Gray, medium SAND, little to trace silt, non-cohesive, loose, wet. Organic odor (sulfur). (SP)				Moderate	
			2.9 ppm		13.3-16.0: Brown, PEAT, some silt, soft, moist. Strong organic (sulfur) odor. (PT)				to	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-91A

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/15/02	Date Completed: 11/15/02
Remarks: NA-not available		Ground Elevation: 7.57'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
									Strong	
16-20	NA	58			16.0-18.0: Brown, PEAT, little to some sand, moist. Trace organic odor. (PT)					
			5.0 ppm		18.0-19.1: Gray, fine to medium SAND, well-sorted, trace to little silt, trace coarse gravel, non-cohesive. (SP)				Trace	-10
					19.1-20.0: Red brown, SILT and CLAY, cohesive, plastic, moist. (CL)					
20-24	NA	62		20	20.0-20.8: Medium to coarse SAND, well-sorted, trace fine sand, trace silt, moist. (SP)					
					20.8-22.0: Brown, SILT, trace fine sand, trace silt, cohesive, moist. (ML)					
			0.8 ppm		22.0-22.5: Medium to coarse SAND, well-sorted, trace fine sand, trace silt, moist. (SP)					
					22.5-24.0: Brown, SILT, trace fine sand, trace silt, cohesive, moist. (ML)					
24-28	NA	67			24.0-24.5: Same medium to coarse well-sorted SAND. (SP)				None	
			0.8 ppm							
					24.5-30.3: Red brown, fine to medium SAND, cohesive, moist. (SP)					-20
28-32	NA	69								

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-91A

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/15/02	Date Completed: 11/15/02
Remarks: NA-not available		Ground Elevation: 7.57'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.8 ppm							
32-36	NA	60								
			0.6 ppm							
					30.3-40.0: Red brown, SILT, trace fine sand, trace clay, trace fine and coarse gravel, cohesive, moist, dense. (ML)				None	
36-40	NA	54								
			0.6 ppm			36-40.0				
				40	40.0: End of boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-92

GEI Consultants, Inc.

ent: Keyspan Energy

Project Number: 9824821007	Project Name: Clifton Former MGP	Date Started: 11/12/02	Date Completed: 11/12/02
Remarks: NA-not available Apparent groundwater table encountered at 5.0'. Weather: Overcast, rain, high in the 50's F.		Ground Elevation: 7.13'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 41.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0–5.0: SB-92 location was cleared by hand for utility concerns.				
5–9	NA	30			5.0: Apparent groundwater table encountered.				
			2.6 ppm		5.0–7.6: Brown, medium SAND, little silt, trace coarse sand, trace coarse gravel, non-cohesive, wet. (SP)	5-9.0		Moderate	0
9–13	NA	100			7.6–9.0: Gray, medium SAND, trace to little silt, non-cohesive, wet, Petroleum (motor oil-like) sheen, stained (gray), odor. (SP)				
			2.6 ppm	10	9.0–13.0: Gray, medium to coarse SAND, sub-rounded, saturated, stained (gray). 9–11: Trace petroeum odor, 11–13: trace organic odor. (SP)			Slight	
13–17	NA	52			13.0–17.0: Dark brown, PEAT, little to some silt and clay, cohesive, moist. Strong organic odor. (PT)				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-92

Client: Keyspan Energy			
Project Number: 9824821007	Project Name: Clifton Former MGP	Date Started: 11/12/02	Date Completed: 11/12/02
Remarks: NA-not available Apparent groundwater table encountered at 5.0'. Weather: Overcast, rain, high in the 50's F.		Ground Elevation: 7.13'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 41.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0 ppm						Strong	
17-21	NA	65			17.0-18.5: FILL (large piece of timber), wet. (FI)					-10
			0 ppm		18.5-20.6: Gray, SILT, little medium to coarse sand, trace coarse gravel, wet. (SM)					
				20	20.6-21.0: Red brown, SILT and fine SAND, trace to little clay, cohesive. (SM)					
21-25	NA	0								
			ppm		21.0-25.0: No recovery.				None	
25-29	NA	42								
			0 ppm							-20
29-33	NA	46								

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-92

CEE Consultants, Inc.

Client: Keyspan Energy			
Project Number: 9824821007	Project Name: Clifton Former MGP	Date Started: 11/12/02	Date Completed: 11/12/02
Remarks: NA-not available Apparent groundwater table encountered at 5.0'. Weather: Overcast, rain, high in the 50's F.		Ground Elevation: 7.13'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 41.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
			0 ppm		25.0–37.0: Red brown, SILT, little to some fine sand, little clay, trace coarse gravel, cohesive, moderately stiff, moist. (ML)				
33–37	NA	50						None	
			0 ppm						
37–41	NA	50							–30
			0 ppm		37.0–41.0: Red brown, SILT, trace to little fine and coarse sand, trace to little fine and coarse gravel, trace clay, cohesive, dense, moist. (ML)	37–41.0			
				40	41.0: End of boring.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-93

Client: Keyspan Energy			
Project Number: 982482-1007	Project Name: Clifton Former MGP	Date Started: 11/12/02	Date Completed: 11/12/02
Remarks: NA-Not available Apparent groundwater table at approximately 4' Weather: Overcast, moderate rain.		Ground Elevation: 7.20'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0-4.0: SB-93 location cleared by hand for utility concerns.				None	
4-8	NA	40			4.0: Apparent groundwater table.					
			35.8 ppm		4.0-7.3: Brown, SILT, little to some fine to medium sand, trace coarse gravel, slightly cohesive, wet to saturated. (SM)				Slight	0
8-12	NA	69			7.3-8.0: Medium to coarse SAND. Patchy sheen, black tar-stained, strong tar odors, viscous, sticky. (SP)			+		
			68 ppm	10	8.0-12.0: Gray brown to black stained fine SAND, trace silt, trace fill, non-cohesive, loose, wet. Moderate napthalene odor, heavy solid tar staining, viscous.	8-12.0 (SP)			Strong	
					8.7 to 9.4: Presence of solid black viscous tar viens.					
12-16	NA	42								
			0.3 ppm		12.0-16.0: Brown, PEAT, trace to little silt, cohesive, dry. Organic odor. (PT)					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-93

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 982482-1007	Project Name: Clifton Former MGP	Date Started: 11/12/02	Date Completed: 11/12/02
Remarks: NA-Not available Apparent groundwater table at approximately 4' Weather: Overcast, moderate rain.		Ground Elevation: 7.20'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
16-20	NA	50	0.4 ppm		16.0-20.0: Red brown, SILT, trace to little fine sand, trace to little coarse gravel, trace to little clay, cohesive, moderately dense, moist. (ML)					
20-24	NA	50	4.4 ppm	20	20.0-22.0: Gray CLAY, lense of fine to medium sand loose, cohesive, moist. (CL) 22.0-24.0: Red brown, SILT, trace clay, trace cobbles, slightly cohesive, moderately dense, moist. (ML)				None	-10
24-28	NA	46	0.3 ppm		24.0-29.4: Red brown, SILT, trace to little coarse sand and coarse gravel, cohesive, very dense, non-plastic, moist. (ML)					-20
28-32	NA	73								

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-93

Client: Keyspan Energy			
Project Number: 982482-1007	Project Name: Clifton Former MGP	Date Started: 11/12/02	Date Completed: 11/12/02
Remarks: NA-Not available Apparent groundwater table at approximately 4' Weather: Overcast, moderate rain.		Ground Elevation: 7.20'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			1.7 ppm							
32-36	NA	56								
			0.0 ppm						None	
					29.4-40.0: Red brown, SILT, little fine sand, trace fine and coarse gravel, cohesive, dense to very dense, moist. (ML)					
36-40	NA	48								
			0.0 ppm			36-40.0				
					36.0-40.0: Trace clay in matrix.					
				40						-30
					40.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-94

GZA GeoEnvironmental, Inc.

ent: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available Weather: Sunny, warm.		Ground Elevation: 7.27'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0-4.0: SB-94 location cleared by hand for utility concerns.				
4-8		96			4.0-5.75: Brown, to gray, medium and coarse SAND, little fill (asphalt), trace shells, non-cohesive, moist. (FI)			None	
			0 ppm						
					5.75-10.3: FILL (timber), wet. Apparent groundwater table. (FI)				0
8-12		54							
			11.1 ppm	10					
12-16		19			10.3-13.8: Dark brown to black, PEAT, little organic material, soft, moist. Organic odor. (PT)			Trace	
			14.4 ppm						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-94

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available Weather: Sunny, warm.		Ground Elevation: 7.27'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
16-20		100			13.8-16.0: Red brown to brown, SILT, little clay, trace to little fine and coarse sand, trace coarse gravel, cohesive, plastic, soft, wet. (ML)					
			34.2 ppm		16.0-20.0: Red brown, SILT, little to some sand, trace to little clay, non-cohesive, wet. Moderate napthalene odor. (SM)				Moderate	-10
20-24		63		20						
			197 ppm		20.0-24.0: Brown, SILT and SAND, saturated (water). From 20-21.6, moderate napthalene odor. (SM) 21.6-23.2: Sheen and blebs on soil matrix, tar odor.	20-24.0				
24-28		33			23.2-24.0: Tar saturated soil matrix, strong tar odor.				Strong	
			409 ppm		24.0-28.0: Brown, SILT, trace to little sand, trace clay, trace gravel, non-cohesive, wet. Tar coated gravel, strong tar odor. (ML)					-20
28-32		35								

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-94

Client: Keyspan Energy

Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/14/02	Date Completed: 11/14/02
Remarks: NA-not available Weather: Sunny, warm.		Ground Elevation: 7.27'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			8.4 ppm							
32-36		35								
			1.9 ppm		28.0-40.0: Red brown, SILT, trace to little fine sand, trace coarse sand, trace coarse gravel, trace clay, cohesive, dense, moist. Trace napthalene odor. (ML)				None	
36-40		100								
			0.5 ppm			36-40.0				
				40	40.0: End of boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

1 Edgewater Street/Edgewater Plaza
Soil Boring Logs

Site Id: SB-95

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/28/04
Remarks:		Ground Elevation: 9.89'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 32.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
0-5		48			0.0-1.0: Concrete and gravel, dry. (FI)					
					1.0-5.0: Dark brown to black, fine to medium SAND, little FILL, slag, trace roadbase gravel, trace brick, little silt, non-cohesive, dry, no odor, no visual impacts. (FI)					
			0.8 ppm							
5-10		30			5.0-7.7: Concrete, gravel sized fragments, little medium to coarse sand, non-cohesive, loose, dry, no odor, no visual impacts. (FI)				NONE	
			0.9 ppm		7.7-10.0: Brown, fine to medium SAND, trace silt, trace gravel, wet, no odor, no visual impacts. (SP)					
10-15		60	0.8 ppm	10	10.0-11.7: Brown, medium to coarse SAND, trace to little silt, trace fine to coarse gravel, non-cohesive, loose, wet, no odor, no visual impacts. (SP)				NONE	0
					11.7-15.0: Brown, fine to medium SAND, little coarse sand, trace silt, well-sorted, loose, non-cohesive, wet, no odor, no visual impacts. (SP)	10-15				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-95

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/28/04
Remarks:		Ground Elevation: 9.89'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 32.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	UNKN	0	1.2 ppm		15.0-17.5: Brown, PEAT, little silt, some organic matter and rootlets, cohesive, soft, non-plastic, damp. (PT)					
					17.5-20.0: Gray, fine to medium SAND, trace coarse gravel, non-cohesive, loose, wet, no odor, no visual impacts. (SW)					
20-25		78		20	20.0-20.6: Gray, fine to medium SAND, little silt, trace organic matter, non-cohesive, loose, wet, no odor, no visual impacts. (SW) 20.6-23.3: Brown to gray brown, PEAT, some clay and silt, wood particles, cohesive, plastic, soft, organic odor, no visual impacts. (PT)				NONE	-10
			1.3 ppm		23.3-24.1: Gray, black, silty CLAY, cohesive, soft, no odor, no visual impacts. (CL)					
					24.1-24.5: Black, silt SAND, trace to little clay, non-cohesive, wet, no odor, no visual impacts. (SM) 24.5-25.0: Red brown, SILT, little clay, trace to little coarse sand, cohesive, slightly plastic, damp, no odor, no visual impacts. (ML)					
25-30		92	1.2 ppm		25.0-26.0: Brown, fine SAND, some silt, soft, wet, no odor, no visual impacts. (SP)				NONE	
					26.0-30.0: Red brown, TILL, silt, trace to little fine to coarse, little fine to coarse sand, trace medium sand, dense/stiff, dry, no odor, no visual impacts. (ML)	25-30				-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-95

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/28/04
Remarks:		Ground Elevation: 9.89'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 32.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-32		100	1.1 ppm		30.0-32.0: Red brown, TILL, silt, little medium to coarse sand, trace clay, trace to little fine gravel, cohesive, slightly plastic, dry/damp, no odor, no visual impacts. (ML)				NONE	
					32.0: End of boring.					
				40						-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-96

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/27/04	Date Completed: 04/27/04
Remarks: LOG INCLUDES GEOLOGIC INFORMATION FROM SB-96A 30-35' BGS		Ground Elevation: 9.63'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0-4.0: Cleared by hand for utility concerns.			NONE	
4-5		17	0.4 ppm		4.0-5.0: Black to dark brown, roadbase type gravel (angular), fine to medium sand, non-cohesive, loose, no odor, no visual impacts. (FI)				
5-10		32	1.7 ppm		5.0-10.0: Brown, FILL, medium to coarse sand and fine gravel, trace silt, FILL, little slag, ash fragments, wood pile, non-cohesive, loose, wet, organic odor, layer of black stain at 9' (1-inch thick). (FI)	5-10		MODERATE	
									0
10-15		64	1.6 ppm	10	10.0-10.9: Brown, medium to coarse SAND, trace silt, trace fine gravel, non-cohesive, loose, wet, no odor, no visual impacts. (SP)				
					10.9-12.3: Black, fine SAND, trace gravel, non-cohesive, loose, wet, no odor, no visual impacts. (SP)				
					12.3-14.7: Gray, black, fine SAND, trace silt, well-sorted, non-cohesive, loose, no odor, no visual impacts. (SP)			NONE	
					14.7-15.0: Brown, PEAT, little silt and clay, soft, cohesive, organic odor, no visual impacts. (PT)			MODERATE	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-96

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/27/04	Date Completed: 04/27/04
Remarks:		Ground Elevation: 9.63'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL., admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		100	1.5 ppm		15.0-19.8: Brown, PEAT, silt, trace clay, wood particles and rootlets, loose, soft. (PT)				WOODY/PEAT	
20-25		72	0.0 ppm	20	19.8-20.0: Red-brown, SILT, little clay, trace coarse sand, moderately stiff, cohesive, damp, no odors, no visual impacts. (ML) 20.0-24.2: Red-brown, TILL, silt, trace to little clay, little fine to coarse sand, trace coarse gravel, stiff, damp, no odor, no visual impacts. (ML)	20-25			NONE	-10
25-30	UNKN	0	1.6 ppm		24.2-25.0: Brown, SILT, and fine to medium SAND, trace gravel, non-cohesive, loose, wet, no odor, no visual impacts. (ML) 25.0-30.0: Red-brown/brown, TILL, silt, trace clay, trace to little fine to coarse sand, moist (wet at 27'), cohesive, slightly plastic, no odor, no visual impacts. (ML)				NONE	-20
					FROM SB-96A					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-96

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/27/04	Date Completed: 04/27/04
Remarks:		Ground Elevation: 9.63'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		74			30.0-33.8: Red-brown, TILL, silt, trace to little fine sand, trace coarse sand, trace fine gravel, trace clay, cohesive, stiff, moist, no odor, no visual impacts. (ML)					
					33.8-35.0: Red-brown, medium to coarse SAND, little silt, non-cohesive, loose, wet, no odor, no visual impacts. (SP)	30-35			NONE	
35-40		100	1.5 ppm		35.0-40: Red-brown, brown, medium to coarse SAND, trace fine gravel, trace silt, well-sorted, loose, wet, no odor, no visual impacts. (ML)				NONE	
				40	40.0: End of boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-97

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/26/04	Date Completed: 04/27/04
Remarks:		Ground Elevation: 9.69'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0–5		40	0.2 ppm		0.0–3.75: Dark brown, medium to coarse FILL, asphalt, rod fragments, coarse gravel, non–cohesive, damp, no odor, no impacts. (FI)				
					3.75–5.8: Brown, tan to gray, SILT, wet, little fine sand, trace clay, slightly cohesive, no odor, no impacts. (FI)			NONE	
5–10		60	19.8 ppm		5.8–8.3: Brown to dark brown, FILL, fine to medium sand, little fine gravel, trace wood chips, coal slag, loose, non–cohesive, moist to wet, no odor, no impacts. (FI)	5-10			
					8.3–10.0: Brown, medium to coarse SAND, trace coarse gravel, trace silt, loose, well–sorted, non–cohesive, wet, black–stained, fuel oil type odor. (SP)				
10–15		88	6.6 ppm	10	10.0–10.6: Black, medium to coarse SAND, little fine gravel, loose, non–cohesive, wet, fuel oil odor. (SP)				0
					10.6–12.3: Gray, fine SAND with silt, loose, well–sorted, non–cohesive, wet, organic odor. (SM)			MODERATE	
					12.3–15.0: Dark brown to black, PEAT, cohesive, slightly plastic, organic odor, no visual impacts. (PT)				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-97

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/26/04	Date Completed: 04/27/04
Remarks:		Ground Elevation: 9.69'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15–20		80	1.0 ppm		15.0–16.3: Dark brown to black, SILT, little clay, cohesive, slight organic odor, no visual impacts. (OL)			FAINT	
					16.3–18.4: Brown to gray brown, SILT, trace fine sand, trace rootlets, cohesive, soft/stiff, damp, no odor or visual impacts. (ML)				
					18.4–20.0: Gray brown, medium to coarse SAND, trace gravel, non-cohesive, wet, no odor or visual impacts. (SP)				
20–25	UNKN	0	0.1 ppm	20	20.0–25.0: Red brown, fine to medium SAND, little coarse gravel, some silt, trace cobble, no odor, no visual impacts. (SW)				–10
25–30		78	0.1 ppm		25.0–26.7: Brown to red-brown SILT and CLAY, cohesive, plastic, moderately stiff, wet, no odor, no visual impacts. (ML)			NONE	
					26.7–30.0: Red brown, SILT, some clay, little fine sand, trace fine gravel, cohesive, plastic, no odors, no visual impacts. (ML)	25–30			–20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-97

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/26/04	Date Completed: 04/27/04
Remarks:		Ground Elevation: 9.69'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		88	0.0 ppm		30-31.7: Red brown SILT, trace fine sand, soft, non-cohesive, loose, wet, no odor, no visual impacts. (ML)					
					31.7-34.3: Red brown SILT, little clay, trace gravel, little fine sand, soft, cohesive, slightly plastic, no odor, no visual impacts. (ML)					
					34.3-35.0: Red brown, SILT, trace clay, trace to little fine gravel, trace fine to coarse sand, cohesive, slightly plastic, damp, no odor, no visual impacts. (ML)					
35-40		40	0.1 ppm		35.0-40.0: Red brown, SILT, little fine to medium sand, trace coarse gravel, cohesive, moderately stiff, damp to wet, no odor or visual impacts. (ML)				NONE	
				40	40.0: End of boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-98

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/29/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.77'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 10.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		40	24.5 ppm		0.0-1.25: FILL, asphalt. (Fl)				
					1.25-2.25: FILL, light brown, medium to coarse sand, little silt, trace fine to coarse angular gravel, non-cohesive, dry, no odors or visual impacts. (Fl)				
					2.25-4.0: Black, FILL, silt and fine sand, trace asphalt, wood and fine gravel, loose, dry, no odors or visual impacts. (Fl)				
					4.0-5.0: Black and brown, FILL, silt and fine to medium sand, trace asphalt, wood and fine gravel, loose, dry, no odors or visual impacts. (Fl)				
5-10		40	1.3 ppm		5.0-7.5: Brown, fine SAND, little fine to coarse angular gravel, trace silt, moist, loose, no odors or visual impacts. (SW)			NONE	
					7.5-10.0: Medium to coarse SAND, trace fine angular gravel, wet, loose, no odors or visual impacts. (SW)				
				10	10.0: End of boring. See SB-98A.				0

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-98A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.77'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		50	0.5 ppm		0.0-2.0: FILL, asphalt, cobble and gravel, little fine sand. (FI)					
					2.0-5.0: Brown to black, FILL, fine to medium SAND, trace to little coal fragments, gravel sized clinker, coal, brick fragments, little silt, non-cohesive, dry, no odor, no visual impacts. (FI)					
5-10		36	1.1 ppm		5.0-6.4: GRAVEL, little fine sand, non-cohesive, loose, dry, no odor, no visual impacts. (FI)					
					6.4-10.0: Brown, coarse SAND, little medium sand, trace silt, trace fine to coarse gravel, trace fill, glass, non-cohesive, loose, wet, no odor, no visual impacts. (FI)				NONE	
10-15	UNKN	0	0.0 ppm	10	10.0-15.0: Brown, fine to medium SAND, trace gravel, trace silt, non-cohesive, loose, wet, no odor, no visual impacts. (SP)					0

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-98A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.77'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		80	82.2 ppm		15.0-17.4: Gray to dark brown, fine to medium SAND, little silt, trace gravel, non-cohesive, loose, wet, at 17.5' a 0.2' layer of viscous tar (saturated) is present and there is a moderate tar odor, no other odors or visual impacts. (SP)	16.5-17.5			MODERATE	
					17.4-20.0: Brown, PEAT, some organic matter, cohesive, moderately dense, non-plastic, strong organic odor, no visual impacts. (PT)				STRONG	
20-25		86		20	20.0-22.3: Black, PEAT, little silt and clay, cohesive, soft, damp, organic odor, no visual impacts. (PT)				MODERATE	-10
			0.6 ppm		22.3-25.0: Red brown, fine to, medium SAND, little silt progressing to and silt, trace clay, moderatly stiff, cohesive, slightly plastic, wet, no odor, no visual impacts. (SP)					
25-30		80	0.0 ppm		25.0-25.7: Red brown, TILL, silt, little fine to coarse sand, trace clay, trace coarse gravel, cohesive, slightly plastic, moist, no odor, no visual impacts. (ML) 25.7-25.9: SILT and medium to coarse SAND, non-cohesive, loose, soft, moist, no odor, no visual impacts. (ML) 25.9-27.2: Red brown, TILL, silt, little fine to coarse sand, trace clay, trace coarse gravel, cohesive, slightly plastic, moist, no odor, no visual impacts. (ML) 27.2-27.4: SILT and medium to coarse SAND, non-cohesive, loose, soft, moist, no odor, no visual impacts. (ML) 27.4-30.0: Red brown, TILL, silt, little fine to coarse sand, trace clay, trace coarse gravel, cohesive, slightly plastic, moist, no odor, no visual impacts. (ML)	25.0-30.0			NONE	-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-98A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.77'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		88	0.4 ppm		30.0-32.7: Red brown, SILT, little fine to coarse sand, trace gravel, trace gravel, cohesive, slightly plastic, damp, no odor, no visual impacts. (ML)					
					32.7-35.0: Red brown, fine to medium SAND, trace fine gravel, little to some silt, non-cohesive, loose, wet, no odor, no visual impacts. (SW)					
35-40	UNKN	0	1.1 ppm		35.0-37.5: Red brown, SILT, little to some medium to coarse sand, little clay, cohesive, moist, no odor, no visual impacts. (ML)				NONE	
					37.5-40.0: Brown to red brown, medium to coarse SAND, trace to little silt, non-cohesive, loose, wet, no odor, no visual impacts. (SW)					
40-45		90	4.1 ppm	40	40.0-40.7: Red brown, fime to medium SAND, little coarse sand, trace silt, soft, semi-cohesive, wet, no odor, no visual impacts. (SW) 40.7-45.0: Red brown, TILL, silt, trace fine sand, little fine gravel, trace clay, slightly plastic, dense, wet, no odor, no visual impacts. (ML)					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-98A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 04/28/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.77'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-50		80	6.0 ppm		45.0-50.0: Red brown, TILL, silt, trace fine sand, little fine gravel, trace clay, slightly plastic, dense, wet, no odor, no visual impacts. (ML)	45.0-50.0			NONE	
				50	50.0: End of boring.					-40
										-50

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-99

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/29/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.71'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0–5		75	14.6 ppm		0.0–1.3: FILL, asphalt and concrete fragments, little to some fine sand, trace wood fragments, dry, non–cohesive, loose, creosote like odor. (FI) 1.3–5.0: Black to brown, FILL, fine to medium sand, coal fragments, clinker, slag, asphalt. (FI)				MODERATE	
5–10		46			5.0–6.6: Black to brown, FILL, fine to medium sand, coal fragments, clinker, slag, asphalt, non–cohesive loose, dry to damp. No odors or visual impacts. (FI) 6.6: Apparent groundwater table. 6.6–7.0: FILL, wood piling, wet. (FI)				NONE	
10–15		72	441 ppm 4.9 ppm	10	7.0–10.0: Brown to gray, medium to coarse SAND, trace silt, trace fine gravel, non–cohesive, loose, wet. Slight organic odor. (SW) 10.0–11.25: Brown, medium to coarse SAND and fine to coarse GRAVEL, trace silt, non–cohesive, loose, wet. No odor or visual impacts. (SW) 11.25–13.6: Gray, fine SAND, trace silt and coarse sand, wet, loose, non–cohesive. (SW) 13.6–15.0: Brown, PEAT, trace clay and silt, some to and root matter, moist. Strong organic odor. No visual impacts. (PT) 15.0–16.9: PEAT, brown to gray, trace clay and silt, some				SLIGHT NONE	0

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-99

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/29/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.71'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
15–20		70			to and root matter, moist, strong organic odor. (PT)				STRONG	
					16.9–17.3: Gray, SILTY–CLAY, soft, cohesive, plastic, moist. (CH)					
			2.3 ppm		17.3–20.0: Red–brown, SILT, trace to little fine to medium sand, trace fine gravel, trace clay, cohesive, slightly plastic, damp. No odors or visual impacts. (ML)					
20–25		74		20	20.0–20.7: Red–brown, SILT, little medium to coarse sand, trace fine gravel, trace clay, cohesive, slightly plastic,damp, no odors or visual impacts. (ML)				NONE	–10
					20.7–21.9: Brown, SILT and fine SAND, non–cohesive, loose, wet. No odors or visual impacts. (SM)					
			0.8 ppm		21.9–23.7: Brown, fine to coarse SAND, some to and fine gravel, little cobbles and coarse gravel, trace to little silt,non–cohesive, loose,wet. No odors or visual impacts. (SW)					
					23.7–25.0: Red–brown, SILT, little to some fine sand, trace to little coarse sand, trace fine gravel, cohesive, non–plastic, moist to wet, no odors or visual impacts. (ML)					
25–30		92	1.5 ppm		25.0–25.9: Red–brown, SILT, fine to medium sand, trace to little clay, trace fine gravel, wet, slightly cohesive. (ML)					
					25.9–26.8: Brown, fine to coarse SAND, trace silt, non–cohesive, wet, loose. No visual impacts (SP)	25.0–27.0				
					26.8–30.0: Red–brown, SILT, little fine sand, trace clay, trace fine to coarse gravel, cohesive, slightly plastic, moist to wet. No odors or visual impacts. (ML)					
					30.0–30.9: Brown, SILT and fine SAND, trace to little					–20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-99

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/29/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.71'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		84	0.9 ppm		coarse sand and gravel, wet. No odors or visual impacts. (ML)				NONE	
					30.9-35.0: Red-brown SILT, trace clay, little medium to coarse sand, trace fine to coarse angular gravel, cohesive, slightly plastic, moderately stiff to stiff, moist.No odors or visual impacts. (ML)					
35-40		70	0.9 ppm		35.0-40.0: Red-brown SILT, trace clay, little medium to coarse sand, trace fine to coarse angular gravel, cohesive, slightly plastic, stiff, moist. No odors or visual impacts. (ML)					
40-45		76	3.6 ppm	40	40.0-45.0: Red-brown, SILT, little fine sand, trace to little coarse sand, trace fine to coarse angular gravel, trace clay, cohesive, stiff, damp, no odors or visual impacts. (ML)				NONE	-30
					45.0-50.0: Red-brown, SILT, trace medium sand and					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-99

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 04/29/04	Date Completed: 04/29/04
Remarks:		Ground Elevation: 9.71'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 50.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
45-50		96	3.5 ppm		silt, little fine gravel, slightly plastic, dense, wwet. No odors or visual impacts. (ML)					
						45.0-50.0				
				50	50.0: End of boring.					-40
										-50

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-100

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/03/04	Date Completed: 05/03/04
Remarks:		Ground Elevation: 9.15'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		80			0.0-1.25: FILL, asphalt fragments, non-cohesive, loose, dry. No odor or visual impacts. (FI)					
					1.25-2.5: FILL, concrete fragments. (FI)				NONE	
			360 ppm		2.5-4.38: FILL, red brown organic particles, possibly wood, damp, sulfur odor. (FI)				MODERATE	
						3-5 FT				
					4.38-5.0: FILL, red brown silt and clay, cohesive, soft, moist. No odors or visual impacts. (FI)				NONE	
5-10		100			5.0-10.0: Brown to black FILL, medium to coarse sand, ash, coal and slag, moist to wet at 8', spotty sheen 8-10', blebs at 10', sulfur and naphthalene odors. (FI)					
			106 ppm					+ + + + +		
						8-10 FT				0
10-15		62	28.0 ppm	10	10.0-10.8: Black, FILL, fine to medium sand, slag, wood particles, trace to little gravel, non-cohesive, loose, wet. Sulfur odor, spotty sheen. (FI)					
					10.8-15.0: Gray, fine to medium SAND, trace coarse well-rounded gravel, well-sorted sand, loose, wet. organic odor. (SP)				MODERATE	
					15.0-17.0: Gray, fine to medium SAND, well-sorted, loose, trace silt, trace root fragments, non-cohesive.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-100

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/03/04	Date Completed: 05/03/04
Remarks:		Ground Elevation: 9.15'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		100	0.9 ppm		wet. Organic odor, no visual impacts. (SP)	15-17 FT				
					17.0-20.0: Brown, PEAT, little silt and clay, cohesive, slightly plastic, soft, root and wood particles, moist. Organic odor, no visual impacts. (PT)					-10
20-25		64	0.4 ppm	20	20.0-21.56: Dark brown PEAT, little silt and clay, cohesive, slightly plastic, soft, moist, some root fragments, organic odor, no visual impacts. (PT)				MODERATE	
					21.56-22.5: Wood fragments, non-cohesive, loose, damp. Organic odor, no visual impacts. (PT)					
					22.5-24.38: Brown PEAT, cohesive, moist, little clay and silt, damp. Organic odor, no visual impacts. (PT)					
					24.38-25.0: Gray to red brown, medium to coarse SAND, trace gravel, non-cohesive, loose, wet. No odors or visual impacts. (SP)					
25-30		70	0.4 ppm		25.0-30.0: Red brown SILT, cohesive, trace clay, little fine angular gravel, little medium to coarse sand, slightly plastic, moderately stiff to stiff, moist. No odors or visual impacts.(ML)				NONE	-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-101

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/03/04	Date Completed: 05/03/04
Remarks:		Ground Elevation: 8.97'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.40'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		60			0.0-1.17: FILL, asphalt fragments, dry. (FI)					
					1.17-3.17: FILL, brown and black sand, little medium to coarse sand, little gravel, trace silt, non-cohesive, dry. (FI)				NONE	
			704 ppm		3.17-5.0: FILL, brown silt with wood particles, trace gravel, non-cohesive, fiberous damp. Sulfur odor, [likely purifier material]. (FI)	3-5 FT				
5-10		50			5.0-10.0: Brown to black FILL, slag, shell fragments, ash, trace silt, non-cohesive, moist to wet. S potty sheen and trace blebs at 8', tar and sulfer odors. (FI)					
									MODERATE	
			84.0 ppm		8.0: Apparent groundwater table.			+		0
				10	10.0-10.37: Gray GRAVEL stained brown, little silt, loose, non-cohesive, wet. Tar coated gravel, blebs, moderate tar odor. (FI)					
10-15		82			10.37-13.0: Wood pile, spotty sheen. (FI)	10-11 FT		+		
									NONE	
					13.0-15.0: Gray, fine to medium SAND, trace silt, well-sorted, loose, trace wood fragments, faint tar odor. (SP)					
					15.0-16.3: Gray, fine to medium SAND, trace silt,					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-101

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/03/04	Date Completed: 05/03/04
Remarks:		Ground Elevation: 8.97'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.40'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		84	5.4 ppm		well-sorted, loose, trace wood fragments, wet, organic odor, faint naphthalene odor. (SP)	15-16 FT			FAINT	
					16.3-20.0: Brown PEAT, little silt, cohesive, non-plastic, wood particles, wood pile at 20'. Organic odor, no visual impacts. (PT)				MODERATE	-10
20-25		100		20	20.0-20.4: Gray, wet, fine to medium SAND, trace silt, soft. (SP) 20.4: End of boring. Refusal due to wood piling.				FAINT	-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-102

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/03/04	Date Completed: 05/03/04
Remarks:		Ground Elevation: 8.93'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		72	93.0 ppm		0.0-1.39: FILL, asphalt and concrete fragments, loose, dry. No odors or visual impacts. (FI)				NONE	
					1.39-5.0: FILL, brown silt with some wood chips, fibrous, non-cohesive, loose. Fuel oil type odor, no visual impacts. [Likely purifier material] (FI)	1-5 FT				
5-10		40	0.7 ppm		5.0-10.0: Brown to tan FILL, fine to medium sand, medium to coarse sized slag, trace to little silt, ash and shell fragments, non-cohesive, loose, moist to wet, sulfur odors, no visual impacts. (FI)				MODERATE	
					8.0: Apparent groundwater table.					0
10-15		80	28.0 ppm	10	10.0-10.63: Gray SILT and CLAY, cohesive, plastic, wet. Fuel oil type odor, spotty sheen, stained brown. (CH)					
					10.63-11.88: Dark brown and black, coarse SAND and fine GRAVEL, little fine sand, trace silt, wet. Spotty sheen, fuel oil type odor. (SP)	10-12 FT				
					11.88-15.0: Gray, fine to medium SAND, well-sorted, loose, wet. No odors or visual impacts. (SP)				NONE	
					15.0-15.38: Brown to gray, fine to medium SAND, well-					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-102

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/03/04	Date Completed: 05/03/04
Remarks:		Ground Elevation: 8.93'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15-20		80	0.0 ppm		sorted, trace silt, loose, wet. Organic odor no visual impacts. (SP) 15.38-20.0: Brown PEAT, trace silt and clay, little wood particles and roots, cohesive, moist. Organic odor,no visual impacts. (PT)			MODERATE	-10
20-25		60	0.3 ppm	20	20.0-21.0: Gray, SILT and CLAY, cohesive, plastic, soft, wet. No odors or visual impacts. (CH) 21.0-25.0: Gray brown to red brown, fine to medium SAND, little silt, trace to little clay, trace gravel, cohesive, slightly plastic, wet. No odor or visual impacts. (SW)				
25-30		84			25.0-30.0: Red brown SILT, little to some fine sand, trace fine and coarse angular gravel, trace clay, cohesive, slightly plastic, moderately stiff to stiff, damp to wet. No odor or visual impacts. (ML)			NONE	
			14.0 ppm			28-30 FT			-20
					30.0: End of boring.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-103

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/04/04	Date Completed: 05/04/04
Remarks:		Ground Elevation: 8.81'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		26	0.5 ppm		0.0-1.5: Hand cleared for utility concerns. Concrete slab. (FI)				
					1.5-5.0: Dark brown to black FILL, medium to coarse sand, fine to coarse gravel-sized slag and coal fragments, non-cohesive, loose, non-plastic, dry. No odor or visual impacts. (FI)			NONE	
5-10		94	98.0 ppm		5.0-5.5: Dark brown to black FILL, medium to coarse sand, fine to coarse gravel, slag, coal fragments, non-cohesive, loose, non-plastic, dry. No odor or visual impacts. (FI) 5.5-6.6: Red-brown to brown fine SAND, non-cohesive, loose, non-plastic wet. No odors or visual impacts. (SP) 5.5: Apparent groundwater table. 6.6-10.0: Black to gray SILT and CLAY, cohesive, plastic, trace roots, trace micro-lenses of sand, wet. 7.3' to 10' trace blebs around roots, slight tar odor. (MH)			SLIGHT	0
10-15		26		10	10.0-11.9: Black to gray SILT and CLAY, cohesive, plastic, trace roots, trace micro lenses of sand, wet. Moderate tar odor, no visual impacts.(MH)				
			348 ppm		11.9-13.1: Gray, fine to medium SAND, non-cohesive, little gravel, trace to little silt, loose,wet. Little blebs of tar, tar coated, moderate tar odor. (SW)	12.0-13.0			
					13.1-15.0: Gray, fine to medium SAND, trace coarse gravel, trace shell fragments, non-cohesive, loose, wet. Organic odor, no visual impacts. (SP)				

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-103

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/04/04	Date Completed: 05/04/04
Remarks:		Ground Elevation: 8.81'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		26	3.0 ppm		15.0-19.3: Gray, fine to medium SAND, well-sorted, loose, trace silt, trace root fragments, wet. Organic odor. No visual impacts. (SP)				MODERATE	
					19.3-20.0: Brown PEAT, some roots, trace clay and silt, cohesive, damp. Organic sulfur odor. No visual impacts. (PT)					-10
20-25		46	0.6 ppm	20	20.0-25.0: Brown PEAT, little silt and clay, cohesive, slightly plastic, soft, trace cobble, little to some vegetative matter and roots. Strong organic sulfur odor, no visual impacts. (PT)	20.0-25.0			STRONG	
25-30		66	7.0 ppm		25.0-27.1: Brown PEAT, little silt and clay, cohesive, slightly plastic, soft, trace cobble, little to some vegetative matter and roots. Strong organic sulfur odor, no visual impacts. (PT)					
					27.1-30.0: Brown to gray, medium to coarse SAND, trace coarse gravel, little silt, wet. No odors or visual impacts. (SP)					-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-103

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/04/04	Date Completed: 05/04/04
Remarks:		Ground Elevation: 8.81'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.4 ppm		30.0-35.0: Red-brown SILT, little fine angular gravel, fine to coarse sand, little clay, cohesive, stiff to very stiff, damp. No odors or visual impcats. (ML)				NONE	
				40	35.0: End of boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-104

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/04/04	Date Completed: 05/04/04
Remarks: NA= Not Applicable		Ground Elevation: 8.35'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		38	1.1 ppm		0.0-5.6: Brown to black, FILL, medium to coarse sand and gravel sized slag, coal fragments, trace fine to medium-sized sand, loose, non-cohesive, dry. No odors or visual impacts. (FI)			NONE	
5-10		80			5.6-6.85: Brown, fine to medium SAND, well-sorted, trace silt, non-cohesive, loose, wet. No odor or visual impacts. (SP) 5.6: Apparent groundwater table.				
			14.4 ppm		6.85-10.0: Black, SILT and CLAY, trace micro-layers of fine sand (<0.1"), cohesive, plastic, soft, moist. Naphthalene-like odor. No visual impacts. (CL)			MODERATE	0
10-15		58		10	10.0-12.6: Black, SILT and CLAY, trace micro-layers of fine sand (<0.1"), cohesive, plastic, moist. Trace tar blebs, slight tar like odor. (CL)			SLIGHT	
			119 ppm		12.6-13.10: Black, medium to coarse SAND, trace fine gravel, non-cohesive, loose, wet. Sheen, stained, trace tar coated grains. Slight tar odor. (SP)	12-13 FT			
					13.10-15.0: Gray, medium to coarse SAND, trace to little gravel, moderately dense, wet. Peat in the shoe of the macro-core. Naphthalene odor. (SP)			MODERATE	
					15.0-16.10: Brown, WOOD FRAGMENTS, wet. No odor or visual				

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-104

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/04/04	Date Completed: 05/04/04
Remarks: NA= Not Applicable		Ground Elevation: 8.35'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		54	0.9 ppm		impacts. (PT)					
					16.10-17.60: Gray, fine SAND, well-sorted, trace silt, loose, wet. No odor or visual impacts. (SP)				NONE	
					17.60-20.0: Brown, PEAT, little silt and clay, cohesive, slightly plastic, moist. Organic odor. No visual impacts noted. (PT)					10
20-25		42	0.8 ppm	20	20.0-25.0: Brown, PEAT, with some silt-clay, some organic, material (roots), moderately stiff to soft, cohesive, slightly plastic, moist. (PT) Organic odor. No visual impact noted.				MODERATE	
25-30		52			25.0-28.5: Gray, SILT, with little clay, little medium to coarse sand, little fine and coarse gravel, cohesive soft, wet. No odors or visual impacts. (ML)				NONE	
			0.7 ppm		28.5-30.0: Red-brown, fine to very fine SAND and SILT, cohesive, plastic, stiff, dense, wet. No odor or visual impacts. (SM)	28-30 FT				20
					30.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-105

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/05/04	Date Completed: 05/05/04
Remarks:		Ground Elevation: 8.39'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		46	0.5 ppm		0.0-5.0: Brown to dark brown FILL, medium to coarse sand and fine to coarse angular gravel, loose, non-cohesive, dry. No odors or visual impacts. Concrete in tip of shoe. (FI)				NONE	
5-10		76			5.0-6.32: Brown to dark brown FILL, medium to coarse sand and fine to coarse angular gravel, gravel sized slag, loose, non-cohesive, moist to wet. No odors or visual impacts. (FI) 6.00: Appparent groundwater table. 6.32-6.71: Brown to tan, fine, medium and coarse SAND, trace to some silt, non-cohesive, wet. No odors or visual impacts. (SW)					
			10 ppm		6.71-10.0: Black, SILTY-CLAY, cohesive, soft, sticky, varved with brown to red brown layers, layer or slag, coarse sand and gravel at 9.21', wet. Faint tar odor near 10', no visual impacts.(OL)				FAINT	0
10-15		64		10	10.0-12.19: Black, SILTY-CLAY, soft, sticky, wet. Moderate naphthalene and tar odor, no visual impacts.(OL)					
			99.9 ppm		12.19-12.66: Black-stained, medium to coarse SAND, little gravel, moderately stiff, wet, non-cohesive, tar-stained to coated gravel, sticky viscous tar, moderate tar odor. (SP) 12.66-15.0: Gray, fine to medium SAND, well-sorted, trace to little fine gravel, moderately stiff, non-cohesive, wet. Organic sulfur odor, no visual impacts. (SP)	12-13 FT		+ + + + + +		

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-105

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/05/04	Date Completed: 05/05/04
Remarks:		Ground Elevation: 8.39'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		28	0.8 ppm		15.0-17.68: Gray, fine to medium SAND, well-sorted, trace to little fine gravel, moderately stiff, non-cohesive, wet. Organic sulfur odor, no visual impacts. (SP)				MODERATE	
					17.68-20.0: Brown PEAT, little sand, silt and clay, some root matter, cohesive, moist. Organic odor, no visual impacts. (PT)					
										-10
20-25		80		20	20.0-21.88: Brown to black PEAT, little to some clay, some root matter, soft, cohesive, moist. (PT)					
					21.88-23.5: Black to gray, CLAY, trace progressing to some sand, cohesive, plastic, moist. (OH)					
					23.5-25.0: Gray to gray brown SILT, little progressing to some fine sand, trace fine to coarse gravel, cohesive, stiff, no odor or visual impacts. (SM)					
25-30		68			25.0-26.03: Gray coarse SAND and coarse GRAVEL, wet, little clay and silt, non-cohesive, stiff, no odors or visual impacts. (SP)				NONE	
			0.3 ppm		26.03-30.0: Red brown SILT, some fine and coarse sand, some fine gravel, trace to little clay, moderately stiff to stiff, moist to wet. No odor or visual impacts. (ML)	27-30 FT				-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-106

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/06/04	Date Completed: 05/06/04
Remarks:		Ground Elevation: 8.65'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		52	1.4 ppm		0.0-5.0: Brown and black FILL, medium to coarse sand and fine to coarse gravel, trace silt, trace clinker, loose, non-cohesive, dry. No odors or visual impacts. (FI)					
5-10		56			5.0-7.5: Black FILL, medium to coarse sand and fine to coarse gravel, trace silt, trace clinker, loose, non-cohesive, moist. No odors or visual impacts.(FI)				NONE	
			0.2 ppm		7.5-10.0: Brown FILL, coarse sand, little silt, little angular gravel, loose, non-cohesive, wet. No odors or visual impacts. (SP)					0
10-15		32		10	10.0-10.56: Brown to gray FILL, gravel sized fragments of clinker and slag, little silt. (FI) 10.56-12.81: Black to gray, SILTY CLAY, cohesive, soft, plastic, moist. (OH)					
			118 ppm		12.81-13.75: Black-stained to gray, medium to coarse SAND, little angular gravel, tar coated grains, viscous, black tar, moderate tar and naphthalene sheen and odor, progressing to lightly coated grains. (SP)	12-13FT			MODERATE	
					13.75-15.0: Gray, medium to coarse SAND, dense, non-cohesive, loose, faint napthalene odor. (SP)				FAINT	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-106

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/06/04	Date Completed: 05/06/04
Remarks:		Ground Elevation: 8.65'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		40	3.4 ppm		15.0-16.25: Gray, fine to medium SAND, well-sorted, loose, wet. Organic odor, no visual impacts. (SP)	15-17 FT			MODERATE	
					16.25-20.0: Brown PEAT, wood pieces (possibly pilling), trace to little silt and clay, fine to medium sand layer 17.5-18', cohesive, soft to moderately stiff, moist. (PT)				NONE	-10
				20	20.0: End of boring.					-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-107

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/06/04	Date Completed: 05/06/04
Remarks:		Ground Elevation: 8.97'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		44	1.3 ppm		0.0-1.82: FILL, asphalt and concrete dust and fragments, non-cohesive, dry. (FI)					
					1.82-5.0: Black to brown FILL, medium to coarse sand, some fine sand, slag, silt, ash and coal fragments, non-cohesive, dry. (FI)				NONE	
5-10		36			5.0-6.11: Brown FILL, silt with black wood chips, little clay, cohesive, wet. No odors or visual impacts. (FI)					
					6.0: Apparent groundwater table.					
					6.11-8.33: Black to gray FILL, gravel sized coal, slag and clinker, moderately stiff, non-cohesive wet. Faint fuel oil-type odor. (FI)				FAINT	
			65.7 ppm		8.33-10.0: Gray-stained FILL, gravel sized coal, slag and clinker, moderately stiff, non- cohesive wet. Faint fuel oil type odor, possible gasoline odors, sheen and fuel oil type coated grains. (FI)	9-10 FT				0
10-15		64		10	10.0-10.47: Gray to black FILL, clinker, ash and slag, wet, non-cohesive, loose. (FI)				NONE	
					10.47-12.34: Black SILTY-CLAY, cohesive, sticky, micro layers of sand with oil-like staining and coated grains, moderate petroleum-like odor. (OH)					
			483 ppm		12.34-13.13: Black fine to medium SAND, trace wood particles, stained, petroleum and gasoline-type odors. (SP)	12-13 FT			MODERATE	
					13.13-14.06: Gray, fine to medium SAND, trace gravel and silt, moderately stiff. (SP)					
					14.06-15.0: Brown, black and gray brown, PEAT, trace to little clay, cohesive, slightly plastic, moist, loose, stiff. (PT)					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-107

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/06/04	Date Completed: 05/06/04
Remarks:		Ground Elevation: 8.97'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		56	15.5 ppm		15.0-18.57: Black to brown, PEAT, little silt and clay, cohesive, moderately stiff, root and plant matter, moist. No odors or visual impacts. (PT)	15-18 FT			NONE	
					18.57-20.0: Brown SILT, little fine sand, trace gravel, cohesive, soft, wet. No odor or visual impacts. (ML)					10
20-25		64	1.7 ppm	20	20.0-25.0: Red-brown, SILT, little clay, trace fine sand, trace fine to coarse gravel, cohesive, dense, moist. No odors or visual impacts. (ML)					
					25.0: End of boring.					20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-108

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/07/04	Date Completed: 05/07/04
Remarks:		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4.5	NA	100			0.0-4.5: Hand cleared for utility concerns. Black FILL, slag, medium sand-sized clinker and slag, trace to little ash and brick fragments, little silt. Non-cohesive, loose, dry. No odors or visual impacts. (FI)					
4.5-10	NA	44	0.6 ppm		4.5-10.0: Black FILL, slag, medium sand-sized clinker and slag, trace to little ash and brick fragments, little silt. Non-cohesive, loose, moist to wet. No odors or visual impacts. (FI)				NONE	
					7.0: Apparent groundwater table.					
			0.3 ppm							0
10-15	NA	46		10	10-10.43: Black FILL, slag, medium sand-sized clinker and slag, trace to little ash and brick fragments, little silt. Non-cohesive, loose, wet. No odors or visual impacts. (FI)					
					10.43-15.00: Black SILT and CLAY, plastic, micro-layers of fine sand, cohesive, soft, wet. Moderate naphthalene odor, trace oil-like product in micro-layers of sand. Tip as naphthalene and possible gasoline-type odor and organic odor, trace staining on glove. (OH)				MODERATE	
			453.0 ppm			13-15FT				
					15.0-15.33: Black-stained SAND, trace to little silt, non-					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-108

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/07/04	Date Completed: 05/07/04
Remarks:		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	30	194.0 ppm		cohesive. Black to brown globules of oil. Moderate petroleum-like and naphthalene odors and gasoline-like odors. (SW) 15.33-19.33: Grey, medium to coarse SAND, well-sorted, trace gravel, non-cohesive, loose to moderately stiff, wet. Wood pile at bottom of interval. (SP)				NONE	
					19.33-20.0: Brown PEAT and Wooden pile, loose, wet. Organic odor and no visual impacts. (PT)					-10
20-25	NA	34		20	20.0-22.65: Brown PEAT, little silt and clay, cohesive, soft. Organic odor and no visual impacts. (PT)				MODERATE	
			0.9 ppm		22.65-25.0: Brown, fine to medium SAND, little silt, trace gravel, non-cohesive, loose, wet. No odor or visual impacts.(SP)	20-25 FT			NONE	
					25.0: End of Boring.					-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-109

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/07/04	Date Completed: 05/07/04
Remarks: Samples listed were submitted from SB-109A Lithology is listed from SB-109A		Ground Elevation: 8.85'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4.5		100	0.9 ppm		0.0-4.5: Hand cleared for utility concerns. FILL, concrete fragments and asphalt, little slag, medium to coarse sand, trace silt, medium to coarse angular coal fragments. (FI)				NONE	
4.5-10		60			4.5-5.5: FILL, medium to coarse sand, little clinker, slag and coal fragments, wet, no odors or visual impacts. (FI)					
			3.8 ppm		5.5-7.0: Brown, fine to medium SAND, trace silt, cohesive, non-plastic, wet. No odors or visual impacts. (SP)					
					7.0-10.0: Black varved CLAY and SILT, little very fine sand, cohesive, soft. Organic odor, faint fuel oil type odor. (OH)				FAINT	0
10-15		36		10	10.0-12.5: Black SILT and CLAY, little fine sand, cohesive, plastic, soft, varved. Petroleum odor, trace tar like material in clay, blebs, naphthalene odor. (OH) 12.5: Refusal, continue in SB-109A.			+ + + + + + + + + +		
			194 ppm 495 ppm		10.0-15.0: Black SILT and CLAY, coarse sand layer, cohesive, soft. Trace tar blebs in clay, black petroleum in coarse sand, moderate tar odor. (OH)	12-15 FT				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-109

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/07/04	Date Completed: 05/07/04
Remarks: Samples listed were submitted from SB-109A Lithology is listed from SB-109A		Ground Elevation: 8.85'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		24	164 ppm		15.0-17.5: Gray to black fine to medium SAND, trace fine to coarse gravel, trace silt, wet. Moderate naphthalene/ tar odor, tar coated grains, sheen, (SP)			+ + + + + + + +	MODERATE	
					17.5-20.0: Gray, fine to medium SAND, trace silt, well-sorted, loose, wet, naphthalene odor. (SP)	15-20 FT				-10
20-25		22	1.1 ppm	20	20.0-20.45: Gray, fine to medium SAND, trace silt, well-sorted, loose, wet, naphthalene odor. (SP) 20.45-25.0: Brown SILT, little peat, little clay, cohesive, soft, moist, layers of fine sand, well-sorted, organic odor. No visual impacts. (OH)					
						20-25 FT			SLIGHT	
					25.0: End of boring.					-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-110

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/10/04	Date Completed: 05/10/04
Remarks:		Ground Elevation: 8.79'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-4.5		100	0.6 ppm		0.0-4.5: Hand cleared for potential utility concerns. Black, FILL, fine to medium sand, trace to little coarse grained slag and concrete, non-cohesive, loose, damp. No odors or visual impacts noted. (FI)					
4.5-10		45	0.5 ppm		4.5-10.0: Black FILL with medium to coarse gravel, sand-sized coal fragments, slag, and clinker, trace silts, moist to wet. No odors or visual impacts. (FI) 7.0: Apparent groundwater table.				NONE	0
10-15		56	115 ppm	10	10.0-14.5: Black to brown/black CLAY, soft, cohesive, plastic. Fuel oil-like odor and naphthlanene. Spotty sheen. (CL)	10-15 FT				
					14.5-15.0: Black, fine SAND, well-sorted, non-cohesive. Moderate gasoline-like odor. Spotty sheen. (SP)			+		

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-110

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/10/04	Date Completed: 05/10/04
Remarks:		Ground Elevation: 8.79'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		44	184 ppm		15.0-16.36: Black stained, fine SAND, well-sorted, non-cohesive, well. Petroleum-like odor, gasoline-like odor. Petroleum sheen in water. Trace tar.	15-16 FT				
					16.36-19.5: Gray fine SAND, non-cohesive, loose, wet. Trace vertical sheen, irridescent sheen, trace tar stain. Organic sulfur odor. (SP)				MODERATE	
					19.5-20.0: Gray fine SAND. Brown, tar stained, heavily coated grains. (SP)	19.5-20FT				
20-25		40		20	20.0-21.75: Brown, PEAT, little to some root matter, little silt and clay, cohesive, soft. Organic odor. (PT)					
					21.75-23.0: Gray fine SAND, well sorted, loose. Spotty sheen. Organic odor. (SP)					
					23.0-25.0: Brown-grey SILT, trace to little fine sand and coarse sand, little clay plastic, cohesive, soft, wet. Faint naphthalene odor. (CH)	23-25 FT			FAINT	
					25.0-28.0: Red brown to brown, SILT, little fine sand, trace coarse gravel. Coarse gravel in shoe moist. No odors or impacts. Possible shoe pushed coarse gravel into core causing it to refuse. (ML)				NONE	
					28.0: End of boring, refusal.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-111

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/10/04	Date Completed: 05/10/04
Remarks:		Ground Elevation: 8.93'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		100	0.7 ppm		0.0-5.0: Brown to black FILL, fine to medium sand, trace coarse sand sized fill and fine gravel sized brick and coal, trace to little silt, non-cohesive, loose, dry. (FI)					
5-10		34	0.6 ppm		5.0-10.0: Brown to black FILL, medium to coarse sand sized slag, coal and clinker, some ash, little sand, trace silt, dry to damp. No odors or visual impacts, wet in tip. (FI)				NONE	0
10-15		46		10	10.0: Apparent groundwater table. 10.0-12.17: Black FILL, medium to coarse sand and gravel sized slag and clinker, trace silt, non-cohesive, loose, wet. (FI) 12.17-14.35: Black SILT and CLAY, trace very fine sand, cohesive, plastic, wet. fuel oil like odor. (OH)				MODERATE	
					14.35-15.0: Black-stained, medium SAND, non-cohesive, moderately stiff, petroleum stained and odor. (SP)	14.5-15FT		+		

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-111

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/10/04	Date Completed: 05/10/04
Remarks:		Ground Elevation: 8.93'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		44	3.8 ppm		15.0-17.25: Gray, fine SAND, well-sorted, loose to moderate stiff,wet. Organic odor. No visual impacts. (SP)	15-17.5FT				
					17.25-18.0: Black,SILT-CLAY, organic, cohesive, plastic, wet. Organic odor (sulfur) No visual impacts. (CH)				NONE	
					18.0-20.0: Grey fine SAND, stratified layers of peat, silt and clay, progressing to gray, fine well-sorted sand, non-cohesive, loose, wet. Organic odor (sulfur). No visual impacts.(SP)					-10
20-25		36		20	20.0-21.39: Brown PEAT, root matter, little silt and clay, cohesive, plastic, damp. Organic odor, no visual impacts. (PT)				MODERATE	
					21.39-21.67: Gray fine, medium and coarse SAND, non-cohesive, loose. (SW)				NONE	
					21.67-22.78: Brown PEAT, root matter, little silt and clay, cohesive, plastic, damp, organic odor, no visual impacts. (PT)				MODERATE	
					22.78-25.0: Gray SILT, little clay, trace to little fine sand, trace fine gravel, slightly dense, wet, cohesive, no odors or visual impacts. (ML)				NONE	
			0.7 ppm		25.0: End of boring.					-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-112

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/10/04	Date Completed: 05/10/04
Remarks:		Ground Elevation: 9.17'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		100	0.7 ppm		0.0-5.0: Hand clear for utility concerns. Black FILL, fine to medium sand, little fine to coarse gravel sized brick, clinker and slag, little to some medium to coarse grained ash, loose, non-cohesive, dry. No odors or visual impacts.(FI)					
5-10		54			5.0-7.22: Black to tan FILL, fine to medium sand, trace fine gravel sized angular slag, little silt, non-cohesive, moist to wet. No odors or visual impacts. (FI)				NONE	
					7.0: Apparent groundwater table.					
			0.8 ppm		7.22-10.0: Black FILL, fine to coarse gravel, trace to little silt, little medium to coarse sand, ash, wet, non-cohesive, loose. No odors or visual impacts. (FI)					0
10-15		26		10	10.0-12.31: Black FILL, fine to coarse gravel, trace to little silt, little medium to coarse sand, ash, non-cohesive, loose, wet. Faint petroleum-like and naphthalene like odors. No visual impacts. (FI)				FAINT	
					12.31-14.62: Gray, coarse GRAVEL, trace to little silt, non-cohesive, moderately stiff, wet. Spotty sheen, little to some brown tar blebs. (GP)					
			37.1 ppm			13-14 FT			MODERATE	
					14.62-15.0: Brown PEAT, little silt and clay, cohesive, slightly plastic, wet. Organic odor, sheen, tar					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-112

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/10/04	Date Completed: 05/10/04
Remarks:		Ground Elevation: 9.17'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		36	0.6 ppm		blebs at top of interval. (PT) 15.0-16.67: Gray fine SAND, little silt, trace coarse angular gravel, cohesive, non-plastic, moderately stiff, wet. No odors or visual impacts. (SP) 16.67-20.0: Red brown SILT, little fine sand and fine gravel in silt matrix, trace to little clay, cohesive, slightly plastic, no odors or visual impacts.(ML)	16-20 FT			NONE	
				20	20.0: End of boring.					-10 -20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-113

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.75'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		100	0.0 ppm		0.0-5.0: Hand cleared for utility concerns.				
5-10		66			5.0-6.52: Dark brown FILL, medium to coarse sand and fine gravel sized clinker, slag, little silt, non-cohesive, loose, wet. No odors or visual impacts. (FI)				
					6.52-6.97: Red-brown to brown fine SAND and SILT, non-cohesive, loose, wet. No odors or visual impacts. (SM)				
			0.0 ppm		6.97-10.0: Black CLAY, soft, loose, cohesive, plastic, varves of red-brown clay, organic odor, possible petroleum/fuel oil like odor, no visual impacts. (OH)			NONE	
				10					0
10-15		40			10.0-14.75: Black CLAY, soft, loose, cohesive, plastic, trace very fine varves of sand, wet. Faint petroleum like organic odor, no visual impacts. (OH)				
						13.5-15FT			
			129 ppm		14.75-15.0: Brown fine SAND, little silt, tar-like odor.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-113

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.75'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		42	240 ppm		possible petroleum odor, coated grains. (SP)					
					15.0-16.43: Black-stained, medium to coarse SAND and fine GRAVEL, slightly cohesive due to petroleum and tar impacts, coated grains, naphthalene odor, tar/asphalt like odor, sticky tar/oil. (SP)	15-15.5FT		+ + + +	MODERATE	
					16.43-17.38: Gray, fine to medium SAND, well-sorted, trace silt. 0 (SP)					
					17.38-17.85: PEAT. (PT) 17.85-18.81: PEAT and SILT banding. (PT)				NONE	
					18.81-20.0: Gray, fine to medium SAND, well-sorted, trace silt, organic sulfur odor. (SP)					-10
20-25		16		20	20.0-24.38: Dark brown, PEAT, little silt and clay, wood particles, cohesive, soft, sulfur organic odor, no visual impacts. (PT)				MODERATE	
						20-25 FT				
					24.38-25.0: Gray SILT, trace to little fine sand, trace clay, trace fine gravel, cohesive, slightly plastic, moist. (ML)				NONE	
					25.0: End of boring.					-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-114

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks: Lithologic information for SB-114, 114A, 114B Location on this log.		Ground Elevation: 8.87'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-4		100	2.9 ppm		0.0-4.0: Hand cleared for utility concerns. Native, black to gray, SILT and CLAY, trace fine sand, cohesive plastic, dry. (OH)			NONE	
4-10		83	9.9 ppm		4.0-9.64: Black with trace brown banding, CLAY and SILT, cohesive, soft, organic odor, wet, no visual impacts. (OH)			FAINT	0
10-15		54		10	9.64-10.0: Wet, wood piling. Refusal. Continue in SB-114A. 10.0-10.56: Wood pile, damp, no visual impacts, fuel oil like odor. (UN) 10.56-13.33: Black with trace brown banding, CLAY and SILT, cohesive, soft, organic odor, faint fuel oil like odor, wet, no visual impacts. (OH)			FAINT	
			74.9 ppm		13.33-13.52: Black stained medium to coarse SAND, trace to little gravel, non-cohesive, moderately stiff and dense, fuel oil like odor, stained to fuel oil coated grains. (SP) 13.52-15.0: Gray, fine SAND, trace fine rounded gravel, well-sorted, non-cohesive, dense, fuel oil-like odor, no visual impacts. (SP)	13-14 FT		MODERATE	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-114

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks: Lithologic information for SB-114, 114A, 114B Location on this log.		Ground Elevation: 8.87'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		24	0.4 ppm		15.0: Refusal due to wood pilling, offset. Continue in SB-114B					
					15.0-15.42: Wood pilling. (UN)					
					15.42-17.92: Gray, fine to medium SAND, trace silt, wet, non-cohesive, moderately stiff and dense. No odors or visual impacts. (SP)					
						15-20 FT			NONE	
					17.92-20.0: Brown PEAT, little silt and clay, cohesive, soft, organic matterial, possible till in tip (silt and coarse gravel). (PT)					-10
				20	20.0: End of boring.					
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-115

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.29'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		100	10.0 ppm		0.0-5.0: Hand cleared for utility concerns. FILL, fine to medium sand, little slag, clinker, coal and silt, ash dust, non-cohesive, loose, damp. (FI)			NONE	
5-10		68			5.0-6.47: FILL, fine to medium sand, little slag, clinker, coal and silt, ash dust, non-cohesive, loose, dry. No odors or visual impacts. (FI)				
			11.6 ppm		6.47-9.71: Black to brown black, FILL, silt and clay, cohesive, plastic, soft, organic odor, moist. Possible peroleum like odor, no visual impacts. (FI)			FAINT	0
				10	9.71-10.0: Black and gray FILL, clinker, slag, little silt, little fine sand, dry, no odors or visual impacts. (FI)				
10-15		44			10.0-10.91: Black and gray FILL, clinker, slag, little silt, little fine sand, dry, no odors or visual impacts. (FI)			NONE	
					11.0: Apparent groundwater table.				
					10.91-13.86: Gray to black SILT and CLAY, soft, cohesive, plastic, wet. Fuel oil like odor, fuel oil-like staining. (OH)			MODERATE	
					13.86-15.0: Black stained fine SAND, well-sorted, trace silt, non-cohesive, moderately stiff, wet. Coated grains, moderate fuel oil like odor. (SP)	14-15 FT			

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-115

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.29'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15–20		40			15.0–19.75: Gray fine to medium SAND, well-sorted, trace layers of rounded gravel, trace silt, wet. No odors or visual impacts. (SP)				
			4.1 ppm			18–20 FT			–10
20–25		44		20	19.75–20.0: Brown PEAT, little to some silt and clay, cohesive, soft, damp, non-plastic, no odors or visual impacts. (PT) 20.0–21.81: Brown PEAT, little to some silt and clay, trace coarse sand, cohesive, soft, wet, Non-plastic, no odors or visual impacts. (PT)			NONE	
					21.81–22.95: Brown, fine SAND and SILT, little clay, cohesive, soft, wet. Slightly plastic, no odor or visual impacts. (SM)				
					22.95–25.0: Red brown SILT, trace to little fine to medium sand, trace gravel in matrix, cohesive, stiff, damp. No odors or visual impacts. (ML)				
					25.0: End of boring.				–20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-116

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 9.49'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5	NA	100	0.8 ppm		0.0-5.0: Hand cleared for utility concerns.			NONE	
5-10	NA	68	0.3 ppm		5.0-7.8: FILL, medium to coarse sand, little coarse gravel and sand-sized slag, clinker, some ash, moist to wet. (FI) 6.0: Apparent groundwater table. 7.8-10: Black CLAY and SILT, with brown varved clay layers, soft, cohesive, plastic. Fuel-like odor/organic odor. No visual impacts. (CH)				0
10-15	NA	100		10	10.0-15.0: Black CLAY and SILT, with brown varved clay layers, soft, cohesive, plastic. Naphthalene-like odor. Spotty sheen, trace tar-coated grains in micro-layers of very-fine sand. (CH) Note: Piece of steel in sample at approx 12 feet.	12.5-15FT		MODERATE	
					15.0-15.36: Black-stained SAND, well-sorted, loose to				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-116

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 9.49'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	28	167.0 ppm		moderately dense, non-cohesive, wet. Black stained, spotty sheen, fuel-like odor. (SP)	15-15.5FT				
					15.36-17.86: Gray, fine to medium SAND, trace fine gravel, trace shell fragments, trace silt, non-cohesive, wet. No odors or visual impacts.(SP)				NONE	
					17.86-20.0: Brown PEAT, little silt and clay, little plant matter, cohesive, plastic (when wet), damp. No visual impacts, sulfur odor. No visual impacts (PT)					
			1.4 ppm						SLIGHT	
				20	20.0: End of Boring.	19-20 FT				-10
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-117

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/12/04	Date Completed: 05/12/04
Remarks:		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		100			0.0-5.0: Hand cleared for utility concerns.				
5-10		50	0.0 ppm		5.0-10.0: Brown to black, FILL, coarse sand and fine gravel sized, trace silt, non-cohesive, loose, moist to wet at 6-7'. No odors or visual impacts. (FI) 6.0: Apparent groundwater table.			NONE	
10-15		44	63.5 ppm	10	10.0-11.82: Gray, stained, angular fine GRAVEL, little coarse sand, non-cohesive, loose, wet. Petroleum odors, fuel oil and gasoline like odors, black blebs of petroleum like matterial, sheen. (GP)	10-12 FT		MODERATE	0
					11.82-15.0: Brown and black PEAT, trace fine sand, little organic matter, cohesive, moderately stiff, moist, organic odor, no visual impacts. Becoming gray to brown silt and fine sand, trace clay, cohesive, soft, no odor or visual impacts. (PT)			NONE	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-117

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/12/04	Date Completed: 05/12/04
Remarks:		Ground Elevation: 9.25'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15-20		46	2.1 ppm		15.0-15.74: Brown fine to medium SAND, trace coarse sand, little to some silt, trace clay, slightly cohesive, soft, wet, fuel oil type odor, no visual impacts. (SP) 15.74-20.0: Tan to red brown fine SAND, trace clay, little to some silt, moist, stiff, no odor or visual impacts. (SP)			MODERATE	
					20.0-24.17: Brown to red brown, SILT and CLAY, micro layers of fine sand, cohesive, plastic, moderately stiff, wet. No odors or visual impacts. (ML)				-10
20-25		60		20	24.17-25.0: Brown to red brown, medium to coarse SAND, little fine sand, trace to little silt, trace coarse rounded gravel, non-cohesive, loose, to moderately dense, wet, no odors or visual impacts. (SW)			NONE	
			0.0 ppm			24-25 FT			
					25.0: End of boring.				-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-118

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.52'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0–5		100	0.6 ppm		0.0–5.0: Hand–cleared location past the conrete slab.			NONE	
5–10		52			5.0–5.75: Black, FILL, medium to coarse sand, some fine gravel–sized clinker, trace to little silt, wet. non–cohesive, loose. No odor or visual impacts.(FI) Apparent groundwater table. 5.75–6.3: Brown, SILT–CLAY, cohesive, soft, plastic, wet. No odor or visual impacts. (CH) 6.3–7.0: Brown, fine to medium SAND, well–sorted, little silt, soft, loose, wet. No odor or visual impacts. (SP). 7.0–10.0: Black, SILT–CLAY, micro–layers of fine sand, cohesive, soft, plastic, wet. Fuel–oil type odors, No visual impacts. (CH)				0
			4.7 ppm						
10–15		68		10	10.0–15.0: Black SILT–CLAY, micro–layers of very fine sand, cohesive, soft, plastic, moist. Fuel–oil type odors, No visual impacts. (CL)				
			13.0 ppm						
					15.0–17.35: Black, SILT, little to some fine to medium				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-118

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.52'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		34			sand, black stained, coated grains fuel oil-type odor, naphthalene-like odor, irredecent sheen. (SM)					
			99 ppm			16-17 FT				
			183 ppm		17.35-17.65: Fine to coarse SAND, trace shells, cohesive, sticky, stained with viscous creosote-like tar, tar-like (creosote) odor. (SM)	17-17.5FT			MODERATE	
					17.65-20.0: Gray, fine to medium SAND, well-sorted trace silt, trace coarse gravel (rounded), non-cohesive, moderately stiff, wet. Petroleum-like odor. No visual impacts. (SP)					-10
20-25		20	4.7 ppm	20	20.0-25.0: Gray, fine to medium SAND, well-sorted, non-cohesive, moderately dense, wet. Sulfur odor and petroleum-like odor. (SP)					
25-30		20	1.3 ppm		25.0-26.0: Brown, PEAT with some to and root matter, litte silt. Organic odor. No visual impacts. (PT) 26.0-28.5: Gray, fine to medium SAND, well-sorted, trace silt, moderately dense, wet. Organic odor. No viaual impacts. (SP)					
					28.5-30.0: Brown, PEAT with some to and root matter, litte silt. Organic odor. No visual impacts. (PT)				SLIGHT	
										-20
					30.0-33.0: Brown, SILT and fine SAND, trace, fine and					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-118

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.52'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		40			coarse gravel, non-cohesive, loose, wet. No odor or visual impacts noted. (SM)					
			4.3 ppm		33.0-35.0: Brown, SILT, little coarse sand and fine gravel, moderately stiff, wet. No odors or visual impacts noted. (SW)	32.5-35FT			NONE	
					35.0: End of Boring.					
				40						-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-119

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft.)
					0.0–5.0: Hand cleared hole. FILL, consists of black to brown, fine to medium sand, little silt, non-cohesive, trace gravel, trace coarse grained fill loose, dry. No odors or visual impacts. (FI)				
			0.5 ppm						
5–10		64			5.0–5.65: Black to brown, fine to medium sand, little silt, non-cohesive, trace gravel, trace coarse grained fill, little ash, loose, wet. No odors or visual impacts. (FI)			NONE	
					5.65: Apparent groundwater table.				
					5.65–5.8: Brown, SILT-CLAY, cohesive, loose, soft, plastic, wet. No odor or visual impacts. (CH)				
					5.8–6.5: Orange to brown, fine to medium, SAND, little silt, well-sorted, loose, wet. No odor or visual impacts. (SP)				
					6.5–10.0: Dark brown to black, SILT-CLAY, with varves of very fine sand, cohesive, plastic, wet. No odor or visual impacts. (CH)				0
			4.3 ppm						
10–15		50		10	10.0–12.0: Black, SILT-CLAY, layer of micro-fine red-brown clay, cohesive, soft, plastic. Fuel-oil like odor. No visual impacts. (CL)				
					12.0–13.6: Black, SILT-CLAY, interbedded with grey SAND, loose, cohesive, wet. Fuel oil-like odor. Spotty sheen. (SC)				
			8.5 ppm		13.6–15.0: Black, SILT-CLAY, layer of micro-fine red-brown clay, cohesive, soft, plastic. Fuel oil odor and spotty sheen. (CL)				
					15.0–17.0: Black, SILT-CLAY, cohesive, plastic, trace blebs			MODERATE	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-119

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/11/04	Date Completed: 05/11/04
Remarks:		Ground Elevation: 8.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		52			of tar, and tar coated grains within clay. Tar odor.					
					17.0-18.4: Black, medium to coarse SAND, little fine gravel. Gravel coated with thick viscous tar. Naphthalene and tar odor. (SP)					
			199 ppm		18.4-19.2: Grey, medium to coarse SAND and fine to coarse angular gravel, trace silt, wet. Trace sheen, naphthalene odor. (SP)	17.0-18.5				-10
					19.2-20.0: Brown to grey, medium to coarse SAND, trace silt, non-cohesive, loose, wet. No odors or visual impacts. (SP)					
20-25		44	5.5 ppm	20	20.0-25.0: Grey, fine to medium SAND, well-sorted, trace silt, trace gravel, cohesive, non-plastic, moderately stiff, wet. No odor or visual impacts. (SP)					
									NONE	
25-30		24	7.0 ppm		25.0-27.0: Gray, fine to medium SAND, well-sorted. No odor or visual impacts.	25.0-27.5				
					27.0-30.0: Brown, PEAT, little silt and clay, cohesive. No odor or visual impacts. (PT)					-20
					30.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-120

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: / /	Date Completed: / /
Remarks:		Ground Elevation: 8.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			0.3 ppm		0.0–5.0: Asphalt and concrete. Black fill beneath concrete ash fragments, little slag, little silt, non–cohesive, loose, no odors or visual impacts. (FI)				NONE	
5–10		58			5.0–6.9: Black, FILL, consists of angular slag, coarse sand to gravel–sized, little ash, trace coal fragments, non–cohesive, wet. No odors or visual impacts. (FI)					
					6.0: Apparent groundwater table.					
			12.9 ppm		6.9–10.0: Black, SILT–CLAY, trace layers od fine sand at 9.3', soft, plastic, sticky. Fuel oil–like odor Organic odor. No visual impacts. (CH)				MODERATE	0
10–15		50	14.9 ppm	10	10.0–12.0: Black, SILT–CLAY, little layers of fine sand, cohesive, plastic, wet. Faint fuel–oil odor No visual impacts. (CH)				FAINT	
					12.0–15.0: Black, SILT, cohesive, soft, sticky, moist. No visual impacts. Fuel oil like odor. (ML)	10.0–15.0				
					15.0–16.4: Black, SILT–CLAY, cohesive, sticky, plastic.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-120

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: / /	Date Completed: / /
Remarks:		Ground Elevation: 8.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		44			wet. Fuel-oil like and naphthalene-like odor. No visual impacts. (CL)				MODERATE	
			1114 ppm		16.4-18.2: Black, SILT-SAND, trace gravel, wet. Black stained, heavily coated with viscous tar, and coated grains, moderate naphthalene and coal tar odor. (SM)	17.0-18.0		+ + + + +		
					18.2-19.1: Gray, medium to coarse SAND, little silt, non-cohesive, wet. Sheen. (SP)					-10
					19.1-20.0: Gray, fine to medium SAND, little coarse sand, wet. No visual impacts. Naphthalene odor. (SP)					
20-25		24		20	20.0-25.0: Gray, medium to coarse SAND, little silt, wet. No odor or visual impacts. (SP)					
25-30		8			25.0-29.4: Brown, PEAT, little silt and clay, little organic matter, wet. No odor or visual impacts. (PT)					
					29.4-30.0: Brown fine to medium SAND, little silt and clay, cohesive, slightly plastic, wet. No visual impacts. (SP)				NONE	-20
					30.0-33.3: Red-brown, SILT, little fine to medium sand,					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-120

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: / /	Date Completed: / /
Remarks:		Ground Elevation: 8.26'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		52			little fine to coarse sand, trave fine gravel, little fine to coarse sand, dense, wet. No odor or visual impacts. (ML)					
			0.7 ppm		33.3-35.0: Red-brown, fine to medium SAND and SILT, trace fine gravel, wet. No odor or visual impacts. (ML)	32.5-35.0				
					35.0: End of boring.					
				40						-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-121

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/13/04	Date Completed: 05/13/04
Remarks: NA-Not Applicable		Ground Elevation: 8.92'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
			2.5 ppm		0.0–5.0: Black FILL, fine sand, little silt, trace fine and coarse gravel, slag, clinker, dry, non-cohesive, non-plastic, loose, no odors or visual impacts. (FI)					
5–10		64			5.0–6.4: Black FILL, medium to coarse sand, ash, coarse gravel, clinker, coal, concrete dust, non-cohesive, loose, non-plastic, dry, no odors or visual impacts. (FI)				NONE	
					6.4–6.9: Brown SILT and SAND, cohesive, non-plastic, wet, no odor or visual impacts. (SM) Apparent groundwater table.					
			7.5 ppm		6.9–10.0: Black SILT and CLAY, cohesive, plastic, sticky, varved with very fine red-brown sand. No odors or visual impacts. (OH)					0
10–15		54		10	10.0–12.6: Black SILT and CLAY, sticky, soft, cohesive, plastic, wet, fuel oil like odor, no visual impacts. (OH)					
			9.4 ppm		12.6–15.0: Black SILT and CLAY, some micro layers of very fine sand, sticky, soft, cohesive, plastic, wet. Fuel oil like odor, no visual impacts. (OH)				SLIGHT	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-121

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/13/04	Date Completed: 05/13/04
Remarks: NA-Not Applicable		Ground Elevation: 8.92'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		60			15.0-17.3: Black SILT and CLAY, some micro layers of very fine sand, sticky, soft, cohesive, plastic, wet. Fuel oil like odor, no visual impacts. (OH)					
			1302 ppm		17.3-17.8: Black-stained, fine SAND, trace coarse gravel, cohesive due to tar, wet, asphalt like tar odor, heavily coated to tar saturated with sticky viscous tar, moderate tar odor. (SP)					
					17.8-19.2: Black SILT and CLAY, micro layers of very fine sand, which are saturated with sticky viscous tar, tar in viens, moderate asphalt like tar odor. (OH)	18.0-19.5				-10
20-25		24	25 ppm	20	19.2-20.0: Medium to coarse SAND, little coarse gravel, wet, non-plastic, cohesive due to viscous tar, heavily coated grains, moderate naphtha-like asphalt-like tar odor, progresses to blebs with trace grain coating at bottom. (SP)	19.5-20.0				
					20.0-25.0: Gray, medium to coarse SAND, to fine to medium sand, trace coarse gravel at top, wet, cohesive, non-plastic, moderately dense, organic odor, no visual impacts. (SP)				MODERATE	
25-30		34	3.8 ppm		25.0-26.5: Gray, medium to coarse SAND, to fine to medium sand, trace coarse gravel at top, wet, cohesive, non-plastic, moderately dense, no odors or visual impacts. (SP)				NONE	
					26.5-27.9: Brown SILT, little vegetative matter, peat like, cohesive, moderately stiff, organic odor, no visual impacts. (PT)				MODERATE	
					27.9-30.0: Gray, fine to medium SAND, well-sorted, trace coarse sand, trace silt, trace clay, cohesive, loose, wet, organic odor, no visual impacts. (SP)					-20

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-121

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/13/04	Date Completed: 05/13/04
Remarks: NA-Not Applicable		Ground Elevation: 8.92'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		16			30.0-35.0: Gray, fine to medium SAND, well-sorted, trace coarse sand, trace silt, trace clay, non-cohesive, loose, wet. Organic odor, no visual impacts. (SP)					
						33.0-35.0				
35-40		16			35.0-35.6: Gray, fine to medium SAND, well-sorted, trace coarse sand, trace silt, trace clay, non-cohesive, loose, wet, organic odor, no visual impacts. (SP) 35.6-38.1: Gray SILT, little clay, trace root matter, cohesive, (OL)				NONE	
					38.1-40.0: Gray SILT, little fine sand, little clay, cohesive, moderately stiff, moist, no odors or visual impacts. (ML)					-30
				40	40.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-122

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/13/04	Date Completed: 05/13/04
Remarks:		Ground Elevation: 9.01'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		100	1.8 ppm		0.0-5.0: Black FILL, fine to medium sand, little coarse sand and gravel, slag, concrete, little silt, non-cohesive, non-plastic, dry. No odors or visual impacts. (FI)				NONE	
5-10		74			5.0-6.6: Black FILL, fine to medium sand, little fine to coarse gravel, non-cohesive, loose, non-plastic, dry. No odors or visual impacts. (FI)					
					6.6-7.0: Brown FILL, silt and sand, non-cohesive, wet, loose, no odor or visual impacts. (FI)					
			11.8 ppm		6.6: Apparent groundwater table.					
					7.0-8.8: Black FILL, silt and clay, cohesive, plastic, sticky, soft. Fuel oil odor, no visual impacts. (FI)				MODERATE	
					8.8-10.0: Brown FILL, slag, fine and coarse gravel, sized, angular, non-cohesive, wet. No visual impacts, fuel oil odor from 9.2-10'. (FI)				NONE MODERATE	0
10-15		66	19.1 ppm	10	10.0-10.8: Brown FILL, slag, fine and coarse gravel, sized, angular, non-cohesive, wet, no odors or visual impacts. (FI)				NONE	
					10.8-13.9: Black, very fine SAND with layers of brown fine sand and silty clay, cohesive, slightly plastic, wet. Slight fuel oil like odor, no visual impacts. (SW)				FAINT	
					13.9-15.0: Black SILT and CLAY, cohesive, plastic, trace fine sand in layers, moist to wet. Fuel oil-like odor, no visual impacts. (OH)					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-122

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/13/04	Date Completed: 05/13/04
Remarks:		Ground Elevation: 9.01'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		32			15.0-18.1: Black SILT and CLAY, cohesive, plastic, trace fine sand in layers, moist to wet. Fuel oil like odor, no visual impacts. (OH)				MODERATE	
			556 ppm		18.1-19.4: Black stained, fine to coarse GRAVEL and fine to medium SAND, wet, petroleum odor, petroleum coated grains, spotty sheen, petroleum saturated. (GP)	17.5-20.0				-10
					19.4-20.0: Black stained, fine to coarse GRAVEL and fine to medium SAND, wet. Tar-asphalt odor, blebs of semi-viscous tar around grains, coated grains. (GP)			+		
20-25		36	25.6 ppm	20	20.0-22.5: Gray, medium to coarse SAND, little fine rounded gravel, trace silt, well-sorted, loose, wet, moderately stiff, trace naphtha-like odor, no visual impacts. (SP)			+	FAINT	
					22.5-25.0: Gray fine to medium SAND, trace silt, well-sorted, moderately dense, wet. No visual impacts or odors. (SP)				NONE	
25-30		24	2.8 ppm		25.0-27.5: Brown PEAT, little silt and clay, cohesive, non-plastic, damp. Organic odor, no visual impacts. (PT)	25.0-27.5			MODERATE	
					27.5-30.0: Brown SILT, little vegetative matter, peat like, cohesive, moderately stiff, organic odor, no visual impacts. (PT)					
					27.5-30.0: Gray, SILT, little clay, trace fine and coarse gravel, dense, cohesive, plastic, damp. No odor or visual impacts. (ML)				NONE	-20
					30.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-123

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks: NA=Not Applicable		Ground Elevation: 8.42'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		100	0.0 ppm		0.0-5.0: Hand cleared for utility conerns. Black FILL, silt, fine sand, little slag, dry, non-cohesive, no odors or visual impacts. (FI)				NONE	
5-10		80			5.0-6.0: Black FILL, some fine gravel, slag, some silt, trace to little ash, non-cohesive, moist. No odors or visual impacts. (FI) 6.0: Apparent groundwater table. 6.0-10.0: Black FILL, silt and clay, cohesive, soft, moderately stiff, little red brown to brown silt and fine sand layers throughout, 6.9-10.0 wet. Fuel oil-like odor, no visual impacts. (FI)					0
			19.5 ppm							
10-15		56		10	10.0-15.0: Black FILL, silt and clay, slag, cohesive, wet. Fuel oil odor, trace sheen on surface. (FI)				MODERATE	
			20.9 ppm							

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-123

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks: NA=Not Applicable		Ground Elevation: 8.42'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description (color, density, SOIL, admixture, moisture, other notes, ORIGIN.)	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		42	249 ppm		15.0-16.0: Black FILL, silt and clay, slag, cohesive, wet, fuel oil odor, trace sheen on surface. (FI)					
					16.0-16.2: Black fine SAND, well-sorted, wet, heavily tar coated grains, viscous, naphthalene and tar odors, little petroleum like sheen. (SP)	15-17 FT				
					16.2-16.4: Black SILT and CLAY,cohesive, wet. Petroleum sheen and naphthalene odor. (OL)					
					16.4-16.7: PEAT, viscous sticky tar, creosote like odor, trace sheen. (PT)					
					16.7-20.0: Gray medium to coarse SAND, little coarse gravel, dense, trace silt, non-plastic, wet. No odors or visual impacts. (SP)					-10
20-25		32	4.6 ppm	20	20.0-24.1: Gray, fine to medium SAND, trace silt, fine gravel, loose, moderately stiff, wet. No odors or visual impacts. (SP)				NONE	
					24.1-25.0: Brown SILT, little organic matterial, trace clay, slightly plastic, moist. Slight organic odor, no visual impacts. (OL)				FAINT	
25-30		24			25.0-26.3: Gray brown PEAT, trace clay, some plant matter. (PT)					
					26.3-28.8: Gray fine to medium SAND, little silt, trace clay, slightly cohesive, non-plastic to slightly plastic, wet. No odors or visual impacts. (SP)				NONE	
			0.6 ppm							
					28.8-30.0: Brown to red brown SILT and SAND, trace fine and coarse gravel, cohesive, non-plastic, moderately dense to dense, wet. No odors or visual impacts. (ML)	27-30T				-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-124

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.54'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
0–5		100	0.0 ppm		0.0–5.0: Cleared by hand for utility concerns. (UN)					
5–10		66			5.0–8.9: Brown to reddish brown, FILL, fine sand, little silt, trace fine gravel, low plasticity, moist to wet. No odors or visual impacts. (FI) 6.0: Apparent groundwater table.				NONE	
			0.0 ppm		8.9–10.0: Gray FILL, fine sand, little silt, cohesive, low plasticity, wet. No odor, 9.2–10 stained black, no other visual impacts. (FI)					0
10–15		80		10	10.0–11.25: Brown, FILL, fine sand, some silt, trace fine, subangular gravel, cohesive, loose, low plasticity, wet. No odors or visual impacts. (FI) 11.25–15.0: Black stained FILL, medium to coarse sand and coarse gravel, little silt, slag, ash, non-cohesive, loose, wet. Spotty sheen on large gravel, slight fuel oil odor. (FI)					
			15.0 ppm			13.0–15.0				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-124

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.54'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		44	9.4 ppm		15.0-20.0: Black stained FILL, medium to coarse sand and coarse gravel, little silt, slag, ash, concrete, brick fragments, non-cohesive, loose, wet. Spotty sheen on large gravel, slight fuel oil odor. (FI)				SLIGHT	
20-25		16	0.4 ppm	20	20.0-30.0: Medium-coarse to fine-medium SAND, little silt, non-cohesive, low plasticity, no odors or visual impacts. (SP)					-10
25-30	NR	0	2.5 ppm						NONE	-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-124

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.54'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		12	0.4 ppm		30.0-35.0: Brown-gray, organic SILT and CLAY, trace root matter, moderately stiff, cohesive, plastic, organic odor, no visual impacts. (OH)				SLIGHT	
35-40		20			35.0-40.0: Red brown SILT, little coarse sand, trace coarse gravel, trace clay, cohesive, slightly plastic, no odors or visual impacts. (ML)	35.0-40.0			NONE	-30
				40	40.0: End of Boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-125

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.38'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
0-5		100			0.0-1.0: Concrete slab. (FI)				
					1.0-5.0: Black FILL, fine sand, little silt, slag, clinker and coal fragments, loose, non-cohesive, dry, no odors or visual impacts. (FI)				
			0.0 ppm					NONE	
5-10		36			5.0-7.2: Black FILL, fine to medium sand, little silt, some clinker and slag, ash fragments, no odors or visual impacts. (FI)				
					6.0: Apparent groundwater table.				
					7.2-10.0: Brown FILL, medium to coarse sand and fine to coarse gravel, little brown silt, non-cohesive, low plasticity, wet. 8.9-9.2 black, spotty sheen and petroleum odor. (FI)				0
			58.8 ppm						
10-15		32	16.1 ppm	10	10.0-15.0: Gray FILL, fine sand, fine to coarse gravel, little medium sand, little silt, brick coal and ash, wet. Fuel oil like odor, trace spotty sheen. (FI)				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-125

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.38'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		32			15.0-20.0: Black FILL, medium to coarse sand, little silt, some clinker, ash, and coal fragments, non-cohesive. Spotty sheen, fuel oil odor, trace creosote like sticky tar coated grains on top of black silty clay at 19.7, moderate tar odor. (FI)				MODERATE	
			50.3 ppm							-10
20-25		44	166 ppm	20	20.0-21.25: FILL, coarse gravel, medium sand, little silt, wet. Moderate fuel oil like odor, creosote tar like odor, trace coated grains and spotty sheen on top of black silty clay, no viual impacts inside clay. (FI)	20.0-21.0				
					21.25-22.3: Gray rounded GRAVEL, little medium to coarse sand, little silt, non-ochesive, moderately dense, wet. Creosote like odor, no visual impacts. (GP)					
					22.3-25.0: Red brown, medium SAND progressing to fine SAND, trace round gravel, trace silt, cohesive, moderately stiff, well-sorted, wet. No odors or visual impacts. (SP)					
25-30		24	25.5 ppm		25.0-30.0: Gray fine to medium SAND, well-sorted, cohessive, low plasticity, moderately stiff, dense, wet. No odors or visual impacts. (SP)				NONE	
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-125

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.38'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 40.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		20	1.1 ppm		30.0-35.0: Gray SILT, CLAY and PEAT, little wood pieces, cohesive, moderately stiff, strong organic odor, no visual impacts. (OL)	30.0-35.0				
35-40		22	0.3 ppm		35.0-40.0: Gray SILT and CLAY, plastic, cohesive, stiff, wet, organic odor, no visual impacts, layer of fine sand at 3.6. (OH)				MODERATE	
				40	40.0: End of Boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-126

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.48'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		100	0.0 ppm		0.0-5.0: Hand cleared for utility concerns. Black FILL, fine to medium sand, some silt, slag, clinker and coal fragments, non-cohesive, loose, no odors or visual impacts. (FI)					
5-10		52			5.0-10.0: FILL, medium to coarse sand and fine gravel, some clinker, ash and coal, non-cohesive, loose, well-sorted, wet at 8', no odor or visual impacts. (FI)					
			0.0 ppm		8.0: Apparent groundwater table.					0
10-15		35		10	10.0-15.0: Black, FILL, medium to coarse sand and fine to coarse gravel, clay and slate, little silt, some clinker, ash and coal, non-cohesive, loose, well-sorted, wet. No odor or visual impacts. (FI)				NONE	
			0.3 ppm		15.0-19.9: Black, FILL, medium to coarse sand and fine to coarse gravel, clay and slate, angular concrete fragments, little silt, some clinker, ash and coal, non-cohesive, loose, well-sorted, wet. No odor or visual impacts. (FI)					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-126

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/14/04	Date Completed: 05/14/04
Remarks:		Ground Elevation: 8.48'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		32								
										-10
					19.9-20.0: Fine SAND and SILT, fuel oil odor, coated grains, naphthalene odor. (SP)					
20-25	NR	0	166 ppm	20	20.0-22.5: Black, fine to medium SAND, trace wood fragments, little gravel, cohesive, sticky, non-plastic, naphthalene, petroleum and creosote tar like odor, stained, viscous tar, blebs of petroleum, sheen. (SP)	20.0-22.0		+ + + + + +		
			217 ppm							
					22.5-25.0: Redish brown, medium to coare SAND, well-sorted, trace silt and coarse gravel, dense, cohesive, non-plastic, wet. Petroleum and naphthalene odors, sheen in tip, no other visual impacts. (SP)					
25-30		22	116 ppm		25.0-27.7: Gray, medium to coarse SAND, little silt, trace coarse gravel, well-sorted, spotty sheen, fuel oil odor. (SP)				MODERATE	
					27.7-29.1: Brown, PEAT, little to some silt and clay, moderately stiff, roots, organic odor, no visual impacts. (PT)					
					29.1-30.0: Gray, fine to medium SAND, well-sorted, loose, wet sheen, naphthalene odor, trace tar coated grains. (SP)					-20
					30.0: End of boring, continue in SB-126A.			+ +		

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-126A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/17/04	Date Completed: 05/17/04
Remarks: Offset from SB-126. Lithology for 0-30 feet is located on SB-126 log.		Ground Elevation: 8.48'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
				10						0

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-126A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/17/04	Date Completed: 05/17/04
Remarks: Offset from SB-126. Lithology for 0-30 feet is located on SB-126 log.		Ground Elevation: 8.48'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
				20	Continued from SB-126					-10 -20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-126A

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/17/04	Date Completed: 05/17/04
Remarks: Offset from SB-126. Lithology for 0-30 feet is located on SB-126 log.		Ground Elevation: 8.48'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					30.0-34.5: Gray, fine to medium SAND, trace coarse sand and silt, well-sorted, moderately stiff, wet. Organic sulfur odor, no visual impacts.(SP)				MODERATE	
			0.0 ppm			33.0-34.0				
					34.5-35.0: Gray-brown SILT and CLAY, little organic matter, moderately stiff, cohesive. Organic sulfur odor, no visual impacts (CL)					
					35.0-36.3: Brown-gray SILT, trace clay, cohesive, slightly plastic, moderately stiff, no odor or visual impacts. (MH)					
					36.3-40.0: Gray, red and brown, fine to medium SAND, little silt, trace coarse sand, gravel, pieces of glacial till, cohesive, moderately dense, wet. No odors or visual impacts. (ML)					-30
			0.0 ppm	40					NONE	
					40.0-43.8: Fine to medium SAND, little to some silt, trace coarse gravel, trace fine gravel,trace silt nodules moderately dense, loose, wet. Non-cohesive. No odor or visual impacts. [Weathered Till] (ML)					
			0.0 ppm			43.0-44.0				
					43.8-45.0: Red-brown, fine to medium SAND, wet, well-sorted, loose, no odors or visual impacts. (SW)					
					45.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-127

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/17/04	Date Completed: 05/17/04
Remarks:		Ground Elevation: 8.19'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		0	0.0 ppm		0.0-5.0: Hand cleared for potential utility concerns. Concrete slab and fill. Fill consists of medium to coarse SAND, pieces of slag and ash, non-cohesive, loose, dry. No odor or visual impacts. (FI)					
5-10		50			5.0-10.0: Black FILL, consits of medium to coarse sand and fine gravel, slag, clinker, and ash fragments, fine gravel-sized rock fragments, non-cohesive, non-plastic,damp to wet at 9'. No odors or visual impacts. (FI)				NONE	0
			0.0 ppm		9.0: Apparent groundwater table.					
10-15		30	0.0 ppm	10	10.0-15.0: Black FILL, consists of gravel-sized coal fragments, trace fine to coarse sand, little coarse fine sand sized slag, ash fragments, little silt, loose,non-cohesive, non-plastic, wet. No odors or visual impacts. (FI)					
					15.0-18.25: Black FILL, consists of gravel-sized coal fragments, trace fine to coarse sand, little coarse fine sand sized slag, ash fragments, little silt, loose,non-cohesive, non-plastic, wet. Trace fuel oil-like odor. No visual impacts. (FI)				NONE	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-127

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/17/04	Date Completed: 05/17/04
Remarks:		Ground Elevation: 8.19'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15-20		28						TRACE	
			709 ppm		18.25-20.0: Black-stained, SILT-CLAY, trace fine sand, little vegitative matter, cohesive, plastic (sticky), wet. Trace blebs of tar, moderate naphthalene and creosote like odor, heavy petroleum sheen, and possible fuel oil-like odor. (OH)	19-20 FT		MODERATE	-10
20-25		40		20	20.0-23.0: Black fine to coarse GRAVEL, little fine sand, trace silt, non-cohesive, moderately dense, wet. Naphthalene odor. No visual impacts. (GP)			SLIGHT	
					23.0-25.0: Brown, fine to medium SAND, little fine gravel, little coarse sand, non-cohesive, non-plastic, wet. No odors or visual impacts. (SW)			NONE	
25-30		32	0.0 ppm		25.0-26.25: Grey fine to medium SAND, well-sorted, loose, wet. Organic odor. No visual impacts. (SP)				
					26.25-28.50: Brown, PEAT, little silt and sand, little organic matter. No odors or visual impacts. (PT)			SLIGHT	-20
					28.50-30.0: Grey, medium to coarse SAND, trace coarse sand (rounded), trace silt, non-cohesive, loose, organic odor, no visual impacts. (SP)				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-127

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/17/04	Date Completed: 05/17/04
Remarks:		Ground Elevation: 8.19'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		4			30.0-35.0: Grey, medium to coarse SAND, little coarse sand (rounded), trace silt, non-cohesive, loose. Rock in shoe of macrocore sampler. Organic odor, no visual impacts. (SP)				SLIGHT	
35-40		4	0.0 ppm		35.0-40.0: Brown, fine to medium SAND, little silt, progresses to medium to coarse sand trace coarse gravel, non-cohesive, non-plastic, loose to moderately dense, wet. No odors or visual impacts. (SP)					-30
40-45		40	0.0 ppm	40	40.0-42.25: Red-brown, medium to coarse SAND, little coarse gravel, little silt, little fine angular gravel, cohesive, non-plastic, wet, no odors or visual impacts. (SW)				NONE	
					42.25-44.0: Brown to red-brown, fine to medium SAND, well-sorted, loose, cohesive, wet, no odors or visual impacts. (SP)	40-45 FT				
					44.0-45.0: Red-brown, medium to coarse SAND, little coarse gravel, little silt, little fine angular gravel, cohesive, non-plastic, wet. No odors or visual impacts. (SW)					
					45.0: End of Boring.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-128

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks: NA=Not Applicable		Ground Elevation: 8.70'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5		100	0.0 ppm		0.0-5.0: Driller clears boring location with spear tip. Black, FILL, medium to coarse sand, little slag and clinker, little ash, non-cohesive, non-plastic, loose, dry. No odors or visual impacts noted. (FI)					
5-10		50			5.0-10.0: Black, FILL, medium to coarse, SAND, little to some coarse sand and fine gravel sized clinker and coal, little ash, non-cohesive, non-plastic. loose, dry to wet. No odors or visual impacts noted. (FI)					
					7.0: Apparent grounwater table.					
			0.0 ppm						NONE	
10-15		32	0.0 ppm	10	10.0-15.0: Brown to black, FILL, medium to coarse sand, some coarse gravel-sized fill, coal fragments and slag, trace silt. No odor or visual impacts. (FI)					0
					15.0-16.25: Brown to black, FILL, medium to coarse sand,					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-128

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks: NA=Not Applicable		Ground Elevation: 8.70'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		40			some coarse gravel-sized fill, coal fragments and slag, trace silt. No odor noted. Spotty sheen. (FI)					
					16.25-16.75: Gray, SILT-CLAY, cohesive, plastic, moist. Faint Naphthalene-like odor. No visual impacts noted. (CL)				FAINT	
					16.75-16.9: Brown, fine SAND, trace silt, well-sorted, non-cohesive, loose, moderately stiff,wet. Moderate tar odor. Tar coated grains. (SP)					
					16.9-18.5: Black, fine to medium SAND, little silt, non-cohesive, loose, wet. Fuel oil-like odor. No visual impacts noted. (SP)	17-18 FT			MODERATE	
					18.5-20.0: Gray, fine to medium SAND and coarse angular gravel, little silt, moderately dense, non-cohesive, wet. No odors or visual impacts noted. (SP)				NONE	-10
20-25		40	0.0 ppm	20	20.0-25.0: Gray, fine to medium SAND, little coarse sand, trace fine and coarse gravel, trace silt, well-sorted, loose to moderately dense, wet. No visual impacts. Organic odor.(SP)				MODERATE	
25-30		30	0.0 ppm		25.0-26.3: Brown, PEAT, little silt, trace clay, cohesive, slightly plastic, soft. No visual impacts. Strong organic odor. (PT)				STRONG	
					26.3-28.9: Gray, fine to medium SAND, well-sorted, trace silt, loose, non-cohesive, wet. No odor or visual impacts. (SP)					
					28.9- 30.0: Brown, PEAT and gray SILT-CLAY, cohesive, non-plastic to plastic, trace to little vegitative matter, some silt, moist. No odor or visual impacts. (PT)					-20
					30.0-35.0: Red-brown to brown, fine SAND, well-sorted,					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-128

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks: NA=Not Applicable		Ground Elevation: 8.70'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		36	0.0 ppm		little silt, moderately dense, cohesive, non-plastic, layer of clay at 34'. No odor or visual impacts. (SP)	34-35 FT			NONE	
				40	35.0: End of Boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-129

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks:		Ground Elevation: 8.78'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0-5.0: Concrete foundation. (FI)					
			0.0 ppm							
5-10		68			5.0-10.0: Dark brown to black FILL, medium to coarse sand, ash, coal fragments, fine gravel sized slag, clinker, non-cohesive, loose, non-plastic, wet at 7'. no odor or visual impacts. (FI)					
					7.0: Apparent groundwater table.					
									NONE	
			0.0 ppm							0
10-15		40	0.0 ppm	10	10.0-15.0: Red-brown to dark brown FILL, medium to coarse sand, little silt, little fine gravel sized clinker and slag, ash fragments, non-cohesive, loose, non-plastic, wet. No odors or visual impacts. (FI)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-129

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks:		Ground Elevation: 8.78'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		36			15.0-17.8: Brown to black FILL, medium to coarse sand, little silt, little fine gravel sized clinker and slag, ash fragments, non-cohesive, loose, non-plastic, wet, fuel oil odor, no visual impacts. (FI)					
			66.0 ppm		17.8-20.0: Gray SILT and fine SAND, little wood and fine gravel, wet, cohesive, soft, non-plastic, moderate fuel oil odor, blebs of petroleum like material, moderate sheen on wood and around gravel. (FI)	18.0-20.0		+ + + + + + + +	MODERATE	-10
20-25		50		20	20.0-22.0: Gray, medium to coarse SAND, little silt and coarse sand, trace coarse and fine gravel, moderately dense, cohesive, non-plastic, wet, fuel oil odor. No visual impacts. (SW)					
			0.0 ppm		22.0-24.0: Red-brown to brown, medium to coarse SAND, trace clay, moderately dense, cohesive, non-plastic, trace coarse gravel, no odor or visual impacts. (SW)					
					24.0-25.0: Gray, fine to medium SAND, trace to little silt, trace coarse sand, cohesive, wet. No odor or visual impacts. (SW)					
25-30		20			25.0-27.5: Gray, fine to medium SAND, trace silt, well-sorted, non-cohesive, loose, wet. No odors or visual impacts. (SP)				NONE	
					27.5-28.5: Brown PEAT, trace to little silt and clay, little to some organic matter, slight sulfur odor, no visual impacts. (PT)	25.0-30.0			SLIGHT	
					28.5-30.0: Gray SILT, little clay and fine sand, cohesive, slightly plastic, soft, wet. No odor or visual impacts. (ML)					-20
					30.0: End of boring.				NONE	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-130

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks:		Ground Elevation: 8.39'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
					0.0–5.0: Hand clear for potential utility concerns. Concrete slab and fill. (FI)				NONE	
			0.0 ppm							
5–10	UNKN	0			5.0–10.0: Black to brown FILL, medium to coarse sand, little silt, some fine and coarse fill, slag and rock fragments, moist to wet. No odor or visual impacts. (FI)					
									NONE	
			30.0 ppm		8.0: Apparent Watertable.					0
10–15	NA	70	20.0 ppm	10	10.0–15.0: Black FILL, silt and fine sand, trace to little angular fine gravel, clinker, slag, cohesive, non-plastic, modertely dense,wet. No odors or visual impacts. (FI)					
									NONE	
					15.0–19.0: Black FILL, silt, little fine sand, some coal					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-130

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/18/04	Date Completed: 05/18/04
Remarks:		Ground Elevation: 8.39'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
15-20	NA	40			fragments, fine to coarse gravel sized slag, non-cohesive, loose, wet, trace fuel oil/ petroleum-like odor, no visual impacts. (FI)			SLIGHT	
			11.4 ppm		19.0-20.0: Gray, medium to coarse SAND, well-sorted loose, non-cohesive, wet. Trace petroleum-like/ fuel oil-like odors. No visual impacts. (SP)				-10
20-25	NA	36		20	20.0-25.0: Gray GRAVEL, some medium to coarse sand, trace silt, dense, cohesive, non-plastic, slight to moderate tar creosote odor, trace viscous taffy-like tar, black coated grains from 21.7' to 21.9' and at 23.6'. (GW)			FAINT TO	
			227.0 ppm			22-25 FT		MODERATE	
25-30	NA	24	0.0 ppm		25.0-26.7: Gray, medium to coarse SAND, trace silt, well-sorted, non-cohesive, no odor or visual impacts. (SP)				
					26.7-30.0: Brown PEAT, little to some organic matter, little silt and clay, cohesive, plastic when wet, moist, stron organic odor, no visual impacts. (PT)	25-30 FT		NONE	-20
					30.0: End of boring.				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-131

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks: NA=Not Applicable		Ground Elevation: 8.93'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–5.0: Used spear tip to clear boring location. Boring completed in area clear by utility locating company. (FI)				UNKNOWN	
5–10	NA	72	15.5 ppm		5.0–5.7: Black, FILL, consists of ash, medium to coarse sand, slag, fine gravel, non-cohesive, moist to wet. Trace petroleum-like odor. No visual impacts. (FI) 6.0: Apparent groundwater table. 5.7–10.0: Black, SILT-CLAY, trace micro layers of fine to very fine sand, sticky, plastic, wet. Fuel oil-like odor. No visual impacts noted. (FI)				SLIGHT MODERATE	0
10–15	NA	58		10	10.0–11.7: Black, SILT-CLAY, with micro-layers of very fine sand, cohesive, plastic, sticky, wet. Fuel oil-like odor. No visual impacts noted. (FI) 11.7–16.4: Black, SILT-CLAY, trace fine sand, cohesive, plastic, sticky, wet. Fuel oil-like odor. No visual impacts noted. (FI)				SLIGHT	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-131

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks: NA=Not Applicable		Ground Elevation: 8.93'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	58								
					16.4-18.0: Black-stained, fine SAND, silt, trace gravel sized-slag (fill), Moderate petroleum-like odor. Black viscous taffy-like tar 0.1 interval at 18.0' (FI)					
			482.0 ppm			17-18 FT				
					18.0-20.0: Gray, coarse, well-sorted SAND, trace silt, little coarse gravel. Brown blebs of petroleum-like material. Petroleum odor. Heavy sheen. Progresses to just sheen at bottom of interval. (SP)	18-19 FT			MODERATE	
			24.9 ppm							10
20-25	NA	44		20	20.0-25.4: Gray, fine to medium SAND, well-sorted, little coarse sand, trace silt, trace coarse rounded gravel, cohesive, moderately dense. Slight petroleum like odor. No visual impacts. (SP)					
			1.1 ppm						SLIGHT	
25-30	NA	50			25.4-27.6: Brown, PEAT, little silt, and trace fine sand, trace clay, some organic matter, cohesive, crumbles, moderately stiff, moist. No visual impacts. Organic (sulfur) odor. (PT)				NONE	
									MODERATE	
					27.6-29.6: Gray SILT, little to some clay, little fine to coarse sand, trace coarse gravel, cohesive, slightly plastic, No odor or visual impacts. (ML)	25-30 FT				
					29.6-30.0: Red-brown, fine SAND, well-sorted, trace to little silt, moist. No odors or visual impacts. (SP)				NONE	20
					30.0: End of boring.					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-132

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks:		Ground Elevation: 10.01'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
					0.0–5.0: Hand-cleared for potential onsite utility concerns. (FI)					10
5–10	NA	54	0.6 ppm		5.0–6.85: Brown to black FILL, consists of medium to coarse-grained sand fine gravel-sized concrete and brick fragments, little silt, non-cohesive,loose, damp to wet. No odors or visual impacts observed. (FI) 6.0: Apparent groundwater table. 6.85–9.75: Black FILL, consists of brick and slag fragments, non-cohesive, wet. No odor or visual impacts. (FI)				None	
10–15	NA	40	23.0 ppm	10	9.75–10.0: Black FILL, consists of brick and slag fragments, non-cohesive, wet. Black stained, slightly tar-coated grains (asphalt-like) with napthalene-like odor. (FI) 10.0– 12.5: Black (stained) FILL, consists of fine to medium sand, trace brick sized gravel and asphalt fragments, trace slag, trace to little silt, non-cohesive, loose, wet. No visual impacts. Napthalene like-odor. (FI)	10-11 FT		+ + + + + + +		0
					12.5–15.0: Brown, fine to medium SAND, well-sorted, trace fine and coarse gravel (rounded),moderately dense to loose, wet. No visual impacts. Organic odor (sulfur-like). (SP)				MODERATE	
					15.0–19.0: Brown, PEAT with abundant root and vegitative					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-132

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks:		Ground Elevation: 10.01'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
15-20	NA	46	0.9 ppm		matter, little clay and silt, cohesive slightly plastic (when wet), crumbles out of the macro-core. No visual impacts. Organic odor. (PT)	15-18 FT			MODERATE	
					19.0-20.0: Brown to grey SILT, little clay, little fine sand, trace coarse sand, cohesive, slightly plastic, moderately dense. No odors or visual impacts. (ML)				None	
				20	20.0: End of Boring.					-10

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-133

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks:		Ground Elevation: 9.33'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–5.0: CONCRETE SLAB. (FI)					
									NONE	
5–10	NA	66	2.6 ppm		5.0: Apparent groundwater table. 5.0–5.75: Brown, SILT–SAND, trace gravel, trace clay, soft, slightly plastic, cohesive, wet. No odors or visual impacts. (FI) 5.75–9.5: Black to brown, medium to coarse SAND, trace coarse gravel, brick pieces, slag, ash, non–cohesive, non–plastic, wet. (FI)					
										0
			131 ppm		9.5–10.0: Black stained, medium to coarse SAND (rounded), little fine to medium sand, trace organic matter, cohesive, wet. Viscous tar coated grains (asphalt –like). Slight tar odor. (SP)	9.5–10 FT		+	SLIGHT	
10–15	NA	60		10	10.0–13.2: Red–brown, SILT and fine SAND, cohesive, non–plastic, moderately dense, wet. No odors or visual impacts. (SM)					
			0.9 ppm		13.2–15.0: Red–brown, medium SAND, trace coarse sand, trace fine gravel, trace silt, wet. No odor or visual impacts. (SP)				NONE	
					15.0–16.5: Red–brown, fine SAND, little silt, trace fine					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-133

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks:		Ground Elevation: 9.33'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	56	0.7 ppm		gravel, loose, cohesive, non-plastic. No odors or visual impacts. (SP)					
					16.5-20.0: Red-brown, SILT, trace to little fine sand, trace clay, trace coarse gravel, and cobbles (rock dust). Cohesive, slightly plastic, moderately stiff to stiff. No odors or visual impacts noted. (ML)	16-18 FT			NONE	
				20	20.0: End of Boring.					-10 -20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-134

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks: NA= Not Applicable		Ground Elevation: 9.59'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
			0.8 ppm		0.0–5.0: Hand cleared for utility concerns. (FI)				
5–10	NA	58			5.0–10.0: Black, FILL, consists of medium to coarse sand, trace to little silt, little slag, little coal fragments and clinker, non–cohecive, non–plastic, moist to wet. No odors or visual impacts. (FI)			NONE	
					7.0: Apparent groundwater table.				
10–15	NA	38	119 ppm	10	10.0–12.5: Black, FILL, consists of medium to coarse sand, trace to little silt, little slag, little coal fragments and clinker, non–cohesive, non–plastic, wet. Trace spotty sheen and 0.1' layer of black stained grains. Fuel oil–like odor.(FI)	11–11.5FT		MODERATE	0
					12.5–16.25: Brown, SILT, little fine sand, trace gravel, trace to little clay, cohesive, plastic, moderately stiff, wet. No odor or visual impacts. (ML)				

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-134

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks: NA= Not Applicable		Ground Elevation: 9.59'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	72	0.7 ppm		16.25-20.0: Brown, fine SAND, some silt, little fine gravel, little coarse sand, trace to little clay, stiff, cohesive, slightly plastic (when wet). [Glacial Till] No odors or visual impacts. (SM)	17-18 FT			NONE	
				20	20.0: End of Boring.					-10
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-135

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks:		Ground Elevation: 9.09'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
					0.0–5.0: Hand cleared for utility concerns.					
5–10		46			5.0–10.0: Black to brown FILL, medium to coarse sand, and fine to coarse gravel sized slag, little silt, trace coarse gravel, non-cohesive, non-plastic, loose, wet. No odors or visual impacts. (Fl)				NONE	
					7.0: Apparent groundwater table.					
			0.5 ppm							0
10–15		36		10	10.0–13.1: Black to brown FILL, medium to coarse sand, and fine to coarse gravel sized slag, little silt, trace coarse gravel, non-cohesive, non-plastic, loose, wet. No odors or visual impacts. (Fl)					
					13.1–14.4: Gray to black, SILT and CLAY, cohesive, plastic, sticky, moderately stiff, wet. Sheen and oil-like odor. (CH)	fuel				
					14.4–15.0: Black, fine SAND, well-sorted, loose, non-cohesive, non-plastic. Fuel oil odor, stained, trace sheen. (SP)				MODERATE	
			43 ppm		15.0–20.0: Gray, fine to medium SAND, trace silt, poorly-	14.5-15.0		+		

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-135

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks:		Ground Elevation: 9.09'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
15-20		38			sorted, moderately dense, non-cohesive, non-plastic, wet. No odor or visual impacts. (SW)					
			1.5 ppm						NONE	
										-10
20-25		36		20	20.0-21.3: Gray, fine to medium SAND, trace silt, poorly-sorted, moderately dense, non-cohesive, non-plastic, wet. No odor or visual impacts. (SW)					
			0.8 ppm		21.3-23.9: Brown PEAT, little silt and clay, cohesive, soft, plastic, root and vegetative matter, damp. Strong organic (sulfur) odor, no visual impacts. (PT)				STRONG	
						21.0-25.0				
					23.9-25.0: Brown, medium to coarse SAND, trace gravel, little silt, wet, soft, non-plastic, slightly cohesive. No odors or visual impacts. (SP)				NONE	
					25.0: End of boring.					
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-136

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks: NA= Not Applicable		Ground Elevation: 8.05'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0–5.0: Cleared SB-136 for potential underground utility concerns. Concrete 1 foot thick. Black FILL beneath the concrete. Black fine to medium SAND, trace clinker, and brick, non-cohesive, loose, dry. No odors or impacts. (FI)			NONE	
			1.1 ppm						
5–10	NA	66			5.0–8.0: Black, FILL, consists of ash fragments, slag, fine to medium sand, little silt, non-cohesive, non-plastic, soft, moist to wet. No odors or visual impacts. (FI)				
					6.0: Apparent groundwater table.				
			0.6 ppm					NONE	
					8.0–10.0: Black, SILT and fine SAND, trace fill, trace gravel, soft, non-plastic, slightly cohesive, wet. Trace spotty Sheen. No odor noted. (FI)				0
			1.9 ppm						
10–15	NA	44		10	10.0–13.0: Black, FILL, SILT with fine and coarse SAND, trace fine and coarse gravel-sized fill (slag), little ash, and coal fragments (angular), non-cohesive, non-plastic, wet. No odor or visual impacts.(FI)			NONE	
			16.5 ppm		13.0–14.0: Black, FILL, SILT with fine and coarse SAND, trace fine and coarse gravel-sized fill (slag), little ash, and coal fragments (angular), non-cohesive, non-plastic, wet. Slight petroleum-like odor and sheen noted. (FI)	13-14 FT		SLIGHT	
					14.0–15.0: Black, FILL, SILT with fine and coarse SAND, trace fine and coarse gravel-sized fill (slag), little ash, and coal fragments (angular), non-cohesive, non-plastic, wet. No odor or visual			NONE	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: SB-136

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/19/04	Date Completed: 05/19/04
Remarks: NA= Not Applicable		Ground Elevation: 8.05'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 25.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
15-20	NA	40	16.8 ppm		impacts.(FI) 15.0-16.0: Black, fine well-sorted SAND, laminated, trace fill (clinker), non-cohesive, non-plastic, loose to slightly dense, wet. Petroleum-like odor. Trace sheen. (FI) 16.0-16.25: Black SILT and CLAY, trace to little wood fragments, cohesive, plastic. Organic odor. No visual impacts noted. (FI) 16.25-20.0: Gray, medium to coarse SAND, trace fine gravel, little silt, moderately dense. Organic odor. No visual impacts noted. (SP)					
										-10
20-25	NA	46		20	20.0-25.0: Gray, medium to coarse SAND, little fine sand, trace to little gravel, non-cohesive, non-plastic, moderately dense. Stringer of peat in the shoe of the sampler. Organic odor (sulfur-like). No visual impacts. (SW)				MODERATE	
			1.1 ppm			23-25 FT				
					25.0: End of boring.					
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-137

GEI Consultants

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks:		Ground Elevation: 7.98'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft.)
			0.1 ppm		0.0–5.0: Concrete bit and hand augered for potential utility concerns. Fill included concrete slab, little silt, fine to medium sand, trace gravel, dry, no odors or visual impacts. (FI)					
5–10		66			5.0–10.0: Black to brown/black, SILT, little fine sand, trace fine and coarse gravel (angular), glass fragments and wood fragments, slightly cohesive, non-plastic, soft, wet at 7'. (FI)					
			0.1 ppm						NONE	0
10–15		4	0.0 ppm	10	10.0–15.0: Brown, SILT, little fine sand, trace fine and coarse gravel, slightly cohesive, non-plastic, wet. No odor or visual impacts. (FI) Note: Coarse-grained gravel was lodged into the shoe of the macro-core that likely reusited in low recovery.					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-137

GEI Consultants

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks:		Ground Elevation: 7.98'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20		60			15.0-16.67: Gray fine to medium, SAND, trace clay, trace wood particles, trace rounded gravel, loose, non-cohesive, non-plastic, wet. No odor or visual impacts. (SP)					
					16.67-18.34: Gray fine to medium SAND, interstratified with soft gray CLAY-SILT layer, cohesive, plastic, wet. Trace sheen on water and fuel oil like odor. (SP)					-10
			47.7 ppm		18.34-19.50: Gray fine to medium SAND, interstratified with soft gray CLAY-SILT layer, cohesive, plastic, wet. Trace bleb of fuel oil-like material and moderate petroleum-like odor. (SP)				MODERATE	
					19.50-20.00: Black SILT/CLAY, trace fine sand layers, cohesive, plastic, soft, grains stained with petroleum-like material, petroleum-like odor. (CH)	18.5-20.0				
20-25		54		20	20.0-20.74: Gray SILT/CLAY, soft, cohesive plastic, no odor or visual impacts. (CL)				NONE	
					20.74-21.11: Gray, medium SAND, well-sorted, trace clay, trace silt, non-cohesive, non-plastic, wet. (SP)				MODERATE	
					21.11-22.04: Gray SILT/CLAY, with micro layers of fine sand, soft, cohesive plastic, wet, trace sheen in micolayers, organic odor. (CH)					
			415 ppm		22.04-25.0: Black stained SILT and CLAY, micro layers of fine sand, trace wood, cohesive, plastic, strong tar odor, heavy tar coated sand layer from 22.6 to 22.8', vertical tar saturated sections of silt and clay around organic matter, sheen throughout. (CH)	22.5-23.5			STRONG	
25-30		46			25.0-25.9: Gray, medium to coarse GRAVEL with fine SAND, little silt, dense, non-cohesive, non-plastic. (GM)				NONE	
					25.9-27.6: Gray, fine SAND, trace silt, well-sorted, cohesive, moderately dense, non-plastic, organic odor, 27.5-27.6' black stained, sticky with strong fuel oil odor. (SP)				STRONG	
			21.9 ppm		27.6-28.3: Brown PEAT, cohesive, slightly plastic, little silt, micro layers of fine sand. (PT)	27.5-28.0			NONE	-20
					28.3-30.0: Gray, SILT and CLAY, cohesive, plastic, trace fine sand, moderately dense, wet, fuel oil like odor, no visual impacts. (CL)				MODERATE	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-137

GEI Consultants

Client: Keyspan Energy			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks:		Ground Elevation: 7.98'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35		56			30.0-32.7: Gray, fine SAND, trace to little silt, trace clay, cohesive, slightly plastic, moist, no odors or visual impacts. (SP)					
					32.7-35.0: Red-brown, SILT, little coarse sand, trace coarse angular gravel, little coarse sand, moderately stif to stiff, moist, no odor or visual impacts. (ML)	32.0-34.0			NONE	
					35.0: End of boring.					
				40						-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-138

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks:		Ground Elevation: 8.53'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0-5	UNKN	0	2.7 ppm		0.0-5.0: FILL, silt, little wood, trace fine sand, trace fine gravel, non-cohesive dry. No odor or visual impacts. (FI)				NONE	
5-10	NA	80	0.5 ppm		5.0-10.0: Dark brown, FILL, silt and medium to coarse sand, little fine to coarse gravel, trace clinker, wet at 8', soft, loose. No odors or visual impacts. (FI) 8.0: Apparent groundwater table.				NONE	0
10-15	NA	44	0.1 ppm	10	10.0-15.0: Black to dark brown FILL, medium to coarse sand, little silt, clinker, slag, ash fragments, little coal dust, trace coarse gravel, slag at bottom, non-cohesive, moderately dense, wet. No odor or visual impacts. (FI)				NONE	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-138

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks:		Ground Elevation: 8.53'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	36	480 ppm		15.0-17.2: Black to dark brown FILL, medium to coarse sand, little silt, clinker, slag, ash fragments, little coal dust, trace coarse gravel, slag at bottom, non-cohesive, moderately dense, wet. Trace fuel oil-like odor, no visual impacts. (FI)				TRACE	
					17.2-18.6: Black, SILT and CLAY, cohesive, plastic, soft, wet. Micro-lenses of fine sand with stained w/fuel oil-like material, strong fuel oil-like odor. (MH)			+ + + +		
					18.6-20.0: Black stained, medium to coarse SAND, little fine gravel, little silt, non-cohesive, soft, wet. Heavy sheen, blebs of fuel oil-like product, strong fuel oil-like odor. (SW)	18-20 FT		+ + + +	STRONG	-10
20-25	NA	0		20	20.0-30.0: No recovery. (UN)				UNKNOWN	
25-30	NA	0							UNKNOWN	-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-138

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks:		Ground Elevation: 8.53'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 35.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
30-35	NA	36			30.0-32.8: Gray SILT, little to some fine sand, trace gravel, coarse sand and clay, cohesive, slightly plastic, dense. No odors or visual impacts. (ML)					
					32.8-35.0: Red-brown, fine to medium SAND, little silt, trace coarse gravel, cohesive, non-plastic, moderately dense, wet. No odor or visual impacts. (SM)	30-35 FT			NONE	
				40	35.0: End of boring.					-30

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: SB-139

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks: NA= Not Applicable		Ground Elevation: 8.83'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)
					0.0–5.0: Driller used spear tip through asphalt. Previously cleared for utilities.			NONE	
			0.0 ppm		4.0–5.0: Gray to red brown, SILT, little fine sand, non-cohesive, non-plastic, loose, dry. No odors or visual impacts. (ML)				
5–10	NA	60			5.0–6.3: Brown, medium SAND, little coarse sand, trace, gravel, non-cohesive, loose, wet. No odor or visual impacts. (SP)				
					6.3–10.0: Red-brown to black SILT and fine SAND, layers of fine sand (0.3' thick), slightly cohesive, soft. Trace fuel oil- like odor. Trace spotty sheen. (SM)				
			1.2 ppm						0
10–15	NA	66		10	10.0–13.0: Black SILT and CLAY, trace layers of fine sand and shell fragments, soft, sticky, cohesive, wet. Slight fuel oil-like odor and spotty sheen. (CH)			SLIGHT	
			68.0 ppm						
			87.0 ppm		13.0–13.6: Wood Piling. (FI) 13.6–14.5: Black stained, fine SAND, trace silt, trace wood fragments, wet. Irridecent sheen, blebs and stained with fuel oil-like material. (SP)	13-15 FT	+ +	NONE	
					14.5–16.0: Gray fine to medium SAND, well-sorted, loose to moderately dense, non-cohesive, non-plastic, wet. Slight organic odor 14.5–15.0. No odors from 15.0			FAINT	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: SB-139

GEI Consultants

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/20/04	Date Completed: 05/20/04
Remarks: NA= Not Applicable		Ground Elevation: 8.83'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 20.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
15-20	NA	50			to 16.0. No visual impacts. (SP)					
					16.0-18.8: Brown, PEAT, abundant root matter, crumbles, slightly cohesive, slightly plastic (when wet), moderately dense, moist. Interval of fine well sorted sand at 16.74'. Slight organic odor. No visual impacts. (PT)				NONE	
			0.0 ppm			16-18 FT			SLIGHT	
					18.8-20.0: Red-brown to gray-brown, SILT, little fine gravel, cohesive, slightly plastic (when wet), dense. No odor or visual impacts. (ML)					-10
				20	20.0: End of Boring.				NONE	
										-20

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-01

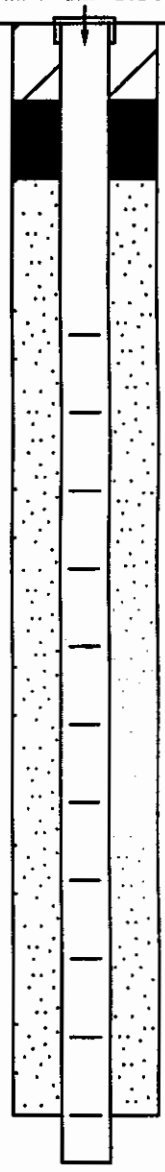
GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/22/99	Date Completed: 02/22/99
Remarks: Sunny with clouds, windy (~15–20 mph), cold ~20 F Depth to groundwater approx. 3'.		Ground Elevation: 8.79'	Datum: NGVD
		Contractor: ADT	Total Depth: 20.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)
0–2	6 9 11 1	67	0.0 ppm		0.0–0.5: Asphalt.(AS) 0.5–2.0: Dark brown to black, FILL, fine sand, some gravel, brick and coal fragments. Moist. Slight to moderate odor (petroleum). (FI)					
2–4	11 3 4 2	54	1–2 ppm		2.0–4.0: FILL, some brick and cobble fragments, fine sand, some silt. Some gravel. Wet. Petroleum odors and slight sheen. Tip of spoon is tar–stained.(FI) Note: Spoon coated with tar or petroleum.				Slight Petroleum Odors	
4–6	4 7 8 6	5	1.0 ppm		4.0–6.0: Black, FILL, medium to coarse SAND with some gravel and brick fragments, saturated. Slight to moderate tar–like odor and tar–stained, oil blebs.(FI)	4–6 ft.			Slight to Moderate Tar Odors	
6–8	10 20 5 3	17	1.0 ppm		6.0–8.0: Black, medium to coarse SAND with large fragments of fill, very moist, non–cohesive. (FI)				No Odors	
8–10	NA NA NA NA	46	0.4 ppm		8.0–9.0: Dark brown to black, medium to coarse SAND with some silt, wet. Slight tar–like odor and tar/oil blebs.(SM) 9.0–10.0: Dark brown, SILT with wood particles, wet, cohesive. Slight tar–like odor and tar blebs.(OL)				Slight Tar Odors	0
10–12	NA NA NA NA	46	0.4 ppm	10	10.0–11.5: Brown to red/brown, SILT, some clay, cohesive, moist. (OL) 11.5–12.0: Dark brown, PEAT with numerous root traces and wood fragments, trace silt, organic–rich, moist. (PT)				No Odors	
12–14	NA NA NA NA	17	0.0 ppm		12.0–14.0: No Recovery. Peat likely. Well Construction: screen from 4' to 14' bgs 10 slot with 0.6' sump #1 filter sand				Unknown	
14–16	NA NA NA NA	25			14.0–16.0: Dark brown, PEAT, trace silt				Swampy Odors	

Well Construction

MP. EL. 8.50



Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-01

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Sunny with clouds, windy (~15-20 mph), cold ~20 F Depth to groundwater approx. 3'.	

Date Started: 02/22/99	Date Completed: 02/22/99
Ground Elevation: 8.79'	Datum: NGVD
Contractor: ADT	Total Depth: 20.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm		trace fine to medium sand, organic, rootlets, wet. Possible slight swampy odor. (PT)					
16-18	1 1 2 2	70								
			0.3 ppm		16.0-20.0: Dark brown, PEAT with silts, some clay, pieces of wood, slightly moist. Slight swampy odor. (PT)	16.5-17.5 ft.		Slight Swampy Odors		
18-20	1 1 2 1	60								
			0.3 ppm		19.0: Wood fragments.				-10	
					20.0: End of Boring.					
				25					-20	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-02

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/21/99	Date Completed: 02/21/99
Remarks: Mostly cloudy, slight breeze, 20–25F. Depth to groundwater approx. 5' bgs. Soils logged with Geoprobe. Well installed with 5" casing.		Ground Elevation: 10.09'	Datum: NGVD
		Contractor: ADT	Total Depth: 16.00'
		Drilling Method: Geoprobe and Direct Push Methods	
		Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
0–4	NA	60	0.0 ppm		0.0–0.5: ASPHALT.(AS)				10	
			0.0 ppm		0.5–1.5: Dark brown to black, FILL, with fine to coarse sand, some coal and asphalt fragments, some gravel, trace silt and ash, slightly moist. (Fl)					
					1.5–12.0: Medium brown, medium to very fine SAND, some silt, trace to little gravel, trace brick fragments, wet at approx. 5 feet. (GM)					
			0.0 ppm							
4–8	NA	58	0.0 ppm							
					Screen Section: 4' to 14' bgs 0.6 sump 0.010 slot screen #1 well gravel used					
			0.0 ppm							
			0.0 ppm							
8–12	NA	78	0.0 ppm					None		
			0.0 ppm							
				10		9–11 ft.			0	
			0.0 ppm							
12–16	NA	50	0.0 ppm		12.0–16.0: Reddish–brown, medium to very fine SAND, some silt, little clay, trace gravel, moist. (SM)					
			0.0 ppm							
			0.0 ppm							

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-02

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Mostly cloudy, slight breeze, 20-25F. Depth to groundwater approx. 5' bgs. Soils logged with Geoprobe. Well installed with 5" casing.	
Date Started: 02/21/99	Date Completed: 02/21/99
Ground Elevation: 10.09'	Datum: NGVD
Contractor: ADT	Total Depth: 16.00'
Drilling Method: Geoprobe and Direct Push Methods	
Logged By: Jeff Willson	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
					16.0: End of Boring.				None	-10	
				25							

Legend: Physical Observations

- None
- Sheen
- Stain
- Heavy

Site Id: RW-03

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy
Project Number: 98248 | Project Name: Clifton Former MGP
Remarks: Mostly sunny with some clouds, breezy, ~28 F
Depth to water approx. 6'

Date Started: 02/23/99 | Date Completed: 02/23/99
Ground Elevation: 10.41' | Datum: NGVD
Contractor: ADT | Total Depth: 36.00'
Drilling Method: Hollow Stem Auger
Logged By: Lynn Willey | Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
					0.0–1.0: FILL, 1" lanscape stone Flagstone, coarse gravel and concrete. (Fl)				10	
1–2	6 3	17	0.0 ppm		1.0–1.5: Gray, fine to medium SAND, some silt, slightly moist, non-cohesive. (SM)					
2–4	8 5 5 3	27			1.5–2.0: Red to red-brown, fine to medium SAND, some fine gravel, cohesive, dry. (SP)					
			0.0 ppm		2.0–3.0: Red to brown, FILL, brick fragments, fine sand, fine gravel, some silt, slightly moist. (Fl)					
					3.0–4.0: Red, silty fine SAND, slightly moist, cohesive. (SM)					
4–6	8 7 5 5	21			4.0–5.0: Light brown to tan, SILT, some fine sand, rock fragments, dry, slightly cohesive. (SM)					
			0.0 ppm		5.0–6.0: Red–brown, fine sandy–SILT, some rounded gravel, slightly moist, cohesive. (SM)					
6–8	13 12 5 NA	33			6.0–7.0: Dark brown, SILT, some fine to medium sand, cohesive, slightly moist. (SM)					
			0.3 ppm		7.0–8.0: Red, fine to medium SAND, some fine to medium gravel fragments, dry. (SP)			None		
8–10	3 3 5 6	63			8.0–9.0: Red, silty–fine SAND, some rounded gravel, trace clay, moist. (SM)					
			0.0 ppm		9.0–10.0: Tan to brown, SILT, some fine to medium sand, some gravel, some clay, slightly moist, compact. (ML) Sample CF–RW–03 (8–10').	8–10 ft.				
10–12	4 5 6 6	58		10	10.0–10.5: Red to red brown, fine to medium SAND, some silt, non–cohesive, wet. (SM)				0	
			0.0 ppm		10.5–12.0: Red to red–brown, SILT, some fine gravel, some sand, slightly moist, cohesive. (GM)					
12–14	3 42 50 6	50								
			0.1–0.3 ppm		12.0–14.0: Red to red–brown, SILT, some angular gravel, some fine sand, trace clay, moist, compact, dense, slightly cohesive. (GM)					
14–16	3 4 5 6	38								

Legend: Physical Observations
None | Sheen | Stain | Heavy

Site Id: RW-03

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Mostly sunny with some clouds, breezy, ~28 F Depth to water approx. 6'	

Date Started: 02/23/99	Date Completed: 02/23/99
Ground Elevation: 10.41'	Datum: NGVD
Contractor: ADT	Total Depth: 36.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
			0.1 ppm							
16-18	3 5 5 7	58			14.0-16.0: Red to red/brown, SILT, some fine sand, some clay, some medium to coarse sub-angular gravel, dense, dry to slighly moist. (GM)					
			0.1-0.3 ppm		16.0-30.0: Red to red/brown, SILT, some fine sand, some clay, some medium to coarse sub-angular gravel, dense, dry to slighly moist. (GM)					
18-20	10 10 8 8	58								
			0.1 ppm		19.5: Crushed rock in the spoon.					
20-22	2 6 8 9	75							-10	
			0.0-0.3 ppm							
22-24	3 5 8 9	71						None		
			0.1-0.3 ppm							
24-26	6 12 10 8	63								
			0.0-0.1 ppm	25						
26-28	4 7 10 11	25								
			0.1 ppm		27.0: Large cystaline rock in the lip of the spoon.					
28-30	12 11 10 10	71			28.5: Crushed rock.					
			0.0-0.1 ppm							
					30.0-32.0: Red to red/brown, SILT, some sand, some fine					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-03

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Mostly sunny with some clouds, breezy, ~28 F Depth to water approx. 6'	

Date Started: 02/23/99	Date Completed: 02/23/99
Ground Elevation: 10.41'	Datum: NGVD
Contractor: ADT	Total Depth: 36.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Wiley	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
30-32	10 7 22 4 4	50			to medium gravel, slightly moist. fine grained, crushed rock (possibly basial or shale) in tip of spoon. (GM)					-20	
			0.0-0.1 ppm		32.0-33.0: Red to red/brown, SILT, some fine sand, some sub-angular gravel, moist to wet, cohesive. (GM)						
32-34	NA NA NA NA	33			33.0-33.5: Dark black, fine-grained rock (possibly basalt).				None		
			0.0-0.1 ppm		33.5-34.0: Red to red/brown, SILT with some fine sand.						
34-36	3 7 10 11	42									
			0.0 ppm	35	34.0-36.0: Red to red/brown, SILT, some sand, some fine gravel, slightly moist, rock cuttings possible basalt in tip of the spoon. (GM)						
					36.0: End of boring.					-30	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-06

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 02/25/99	Date Completed: 02/25/99
Remarks: Sunny with clouds, very breezy (10–15 mph), ~30 F Depth to water approx. 5'. Well next to SB-19. Lithology from SB-19 used for this Log.		Ground Elevation: 11.72'	Datum: NGVD
		Contractor: ADT	Total Depth: 12.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Andrew Brey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
					0.0–1.0: Brown silty SAND(top soil), dry.(SM)					
					1.0–1.5: Red FILL, brick, ash, dry.(FI)					
					1.5–2.5: Tan to dark brown, fine to medium SAND, trace silt. Dry.(FI)				10	
					2.5–3.0: Grey, FILL, fine to medium ash.(FI)					
					3.0–4.0: Red to dark brown, FILL, red brick, wood, ash.(FI)					
					4.0–4.5: FILL, ash, brick fragments. Dry.(FI)					
					4.5–8.0: Tan to red, silty–fine SAND, some fine to medium to coarse gravel, slightly moist to moist, slightly plastic, slightly cohesive.(SM)	5-7 ft.		None		
				10	8.0–12.0: Red to red/brown, silty fine SAND, medium gravel, slightly moist, cohesive. (SM)				0	
					Well Construction screen section: 2' to 12' bgs. 0.5' sump on bottom (blank riser). Filter sand: 12.5' to 1' bgs. 0.5' bentonite chips on top of sand. Finished with concrete and 8" flushmount.					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-08

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 09/13/99	Date Completed: 09/13/99
Remarks: Sunny with clouds, warm, high in 70's. Groundwater at approx. 5'–6' bgs.		Ground Elevation: 10.93'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
					0.0–1.0: Augered to 1.0'.				Unknown	10	
1–3	9 7 7 11	35			1.0–3.0: Brown to dark brown, fine sandy–SILT, trace rootlets, trace brick fragments, non–cohesive, non–plastic, medium dense, wet. Trace petroleum odor. (FI)				Trace Petroleum Odor		
3–5	4 5 15 23	25	0.0 ppm		3.0–5.0: Dark brown, SILT, some fine to medium SAND, trace clay, trace anthracite coal fragments, slightly cohesive, non–plastic, moist. (FI)						
5–7	6 10 20 30	60	0.0 ppm						None		
7–9	4 6 7 4	75	0.0 ppm		5.0–9.0: Brown to red–brown, fine to medium SAND, trace to some silt, trace fine gravel, trace black silt nodules, trace rootlets, trace sea shells, moist to wet.(SM)						
9–11	4 3 3 3	0		10	9.0–11.0: No Recovery.				Unknown	0	
11–13	4 7 10 15	40	1.5 ppm		11.0–12.3: Red–brown, SILT, some fine sand, trace coarse gravel and coarse sand, slightly cohesive, non–plastice, medium dense, moist to wet. (SM)				None		
13–15	6 7 12 8	65	0.0 ppm		12.3–13.5: Dark brown to red–brown, fine SAND and SILT, trace gravel, non–cohesive, loose, moist to wet.(SM)						
					13.5–15.0: Black, FILL (Coarse sand and coal fragments, ash and sea shells, metal fragments), non–cohesive, non–plastic, loose	13–15 ft.			Sulfur Odor		

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-08

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Sunny with clouds, warm, high in 70's. Groundwater at approx. 5'-6' bgs.	
Date Started: 09/13/99	Date Completed: 09/13/99
Ground Elevation: 10.93'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-17	6 6 8 7	65	0.0 ppm		wet. Sulfur odor.(FI) 15.0-15.5: Red-brown, fine SAND, some silt, non-cohesive, loose, saturated. (SM) 15.5-17.5: Red brown, SILT, trace clays, moist. (SM)				None		
17-19	2 2 4 6	85	0.0 ppm		17.5-19.5: Dark brown, PEAT (rootlets and wood fragments), trace silt. Non-cohesive, loose, dry. Organic (hydrogen sulfide) odor. (PT)				Hydrogen Sulfide Odor		
19-21	2 2 3 4	100	0.0 ppm		19.5-21.0: Dark grey, clayey-SILT, trace root fragments, dense, slightly plastic, moist. Organic (hydrogen sulfide odor). (ML)	19-21 ft.				-10	
21-23	2 3 3 6	100	0.0 ppm								
23-25	4 4 2 2	100	0.5 ppm		21.0-25.0: Brown, PEAT, some silt,trace clay, soft, slightly cohesive, moist. (PT)						
25-27	2 2 3 4	85	0.0 ppm	25					None		
27-29	3 3 3 3	100	0.8 ppm		25.0-29.0: Brown to dark brown, SILT, trace to some wood fragments, rootlets, fine to medium sand, soft, non-cohesive, moist to wet. (ML)						
29-31	2 2 3 3	100			29.0-30.5: Black, SILT, some alternating layers of light brown to red-brown				Slight Sulfur		

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-08

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Sunny with clouds, warm, high in 70's. Groundwater at approx. 5'-6' bgs.	
Date Started: 09/13/99	Date Completed: 09/13/99
Ground Elevation: 10.93'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description (color, density, SOIL, admixture, moisture, other notes, ORIGIN.)	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm		silt, trace clay, slightly cohesive, non-plastic, moist. Sulfur odor. (ML)			Sulfur		
31-33	3 4 3 4	100			30.5-31.0: Grey, CLAY, cohesive, plastic, saturated. (CH)				-20	
			0.0 ppm		31.0-32.5: Dark grey to black, silty-CLAY, stiff, cohesive, plastic, moist. (CL)			None		
33-35	3 4 4 4	100			32.5-33.7: Grey, CLAY, soft, cohesive, plastic, saturated. (CH)					
			0.0 ppm		33.7-35.0: Dark brown, silty-CLAY, soft, cohesive, plastic. (CH)					
35-37	3 2 4 4	100		35	35.0-35.8: Grey CLAY, soft, cohesive, plastic, very wet. (CH)					
			0.0 ppm							
37-39	2 3 5 7	100			35.8-39.0: Dark brown, red-borwn to brown, silty-CLAY, soft, cohesive, plastic, moist. (CL)			None		
			0.0 ppm		39.0-41.0: Red-brown, fine to medium SAND, some silt and clay, soft, cohesive, saturated. (SC)	37-39 ft.				
39-41	3 6 7 7	25								
			0.0 ppm							
					41.0: End of Boring.				-30	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-09

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keysopn Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 09/14/99	Date Completed: 09/14/99
Remarks: RW-09 is well completed in CF-SB-46. Groundwater at approx. 16' bgs.		Ground Elevation: 23.35'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
					0.0–1.0: Augered to 1.0' and commenced sampling.					
1–3	10 10 5 4	90	0.0 ppm					Slight Sulfur Odor		
3–5	10 16 6 6	40	0.0 ppm		1.0–5.0: Brown to red–brown, fine sandy–SILT, trace ash and brick fragments, some coal and slag fragments,loose, non–cohesive, dry to moist. Slight sulfur odor. (FI)				20	
5–7	3 6 10 18	60	0.0 ppm		5.0–7.0: Red–brown, fine SAND,, some silt, trace coarse gravel (sub–rounded), loose,non–cohesive, non–plastic, moist. (SM)					
7–9		0	0.0 ppm		7.0–9.0: No Recovery.(UN)			None		
9–11	6 16 18 12	80	0.0 ppm	10						
11–13	3 3 4 4	75	0.0 ppm		9.0–14.0: Red–brown to black, SILT and FILL (medium to coarse coal, ash, and slag fragments), trace fine to coarse sand, loose, non–cohesive, non–plastic, dry to moist. (FI and SM)					
13–15	5 5 5 6	85	0.0 ppm		14.0–15.0: Red–brown to brown, SILT, trace fine sand, cobbles and rootlets, medium dense, slightly cohesive			None	10	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-09

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspn Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-09 is well completed in CF-SB-46. Groundwater at approx. 16' bgs.	
Date Started: 09/14/99	Date Completed: 09/14/99
Ground Elevation: 23.35'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Wiley	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-17	6 7 8 6	70			non-plastic, moist. (SM)						
			0.8 ppm		16.0 Approximate groundwater table.	15-17 ft.					
17-19	2 3 2 2	80							None		
			0.0 ppm								
19-21	4 3 3 4	60			15.0-23.0: Black to dark brown, FILL (consisting of fine to coarse sand, some fine gravel fragments of slag and coal, trace ash), non-cohesive, loose, non-plastic, saturated. (Fl)						
			0.0 ppm								
21-23	2 3 4 2	50									
			0.0 ppm								
23-25	3 4 4 3	55							None	0	
			0.0 ppm		23.0-26.0: Black, FILL (coarse sand, coal and slag fragments) with red-brown silt stringer, non-cohesive, non-plastic, saturated. (Fl)						
25-27	2 2 3 5	45		25							
			0.0 ppm								
27-29	9 11 12 10	70			26.0-28.0: Red-brown to brown-grey, clayey-SILT, trace fine sand, slightly cohesive, slightly plastic, wet. (ML)						
			1.7 ppm						Slight Hydrogen Sulfide Odor		
29-31	2 4 4 3	100									

Legend: Physicol Observations — None, Sheen, Stain, Heavy

Site Id: RW-09

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspn Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-09 is well completed in CF-SB-46. Groundwater at approx. 16' bgs.	
Date Started: 09/14/99	Date Completed: 09/14/99
Ground Elevation: 23.35'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm		28.0–33.0: Brown to dark brown to black, trace to some silt, trace clay, some rootlets and wood fragments, cohesive, non-plastic, moist. Slight organic odor (hydrogen sulfide). (PT)			Slight Hydrogen Sulfide Odor		
31–33	3 3 5 7	100								
			0.0 ppm							
33–35	5 4 5 6	100								
			0.8 ppm		33.0–35.0: Dark Brown, silty-CLAY with some layers root fragments, rootlets, slightly cohesive, non-plastic, moist. (ML)				–10	
35–37	3 4 5 6	50		35						
			0.1 ppm							
37–39	4 4 5 2	75			35.0–39.0: Brown to grey-brown, clayey-SILT, some wood fragements, trace fine sand slightly cohesive to cohesive, non-plastic, moist. (ML)			None		
			1.3 ppm							
39–41	2 3 4 2	100				39–41 ft				
			1.0 ppm		39.0–41.0: Dark brown to brown to grey black, silty-CLAY, trace root fragments, brown silt layers, cohesive, plastic, moist. (ML)					
					41.0: End of Boring.				–20	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-10

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy

Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 09/15/99	Date Completed: 09/15/99
Remarks: RW-10 is a well completed in CF-SB-47. Groundwater at approx. 5' bgs.		Ground Elevation: 11.23'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
1-3	6 8 5 9	75	0.0 ppm		0.0-1.0: Augered to 1.0 feet and began sampling.				10	
3-5	7 7 7 8	75	0.0 ppm		1.0-5.0: Alternating grey and red-brown, fine to medium SAND, some silt and concrete fragments,trace fine) gravel rootlets loose, non-cohesive, moist. (FI)					
5-7	2 3 3 3	65	0.0 ppm			5-7 ft.		None		
7-9	3 3 3 4	40	0.0 ppm		5.0-9.0: Alternating layers, Grey, FILL (Gravely-SILT, some slag and coal fragments, trace ash), loose,non-cohesive, non-plastic and grey, clayey-SILT, trace fine to medium sand, cohesive, slightly plastic, wet. (FI)					
9-11	7 8 9 12	95	0.0 ppm	10	9.0-11.0: Red-brown, fine to medium SAND, some silt, trace clay, slightly cohesive, non-plastic, wet. (SM)			None		
11-13	6 6 4 5	35	0.0 ppm		11.0-13.2: Red-brown, fine to very-fine SAND, trace silt, loose, non-cohesive,non-plastic, wet. (SW)				0	
13-15	3 2 4 3	100	0.0 ppm		13.2-15.0: Brown to dark brown, PEAT, some silt, trace clay, slightly cohesive,non-plastic, moist. Organic odor. (PT)			Slight Organic Odor		

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-10

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-10 is a well completed in CF-SB-47. Groundwater at approx. 5' bgs.	
Date Started: 09/15/99	Date Completed: 09/15/99
Ground Elevation: 11.23'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15–17	3 1 1 4	100	0.0 ppm		15.0–16.0: Black, organic CLAY, some wood fragments, cohesive, plastic, wet. Organic odor noted. (OL)				Slight Organic Odor		
17–19	4 7 10 12	95	0.0 ppm		16.0–18.5: Brown to olive-brown, organic SILT, trace clay, some organic matter, soft, non-cohesive, non-plastic, moist. Slight organic odor. (OL)						
					18.5–18.9: Grey, SILT, dense, non-cohesive, moist.						
19–21	4 4 5 2	50	0.0 ppm						None		
21–23	4 6 7 9	60	0.0 ppm		18.9–23.0: Brown to red-brown, well sorted, fine to coarse SAND (normal grading), trace silt, trace fine gravel, trace rip-upclast (clay), loose, non-cohesive, saturated. (SW)					-10	
23–25	8 7 5 9	50	0.0 ppm		23.0–25.0: Brown to grey-brown, coarse to very fine SAND (inversely graded), loose, non-cohesive, non-plastic, wet. (SW)						
25–27	4 5 8 9	75	0.0 ppm	25	25.0–27.0: Grey to grey-brown, medium to coarse SAND, with grey clayey-silt stringer, loose, non-cohesive, non-plastic, wet. (SW)						
27–29	3 2 4 4	100	0.0 ppm		27.0–27.5: Grey-brown, fine to coarse SAND, trace silt, loose, non-cohesive, non-plastic, wet. (SW)				None		
29–31	3 4 5 4	60			27.5–30.0: Grey-brown to red-brown to black, silty-CLAY, alternating layers of red-brown and black layers, cohesive, plastic, wet. (CL)						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-10

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-10 is a well completed in CF-SB-47. Groundwater at approx. 5' bgs.	
Date Started: 09/15/99	Date Completed: 09/15/99
Ground Elevation: 11.23'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm		30.0-31.0: Brown, fine to medium SAND and SILT, trace clay and gravel, slightly cohesive, non-plastic. (SM)						
31-33	5 6 9 9	85			31.0-32.0: Brown, CLAY, some silt, trace fine sand, cohesive plastic, wet. (CH)					-20	
			0.0 ppm						None		
33-35	9 7 12 14	65									
			0.0 ppm								
35-37	12 9 13 13	40		35	32.0-39.0: Brown, fine to medium SAND, some silt, trace coarse sand gravel, medium dense, slightly cohesive, non-plastic, wet.(SM)						
			0.0 ppm								
37-39	4 6 6 9	35									
			0.0 ppm						None		
39-41	6 8 9 9	50									
			0.0 ppm		39.0-41.0: Red-brown to brown, silty-fine SAND, trace fine gravel; clay and cobbles, slightly cohesive, non-plastic, saturated. (SP)	39-41 ft.					
					41.0: End of Boring.					-30	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-11

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 09/20/99	Date Completed: 09/20/99
Remarks: RW-11 was completed in CF-SB-48 location. Groundwater at approx. 4' bgs.		Ground Elevation: 10.84'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
0-3	AUG AUG AUG AUG	0			0.0-3.0: Augered through concrete and commenced sampling at 3.0 feet.				10	
			303 ppm					Slight		
3-5	13 18 15 12	85								
			242 ppm			3-5 ft.		Moderate to Strong Petroleum Odor		
					3.0-7.0: Brown to dark brown to black, FILL (silt, brick fragments, coal fragements, trace fine to coarse sand and gravel), loose, non-cohesive, non-plastic, moist to wet. Moderate to strong petroleum odor (diesel), black staining and moderate petroleum sheen noted.(FI)					
5-7	3 4 5 6	50								
			242 ppm							
7-9	2 2 2 5	35								
			76 ppm		7.0-9.0: Brown to dark brown, SILT, trace gravel and clay, slightly cohesive, non-plastic, moist. Slight petroleum odor (diesel). (ML)			Slight Petroleum Odor		
9-11	6 5 5 5	40								
			22.5 ppm	10	9.0-11.0: Red-brown to brown, SILT with fine to medium sand layers, soft, non-cohesive, non-plastic, moist. (SM)				0	
11-13	2 4 3 5	50								
			16.0 ppm		11.0-13.5: Black to dark brown, silty-CLAY, some wood fragments, cohesive, plastic, moist. (CL)			None		
13-15	2 4 7 5	70								
			30.0 ppm		13.5-15.0: Brown to dark brown, clayey-SILT, some wood fragments, roots, fine to medium sand, cohesive, non-plastic, moist.(ML)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-11

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-11 was completed in CF-SB-48 location. Groundwater at approx. 4' bgs.	
Date Started: 09/20/99	Date Completed: 09/20/99
Ground Elevation: 10.84'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description (color, density, SOIL, admixture, moisture, other notes, ORIGIN.)	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-17	5 6 15 17	0			15.0-17.0: NO RECOVERY				Unknown		
17-19	17 50 45 51 R/5"	50	0.0 ppm								
19-21	25 35 32 38	55	3.0 ppm		17.0-23.0: Red-brown, fine to medium SAND, trace silt and cobble, trace to some fine to coarse gravel, very dense, non-cohesive, non-plastic, moist to wet. (SP)				None	-10	
21-23	23 23 17 15	75	0.0 ppm								
23-25	5 10 23 16	55	0.0 ppm		23.0-24.0: Red-brown, SILT, trace clay, slightly cohesive, non-plastic, wet. (ML)						
25-27	23 51 R/3"	35	0.0 ppm	25							
27-29	23 35 50 53	40	0.4 ppm		24.0-31.0: Red-brown, fine to coarse SAND, trace silt and fine gravel, trace cobble fragments, medium dense to dense, non-cohesive, non-plastic, moist to wet. (SP)				None		
29-31	11 23 24 21	35									

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-11

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-11 was completed in CF-SB-48 location. Groundwater at approx. 4' bgs.	
Date Started: 09/20/99	Date Completed: 09/20/99
Ground Elevation: 10.84'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm							-20	
31-33	11 13 12 11	40									
			0.6 ppm						None		
33-35	13 24 28 15	10									
			0.4 ppm								
35-37	7 14 15 19	60		35							
			0.0 ppm		31.0-41.0: Red-brown, fine to coarse SAND, some silt, trace gravel, non to slightly cohesive, non-plastic, moist to wet. (SM)						
37-39	10 12 12 14	40									
			0.0 ppm						None		
39-41	9 12 35 46	65									
			0.0 ppm			39-41 ft.					
					41.0: End of Boring.					-30	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-12

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 09/16/99	Date Completed: 09/16/99
Remarks: RW-12 is completed in boring CF-SB-49 location. Groundwater at approx. 10' bgs.		Ground Elevation: 10.56'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
					0.0–3.0: Augered slowly to 3.0 feet because of possible underground utility concerns.				Unknown	10	
3–5	6 3 3 4	55	0.0 ppm		3.0–4.0: Black to dark grey, medium to coarse SAND, trace gravel fragments, loose, non-cohesive, wet. (SW)				None		
5–7	20 14 12 10	60	0.0 ppm		4.0–5.0: Brown to tan-brown, silty-CLAY, cohesive, plastic, moist. (ML)						
7–9	6 15 25 32	90	0.0 ppm		5.0–7.3: Grey, clayey-SILT, some fine to medium sand, trace rootlets, cohesive slightly plastic. (ML)						
9–11	12 21 21 14	65	0.0 ppm		7.3–9.0: Grey brown to light red-brown, fine to coarse SAND, trace silt, layers of medium to coarse sand, medium dense, non-cohesive, non-plastic, moist.(SW)						
			0.0 ppm	10	9.0–10.0: Red-brown, SILT, trace fine sand, medium stiff, non-cohesive, non-plastic, moist. (ML)	9-11 ft.				0	
11–13	12 15 22 15	60	0.0 ppm		10.0–15.6: Red-brown to grey, fine to medium SAND, trace coarse gravel, trace cobble, loose, non-cohesive, non-plastic, wet to saturated.(SW)				None		
13–15	2 3 6 9	40	0.0 ppm								

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-12

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy
Project Number: 98248 | Project Name: Clifton Former MGP
Remarks: RW-12 is completed in boring CF-SB-49 location. Groundwater at approx. 10' bgs.

Date Started: 09/16/99 | Date Completed: 09/16/99
Ground Elevation: 10.56' | Datum: NGVD
Contractor: ADT | Total Depth: 41.00'
Drilling Method: Hollow Stem Auger
Logged By: Lynn Willey | Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description (color, density, SOIL, admixture, moisture, other notes, ORIGIN.)	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
15-17	5 10 10 12	70	0.0 ppm							
17-19	4 6 8 10	35	0.0 ppm					None		
19-21	4 4 9 14	80	0.0 ppm		15.6-23.0: Red-brown, fine sandy-SILT to silty SAND, trace fine gravel and grey silt stringer, medium dense, non-cohesive to slightly cohesive, non-plastic, wet. (SM)				-10	
21-23	9 11 9 10	60	0.0 ppm							
23-25	8 10 12 15	10	0.0 ppm							
25-27	5 7 9 12	50	0.0 ppm	25	23.0-26.6: Red-brown, silty-GRAVEL, trace fine to medium sand, loose, non-cohesive, non-plastic, saturated. (GM)			None		
27-29	7 7 14 17	50	0.0 ppm							
29-31	10 18 24 24	30			26.6-31.0: Red-brown, fine SAND some silt, trace gravel and clay, loose, non-cohesive to slightly cohesive, saturated. (SM)					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-12

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: RW-12 is completed in boring CF-SB-49 location. Groundwater at approx. 10' bgs.	
Date Started: 09/16/99	Date Completed: 09/16/99
Ground Elevation: 10.56'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm							-20	
31-33	20 20 35 27	15									
			0.0 ppm		31.0-33.0: Red-brown to brown, fine gravel, trace silt, some medium to coarse sand, loose, non-cohesive wet. (GW)				None		
33-35	NM NM NM NM	40									
			0.0 ppm								
35-37	14 17 20 25	60		35							
			0.0 ppm								
37-39	21 24 29 36	65			33.0-41.0: Red-brown, fine to medium sand, some silt, trace cobble and fine gravel, medium dense to dense, moist to wet. (SM)						
			0.0 ppm						None		
39-41	19 18 19 22	80									
			0.0 ppm			39-41 ft.				-30	
					41.0: End of Boring.						

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-13

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy			
Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/02/99	Date Completed: 08/02/99
Remarks: Groundwater at 3' bgs.		Ground Elevation: 9.06'	Datum: NGVD
		Contractor: ADT	Total Depth: 41.00'
		Drilling Method: Hollow Stem Auger	
		Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
					0.0–1.0: Asphalt and concrete fragments. Augered to 1' bgs.(CR)					
					1.0–3.0: No sample. Augered through foundation Cuttings are gray, dry, loose medium to coarse GRAVEL. Rounded to angular. (FI)			No Odors		
3–5	6 5 4 4	20	275 ppm		3.0–5.0: Dry to moist, black cinders and wood with silty fine to coarse SAND, Non-cohesive, Tar and petroleum stained. Strong tar and petroleum odors.(FI)	3-5 ft.		Strong Tar and Petroleum Odors		
5–7	3 3 3 3	10	297 ppm		5.0–9.0: Moist, black stained silty fine to medium SAND. Trace wood chips. Loose. Non-cohesive. Stained black. Strong petroleum odors.(FI)					
7–9	13 21 23 18	20	317 ppm					Strong Petroleum Odors		
9–11	2 1 1 1	75	455 ppm		9.0–11.0: Brown, PEAT, Wood chips/chunks. Soft. Slightly cohesive. Slight tar odor.(PT)	9-11 ft.			0	
				10						
11–13	1 1 1 WOH	90	125 ppm		11.0–15.0: Moist, brown PEAT, Wood chips and some silt. Slightly cohesive. Non-plastic. Soft. Slight naphthalene odor. (PT) Black staining at 12' bgs.			Slight Tar and Naphthalene Odors		
					Well Construction Sand: 2' to 41' bgs Bentonite Seal: 1' to 2' bgs Flushmount and concrete pad: 0 to 1' bgs Screen section: 3' to 13' bgs					
13–15	1 1 1 1	50	4 ppm							
					15.0–17.0: No recovery. No headspace PID					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-13

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Groundwater at 3' bgs.	
Date Started: 08/02/99	Date Completed: 08/02/99
Ground Elevation: 9.06'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-17	1 1 1 1	0									
17-19	1 1 1 1	50	11 ppm		17.0-19.0: Same as 11'-15' bgs.	17-19 ft.			Slight Tar and Naphthalene Odors		
19-21	1 1 1 1	85	16 ppm		19.0-21.0: Moist, brown-gray PEAT with some silt. Soft. Slightly cohesive. (PT)					-10	
21-23	2 4 7 9	90	20 ppm		21.0-22.7: Some PEAT as above with trace fine SAND. (PT)				No Odors		
23-25	3 5 5 5	40	20 ppm		22.7-25.0: Wet, gray clayey SILT with trace fine sand. Slightly cohesive. Medium stiff. Non-plastic. Slight naphthalene odors.(ML)						
25-27	1 1 1 2	100	11 ppm	25	25.0-25.5: Moist, red-brown medium to coarse SAND. Trace silt. Loose. Non-cohesive. Slight naphthalene odors.(SW)				Slight Naphthalene Odors		
27-29	5 15 23 28	70	37 ppm		25.5-27.5: Wet, gray to gray-brown clayey SILT. Soft. Cohesive. Slightly plastic. Slight naphthalene odors.(ML) 27.5-29.0: Red-brown fine to coarse SAND. Trace clays. Trace silts. Trace cobbles. Dense. Non-cohesive. Slight naphthalene odors.(SW).						
29-31	7 15 17 34	35	9 ppm		29.0-32.0: Moist, red-brown silty fine to medium SAND. Trace fine to medium gravel. Trace cobbles. Dense. Non-cohesive. Slight					-20	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-13

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: Groundwater at 3' bgs.	
Date Started: 08/02/99	Date Completed: 08/02/99
Ground Elevation: 9.06'	Datum: NGVD
Contractor: ADT	Total Depth: 41.00'
Drilling Method: Hollow Stem Auger	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
					naphthalene odors.(SM)						
31-33	13 8 27 23	60	3 ppm		32.0-33.0: Moist, brown to red-brown very fine SAND with some silt. Medium dense. Non-cohesive. (SM)				Slight Naphthalene Odors		
33-35	10 9 14 17	40	11 ppm		33.0-35.0: Moist, red-brown silty fine to medium SAND. Trace coarse sand. Trace fine gravel. Dense. Slight naphthalene odors.(SM)						
35-37	3 14 17 22	30	11 ppm	35	35.0-39.0: Moist, red-brown fine to medium silty SAND. Trace fine to medium gravel. Trace cobbles. Dense. Non-cohesive. (SM)						
37-39	7 14 16 19	45	10 ppm						No Odors		
39-41	6 10 14 14	30	2 ppm		39.0-41.0: Moist, red-brown silty fine SAND. Trace gravel. Trace cobbles. Dense. Non-cohesive. (SM)	39-41 ft.				-30	
					41.0: End of Boring.						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy

Project Number: 98248	Project Name: Clifton Former MGP	Date Started: 08/13/99	Date Completed: 08/17/99
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.		Ground Elevation: 9.16'	Datum: NGVD
		Contractor: Boart Longyear	Total Depth: 125.00'
		Drilling Method: Resonant Sonic	
		Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
0-5	NA	100			0.0-0.5: Asphalt and gravel base. No odors. 0.5-5.0: Wet, Black-stained Fill. Silt, sand and gravel. Coal fragments, cinders. Loose. Slight tar-like odor.(FI) Sample was placed in drum and qualitatively logged. No headspace PID.			No Odors Slight Tar Odors		MP. EL. 8.95
5-15	NA	100		10	5.0-15.0: SAND, SILT and woody PEAT. Wet. Loose. Strong tar-like odor with tar and heavy sheen present.(PT,SM) Sample was placed in drum and qualitatively logged. No headspace PID.			Strong Tar Odors	0	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	

Date Started: 08/13/99	Date Completed: 08/17/99
Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-25	NA	100			15.0-25.0: Moist to Wet, Brown to light-brown SILT and fine to coarse SAND with GRAVEL. Firm. Some slough from above.(GM) Sample placed in drum and qualitatively logged. No headspace PID. Heavy tar, staining and sheens from 15' to 18' bgs. Moderate to strong tar-like odor.				Moderate to Strong Tar Odors		
					18' to 25': some sheens and staining but, very little tar. Moderate to strong tar-like odor.					-10	
25-30	NA	100		25	25.0-29.0: Wet, Brown to dark brown and black-stained fine to coarse SAND with SILT. Medium firm. Heavy sheen with little coal tar product. Moderate to strong tar odors.(SM)				Moderate to Strong Tar Odors		
					29.0-33.5: Moist, reddish-brown clayey SILT and subangular SANDS and GRAVELS. Till. Trace cobbles. Firm. Dense. Slight tar odor throughout.(GM)				Slight Tar Odors	-20	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	
Date Started: 08/13/99	Date Completed: 08/17/99
Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
30-35	NA	100	217 ppm						Slight Tar Odors		
			19.7 ppm		33.5-34.5: Wet, reddish-brown fine to medium SAND with trace silts. Slightly cohesive. Very slight tar-like odor. (SM) 34.5-35.5: Wet, reddish-brown SILT with trace to few fine to medium sands. Firm. Very slight tar-like odor. (SM)				Very Slight Tar Odors		
35-45	NA	70		35	35.5-45.0: Moist, reddish-brown clayey SILT with various-colored coarse SANDS and GRAVELS. Trace cobbles. Clayey/Till texture; few dark gray colored silt stringers oriented vertically. Dense. Firm. Slighly earthy odor.(GM)						
			5.5 ppm						No Tar-like Odors Slight Earthy Odors	-30	
					45.0-46.5: Moist, reddish-brown clayey SILT with						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy
Project Number: 98248 | Project Name: Clifton Former MGP
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.

Date Started: 08/13/99 | Date Completed: 08/17/99
Ground Elevation: 9.16' | Datum: NGVD
Contractor: Boart Longyear | Total Depth: 125.00'
Drilling Method: Resonant Sonic
Logged By: A.Brey/D.Terry | Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
45-55	NA	100			coarse SAND and GRAVELS. Few small cobbles. Dense. Tight. Firm. Till-like. (GM)						
			6.3 ppm		46.5-55.0: Moist, reddish-brown to brown SILT with some fine sand. Trace various-colored coarse sands and gravels. Firm. Thinly laminated throughout. (SM)				No Odors		
					1"-wide fine and medium grained sand lense at 52.3'.					-40	
			0.0 ppm		*switch to 4" core barrel at 55' bgs.*				No Odors		
55-65	NA	92		55	55.0-58.9: Wet, brown to dark brown and various-colored fine to medium SAND. Few silts. Few coarse sands. Generally well sorted. Loose to medium dense. (SW)						
			33 ppm						No Odors		
					58.9-60.1: Wet. 50% brown SANDSTONE COBBLES and BOULDER fragments. 50% various colored coarse SANDS. Trace fine to medium sands. Loose. Well sorted. Mostly angular to subangular material					-50	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	
Date Started: 08/13/99	Date Completed: 08/17/99
Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
			16 ppm		Cobble and boulder zone.(GP) 60.1-60.6: Wet, fine to coarse GRAVEL and trace COBBLES. Very Loose. Various colored. Some brown silts coating coarse fraction of glacio-fluvium. (GP) 60.6-65.0: Moist, brown to reddish-brown clayey SILT with trace to few angular to subangular sands. Stiff to very stiff. (ML) *All 'zones' above (55'-65' bgs) are distinctly separate. NO graded beds. All contacts are sharply defined.*			No Odors		
			12 ppm							
65-75	NA	100		65	65.0-66.1: Moist, reddish-brown to brown clayey SILT with few angular to subangular sands. Firm. Stiff. Trace fine to coarse gravels. (ML) 66.1-66.7: Wet, silty fine SAND. (SM) 66.7-70.5: Moist, reddish-brown to brown clayey SILT as above (65'-66.1'). (ML)					
			0.0 ppm					No Odors	-60	
					70.5-72.8: Wet, reddish-brown fine to coarse SAND and SILT. Some angular gravel and trace cobbles. Loose. (SM)					
			0.0 ppm							
					72.8-75.0: Some as 65.0'-66.1' except with several small cobbles. Very moist. (ML)			No Odors		
					75.0-81.5: No recovery. Rock stuck in bit					

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	
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Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
75-85	NA	100			Cannot recover rest of core.				No Odors		
										-70	
					81.5-82.5: Wet, red-brown silty medium SAND with trace fine sand. Loose. Non-cohesive. (SM)						
			0.0 ppm		82.5-84.0: Wet, red-brown silty GRAVEL. Little medium to coarse sand. Loose. Non-cohesive. (GM)				No Odors		
					84.0-85.0: Wet, red-brown silty very-fine SAND. Medium stiff. (SM)						
			0.0 ppm	85	85.0-87.5: Wet, red-brown silty GRAVEL. Little cobbles. Loose. (GM)						
85-90	NA	100	0.0 ppm								
					87.5-90.0: Wet, red-brown gravelly medium SAND. Little silt. Loose. (SW)				No Odors		
			0.0 ppm							-80	
					90.0-95.0: Wet, red-brown silty fine to						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	
Date Started: 08/13/99	Date Completed: 08/17/99
Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
90-95	NA	88			medium SAND interbedded with very-fine sandy SILT. Beds range from 0.1' to 0.5' in thickness. Slightly cohesive. (SM)				No Odors		
			0.0 ppm								
95-105	NA	100		95	95.0-100.0: Wet, red-brown fine SAND. Trace medium to coarse sand. Loose. (SW)						
			0.0 ppm						No Odors	-90	
					100.0-101.0: Wet, red-brown SILT with trace very-fine sand. Cohesive. Non-plastic.(ML) 101.0-101.6: Wet, silty coarse to fine SAND. Trace gravel.(SM) 101.6-103.0: Wet, red-brown SILT. Moderately stiff. (ML)				No Odors		
			0.0 ppm		103.0-104.0: Wet, red-brown coarse to medium SAND. Some silt. Little coarse to medium gravel. Loose. (SW) 104.0-105.0: Wet, red-brown SILT with trace cobbles. Moderately stiff. Cohesive. Non-plastic. (ML) 105.0-108.0: Wet, red-brown fine to coarse SAND. Loose. (SW)						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: S855A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	
Date Started: 08/13/99	Date Completed: 08/17/99
Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
105-115	NA	100							No Odors		
					108.0-113.0: Wet, red-brown SILT with some coarse to medium gravel. Trace cobbles. Stiff. Cohesive. Non-plastic. (ML)					-100	
					113.0-114.0: Wet, red-brown silty medium to coarse SAND. (SM)				No Odors		
			0.0 ppm		114.0-117.5: Moist, green, gray and red mottled SAPROLITIC CLAY. Very stiff. Cohesive. Plastic. Schist-like relic structure is obvious. 'Soapy' feel.(CL)						
115-125	NA	100		115							
					117.5-125.0: Moist, green-gray SAPROLITIC CLAY and micaceous silt and very-fine sands. Very stiff. Dense. Tight. (CL)				No Odors	-110	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-15

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Atlantic Environmental Division

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Remarks: SB55A completed as RW-15. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 70' bgs was used during drilling and well installation.	
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Ground Elevation: 9.16'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 125.00'
Drilling Method: Resonant Sonic	
Logged By: A.Brey/D.Terry	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			0.0 ppm	125	Well Construction Screen Section: 104.1' to 114.1' bgs. 4" PVC, 10 slot, 1.4' sump #1 Silica Sand used for sand filter around screen Borehole backfilled with medium bentonite chips from 125' to 118.2' bgs. 125.0: End of Boring.	123-125 ft.			No Odors	120	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB56 completed as RW-16. 5"x7" Drilling Method. 8-5/8: temporary isolation casing to 65' bgs was used during drilling and well installation.	
Date Started: 08/18/99	Date Completed: 08/21/99
Ground Elevation: 9.54'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 135.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			0 ppm								
					123.0–125.0: Crystalline rock lodged in bit from approx. 123' bgs. Pushed through w/o sampling. Red clay smeared on outside of core barrel; infer 2' of clay.(CL)	122–123 ft.					
125–135	NA	100	0 ppm	125	125.0–126.0: Red–brown–gray layers of SAPROLITIC CLAY. Very dense and stiff clay.(CL) 126.0–129.0: Gray with white inclusions and layers. SAPROLITIC CLAY. Muscovite and biotite grains are evident. Slightly moist. Dense. (CL)				No Odors		
					129.0–132.0: Gray SAPROLITIC silty CLAY. Dry. Very Dense. (CL)					–120	
					132.0–135.0: Gray to orange–brown SAPROLITIC CLAY with silts. Mica present. Dry. Very dense. (CL)						
					135.0: End of Boring						

Legend: Physical Observations

- None
- Sheen
- Stain
- Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy
Project Number: 98248 | Project Name: Clifton Former MGP
Remarks: SB56 completed as RW-16. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 65' bgs was used during drilling and well installation.

Date Started: 08/18/99 | Date Completed: 08/21/99
Ground Elevation: 9.54' | Datum: NGVD
Contractor: Boart Longyear | Total Depth: 135.00'
Drilling Method: Resonant Sonic
Logged By: Lynn Willey | Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-20	NA	100			Loose. Heavy sheen. Strong naphthalene odor.(SW)						
					16.0-17.0: Green-gray rock fragments.						
			1014 ppm		17.0-20.0: Interbedded 8" to 1' thick layers of tar-saturated medium to coarse SAND and gravelly SILT (few cobbles). Coarse materials are tar-coated. Strong naphthalene odor throughout.(SW,ML)				Strong Tar and Naphthalene Odors		
20-25	NA	100			20.0-20.5: Wet, dark-brown fine to coarse SAND. Trace gravel(sbrnd). Loose Non-cohesive. Tar saturated. Tar coated grains. Strong tar odor.(SW)					-10	
					20.5-23.0: Wet, brown fine sandy SILT. Trace fine gravel. Trace cobbles. Non-cohesive. Medium stiff. Moderate tar odors. (SM)				Moderate Tar Odors		
			526 ppm								
			2106 ppm		23.0-24.0: Wet, brown to dark brown fine sandy SILT. Loose. Non-cohesive. Some cobbles and gravel. Tar coated and saturated with tar. Strong tar odor.(SM)						
					24.0-24.5: Same as 23'-24', Moderate tar odor.						
25-30	NA	100		25	24.5-25.0: Black fine to coarse SAND. Trace fine gravel. Non-cohesive and loose. Tar saturated and strong tar odor. (SW)						
					25.0-26.5: Dark brown gravelly SILT with some sand and trace cobbles. Gravel and cobbles are tar coated. Strong tar odors.(ML)				Strong Tar Odors		
			976 ppm		26.5-30.0: Wet, dark brown gravelly SILT with little sand. Soft. Cohesive. Non-plastic. Tar present to 28'bgs. (ML)						
						28-30 ft.					
										-20	
					30.0-33.0: Wet, dark brown gravelly SILT						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB56 completed as RW-16. 5"x7" Drilling Method. 8-5/8: temporary isolation casing to 65' bgs was used during drilling and well installation.	
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Ground Elevation: 9.54'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 135.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
30-35	NA	100			Tar blebs and sheens present. (ML)					
			7406 ppm		33.0-34.5: Dark brown coarse SAND. Tar saturated. All voids contain free-draining tar.(SW)			Strong Tar Odors		
					34.5-35.0: Same as 30'-33' bgs.					
35-45	NA	100		35	35.0-39.0: Brown-gray to dark brown-gray medium to coarse SAND. Trace silt. Trace gravel. Sub-round. Loose. Tar saturated with free product. Heavy sheen. Strong tar odor.(SW)					
					39.0-42.0: Moist, red-brown SILT with some fine sand and trace fine gravel. Sub-rounded. Medium stiff. Non-cohesive. Tar-coated grains. Veins of tar. Sheens around veins. Strong tar odor. (ML)				-30	
					42.0-44.0: Black, medium to coarse SAND with trace silt and trace medium to coarse gravel. Loose. Non-cohesive. Tar-saturated. Strong tar odor. (SW)			Strong Tar Odors		
			8020 ppm		44.0-45.0: Red to red-brown SILT and some fine to medium sand. Trace gravels. Medium stiff. Non-cohesive. Sheens around grains. Strong tar odor.(ML)	43-44 ft.				
					45.0-50.0: Wet, red-brown SILT. Stiff.					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
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Contractor: Boart Longyear	Total Depth: 135.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
45-55	NA	100			Slight patchy sheen. Slight tar odor.(ML)				Slight Tar Odors		
					50.0-53.0: Wet, red-brown silty medium to coarse SAND. Trace gravel. Sheens. Slight tar odors. (SM)					-40	
					53.0-55.0: Wet, red-brown SILT with trace fine sand. Medium stiff. (ML)						
			26 ppm								
55-65	NA	100		55	55.0-65.0: Moist, red-brown SILT with some fine to coarse gravel. Subround to angular. Trace fine to medium sand. Dense. Very stiff. (ML)				No Odors		
			46 ppm							-50	

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-16

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Atlantic Environmental Division

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Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			1.2 ppm			63-63.5 ft.			No Odors		
				65	65.0-65.5: Not sampled due to installation of 8-5/8" casing.						
65.5-75	NA	100			65.5-66.0: Moist, red-brown medium to coarse SAND. Trace silt. Loose Non-cohesive. Faint naphthalene odor.(SW)				Faint Naph. Odors		
			0 ppm		66.0-67.0: Red-brown SILT with some fine to medium sand. Trace fine to medium gravel(sbrnd to sbang). Trace cobbles. Dense. Non-plastic. (ML)				No Odors		
					67.0-73.0: Dry, red-brown SILT with trace fine to medium sand. Some gravel cobbles. Very dense. (ML)					-60	
			1 ppm		73.0-75.0: Dry, dark-brown to gray SILT with trace gravel and trace medium to coarse sand. Trace cobbles. Very dense. Crumbly. Non-cohesive. (ML)				No Odors		
					75.0-78.0: Moist, red-brown SILT and trace						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

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Contractor: Boart Longyear | Total Depth: 135.00'
Drilling Method: Resonant Sonic
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Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
75-80	NA	100			medium to fine sand. Trace medium to coarse gravel. Trace cobbles. Dense. Stiff. Non-cohesive. (ML)						
			0 ppm		78.0-80.0: Wet, red-brown silty medium to coarse SAND. Trace sbang gravels. Trace clays. Loose. (SM)						
80-85	NA	60	0 ppm		80.0-82.0: Wet, red-brown medium to coarse sandy SILT. Trace fine gravel. Loose. Non-cohesive. (SM)					-70	
					82.0-85.0: Moist, red-brown SILT with trace sbrnd gravel. Very dense. Non-cohesive. (ML)				No Odors		
					Large cobble stuck in core which attributed to 3'/5' recovery.						
			0 ppm								
85-90	NA	86		85	85.0-87.0: Moist to wet, SILT and trace fine to medium sand. Trace gravel. Dense. Non-cohesive. (ML)						
					87.0-89.0: Wet, SILT with some medium to coarse sand. Trace clay. Slightly cohesive. Some gravel. (ML)						
			0 ppm		89.0-90.0: Same as 85'-87' bgs. (ML)					-80	
					90.0-95.0: Moist, red-brown SILT with trace						

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: SB56 completed as RW-16. 5"x7" Drilling Method. 8-5/8: temporary isolation casing to 65' bgs was used during drilling and well installation.	
Date Started: 08/18/99	Date Completed: 08/21/99
Ground Elevation: 9.54'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 135.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
90-95	NA	100			medium to coorse sand. Some gravel. Trace cobbles. Very dense. Non-cohesive. (ML)					
			0 ppm							
95-100	NA	20		95	95.0-100.0: Poor recovery. Cobble lodged in core barrel. Wet, red-brown SILT with some coarse sand. Some medium gravel. Medium dense. Non-cohesive. (ML)					
			0 ppm					No Odors		
									-90	
100-105	NA	100			100.0-102.0: Wet, red-brown very-fine to medium SAND. Loose. Non-cohesive. Trace silt. (SW)					
					102.0-104.75: Red-brown medium to coarse SAND. Trace silt. Loose. (SW)					
			1 ppm		104.75-105.0: Gray SILT with trace fine gravel in chunks. Trace clay. Reworked till structure? (ML)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-16

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Atlantic Environmental Division

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Remarks: SB56 completed as RW-16. 5"x7" Drilling Method. 8-5/8" temporary isolation casing to 65' bgs was used during drilling and well installation.	
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Contractor: Boart Longyear	Total Depth: 135.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
105-115	NA	100			105.0-107.0: Moist, red-brown clayey SILT. Trace fine to medium gravel. Very dense and stiff. (ML)						
					107.0-108.0: Wet, red-brown silty fine SAND. Trace clay. Medium dense. (SM)						
					108.0-113.0: Moist, red-brown SILT with some fine to medium sand. Trace to some gravel. Very stiff. (ML)						
			0 ppm							-100	
					Well Construction Screen Section: 113' to 123' 4" PVC, 10 slot, 1.4' sump #1 Silica Sand used for filter pack Sand: 110' to 127' Bentonite Seal: 104' to 110' Cement/Bentonite Grout: 0.5' to 104'				No Odors		
					113.0-115.0: Wet, red-brown medium to coarse silty SAND. Trace to some gravel. Cobbles at 115'. (SM)						
			0 ppm								
115-125	NA	80		115	115.0-119.0: Wet, red-brown coarse to medium SAND with trace silt. Loose. Non-cohesive. Well sorted. (SW)						
					119.0-123.0: Wet, red-brown medium to very coarse SAND. Some fine gravel. Loose. Non-cohesive. Chunks of reworked till at bottom of sample. (SW)					-110	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-16

GEI Consultants, Inc.
Atlantic Environmental Division

Client: Keyspan Energy	
Project Number: 98248	Project Name: Clifton Former MGP
Remarks: S856 completed as RW-16. 5"x7" Drilling Method. 8-5/8: temporary isolation casing to 65' bgs was used during drilling and well installation.	
Date Started: 08/18/99	Date Completed: 08/21/99
Ground Elevation: 9.54'	Datum: NGVD
Contractor: Boart Longyear	Total Depth: 135.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By:

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
			0 ppm								
						122-123 ft.					
					123.0-125.0: Crystalline rock lodged in bit from approx. 123' bgs. Pushed through w/o sampling. Red clay smeared on putside of core barrel; infer 2' of clay.(CL)						
125-135	NA	100	0 ppm	125	125.0-126.0: Red-brown-gray layers of SAPROLITIC CLAY. Very dense and stiff clay.(CL) 126.0-129.0: Gray with white inclusions and layers. SAPROLITIC CLAY. Muscovite and biotite grains are evident. Slightly moist. Dense. (CL)				No Odors		
					129.0-132.0: Gray SAPROLITIC silty CLAY. Dry. Very Dense. (CL)					120	
					132.0-135.0: Gray to orange-brown SAPROLITIC CLAY with silts. Mica present. Dry. Very dense. (CL)						
					135.0: End of Boring						

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-17

GEI Consultants, Inc.

Client: Clifton, Staten Island, NY			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 12/05/01	Date Completed: 12/05/01
Remarks: NA - Indicates Not Applicable Boring information obtained from SB-69.		Ground Elevation: 9.97'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 45.00'
		Drilling Method: Resonant Sonic	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
0-5	NA	90			0.0-2.0: Brown, SILT [FILL], trace medium to coarse sand, little coarse gravel, trace brick and slag dry to loose, non cohesive, dry to moist. Burnt odor. (ML/FI)			None		
					2.0-6.0: Brown, SILT, little sand, trace fill (glass and brick fragments), non-cohesive, moist to wet. Trace burnt odor. No visual contamination noted. (ML/FI) Apparent groundwater table encountered at 5.0 feet.					
5-15	NA	100	2.3 ppm					None		
					6.0-13.0: Red-brown, SILT, trace to little coarse gravel, trace fine sand, soft to moderate dense, firm, moist. Trace naphthalene-like odor. (ML)					
			1.7 ppm	10				None	0	
			103.4 ppm		13.0-15.0: Red-brown, SILT, some medium sand, trace clay, cohesive, moist. Trace naphthalene-like odor. (SM)					

Legend: Physical Observations — None; Sheen; Stain; Heavy

Site Id: RW-17

Client: Clifton, Staten Island, NY	
Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks: NA - Indicates Not Applicable Boring information obtained from SB-69.	
Date Started: 12/05/01	Date Completed: 12/05/01
Ground Elevation: 9.97'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 45.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-25	NA	100							Slight		
					15.0-22.5: Red-brown, SILT, trace sand, trace clay, trace fine to coarse gravel, cohesive moderately dense, to dense, moist. Naphthalene odor. (ML)				Slight		
			83.1 ppm	20						-10	
					22.5-25.0: Red-brown, SILT, little to some medium to coarse sand, trace to little gravel, and fine to coarse gravel, cohesive, moist, soft [material is altered till-like material]. Naphthalene-like odor. (SM)						
			129.3 ppm						Slight		
25-35	NA	100									
					25.0-30.0: Red-brown, SILT, trace medium sand, trace medium sand, trace to little fine and coarse gravel, trace clay, cohesive. (ML)				Slight		
			132.0 ppm							-20	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-17

Client: Clifton, Staten Island, NY

Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks: NA - Indicates Not Applicable Boring information obtained from SB-69.	

Date Started: 12/05/01	Date Completed: 12/05/01
Ground Elevation: 9.97'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 45.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
					30.0–33.0: Red–brown, SILT, little to some coarse sand, trace fine gravel, trace cobble, moist. Trace to moderate naphthalene odor. (SM)				Slight		
					33.0–33.5: Red–brown to brown, coarse SAND and fine GRAVEL, tar coated grains, staining. Strong tar odor. (GP)	33–33.5 FT					
					33.5–35.0: Red–brown, SILT, some fine sand, moderately dense to loose. Moderate tar and naphthalene–like odor. (ML)				Strong		
35–45	NA	90	86.6 ppm								
				40	35.0–45.0: Red–brown, SILT, trace to little sand, trace clay, cohesive, dense to very dense, slight naphthalene–like odor. (ML)				Slight	–30	
					45.0: End of Boring	44.5 to 45 FT					

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-18

Client: Keyspan Energy	
Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks: NA - Indicates Not Applicable Boring information obtained from SB-70A.	

Date Started: 12/07/01	Date Completed: 12/07/01
Ground Elevation: 9.57'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 55.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
15-25	NA	60	0 ppm								
			5.7 ppm	20	15.0-25.0: Red-brown, SILT, trace clay, trace fine sand, trace cobbles, trace coarse gravel, cohesive, dense, moist. Material becomes blocky at 24 feet below ground surface. Trace naphthalene odor at 24 to 25 feet below grade. (ML)				None	-10	
25-35	NA	100	10.1 ppm		25.0-28.0: Brown to red-brown, coarse SAND and fine to coarse GRAVEL (sub-rounded to sub-angular), trace silt, sub-rounded to subanglar, saturated. Grain size fines towards the bottom of the interval. Patchy sheen, moderate naphthalene odor. (GW)				Slight Moderate		
					28.0-32.5: Red-brown to brown, well-sorted SAND, trace silt, cobble fragments of till (likely "rip up clasts"), non-cohesive, loose, tar					-20	

Legend: Physical Observations — None, Sheen, Stain, Heavy

Site Id: RW-18

Client: Keyspan Energy	
Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks: NA - Indicates Not Applicable Boring information obtained from SB-70A.	

Date Started: 12/07/01	Date Completed: 12/07/01
Ground Elevation: 9.57'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 55.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
					coated grains increasing to blebs, increasing to saturated with tar (NAPL). Strong tar odor. (SP)				Strong		
			664 ppm			31.5-32 FT					
35-45	NA	100	269 ppm								
			204 ppm		32.5-42.0: Red-brown, SILT, trace to some fine to coarse sand, trace fine an coarse gravel, trace cobbles, dense, sub-rounded to sub-angular gravels. Slight to moderate napthalene-like odor. (SM)				Moderate		
				40						-30	
			55 ppm		42.0-45.0: Red-brown, SILT, trace to some fine to coarse sand, trace fine an coarse gravel, trace cobbles, dense, sub-rounded to sub-anglar gravels. Tar coated gravel and sheen within sand lenses, moderate to strong tar odor. (SM)				Strong		

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-18

Client: Keyspan Energy	
Project Number: 98248-[illegible]7	Project Name: Clifton Former MGP
Remarks: NA – Indicates [illegible]: Applicable Boring information obtained from SB-70A.	

Date Started: 12/07/01	Date Completed: 12/07/01
Ground Elevation: 9.57'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 55.00'
Drilling Method: Resonant Sonic	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
45–55	NA	100	19 ppm		45.0–49.0: Red-brown, SILT and fine SAND, trace gravel, trace cobbles, non-cohesive, moderately dense, moist. (SM)				None		
			5.2 ppm	50						-40	
			5.3 ppm		49.0–55.0: Red-brown SILT (crumbles), trace to little sand, trace coarse to fine gravel, very dense, non-cohesive, damp. (ML)				None		
			5.8 ppm		55.0: End of Boring.	54.5–55 FT				-50	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-19

GEI Consultants, Inc.

Client: Keyspan Energy			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 11/15/02	Date Completed: 11/15/02
Remarks:		Ground Elevation: 7.19'	Datum: NAVD 88
		Contractor: Zebra Environmental	Total Depth: 28.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
					Note: Geologic information and physical observations for RW-19 are summarized on boring SB-94, which is located approximately 5' southeast of RW-19.				0	
				10						

Legend: Physical Observations

- None
- Sheen
- Stain
- Heavy

Site Id: RW-19

Client: Keyspan Energy	
Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks:	

Date Started: 11/15/02	Date Completed: 11/15/02
Ground Elevation: 7.19'	Datum: NAVD 88
Contractor: Zebra Environmental	Total Depth: 28.00'
Drilling Method: Geoprobe	
Logged By: Lynn Willey	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
				20					-10 -20	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-20

Client: Keyspan Corporation			
Project Number: 98248-1007	Project Name: Clifton Former MGP	Date Started: 05/21/04	Date Completed: 05/21/04
Remarks: GEOLOGY OBTAINED FROM SB-137. OFFSET APPROXIMATELY 5' FROM SB-137. 2-5' PREPACKED SCREENS USED.		Ground Elevation: 7.98'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 33.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Vis. Signs of Contamination	Odors	Elevation (ft)	Well Construction
											MP. EL. 7.70
				10						0	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-20

Client: Keyspan Corporation	
Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks: GEOLOGY OBTAINED FROM SB-137. OFFSET APPROXIMATELY 5' FROM SB-137. 2-5' PREPACKED SCREENS USED.	

Date Started: 05/21/04	Date Completed: 05/21/04
Ground Elevation: 7.96'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 33.00'
Drilling Method: Geoprobe	
Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
				20					-10 -20	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-20

Client: Keyspan Corporation	
Project Number: 98248-1007	Project Name: Clifton Former MGP
Remarks: GEOLOGY OBTAINED FROM SB-137. OFFSET APPROXIMATELY 5' FROM SB-137. 2-5' PREPACKED SCREENS USED.	

Date Started: 05/21/04	Date Completed: 05/21/04
Ground Elevation: 7.96'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 33.00'
Drilling Method: Geoprobe	
Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Physical Observations	Odors	Elevation (ft)	Well Construction
				40						-30	

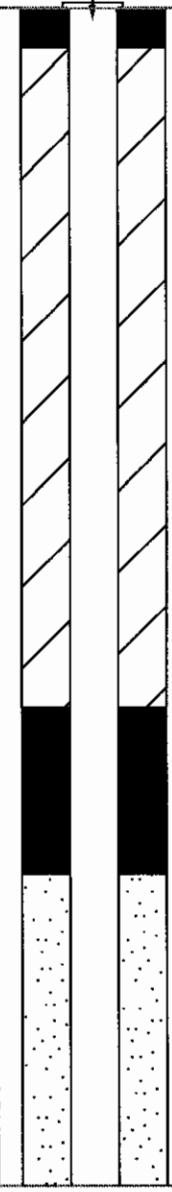
Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-21

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/21/04	Date Completed: 05/21/04
Remarks: GEOLOGY OBTAINED FROM SB-126/126A. OFFSET APPROXIMATELY 5' FROM SB-126/126A. 2-5' PREPACKED SCREENS USED.		Ground Elevation: 8.42'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 30.00'
		Drilling Method: Geoprobe	
		Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description: color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology	Vis. Signs of Contamination	Odors	Elevation (ft)	Well Construction
											MP. EL. 8.26
				10						0	



Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-21

Client: Keyspan Corporation	
Project Number: 982482-1	Project Name: Clifton Former MGP
Remarks: GEOLOGY OBTAINED FROM SB-126/126A. OFFSET APPROXIMATELY 5' FROM SB-126/126A. 2-5' PREPACKED SCREENS USED.	

Date Started: 05/21/04	Date Completed: 05/21/04
Ground Elevation: 8.42'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 30.00'
Drilling Method: Geoprobe	
Logged By: Lynn Willey	Certified By: Melissa Felter

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
				20					-10 -20	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-22

Client: Keyspan Corporation			
Project Number: 982482-1	Project Name: Clifton Former MGP	Date Started: 05/21/04	Date Completed: 05/21/04
Remarks: Geology obtained from SB-95. RW-22 offset approximately 5' from SB-95. 2-5' PREPACKED SCREEN USED.		Ground Elevation: 9.85'	Datum: NAVD 88
		Contractor: Prosonic	Total Depth: 21.00'
		Drilling Method: Geoprobe	
		Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 Inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology Via. Signs of Contamination	Odors	Elevation (ft)	Well Construction MP. EL. 9.67
				10					0	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Site Id: RW-22

Client: Keyspan Corporation	
Project Number: 982482-1	Project Name: Clifton Former MGP
Remarks: Geology obtained from SB-95. RW-22 offset approximately 5' from SB-95. 2-5' PREPACKED SCREEN USED.	
Date Started: 05/21/04	Date Completed: 05/21/04
Ground Elevation: 9.85'	Datum: NAVD 88
Contractor: Prosonic	Total Depth: 21.00'
Drilling Method: Geoprobe	
Logged By: L.Willey/K.Amos	Certified By: Lynn Willey

Split Spoon Sample Depth (ft.)	Blows Per 6 inches	Recovery %	PID	Depth (ft.)	Soil Description color, density, SOIL, admixture, moisture, other notes, ORIGIN.	Analyzed Sample Interval	Lithology / Physical Observations	Odors	Elevation (ft)	Well Construction
				20					-10 -20	

Legend: Physical Observations

None | Sheen | Stain | Heavy

Appendix C

Test Pit Logs and Test Pit Photographs

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

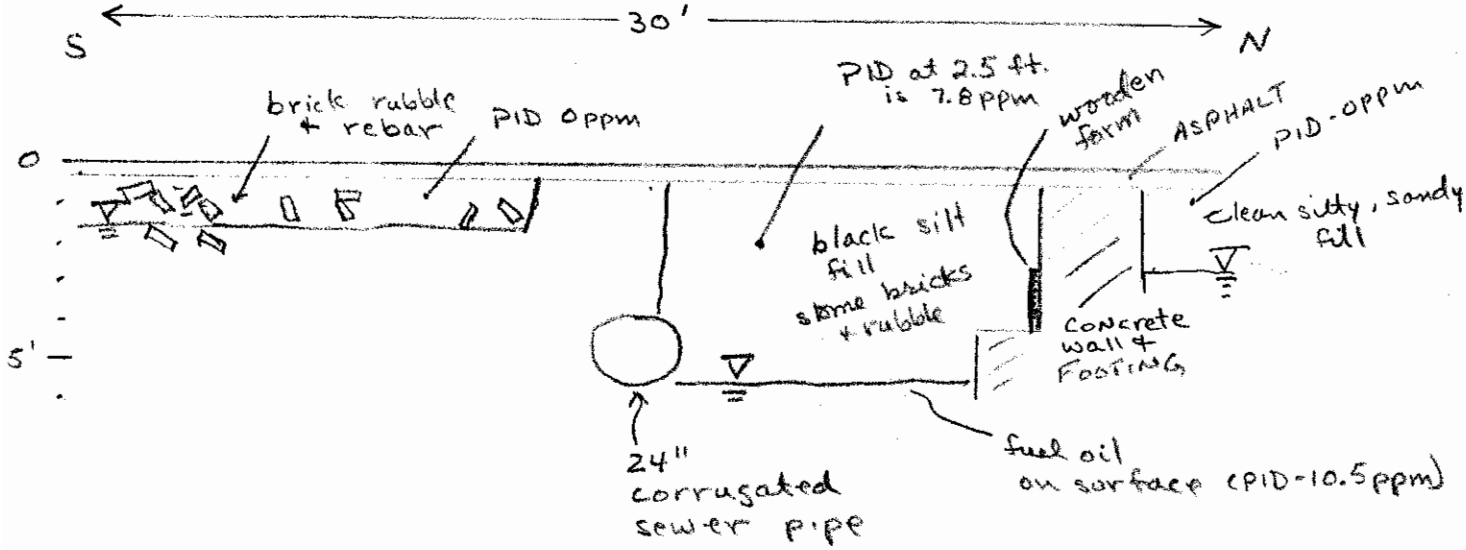
188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
CALL BEFORE YOU DIG CASE NO.: covered by FPM
TEST PIT NUMBER: TP-1
OBSERVER: John Ripp
GENERAL LOCATION AND/OR PURPOSE: Western corner of yard/evaluate fuel oil foundations
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
DATE: February 22, 1999
CONTRACTOR: PSC - Phillips Service
TIME OPENED: 1010 **TIME CLOSED:** 1150
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



Cross Sectional View

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 58.5* FT
*Also perched at 1.5 and 2 feet in parts

ANALYTICAL SAMPLES: TP-1 (5)
NAPL SEEPAGE: YES X NO
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

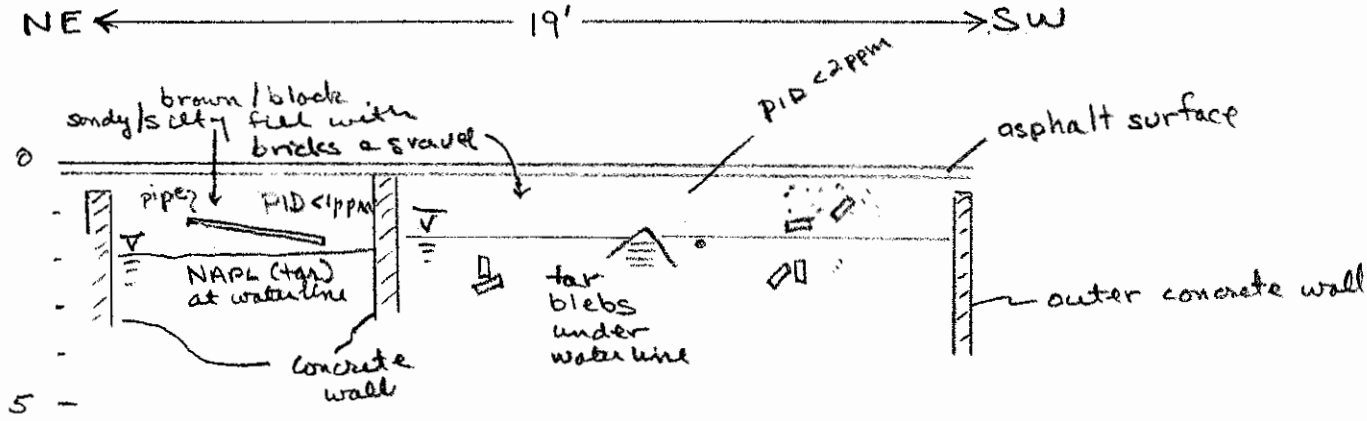
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-2
GENERAL LOCATION AND/OR PURPOSE: Near Willow Avenue - looking for tar separator
DATE: February 22, 1999
TIME OPENED: 1330 **TIME CLOSED:** 1500

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



CROSS SECTIONAL VIEW

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 2 FT

ANALYTICAL SAMPLES:
NAPL SEEPAGE: YES X NO
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

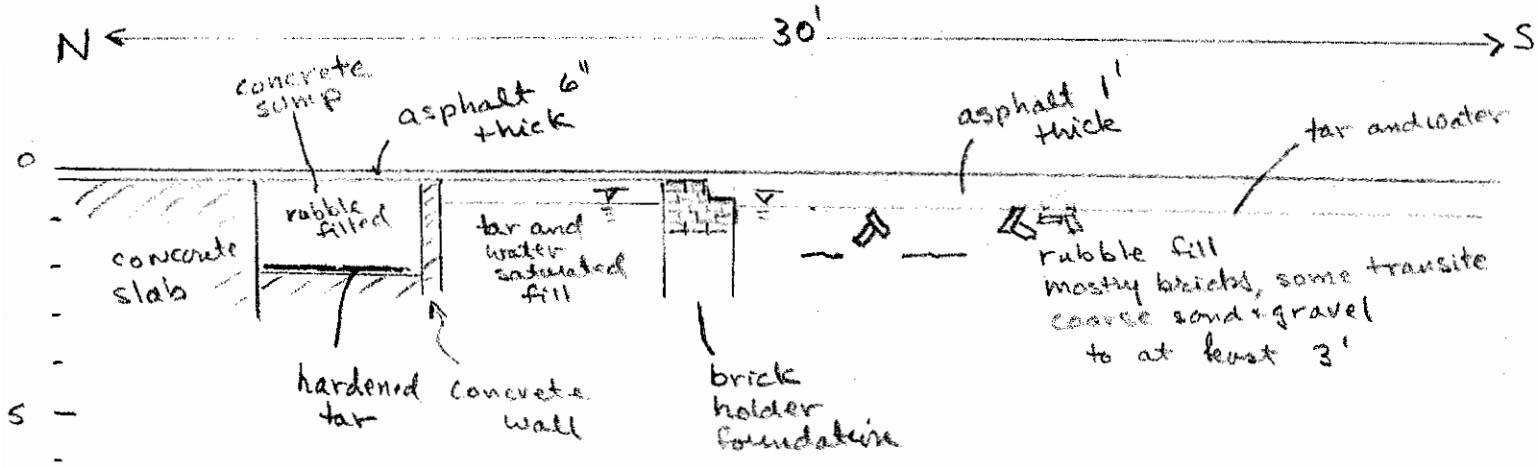
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-3
GENERAL LOCATION AND/OR PURPOSE: Center of Yard - locate tar tank/gasometer
DATE: February 23, 1999
TIME OPENED: 0800 **TIME CLOSED:** 0915

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



Cross sectional View

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 2 FT

ANALYTICAL SAMPLES: TP-3 (1)
NAPL SEEPAGE: YES X NO
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

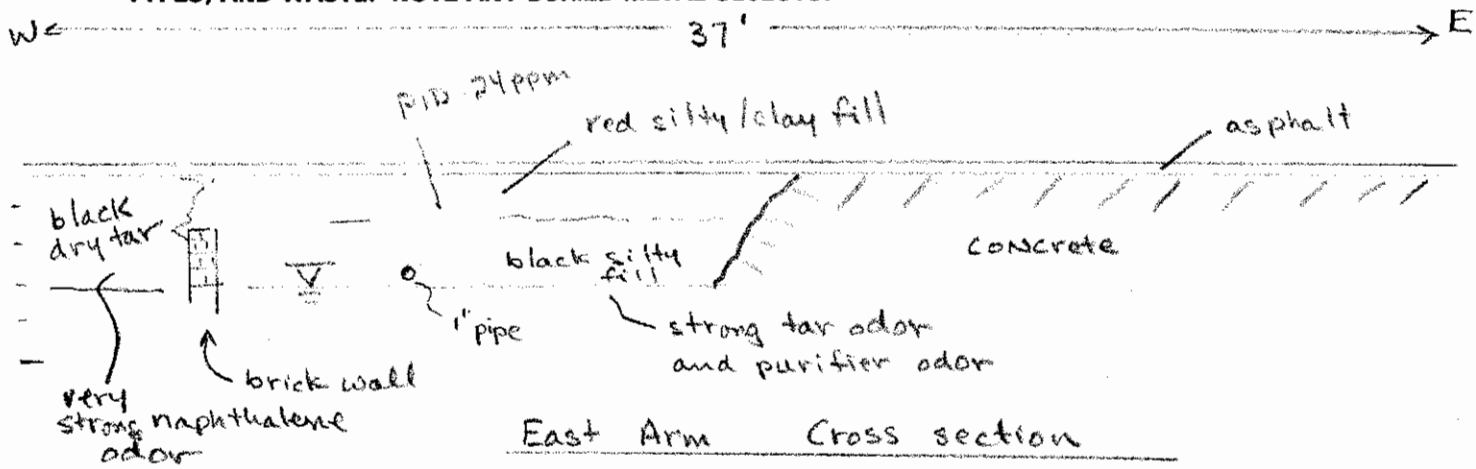
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

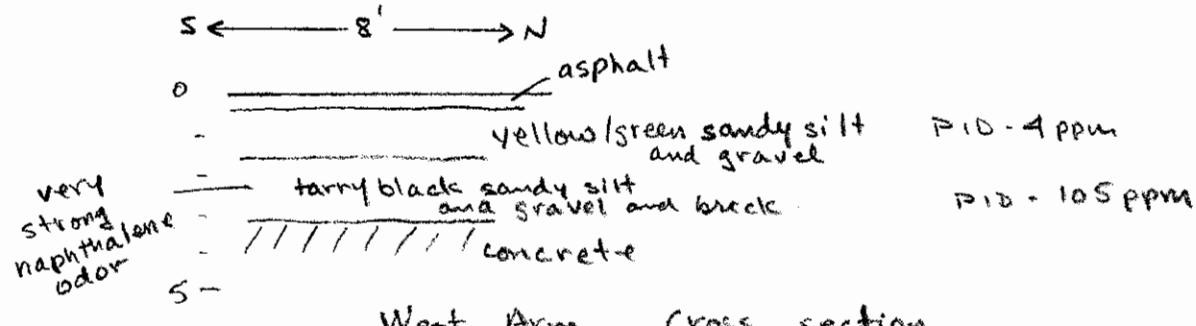
PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-4
GENERAL LOCATION AND/OR PURPOSE: Near Willow Avenue - evaluate purifier and tar well
DATE: February 23, 1999
TIME OPENED: 1115 **TIME CLOSED:** 1300

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



East Arm Cross section



West Arm Cross section

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 3 FT

ANALYTICAL SAMPLES:
NAPL SEEPAGE: YES X NO
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

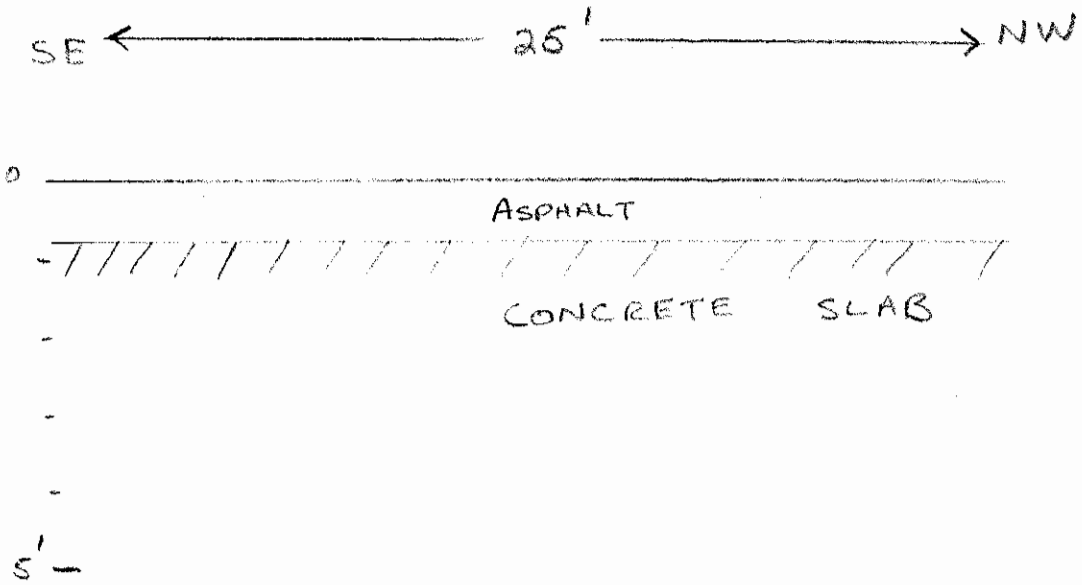
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-5
GENERAL LOCATION AND/OR PURPOSE: Yard Area - evaluate purifier foundation
DATE: February 23, 1999
TIME OPENED: 1530 **TIME CLOSED:** 1615

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: Not determined FT

ANALYTICAL SAMPLES:
NAPL SEEPAGE: YES NO X
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

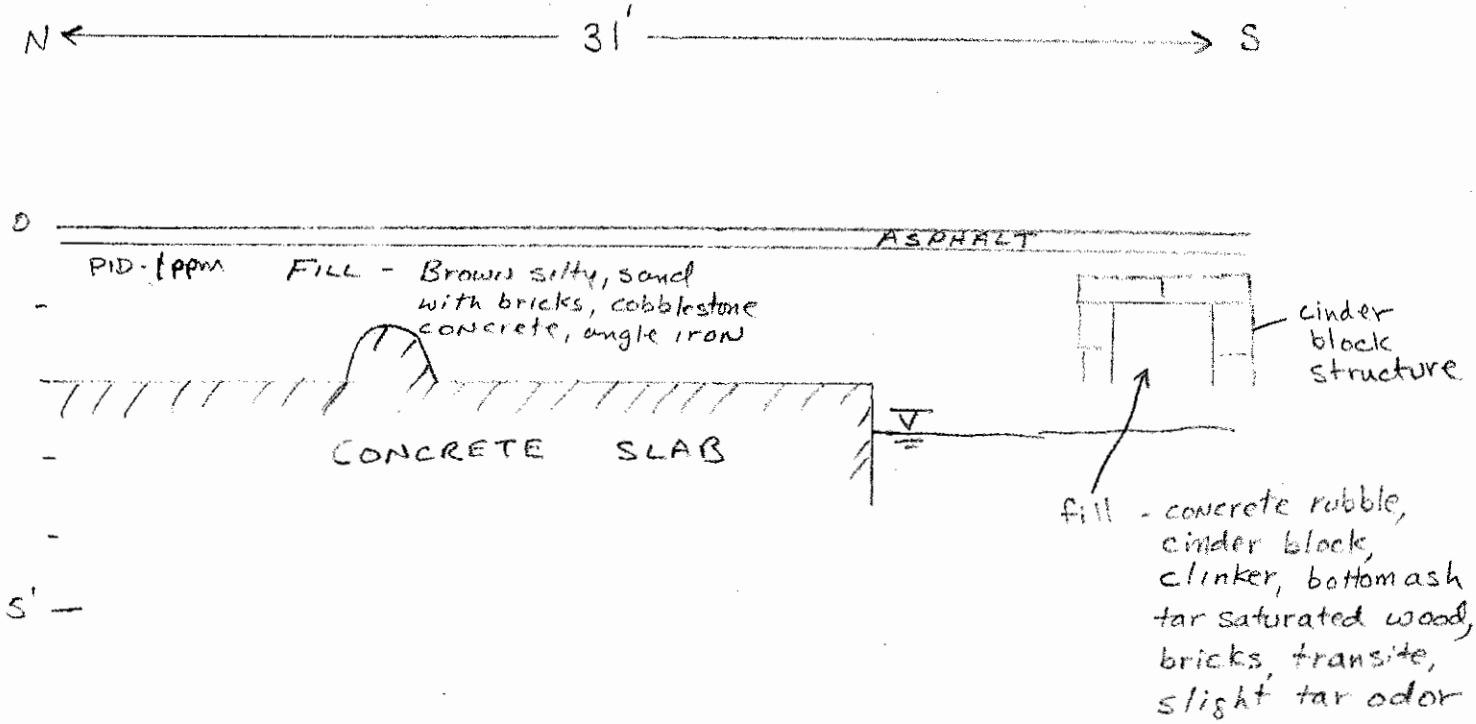
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-6
GENERAL LOCATION AND/OR PURPOSE: Yard Area - evaluate a purifier foundation
DATE: February 24, 1999
TIME OPENED: 0930 **TIME CLOSED:** 1045

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



Cross sectional View

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 2.6 FT

ANALYTICAL SAMPLES:
NAPL SEEPAGE: YES NO X
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

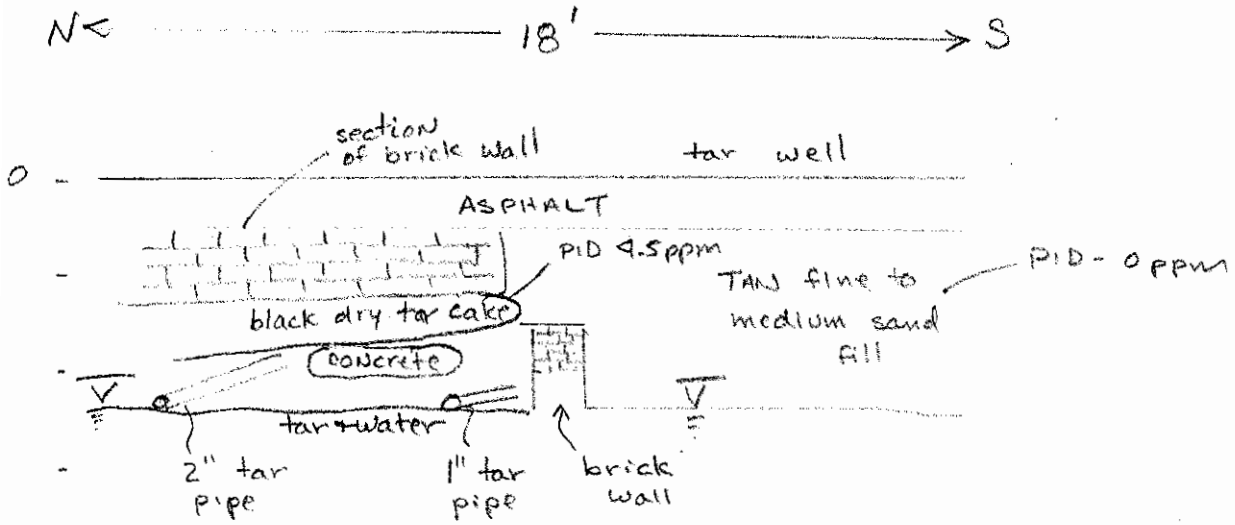
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-7
GENERAL LOCATION AND/OR PURPOSE: In Yard - evaluate tar storage facility
DATE: February 25, 1999
TIME OPENED: 0920 **TIME CLOSED:** 1015

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



Cross sectional view

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 2.8 FT

ANALYTICAL SAMPLES: TP-10 (3)
NAPL SEEPAGE: YES NO X
SAMPLES: YES NO X
QUANTITY:

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ENVIRONMENTAL DIVISION

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P.O. Box 297
Colchester, CT 06415

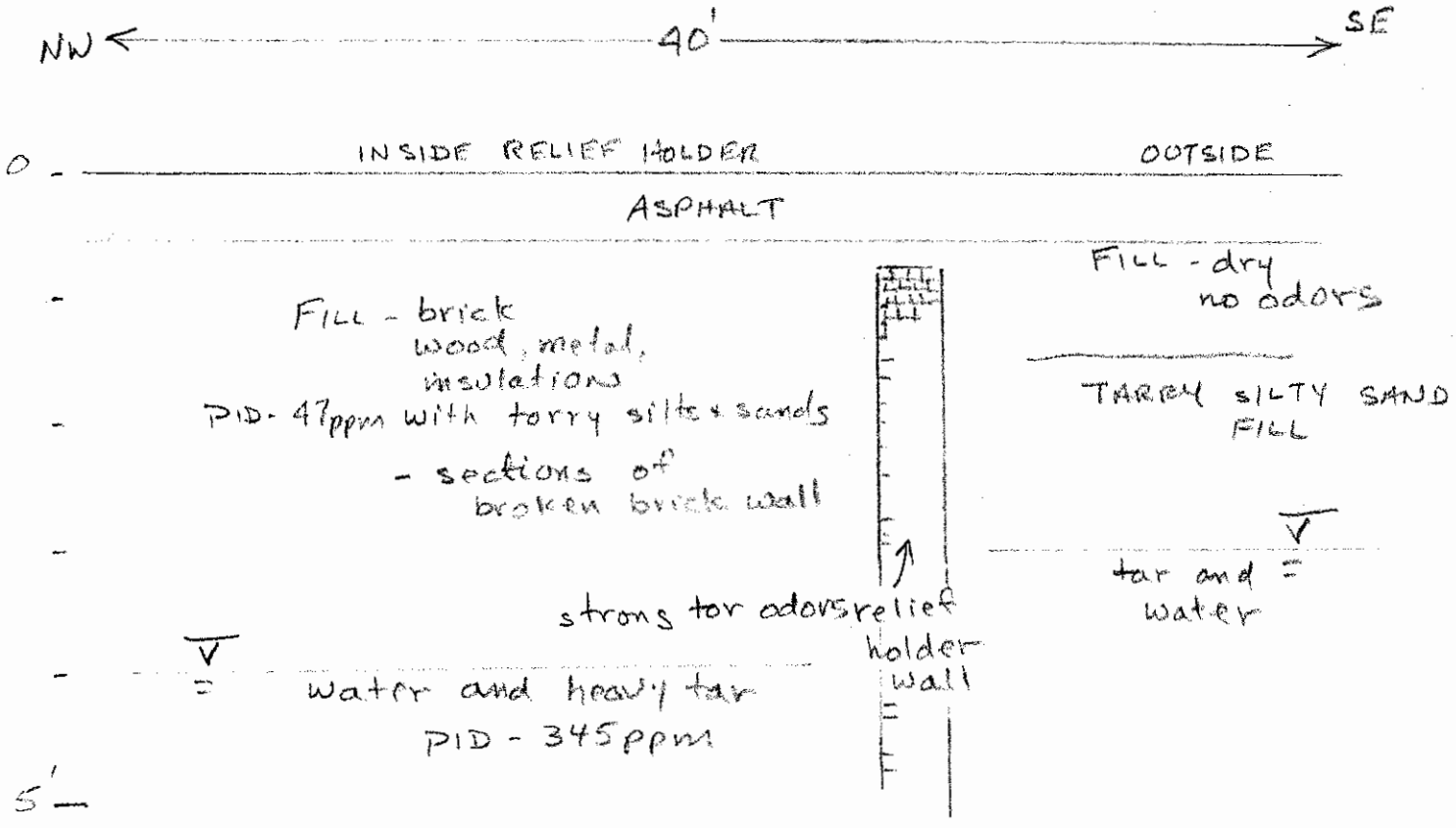
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-8
GENERAL LOCATION AND/OR PURPOSE: Under Canopy - evaluate relief holder No. 1
DATE: February 24, 1999
TIME OPENED: 1530 **TIME CLOSED:** 1615

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



Cross sectional view

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 4 FT

ANALYTICAL SAMPLES: TP-8 (4)
NAPL SEEPAGE: YES X NO
SAMPLES: YES NO X
QUANTITY:

GEI Consultants, Inc.

ATLANTIC
ENVIRONMENTAL DIVISION

188 Norwich Avenue
P.O. Box 297
Colchester, CT 06415

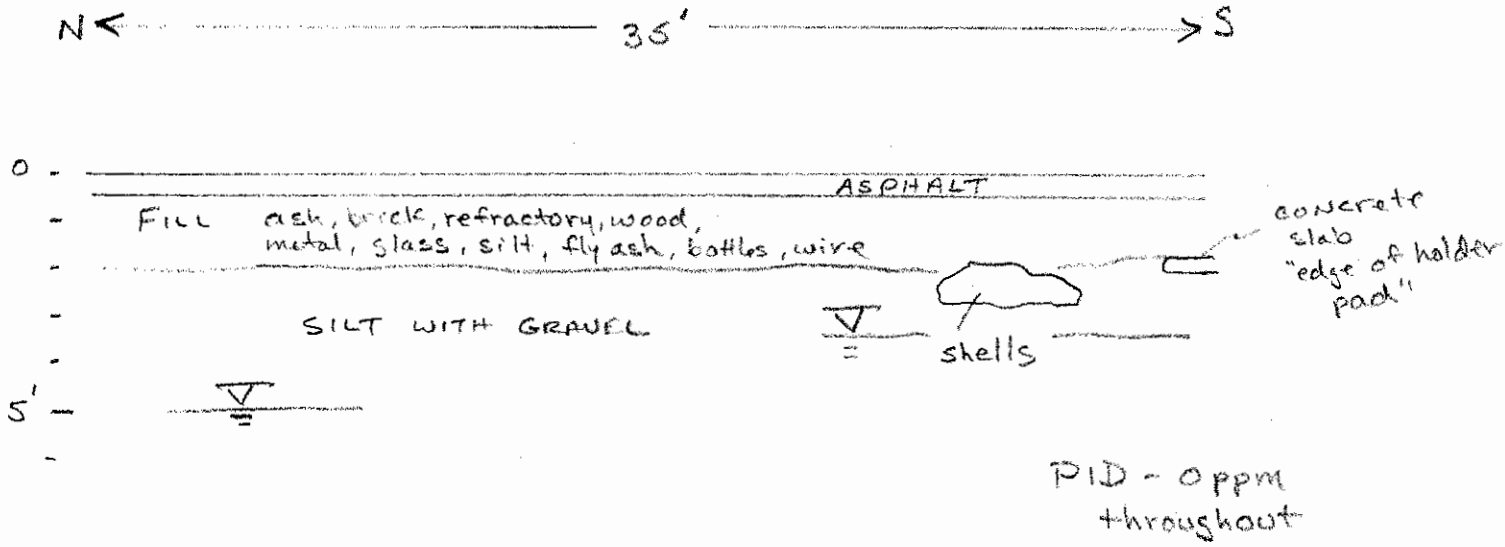
Ph: (860) 537-0751
Fax: (860) 537-6347

TEST PIT DESCRIPTION SHEET

PROJECT NUMBER: 98248-1007
TEST PIT NUMBER: TP-9
GENERAL LOCATION AND/OR PURPOSE: North side of Saturn garage - holder foundation
DATE: February 21, 1999
TIME OPENED: 1310 **TIME CLOSED:** 1515

CALL BEFORE YOU DIG CASE NO.: covered by FPM
OBSERVER: John Ripp
ASSISTANT: Jeff Willson
OTHERS: Steve Wallett
CONTRACTOR: PSC - Phillips Service
EQUIPMENT: John Deere 310D

IN THE SPACE PROVIDED BELOW, NOTE WHAT WAS FOUND IN THE TEST PIT AND SKETCH DIMENSIONS, SOIL TYPES, AND WASTE. NOTE ANY BURIED METAL OBJECTS.



Cross sectional view

VIDEO DOCUMENTED: YES X NO
PHOTOGRAPHED: YES X NO
PIEZOMETER NO. USED IN BACKFILL: No
DEPTH TO WATER: 5 FT

ANALYTICAL SAMPLES: TP-9(2)
NAPL SEEPAGE: YES NO X
SAMPLES: YES NO X
QUANTITY:

TEST PIT 1

TEST PIT 1

KEYSPAN\CLIFTON\982482\1007\ou-2\CL-PHOTO.PPT

TEST PIT 1

TEST PIT 2

KEYSPAN\CLIFTON\982482\1007\ou-2\CL-PHOTO.PPT

TEST PIT 2

TEST PIT 3

TEST PIT 4

TEST PIT 4

KEYSPAN\CLIFTON\982482\1007\ou-2\CL-PHOTO.PPT

TEST PIT 4

TEST PIT 4

TEST PIT 4

TEST PIT 5

KEYSPAN\CLIFTON\982482\1007\ou-2\CL-PHOTO.PPT

TEST PIT 5

TEST PIT 7

KEYSPAN\CLIFTON\982482\1007\ou-2\CL-PHOTO.PPT

TEST PIT 7

TEST PIT 8

TEST PIT 8

TEST PIT 8

TEST PIT 8

TEST PIT 9

TEST PIT 9

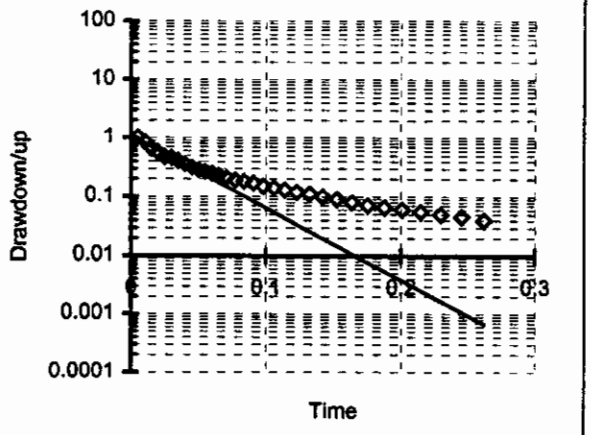
Appendix D

Hydraulic Conductivity Calculations

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-1
Analysis By: A. Brey
Run Date:

Riser Pipe Diameter:	0.1666	feet
Intake Diameter:	0.35	feet
Intake Length:	12	feet
Saturated Column Length:	12	feet
Water Table Depth:	1.18	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	9	Max 32
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	3.33E+01	ft./day
Error of Fit:	0.039	



Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.01	2.22	1.04		0.035	-0.067
2)	0.01	2.03	0.85		-0.163	-0.208
3)	0.02	1.85	0.67		-0.405	-0.349
4)	0.02	1.74	0.56		-0.580	-0.490
5)	0.03	1.66	0.48		-0.734	-0.631
6)	0.03	1.64	0.46		-0.777	-0.771
7)	0.04	1.59	0.41		-0.892	-0.912
8)	0.04	1.54	0.36		-1.022	-1.053
9)	0.05	1.50	0.32		-1.139	-1.194
10)	0.05	1.47	0.29		-1.238	-1.334
11)	0.06	1.45	0.27		-1.309	-1.475
12)	0.06	1.43	0.25		-1.386	-1.616
13)	0.07	1.41	0.23		-1.470	-1.757
14)	0.07	1.39	0.21		-1.561	-1.920
15)	0.08	1.37	0.19		-1.661	-2.095
16)	0.08	1.36	0.18		-1.715	-2.278
17)	0.09	1.35	0.17		-1.772	-2.475
18)	0.10	1.33	0.15		-1.897	-2.680
19)	0.11	1.32	0.14		-1.966	-2.903
20)	0.11	1.31	0.13		-2.040	-3.136
21)	0.12	1.30	0.12		-2.120	-3.384
22)	0.13	1.29	0.11		-2.207	-3.649
23)	0.14	1.28	0.10		-2.303	-3.925
24)	0.15	1.27	0.09		-2.408	-4.220

25)	0.16	1.26	0.08		-2.526	-4.530
26)	0.18	1.25	0.07		-2.659	-4.859
27)	0.19	1.25	0.07		-2.733	-5.211
28)	0.20	1.24	0.06		-2.813	-5.580
29)	0.21	1.24	0.06		-2.900	-5.974
30)	0.23	1.23	0.05		-2.996	-6.394
31)	0.25	1.23	0.05		-3.079	-6.833
32)	0.26	1.22	0.04		-3.219	-7.303

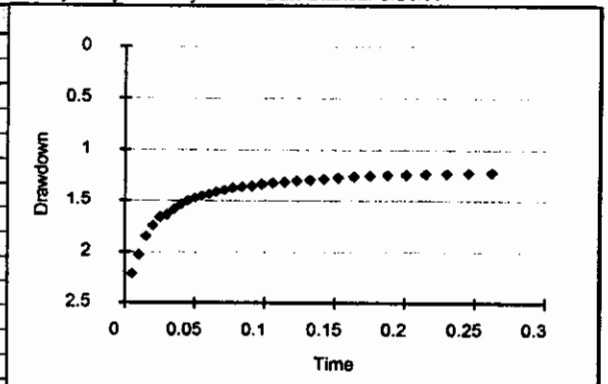
SLUG TEST DATA ENTRY FORM

Client Name: Keyspan
Project No.: 98248
Project Name: Clifton Former MGP Site

Well Number: RW-1
Topo. Elev.: 8.79' amsl
Analysis By: A. Brey

Test Type: Slug Out
Weather: Warm, sunny
Date Started: 3/31/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	13.95
Static W/L-Depth (ft.):	1.18
Riser Pipe Diameter (feet):	0.1666
Initial Test Depth Value (ft.):	2.22
TOC Elevation (feet):	8.5
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	2
Intake/Soil Col. Length (ft.):	12
Saturat. Col. Thickness (ft.):	12
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	0.0407
Thickness of Aquifer (feet):	40



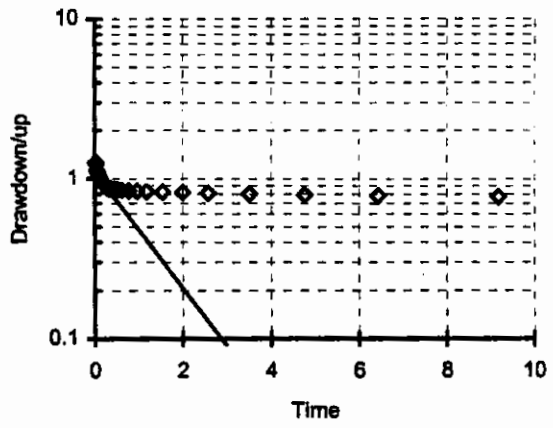
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.005	2.216						
0.01	2.03						
0.015	1.847						
0.02	1.74						
0.025	1.66						
0.03	1.64						
0.035	1.59						
0.04	1.54						
0.045	1.5						
0.05	1.47						
0.055	1.45						
0.06	1.43						
0.065	1.41						
0.0708	1.39						
0.077	1.37						
0.0835	1.36						
0.0905	1.35						
0.0978	1.33						
0.1057	1.32						
0.114	1.31						
0.1228	1.3						
0.1322	1.29						
0.142	1.28						
0.1525	1.27						
0.1635	1.26						
0.1752	1.25						
0.1877	1.245						
0.2008	1.24						
0.2148	1.235						
0.2297	1.23						
0.2453	1.226						
0.262	1.22						

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-2
Analysis By: A. Brey
Run Date:

Riser Pipe Diameter:	0.1666	feet
Intake Diameter:	0.3333	feet
Intake Length:	12.5	feet
Saturated Column Length:	10.5	feet
Water Table Depth:	3.95	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	5	Min 1 to
Line Fit Ending No.:	15	Max 44
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	9.42E-01	ft./day
Error of Fit:	0.003	



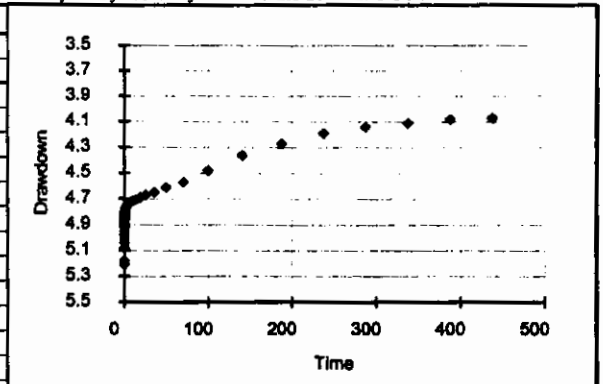
Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.03	5.21	1.26		0.231	0.081
2)	0.04	5.18	1.23		0.207	0.069
3)	0.05	5.08	1.13		0.122	0.056
4)	0.07	5.04	1.09		0.086	0.043
5)	0.09	5.01	1.06		0.058	0.029
6)	0.10	4.98	1.03		0.030	0.015
7)	0.12	4.95	1.00		0.000	-0.001
8)	0.14	4.92	0.97		-0.030	-0.018
9)	0.16	4.90	0.95		-0.051	-0.035
10)	0.19	4.88	0.93		-0.073	-0.054
11)	0.21	4.86	0.91		-0.094	-0.073
12)	0.23	4.85	0.90		-0.105	-0.094
13)	0.26	4.84	0.89		-0.117	-0.115
14)	0.29	4.83	0.88		-0.128	-0.137
15)	0.31	4.82	0.87		-0.135	-0.161
16)	0.34	4.82	0.87		-0.139	-0.186
17)	0.38	4.82	0.87		-0.143	-0.213
18)	0.45	4.81	0.86		-0.151	-0.273
19)	0.53	4.81	0.86		-0.155	-0.340
20)	0.62	4.80	0.85		-0.163	-0.415
21)	0.77	4.79	0.84		-0.174	-0.545
22)	0.96	4.79	0.84		-0.178	-0.700
23)	1.18	4.78	0.83		-0.186	-0.885
24)	1.54	4.77	0.82		-0.198	-1.190

25)	2.00	4.77	0.82		-0.200	-1.572
26)	2.58	4.76	0.81		-0.211	-2.055
27)	3.51	4.75	0.80		-0.223	-2.840
28)	4.76	4.74	0.79		-0.236	-3.885
29)	6.43	4.73	0.78		-0.248	-5.281
30)	9.18	4.72	0.77		-0.261	-7.584
31)	13.07	4.71	0.76		-0.274	-10.840
32)	18.57	4.69	0.74		-0.301	-15.441
33)	24.84	4.67	0.72		-0.329	-20.698
34)	35.20	4.65	0.70		-0.357	-29.368
35)	49.84	4.61	0.66		-0.416	-41.621
36)	70.51	4.57	0.62		-0.478	-58.927
37)	99.71	4.48	0.53		-0.635	-83.375
38)	140.96	4.36	0.41		-0.892	-117.908
39)	187.53	4.27	0.32		-1.139	-156.896
40)	237.53	4.19	0.24		-1.427	-198.756
41)	287.53	4.14	0.19		-1.661	-240.616
42)	337.53	4.11	0.16		-1.833	-282.476
43)	387.53	4.08	0.13		-2.040	-324.336
44)	437.53	4.07	0.12		-2.120	-366.195

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-2 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.09' amsl | Weather: Sunny, warm
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 3/31/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	14.24
Static W/L-Depth (ft.):	3.95
Riser Pipe Diameter (feet):	0.1666
Initial Test Depth Value (ft.):	5.57
TOC Elevation (feet):	9.71
Intake/Soil Col. Diam. (feet):	0.3333
Depth to Top of Pack (feet):	2
Intake/Soil Col. Length (ft.):	12.5
Saturat. Col. Thickness (ft.):	10.5
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	0.0205
Thickness of Aquifer (feet):	40



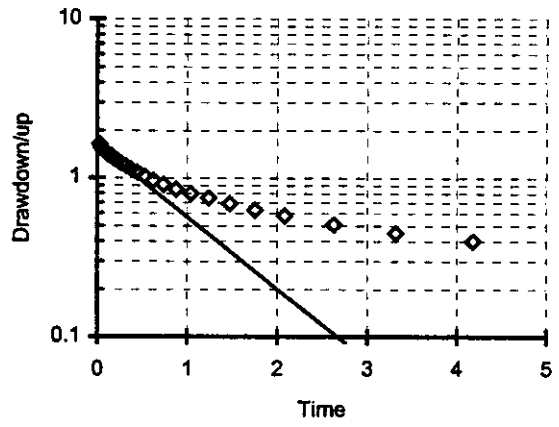
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.0256	5.21						
0.0396	5.18						
0.0545	5.08						
0.0701	5.04						
0.0868	5.01						
0.1045	4.98						
0.1231	4.95						
0.143	4.92						
0.164	4.9						
0.1861	4.88						
0.2096	4.86						
0.2345	4.85						
0.2595	4.84						
0.2861	4.83						
0.3145	4.824						
0.3445	4.82						
0.3761	4.817						
0.4478	4.81						
0.5278	4.806						
0.6178	4.8						
0.7728	4.79						
0.9578	4.787						
1.1795	4.78						
1.5428	4.77						
1.9995	4.769						
2.5761	4.76						
3.5145	4.75						
4.7628	4.74						
6.4295	4.73						
9.1811	4.72						
13.0695	4.71						
18.5661	4.69						
24.8445	4.67						
35.2011	4.65						
49.8361	4.61						
70.5078	4.57						
99.7095	4.48						
140.9578	4.36						
187.5278	4.27						
237.5278	4.19						
287.5278	4.14						
337.5278	4.11						
387.5278	4.08						
437.5278	4.07						

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-3
Analysis By: A. Brey
Run Date:

Riser Pipe Diameter:	0.1666	feet
Intake Diameter:	0.35	feet
Intake Length:	9.94	feet
Saturated Column Length:	9.94	feet
Water Table Depth:	1.85	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	10	Max 34
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	1.40E+00	ft./day
Error of Fit:	0.002	



Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.03	3.47	1.62		0.482	0.450
2)	0.05	3.38	1.53		0.425	0.429
3)	0.07	3.34	1.49		0.399	0.409
4)	0.09	3.31	1.46		0.378	0.388
5)	0.11	3.27	1.42		0.351	0.365
6)	0.13	3.25	1.40		0.336	0.343
7)	0.16	3.22	1.37		0.315	0.317
8)	0.19	3.18	1.33		0.285	0.286
9)	0.22	3.14	1.29		0.255	0.249
10)	0.26	3.09	1.24		0.215	0.205
11)	0.31	3.05	1.20		0.182	0.153
12)	0.37	2.99	1.14		0.131	0.091
13)	0.44	2.94	1.09		0.086	0.018
14)	0.52	2.88	1.03		0.030	-0.066
15)	0.62	2.82	0.97		-0.030	-0.166
16)	0.74	2.76	0.91		-0.094	-0.288
17)	0.88	2.70	0.85		-0.163	-0.432
18)	1.04	2.65	0.80		-0.223	-0.605
19)	1.24	2.60	0.75		-0.288	-0.810
20)	1.47	2.54	0.69		-0.371	-1.055
21)	1.75	2.48	0.63		-0.462	-1.347
22)	2.08	2.43	0.58		-0.545	-1.693
23)	2.63	2.36	0.51		-0.673	-2.261
24)	3.32	2.30	0.45		-0.799	-2.978

25)	4.18	2.25	0.40		-0.916	-3.880
26)	5.27	2.20	0.35		-1.050	-5.015
27)	7.03	2.14	0.29		-1.238	-6.856
28)	9.39	2.08	0.23		-1.470	-9.315
29)	12.53	2.03	0.18		-1.715	-12.594
30)	16.73	1.98	0.13		-2.040	-16.969
31)	22.32	1.94	0.09		-2.408	-22.806
32)	29.79	1.91	0.06		-2.813	-30.589
33)	39.74	1.89	0.04		-3.219	-40.971
34)	53.01	1.88	0.03		-3.507	-54.819

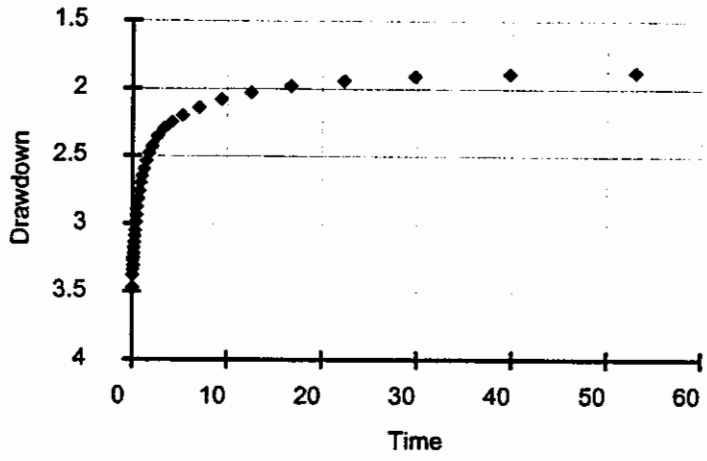
SLUG TEST DATA ENTRY FORM

Client Name: Keyspan
Project No.: 98248
Project Name: Clifton Former MGP Site

Well Number: RW-3
Topo. Elev.: 10.41' amsl
Analysis By: A. Brey

Test Type: Slug Out
Weather: Sunny, warm
Date Started: 4/1/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	11.79
Static W/L-Depth (ft.):	1.85
Riser Pipe Diameter (feet):	0.1666
Initial Test Depth Value (ft.):	3.63
TOC Elevation (feet):	9.95
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	1.5
Intake/Soil Col. Length (ft.):	9.94
Saturat. Col. Thickness (ft.):	9.94
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	0.0398
Thickness of Aquifer (feet):	



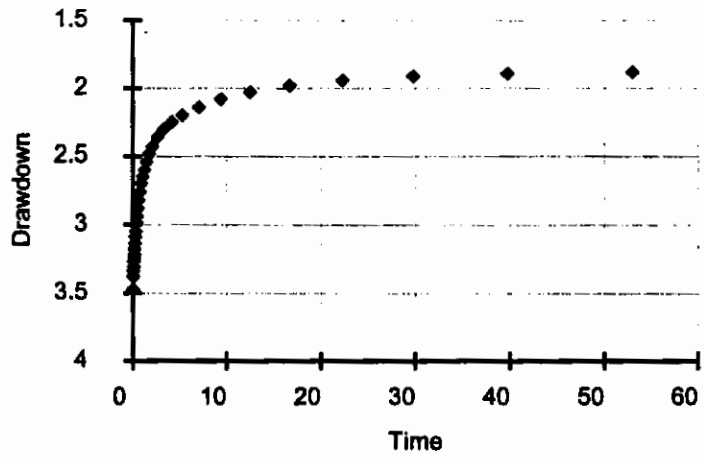
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.03	3.47						
0.05	3.38						
0.07	3.34						
0.09	3.31						
0.112	3.27						
0.1328	3.25						
0.1578	3.22						
0.1875	3.18						
0.2227	3.14						
0.2647	3.09						
0.3147	3.05						
0.3742	2.99						
0.4447	2.94						
0.5247	2.88						
0.6213	2.82						
0.738	2.76						
0.8763	2.7						
1.0413	2.65						
1.238	2.6						
1.473	2.54						
1.753	2.48						
2.0847	2.43						
2.6297	2.36						
3.3163	2.3						
4.1813	2.25						
5.2697	2.2						
7.0347	2.14						
9.3913	2.08						
12.5347	2.03						

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-3 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.41' amsl | Weather: Sunny, warm
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 4/1/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	11.79
Static W/L-Depth (ft.):	1.85
Riser Pipe Diameter (feet):	0.1666
Initial Test Depth Value (ft.):	3.63
TOC Elevation (feet):	9.95
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	1.5
Intake/Soil Col. Length (ft.):	9.94
Saturat. Col. Thickness (ft.):	9.94
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	0.0398
Thickness of Aquifer (feet):	



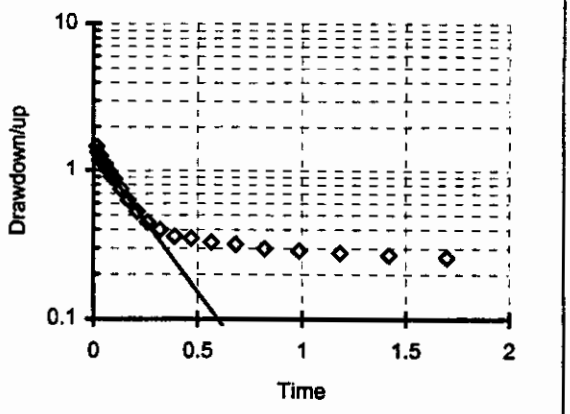
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
16.7297	1.98						
22.3247	1.94						
29.7863	1.91						
39.7397	1.89						
53.0147	1.88						

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-6
Analysis By: A. Brey
Run Date:

Riser Pipe Diameter:	0.1666	feet
Intake Diameter:	0.35	feet
Intake Length:	10.5	feet
Saturated Column Length:	9.52	feet
Water Table Depth:	2.57	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	6	Min 1 to
Line Fit Ending No.:	14	Max 30
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	5.52E+00	ft./day
Error of Fit:	0.004	



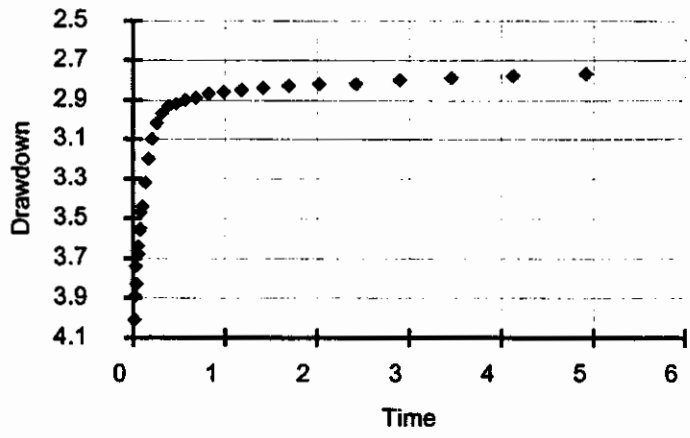
Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.02	4.01	1.44		0.365	0.231
2)	0.02	3.89	1.32		0.278	0.209
3)	0.03	3.74	1.17		0.157	0.165
4)	0.04	3.83	1.26		0.231	0.144
5)	0.06	3.68	1.11		0.104	0.044
6)	0.06	3.64	1.07		0.068	0.048
7)	0.07	3.56	0.99		-0.010	-0.010
8)	0.08	3.55	0.98		-0.020	-0.042
9)	0.09	3.47	0.90		-0.105	-0.076
10)	0.10	3.44	0.87		-0.139	-0.151
11)	0.13	3.32	0.75		-0.288	-0.280
12)	0.17	3.20	0.63		-0.462	-0.432
13)	0.21	3.10	0.53		-0.635	-0.615
14)	0.26	3.02	0.45		-0.799	-0.832
15)	0.32	2.97	0.40		-0.916	-1.090
16)	0.39	2.93	0.36		-1.022	-1.396
17)	0.47	2.92	0.35		-1.050	-1.744
18)	0.57	2.90	0.33		-1.109	-2.163
19)	0.68	2.89	0.32		-1.139	-2.670
20)	0.82	2.87	0.30		-1.204	-3.271
21)	0.99	2.86	0.29		-1.238	-3.987
22)	1.18	2.85	0.28		-1.273	-4.841
23)	1.42	2.84	0.27		-1.309	-5.862
24)	1.70	2.83	0.26		-1.347	-7.078

25)	2.03	2.82	0.25		-1.386	-10.282
26)	2.43	2.82	0.25		-1.386	-12.366
27)	2.90	2.80	0.23		-1.470	-14.845
28)	3.46	2.79	0.22		-1.514	-17.797
29)	4.13	2.78	0.21		-1.561	-21.300
30)	4.92	2.77	0.20		-1.609	-25.461

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-6 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 11.72' amsl | Weather: Sunny, warm
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 4/1/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	12.09
Static W/L-Depth (ft.):	2.57
Riser Pipe Diameter (feet):	0.1666
Initial Test Depth Value (ft.):	4.24
TOC Elevation (feet):	11.14
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	0.5
Intake/Soil Col. Length (ft.):	9.52
Saturat. Col. Thickness (ft.):	9.52
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	0.041
Thickness of Aquifer (feet):	40



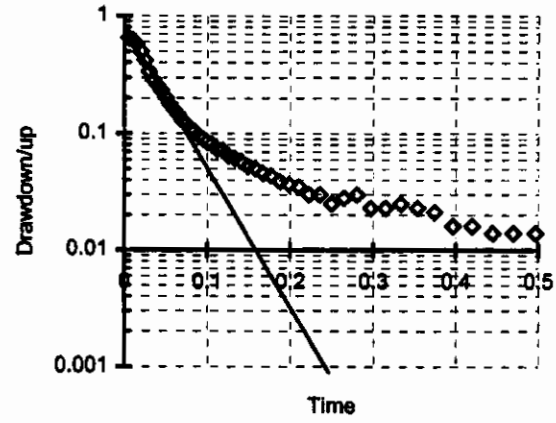
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.015	4.01						
0.02	3.89						
0.03	3.74						
0.035	3.83						
0.058	3.68						
0.057	3.64						
0.0705	3.56						
0.0778	3.55						
0.0857	3.47						
0.1028	3.44						
0.1325	3.32						
0.1677	3.2						
0.2097	3.1						
0.2597	3.02						
0.3192	2.97						
0.3897	2.93						
0.4697	2.92						
0.5663	2.9						
0.683	2.89						
0.8213	2.87						
0.9863	2.86						
1.183	2.85						
1.418	2.84						
1.698	2.83						
2.0297	2.82						
2.4263	2.82						
2.898	2.8						
3.4597	2.79						
4.1263	2.78						

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-08
Analysis By: A. Brey
Run Date: 10/5/99 First Run

Riser Pipe Diameter:	0.16666	feet
Intake Diameter:	0.35	feet
Intake Length:	17	feet
Saturated Column Length:	17	feet
Water Table Depth:	2.8	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	12	Max 77
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	2.54E+01	ft./day
Error of Fit:	0.030	



Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.01	3.45	0.65		-0.437	-0.351
2)	0.01	3.43	0.63		-0.465	-0.490
3)	0.02	3.38	0.58		-0.546	-0.628
4)	0.02	3.30	0.50		-0.697	-0.766
5)	0.03	3.22	0.42		-0.872	-0.904
6)	0.03	3.14	0.34		-1.094	-1.043
7)	0.04	3.09	0.29		-1.252	-1.181
8)	0.04	3.06	0.26		-1.355	-1.319
9)	0.05	3.03	0.23		-1.465	-1.458
10)	0.05	3.00	0.20		-1.595	-1.596
11)	0.06	2.98	0.18		-1.726	-1.734
12)	0.06	2.96	0.16		-1.839	-1.873
13)	0.07	2.95	0.15		-1.931	-2.011
14)	0.07	2.93	0.13		-2.048	-2.149
15)	0.08	2.92	0.12		-2.120	-2.287
16)	0.08	2.91	0.11		-2.216	-2.426
17)	0.09	2.90	0.10		-2.263	-2.564
18)	0.09	2.90	0.10		-2.354	-2.702
19)	0.10	2.89	0.09		-2.408	-2.841
20)	0.10	2.89	0.09		-2.465	-2.979
21)	0.11	2.88	0.08		-2.513	-3.139
22)	0.11	2.87	0.07		-2.604	-3.311
23)	0.12	2.87	0.07		-2.631	-3.491
24)	0.13	2.87	0.07		-2.733	-3.684

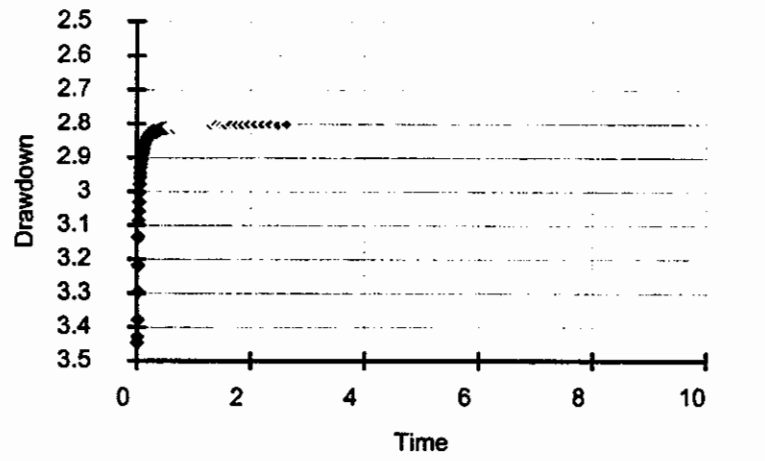
25)	0.13	2.86	0.06		-2.781	-3.886
26)	0.14	2.86	0.06		-2.847	-4.105
27)	0.15	2.85	0.05		-2.937	-4.334
28)	0.16	2.85	0.05		-2.976	-4.577
29)	0.17	2.85	0.05		-3.079	-4.837
30)	0.18	2.84	0.04		-3.124	-5.108
31)	0.19	2.84	0.04		-3.244	-5.399
32)	0.20	2.84	0.04		-3.297	-5.703
33)	0.21	2.84	0.04		-3.352	-6.027
34)	0.22	2.83	0.03		-3.507	-6.372
35)	0.24	2.83	0.03		-3.507	-6.735
36)	0.25	2.83	0.03		-3.689	-7.122
37)	0.26	2.83	0.03		-3.576	-7.534
38)	0.28	2.83	0.03		-3.507	-7.966
39)	0.30	2.82	0.02		-3.772	-8.427
40)	0.31	2.82	0.02		-3.772	-8.917
41)	0.33	2.83	0.03		-3.689	-9.431
42)	0.35	2.82	0.02		-3.772	-9.982
43)	0.37	2.82	0.02		-3.863	-10.563
44)	0.40	2.82	0.02		-4.135	-11.174
45)	0.42	2.82	0.02		-4.135	-11.824
46)	0.44	2.81	0.01		-4.269	-12.513
47)	0.47	2.81	0.01		-4.269	-13.204
48)	0.50	2.81	0.01		-4.269	-13.940
49)	0.52	2.81	0.01		-4.423	-14.725
50)	0.55	2.81	0.01		-4.423	-15.555
51)	0.59	2.81	0.01		-4.711	-16.429
52)	0.62	2.81	0.01		-4.711	-17.397
53)	0.66	2.82	0.02		-3.963	-18.412
54)	0.70	2.81	0.01		-4.711	-19.471
55)	0.74	2.81	0.01		-5.298	-20.625
56)	0.78	2.81	0.01		-5.298	-21.822
57)	0.83	2.81	0.01		-4.711	-23.114
58)	0.88	2.81	0.01		-4.962	-24.450
59)	0.93	2.81	0.01		-4.962	-25.880
60)	0.98	2.81	0.01		-4.962	-27.401
61)	1.04	2.81	0.01		-4.962	-29.013
62)	1.10	2.81	0.01		-5.298	-30.720
63)	1.17	2.81	0.01		-5.298	-32.518
64)	1.24	2.81	0.01		-5.298	-34.454
65)	1.31	2.81	0.01		-5.298	-36.481

66)	1.39	2.80	0.00		-6.215	-38.649
67)	1.47	2.81	0.01		-5.298	-40.953
68)	1.56	2.81	0.01		-5.298	-43.395
69)	1.65	2.80	0.00		-6.215	-45.979
70)	1.75	2.81	0.01		-5.298	-48.698
71)	1.86	2.81	0.01		-5.298	-51.602
72)	1.97	2.80	0.00		-6.215	-54.644
73)	2.08	2.80	0.00		-6.215	-57.872
74)	2.21	2.80	0.00		-6.215	-61.329
75)	2.34	2.80	0.00		-6.215	-64.969
76)	2.48	2.81	0.01		-5.298	-68.841
77)	2.63	2.80	0.00		-6.215	-72.945

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-08 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.93' amsl | Weather: Cloudy, Overcast
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 10/5/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	
Static W/L-Depth (ft.):	2.8
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	3.702
TOC Elevation (feet):	10.78
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	2.85
Intake/Soil Col. Length (ft.):	17
Saturat. Col. Thickness (ft.):	17
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



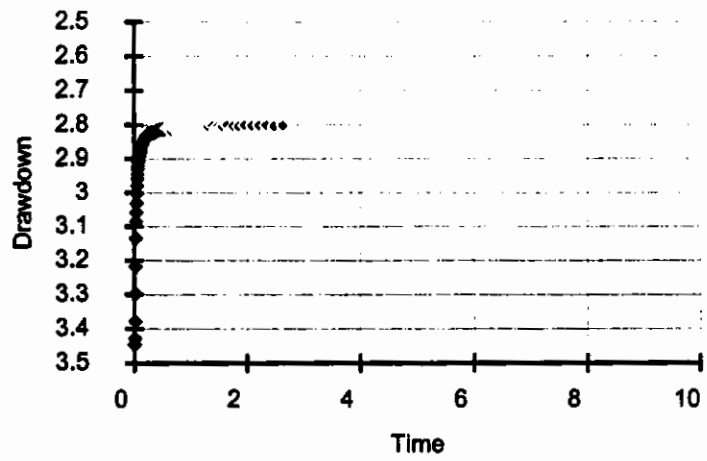
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.005	3.446	0.5863	2.809				
0.01	3.428	0.6213	2.809				
0.015	3.379	0.658	2.819				
0.02	3.298	0.6963	2.809				
0.025	3.218	0.738	2.805				
0.03	3.135	0.7813	2.805				
0.035	3.086	0.828	2.809				
0.04	3.058	0.8763	2.807				
0.045	3.031	0.928	2.807				
0.05	3.003	0.983	2.807				
0.055	2.978	1.0413	2.807				
0.06	2.959	1.103	2.805				
0.065	2.945	1.168	2.805				
0.07	2.929	1.238	2.805				
0.075	2.92	1.3113	2.805				
0.08	2.909	1.3897	2.802				
0.085	2.904	1.473	2.805				
0.09	2.895	1.5613	2.805				
0.095	2.89	1.6547	2.802				
0.1	2.885	1.753	2.805				
0.1058	2.881	1.858	2.805				
0.112	2.874	1.968	2.802				
0.1185	2.872	2.0847	2.802				
0.1255	2.865	2.2097	2.802				
0.1328	2.862	2.3413	2.802				
0.1407	2.858	2.4813	2.805				
0.149	2.853	2.6297	2.802				
0.1578	2.851						
0.1672	2.846						

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-08 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.93' amsl | Weather: Cloudy, Overcast
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 10/5/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	
Static W/L-Depth (ft.):	2.8
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	3.702
TOC Elevation (feet):	10.78
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	2.85
Intake/Soil Col. Length (ft.):	17
Saturat. Col. Thickness (ft.):	17
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



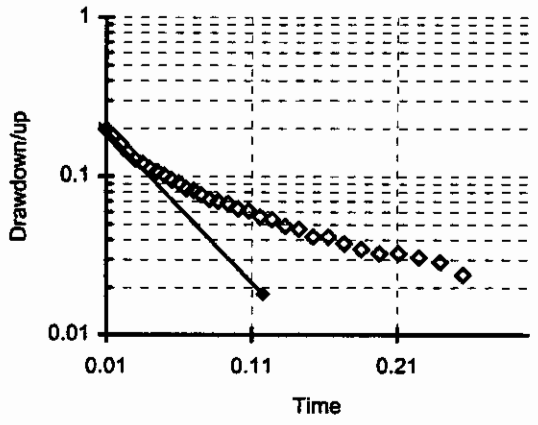
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.177	2.844						
0.1875	2.839						
0.1985	2.837						
0.2102	2.835						
0.2227	2.83						
0.2358	2.83						
0.2498	2.825						
0.2647	2.828						
0.2803	2.83						
0.297	2.823						
0.3147	2.823						
0.3333	2.825						
0.3532	2.823						
0.3742	2.821						
0.3963	2.816						
0.4198	2.816						
0.4447	2.814						
0.4697	2.814						
0.4963	2.814						
0.5247	2.812						
0.5547	2.812						

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-08
Analysis By: A. Brey
Run Date: 10/5/99 Second Run

Riser Pipe Diameter:	0.16666	feet
Intake Diameter:	0.35	feet
Intake Length:	17	feet
Saturated Column Length:	17	feet
Water Table Depth:	2.8	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	1	Min 1 to
Line Fit Ending No.:	10	Max 33
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	2.01E+01	ft./day
Error of Fit:	0.120	



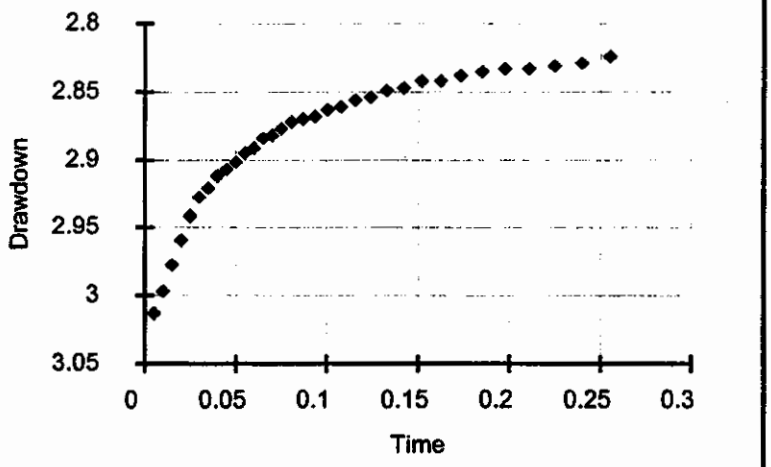
Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.01	3.01	0.21		-1.546	-1.543
2)	0.01	3.00	0.20		-1.625	-1.652
3)	0.02	2.98	0.18		-1.726	-1.761
4)	0.02	2.96	0.16		-1.833	-1.871
5)	0.03	2.94	0.14		-1.952	-1.980
6)	0.03	2.93	0.13		-2.056	-2.089
7)	0.04	2.92	0.12		-2.112	-2.199
8)	0.04	2.91	0.11		-2.189	-2.308
9)	0.05	2.91	0.11		-2.235	-2.417
10)	0.05	2.90	0.10		-2.283	-2.526
11)	0.06	2.90	0.10		-2.354	-2.636
12)	0.06	2.89	0.09		-2.397	-2.745
13)	0.07	2.88	0.08		-2.477	-2.854
14)	0.07	2.88	0.08		-2.501	-2.964
15)	0.08	2.88	0.08		-2.564	-3.073
16)	0.08	2.87	0.07		-2.631	-3.200
17)	0.09	2.87	0.07		-2.659	-3.335
18)	0.09	2.87	0.07		-2.688	-3.477
19)	0.10	2.86	0.06		-2.765	-3.630
20)	0.11	2.86	0.06		-2.797	-3.790
21)	0.12	2.86	0.06		-2.882	-3.963
22)	0.12	2.85	0.05		-2.919	-4.144
23)	0.13	2.85	0.05		-3.016	-4.337
24)	0.14	2.85	0.05		-3.058	-4.542

25)	0.15	2.84	0.04		-3.170	-4.756
26)	0.16	2.84	0.04		-3.170	-4.986
27)	0.17	2.84	0.04		-3.270	-5.226
28)	0.19	2.84	0.04		-3.352	-5.482
29)	0.20	2.83	0.03		-3.411	-5.755
30)	0.21	2.83	0.03		-3.411	-6.042
31)	0.22	2.83	0.03		-3.474	-6.348
32)	0.24	2.83	0.03		-3.540	-6.674
33)	0.26	2.82	0.02		-3.730	-7.015

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-08 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.93' amsl | Weather: Cloudy, Overcast
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 10/5/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	
Static W/L-Depth (ft.):	2.8
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	3.02
TOC Elevation (feet):	10.78
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	2.85
Intake/Soil Col. Length (ft.):	17
Saturat. Col. Thickness (ft.):	17
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



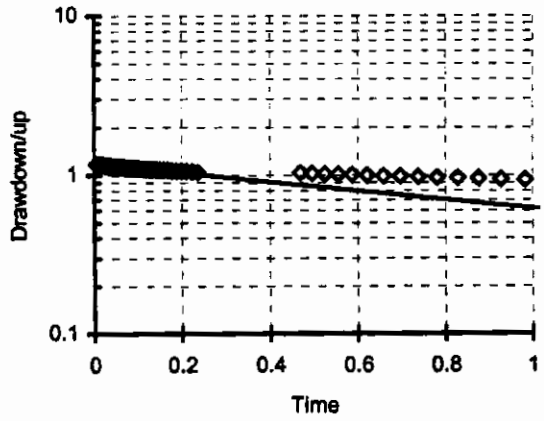
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.005	3.013						
0.01	2.997						
0.015	2.978						
0.02	2.96						
0.025	2.942						
0.03	2.928						
0.035	2.921						
0.04	2.912						
0.045	2.907						
0.05	2.902						
0.055	2.895						
0.06	2.891						
0.065	2.884						
0.07	2.882						
0.075	2.877						
0.0808	2.872						
0.087	2.87						
0.0935	2.868						
0.1005	2.863						
0.1078	2.861						
0.1157	2.856						
0.124	2.854						
0.1328	2.849						
0.1422	2.847						
0.152	2.842						
0.1625	2.842						
0.1735	2.838						
0.1852	2.835						
0.1977	2.833						
0.2108	2.833						
0.2248	2.831						
0.2397	2.829						
0.2553	2.824						

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-12
Analysis By: A. Brey
Run Date:

Riser Pipe Diameter:	0.16666	feet
Intake Diameter:	0.35	feet
Intake Length:	13.5	feet
Saturated Column Length:	13.5	feet
Water Table Depth:	1.51	feet
Aquifer Thickness:	30	feet
Line Fit Starting No.:	5	Min 1 to
Line Fit Ending No.:	20	Max 100
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	7.04E-01	ft./day
Error of Fit:	0.000	



Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.01	2.69	1.18		0.164	0.160
2)	0.01	2.69	1.18		0.166	0.157
3)	0.02	2.69	1.18		0.161	0.154
4)	0.02	2.68	1.17		0.156	0.150
5)	0.03	2.67	1.16		0.150	0.147
6)	0.03	2.67	1.16		0.146	0.144
7)	0.04	2.66	1.15		0.141	0.141
8)	0.04	2.66	1.15		0.135	0.138
9)	0.05	2.65	1.14		0.134	0.134
10)	0.05	2.65	1.14		0.132	0.131
11)	0.06	2.64	1.13		0.126	0.128
12)	0.06	2.64	1.13		0.124	0.125
13)	0.07	2.64	1.13		0.120	0.122
14)	0.07	2.64	1.13		0.118	0.118
15)	0.08	2.63	1.12		0.115	0.115
16)	0.08	2.63	1.12		0.112	0.112
17)	0.09	2.63	1.12		0.109	0.109
18)	0.09	2.62	1.11		0.107	0.106
19)	0.10	2.62	1.11		0.103	0.102
20)	0.10	2.62	1.11		0.101	0.099
21)	0.11	2.61	1.10		0.099	0.096
22)	0.11	2.61	1.10		0.097	0.092
23)	0.12	2.61	1.10		0.094	0.087
24)	0.13	2.61	1.10		0.093	0.083

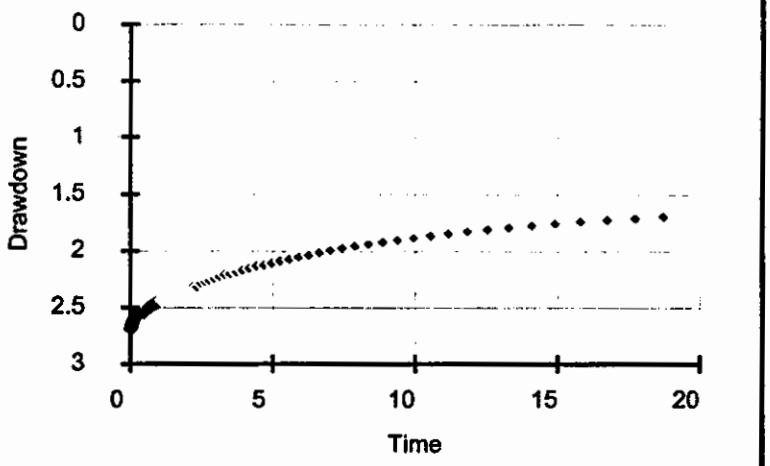
25)	0.13	2.60	1.09		0.088	0.078
26)	0.14	2.60	1.09		0.086	0.073
27)	0.15	2.59	1.08		0.078	0.068
28)	0.16	2.59	1.08		0.080	0.062
29)	0.17	2.59	1.08		0.078	0.056
30)	0.18	2.58	1.07		0.071	0.050
31)	0.19	2.58	1.07		0.067	0.043
32)	0.20	2.58	1.07		0.063	0.036
33)	0.21	2.57	1.06		0.058	0.029
34)	0.22	2.57	1.06		0.056	0.021
35)	0.24	2.55	1.04		0.043	0.012
36)	0.47	2.55	1.04		0.036	-0.137
37)	0.50	2.54	1.03		0.030	-0.154
38)	0.52	2.53	1.02		0.021	-0.173
39)	0.55	2.52	1.01		0.014	-0.192
40)	0.59	2.52	1.01		0.009	-0.212
41)	0.62	2.51	1.00		-0.002	-0.234
42)	0.66	2.50	0.99		-0.009	-0.258
43)	0.70	2.49	0.98		-0.016	-0.282
44)	0.74	2.49	0.98		-0.023	-0.309
45)	0.78	2.48	0.97		-0.033	-0.337
46)	0.83	2.47	0.96		-0.038	-0.367
47)	0.88	2.47	0.96		-0.045	-0.398
48)	0.93	2.46	0.95		-0.054	-0.431
49)	0.98	2.45	0.94		-0.064	-0.466
50)	1.04	2.44	0.93		-0.074	-0.503
51)	1.10	2.43	0.92		-0.081	-0.543
52)	1.17	2.42	0.91		-0.092	-0.584
53)	1.24	2.41	0.90		-0.102	-0.629
54)	1.31	2.40	0.89		-0.112	-0.676
55)	1.39	2.40	0.89		-0.122	-0.726
56)	1.47	2.39	0.88		-0.132	-0.780
57)	1.56	2.38	0.87		-0.144	-0.836
58)	1.65	2.37	0.86		-0.157	-0.896
59)	1.75	2.35	0.84		-0.171	-0.959
60)	1.86	2.34	0.83		-0.184	-1.026
61)	1.97	2.33	0.82		-0.198	-1.097
62)	2.08	2.32	0.81		-0.209	-1.171
63)	2.21	2.31	0.80		-0.221	-1.251
64)	2.34	2.32	0.81		-0.209	-1.336
65)	2.48	2.28	0.77		-0.256	-1.425

66)	2.63	2.27	0.76		-0.274	-1.520
67)	2.79	2.26	0.75		-0.286	-1.620
68)	2.95	2.24	0.73		-0.311	-1.727
69)	3.13	2.23	0.72		-0.334	-1.840
70)	3.32	2.21	0.70		-0.357	-1.960
71)	3.51	2.20	0.69		-0.370	-2.087
72)	3.72	2.19	0.68		-0.390	-2.221
73)	3.95	2.17	0.66		-0.414	-2.363
74)	4.18	2.16	0.65		-0.439	-2.514
75)	4.43	2.14	0.63		-0.468	-2.673
76)	4.69	2.12	0.61		-0.489	-2.841
77)	4.97	2.11	0.60		-0.518	-3.020
78)	5.27	2.09	0.58		-0.548	-3.210
79)	5.58	2.07	0.56		-0.580	-3.411
80)	5.91	2.05	0.54		-0.614	-3.623
81)	6.27	2.03	0.52		-0.648	-3.848
82)	6.64	2.01	0.50		-0.685	-4.087
83)	7.03	1.99	0.48		-0.728	-4.340
84)	7.45	1.98	0.47		-0.766	-4.608
85)	7.90	1.96	0.45		-0.801	-4.892
86)	8.37	1.94	0.43		-0.849	-5.193
87)	8.86	1.92	0.41		-0.887	-5.512
88)	9.39	1.90	0.39		-0.934	-5.849
89)	9.95	1.88	0.37		-0.986	-6.206
90)	10.54	1.86	0.35		-1.038	-6.585
91)	11.17	1.85	0.34		-1.091	-6.986
92)	11.83	1.83	0.32		-1.155	-7.411
93)	12.53	1.81	0.30		-1.207	-7.861
94)	13.28	1.79	0.28		-1.273	-8.338
95)	14.07	1.77	0.26		-1.339	-8.844
96)	14.91	1.75	0.24		-1.411	-9.379
97)	15.79	1.74	0.23		-1.492	-9.946
98)	16.73	1.72	0.21		-1.556	-10.547
99)	17.72	1.71	0.20		-1.635	-11.183
100)	18.72	1.69	0.18		-1.720	-11.823

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-12 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.56 | Weather:
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 10/8/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	
Static W/L-Depth (ft.):	1.51
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	2.78
TOC Elevation (feet):	10.4
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	4.34
Intake/Soil Col. Length (ft.):	13.5
Saturat. Col. Thickness (ft.):	13.5
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



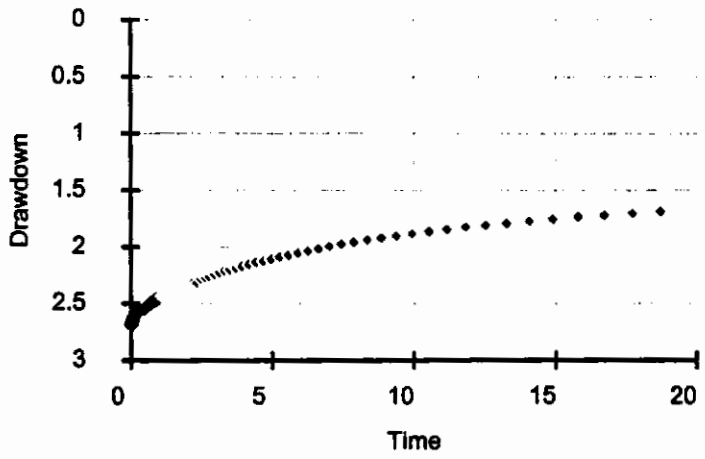
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.005	2.688	1.103	2.432				
0.01	2.69	1.168	2.422				
0.015	2.685	1.238	2.413				
0.02	2.679	1.3113	2.404				
0.025	2.672	1.3897	2.395				
0.03	2.667	1.473	2.386				
0.035	2.662	1.5613	2.376				
0.04	2.655	1.6547	2.365				
0.045	2.653	1.753	2.353				
0.05	2.651	1.858	2.342				
0.055	2.644	1.968	2.33				
0.06	2.642	2.0847	2.321				
0.065	2.637	2.2097	2.312				
0.07	2.635	2.3413	2.321				
0.075	2.632	2.4813	2.284				
0.08	2.628	2.6297	2.27				
0.085	2.625	2.7863	2.261				
0.09	2.623	2.953	2.243				
0.095	2.619	3.1297	2.226				
0.1	2.616	3.3163	2.21				
0.1058	2.614	3.5147	2.201				
0.112	2.612	3.7247	2.187				
0.1185	2.609	3.9463	2.171				
0.1255	2.607	4.1813	2.155				
0.1328	2.602	4.4297	2.136				
0.1407	2.6	4.693	2.123				
0.149	2.591	4.973	2.106				
0.1578	2.593	5.2697	2.088				
0.1672	2.591	5.583	2.07				

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-12 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 10.56 | Weather:
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 10/8/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	
Static W/L-Depth (ft.):	1.51
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	2.78
TOC Elevation (feet):	10.4
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	4.34
Intake/Soil Col. Length (ft.):	13.5
Saturat. Col. Thickness (ft.):	13.5
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



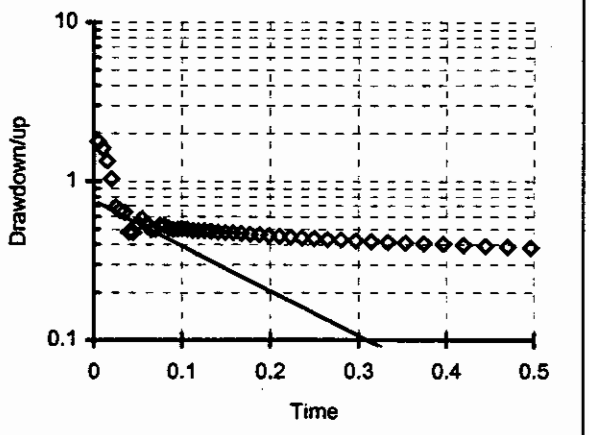
AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.177	2.584	5.9147	2.051				
0.1875	2.579	6.2663	2.033				
0.1985	2.575	6.6397	2.014				
0.2102	2.57	7.0347	1.993				
0.2227	2.568	7.453	1.975				
0.2358	2.554	7.8963	1.959				
0.4697	2.547	8.3663	1.938				
0.4963	2.54	8.8647	1.922				
0.5247	2.531	9.3913	1.903				
0.5547	2.524	9.9497	1.883				
0.5863	2.519	10.5413	1.864				
0.6213	2.508	11.168	1.846				
0.658	2.501	11.8313	1.825				
0.6963	2.494	12.5347	1.809				
0.738	2.487	13.2797	1.79				
0.7813	2.478	14.0697	1.772				
0.828	2.473	14.9063	1.754				
0.8763	2.466	15.7913	1.735				
0.928	2.457	16.7297	1.721				
0.983	2.448	17.723	1.705				
1.0413	2.439	18.723	1.689				

Bouwer & Rice Method for Calculating Hydraulic Conductivity

Project Name: Clifton Former MGP Site
Project No.: 98248
Client Name: Keyspan
Identification: RW-13
Analysis By: A. Brey
Run Date:

Riser Pipe Diameter:	0.16666	feet
Intake Diameter:	0.35	feet
Intake Length:	11	feet
Saturated Column Length:	11	feet
Water Table Depth:	2.06	feet
Aquifer Thickness:	40	feet
Line Fit Starting No.:	5	Min 1 to
Line Fit Ending No.:	12	Max 88
Specify Output Units:	3	1 to 9
Hyd. Cond., K(h):	8.19E+00	ft./day
Error of Fit:	0.093	



Meas. #	Time minutes	Field Meas. feet	Drawdown/up feet		Line Fit To LN(Yt)	Regression On LN(Yt)
1)	0.01	3.82	1.76		0.562	-0.316
2)	0.01	3.67	1.61		0.474	-0.348
3)	0.02	3.40	1.34		0.296	-0.381
4)	0.02	3.10	1.04		0.036	-0.413
5)	0.03	2.75	0.69		-0.373	-0.446
6)	0.03	2.72	0.66		-0.420	-0.479
7)	0.04	2.70	0.64		-0.449	-0.511
8)	0.04	2.54	0.48		-0.736	-0.544
9)	0.05	2.53	0.47		-0.747	-0.577
10)	0.05	2.60	0.54		-0.609	-0.609
11)	0.06	2.64	0.58		-0.540	-0.642
12)	0.06	2.60	0.54		-0.609	-0.674
13)	0.07	2.56	0.50		-0.697	-0.707
14)	0.07	2.56	0.50		-0.693	-0.740
15)	0.08	2.59	0.53		-0.639	-0.772
16)	0.08	2.59	0.53		-0.639	-0.805
17)	0.09	2.57	0.51		-0.675	-0.838
18)	0.09	2.56	0.50		-0.703	-0.870
19)	0.10	2.56	0.50		-0.693	-0.903
20)	0.10	2.56	0.50		-0.685	-0.935
21)	0.11	2.56	0.50		-0.693	-0.973
22)	0.11	2.55	0.49		-0.711	-1.014
23)	0.12	2.55	0.49		-0.717	-1.056
24)	0.13	2.55	0.49		-0.717	-1.102

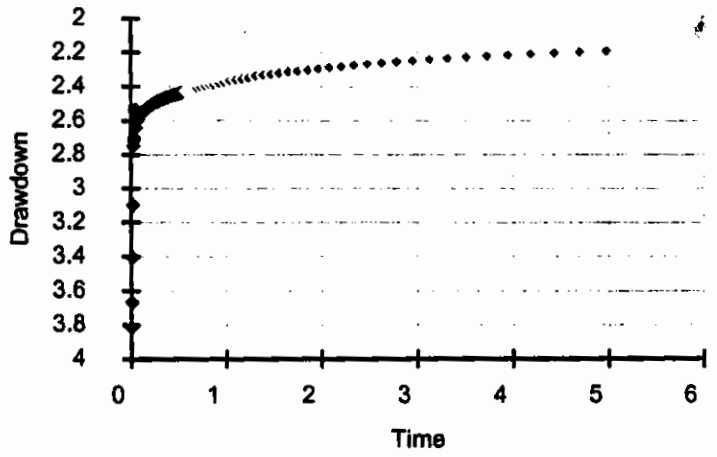
25)	0.13	2.55	0.49		-0.722	-1.149
26)	0.14	2.54	0.48		-0.736	-1.201
27)	0.15	2.54	0.48		-0.740	-1.255
28)	0.16	2.53	0.47		-0.747	-1.312
29)	0.17	2.53	0.47		-0.755	-1.374
30)	0.18	2.53	0.47		-0.766	-1.438
31)	0.19	2.52	0.46		-0.774	-1.506
32)	0.20	2.52	0.46		-0.785	-1.578
33)	0.21	2.51	0.45		-0.796	-1.654
34)	0.22	2.51	0.45		-0.805	-1.736
35)	0.24	2.50	0.44		-0.816	-1.821
36)	0.25	2.50	0.44		-0.826	-1.913
37)	0.26	2.49	0.43		-0.842	-2.010
38)	0.28	2.49	0.43		-0.849	-2.112
39)	0.30	2.48	0.42		-0.858	-2.221
40)	0.31	2.48	0.42		-0.870	-2.336
41)	0.33	2.47	0.41		-0.882	-2.457
42)	0.35	2.47	0.41		-0.892	-2.587
43)	0.37	2.47	0.41		-0.904	-2.724
44)	0.40	2.46	0.40		-0.909	-2.869
45)	0.42	2.46	0.40		-0.926	-3.022
46)	0.44	2.45	0.39		-0.939	-3.184
47)	0.47	2.45	0.39		-0.949	-3.347
48)	0.50	2.44	0.38		-0.962	-3.521
49)	0.52	2.44	0.38		-0.973	-3.706
50)	0.55	2.43	0.37		-0.992	-3.902
51)	0.59	2.43	0.37		-1.005	-4.108
52)	0.62	2.42	0.36		-1.024	-4.336
53)	0.66	2.42	0.36		-1.036	-4.576
54)	0.70	2.41	0.35		-1.050	-4.826
55)	0.74	2.40	0.34		-1.070	-5.098
56)	0.78	2.40	0.34		-1.085	-5.380
57)	0.83	2.39	0.33		-1.106	-5.685
58)	0.88	2.39	0.33		-1.112	-6.000
59)	0.93	2.38	0.32		-1.133	-6.337
60)	0.98	2.38	0.32		-1.155	-6.696
61)	1.04	2.37	0.31		-1.178	-7.077
62)	1.10	2.36	0.30		-1.201	-7.479
63)	1.17	2.36	0.30		-1.221	-7.903
64)	1.24	2.35	0.29		-1.245	-8.360
65)	1.31	2.34	0.28		-1.280	-8.838

66)	1.39	2.33	0.27		-1.295	-9.350
67)	1.47	2.33	0.27		-1.321	-9.893
68)	1.56	2.32	0.26		-1.347	-10.469
69)	1.65	2.31	0.25		-1.374	-11.079
70)	1.75	2.31	0.25		-1.394	-11.720
71)	1.86	2.30	0.24		-1.423	-12.405
72)	1.97	2.30	0.24		-1.448	-13.123
73)	2.08	2.29	0.23		-1.478	-13.884
74)	2.21	2.28	0.22		-1.501	-14.700
75)	2.34	2.27	0.21		-1.542	-15.558
76)	2.48	2.27	0.21		-1.575	-16.472
77)	2.63	2.26	0.20		-1.599	-17.440
78)	2.79	2.26	0.20		-1.635	-18.461
79)	2.95	2.25	0.19		-1.671	-19.549
80)	3.13	2.24	0.18		-1.720	-20.702
81)	3.32	2.24	0.18		-1.743	-21.919
82)	3.51	2.23	0.17		-1.784	-23.214
83)	3.72	2.22	0.16		-1.814	-24.584
84)	3.95	2.22	0.16		-1.858	-26.030
85)	4.18	2.21	0.15		-1.904	-27.563
86)	4.43	2.21	0.15		-1.931	-29.183
87)	4.69	2.20	0.14		-1.981	-30.901
88)	4.97	2.19	0.13		-2.017	-32.728

SLUG TEST DATA ENTRY FORM

Client Name: Keyspan | Well Number: RW-13 | Test Type: Slug Out
Project No.: 98248 | Topo. Elev.: 9.06' amsl | Weather:
Project Name: Clifton Former MGP Site | Analysis By: A. Brey | Date Started: 10/7/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	4.16
Static W/L-Depth (ft.):	2.06
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	3.9
TOC Elevation (feet):	8.84
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	1.78
Intake/Soil Col. Length (ft.):	11
Saturat. Col. Thickness (ft.):	11
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.005	3.815	0.5863	2.426				
0.01	3.667	0.6213	2.419				
0.015	3.404	0.658	2.415				
0.02	3.097	0.6963	2.41				
0.025	2.749	0.738	2.403				
0.03	2.717	0.7813	2.398				
0.035	2.698	0.828	2.391				
0.04	2.539	0.8763	2.389				
0.045	2.534	0.928	2.382				
0.05	2.604	0.983	2.375				
0.055	2.643	1.0413	2.368				
0.06	2.604	1.103	2.361				
0.065	2.558	1.168	2.355				
0.07	2.56	1.238	2.348				
0.075	2.588	1.3113	2.338				
0.08	2.588	1.3897	2.334				
0.085	2.569	1.473	2.327				
0.09	2.555	1.5613	2.32				
0.095	2.56	1.6547	2.313				
0.1	2.564	1.753	2.308				
0.1058	2.56	1.858	2.301				
0.112	2.551	1.968	2.295				
0.1185	2.548	2.0847	2.288				
0.1255	2.548	2.2097	2.283				
0.1328	2.546	2.3413	2.274				
0.1407	2.539	2.4813	2.267				
0.149	2.537	2.6297	2.262				
0.1578	2.534	2.7863	2.255				
0.1672	2.53	2.953	2.248				

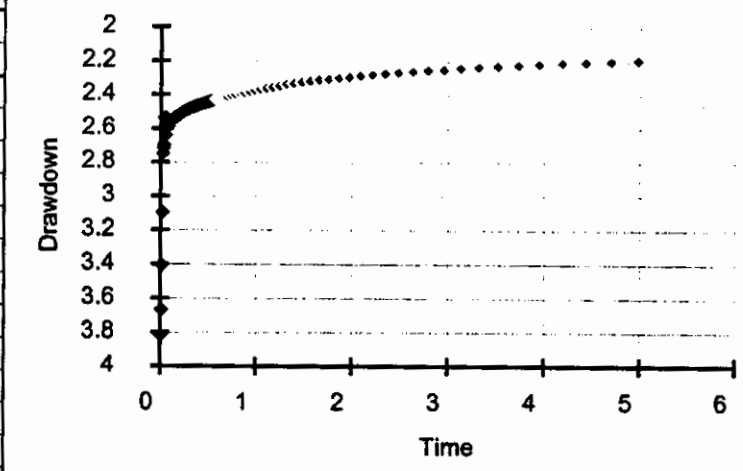
SLUG TEST DATA ENTRY FORM

Client Name: Keyspan
Project No.: 98248
Project Name: Clifton Former MGP Site

Well Number: RW-13
Topo. Elev.: 9.06' amsl
Analysis By: A. Brey

Test Type: Slug Out
Weather:
Date Started: 10/7/99

BASIC TEST DATA	
Measurement Units (1-6):	2
Unconfined(1)/Confined(2):	1
Well Depth - TOC (feet):	4.16
Static W/L-Depth (ft.):	2.06
Riser Pipe Diameter (feet):	0.16666
Initial Test Depth Value (ft.):	3.9
TOC Elevation (feet):	8.84
Intake/Soil Col. Diam. (feet):	0.35
Depth to Top of Pack (feet):	1.78
Intake/Soil Col. Length (ft.):	11
Saturat. Col. Thickness (ft.):	11
Casing Soil Length (if appl.):	
Casing Stickup (feet):	
Slug Volume (ft^3):	
Thickness of Aquifer (feet):	40



AQUIFER RECOVERY DATA

Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)	Time (min)	Depth (ft.)
0.177	2.525	3.1297	2.239				
0.1875	2.521	3.3163	2.235				
0.1985	2.516	3.5147	2.228				
0.2102	2.511	3.7247	2.223				
0.2227	2.507	3.9463	2.216				
0.2358	2.502	4.1813	2.209				
0.2498	2.498	4.4297	2.205				
0.2647	2.491	4.693	2.198				
0.2803	2.488	4.973	2.193				
0.297	2.484						
0.3147	2.479						
0.3333	2.474						
0.3532	2.47						
0.3742	2.465						
0.3963	2.463						
0.4198	2.456						
0.4447	2.451						
0.4697	2.447						
0.4963	2.442						
0.5247	2.438						
0.5547	2.431						

RW-15 Pump Test Calculations

Theis Recovery: $T = 2.3Q_{avg} / 4\pi\Delta S$

where: T = transmissivity (ft^2/day)
Q_{avg} = pumping rate (ft^3/day)
ΔS = change in residual drawdown (ft)

Semi-Logarithmic Plot of Residual Drawdown Versus t/t'

where: t = pumping time + recovery time
t' = recovery time

draw straight line through points and calculate change in residual drawdown

Pumping time = 111.7 min

Q_{avg} = $\frac{(5700 \text{ mL/min}) + (4050 \text{ mL/min}) + (4200 \text{ mL/min})}{3} = 4650 \text{ mL/min} = 0.164 \text{ ft}^3/\text{min}$

t_1 = t/t' = 10 (t' = 12 min)
t_2 = t/t' = 30 (t' = 3.8 min)
s_1 = 4 ft
s_2 = 10.6 ft
ΔS = $s_2 - s_1$ = (10.6 – 4)ft = 6.6 ft

$T = (2.3Q_{avg} / 4\pi\Delta S) \times (\log t_2 / t_1)$

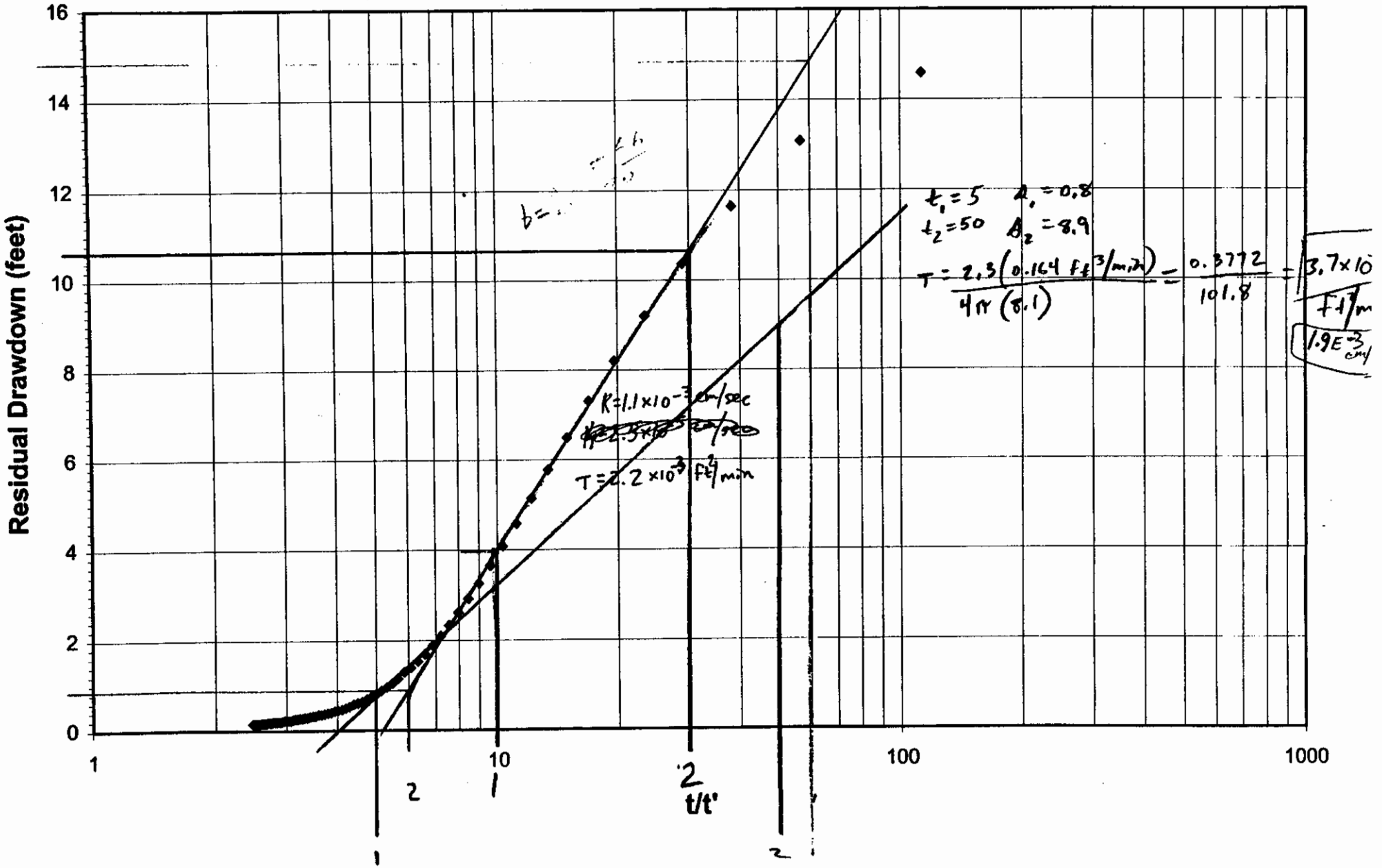
$= [(2.3)(0.164 \text{ ft}^3/\text{min})/(4\pi(6.6 \text{ ft}))] \times 0.477$

$= 2.17 \times 10^{-03} \text{ ft}^2/\text{min}$

$T = Km$
assume m = 31.5 ft = aquifer thickness

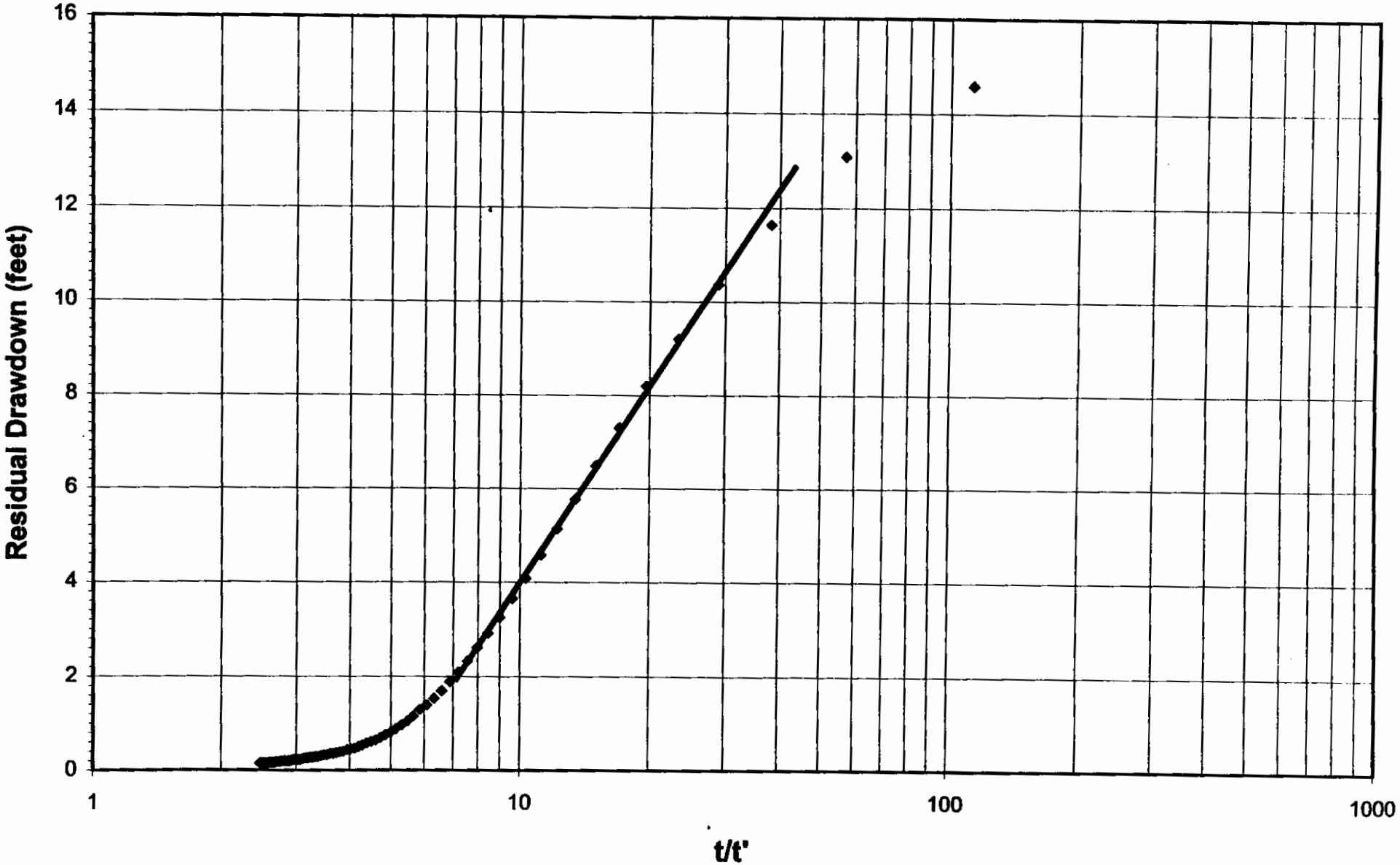
$K = 6.9 \times 10^{-05}$ ft/min = 3.5×10^{-05} cm/sec

RW-15 Recovery Data



Keyspan-Clifton Pumptest

RW-15 Recovery Data



Appendix E

Chain-of-Custody Forms, Validated Form I Reports, and Data Usability Summary Reports - Soils

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

STL — Committed To Your Success

CHAIN OF CUSTODY RECORD

PAGE 2 OF 9 | NO. [redacted]-0307A

STL JOB #:

CLIENT: GET/ATLANTIC ENVIRONMENTAL

PROJECT ID: A70070-STATTEN ISL.

STL PROJECT MGR: STEPHANIE PLUNKETT

RUSH ☐ YES ☐ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: BNA-TCL-20VOA-TEX	RCRA Metals	TCN	TAL / TCL	grainsize TOC bulkdensity porosity	FIELD FILTERED - CIRCLE Y or N								SAMPLE REMARKS
						BOTTLE TYPE AND PRESERVATION: GL250	SEPTA60				Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
X11	CF-RW2(9-11)	2/21 1400	SO		N	1	1									X			
X12	CF-TP9(2)	2/21 1445	SO		N	1	1												
X13	CF-SB15(5-8)	2/21 1630	SO		N	X	X	X	X										
X14	CF-RW1(17)	2/22 [redacted]	SO		N	X	X	X	X										
X15	CF-RW1(4-6)	2/22 1500	SO		N	X	X	X	X										
X16	CF-TP1(3)	2/22 11:30	SO		N	1	1												
X17	CF-SB20(5-7)	2/22 1633	SO		N	X	X	X	X										
X18	CF-SB16(5-7)	2/22 1410	SO		N	X	X	X	X							X			
X19	CF-SB9(8-10)	2/22 1100	SO		N	X	X	X	X										
20	~~CF-TP1(6)~~ (DUP)		SO		N	1	1												

GENERAL REMARKS:
TAL/TCL = TCL VOA, BNA, Pest, PCB; TAL Metals, TCN, TCL Pesticides, TCL PCB's

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
DW - DRUM WASTE
O - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY: [signature] DATE / TIME: 2/16/99
SIGNATURE: [signature] 1400

BOTTLES RECD BY: [signature] DATE / TIME:
SIGNATURE:

SAMPLES COLLECTED BY: S. Wallett DATE / TIME: 2/23/99 @ 1500
SIGNATURE: [signature]

RECEIVED IN LAB BY: DATE / TIME:
SIGNATURE:

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

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Committed To Your Success

200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 | NO. 07012-0302A

STL JOB #: Keyspan
CLIENT: GEI/ATLANTIC ENVIRONMENTAL
PROJECT ID: A70070-STATTEN ISL.
STL PROJECT MGR: STEPHANIE PLUNKETT
RUSH ☐ YES ☐ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: PST-TCL MET-TAL BNA-TCL-20	VOA-TCL-10	BNA-TCL-20	VOA-BTEX	RCRA metals, TCN	grain size, TOC	GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: GL250	SEPTA60	GL250	SEPTA60			
2 01	~~CF-SB13(7-9)~~	~~2-24 0946~~	SO		N							
02	CF-SB13(18-20)	2-24 1040	SO		N							
03	CF-SB14(6-8)	2-24 1315	SO		N							
04	~~CF-SB14(5-7)~~	~~2-24 1630~~	SO		N							
05	CF-SB14(24-28)	2-24 1520	SO		Y							
06	CF-RW3(8-10)	2-24 1010	SO		N							
07	~~CF-TP10(3-4)~~	~~2-24 1340~~	SO		N							
08	~~CF-SB13(comp)~~	~~2-24 0950~~	SO		N							
09	~~CF-SB19(29-30)~~	~~2-25 930~~	SO		N							MS/MSD
10			SO		N			1	1			

MATRIX CODES: A - AIR; AQ - AQUEOUS; C - COMPLEX; D - DRUM WASTE; O - OIL; S - SOIL; SL - SLUDGE; W - WIPE; O - OTHER; FB - FIELD BLANK; TB - TRIP BLANK

BOTTLES PREPARED BY: DATE / TIME 2/16/99 1400
SIGNATURE:
SAMPLES COLLECTED BY: DATE / TIME 2/25 1225
SIGNATURE:

BOTTLES RECEIVED BY: DATE / TIME
SIGNATURE:
RECEIVED IN LAB BY: DATE / TIME
SIGNATURE:

REMARKS ON SAMPLE RECEIPT: ☐ BOTTLES INTACT ☐ CUSTODY SEALS ☐ PRESERVED ☐ SEALS INTACT ☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

STL
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200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 | NO [illegible]

STL JOB #: CLIFTON MGP

CLIENT: GET/ATLANTIC ENVIRONMENTAL

PROJECT ID: A70070-STATTEN ISL.

STL PROJECT MGR: STEPHANIE FLUNKETT

RUSH ☐ YES ☐ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: BNA-TCL-20V0A-L EX	PAH TCN RCRA metals BTEX	GRAIN SIZE TOC	FIELD FILTERED - CIRCLE Y or N	SAMPLE REMARKS
						BOTTLE TYPE AND PRESERVATION: GL250	SEPTA60			
31	CF-SS1	2-23 0990 (1054) 920	SO		N	(Y) N	(Y) N	X X		
32	CF-SS2	1020	SO		N	Y 1 N	Y 1 N	X X		
33	CF-SS3	1030	SO		N	Y 1 N	Y 1 N	X X		
34	CF-SS4	1054	SO		N	Y 1 N	Y 1 N	X X		
35	CF-SS6	1024	SO		N	Y 1 N	Y 1 N	X X		
36	~~CF-SS5~~	1126	SO		N	Y 1 N	Y 1 N	X X		
37	CF-ERSS	1145	SO		N	Y 1 N	Y 1 N	X X		
* 38	CF-SB14(24-28)	2-23 1520	SO		N	Y 1 N	Y 1 N		X	
* 39	CF-SB19(34-36)	2-25 930	SO		N	Y 1 N	Y 1 N		X	
* 40	CF-SB9(33-34)	2-23 1215	SO		N	Y 1 N	Y 1 N		X	

GENERAL REMARKS

MATRIX CODES

A - AIR; AQ - AQUEOUS; C - COMPLEX; D - DRUM WASTE; OL - OIL; S - SOIL; SL - SLUDGE; W - WIPE; O - OTHER; FB - FIELD BLANK; TB - TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME
SIGNATURE [signature]	2/16/99 1400	SIGNATURE	
SAMPLES COLLECTED BY: S. WALSH	DATE / TIME: 2-26-99 1600	RECEIVED IN LAB BY	DATE / TIME
SIGNATURE [signature]		SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 | NO.

Clifton MGP
GEI
CT ID: 98248
PROJECT MGR: Stephanie Plunkett
RUSH ☐ YES ☐ NO | DUE DATE

CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	BTEX	SVOC, TCN, RCRA MTLS	TCL/TAL	Grain Size	TOC				SAMPLE REMARKS
					TESTS								GENERAL REMARKS
					BOTTLE TYPE AND PRESERVATION								
					FIELD FILTERED - CIRCLE Y or N								
CF-SB30(7-11)f	3-1-99 915	Soil			X	X							
CF-SB30(19-23)f	1000				X	X							
CF-SB21(15-19)f	12:30				X	X		X	X				
CF-SB32(11-15)f	14:30						X						
CF-SB32(20-23)f	15:00				X	X							
CF-SB31(7-11)f	11:30				X	X							
CF-SB33(7-9)f	3-1-99 1550				X	X							
CF-SB34(5-9)f	3-2-99 1030				X	X							
CF-SB34(9-13)f	~~1031~~ 1050				X	X							
CF-SB33(27-29)f	1400				X	X							

MATRIX CODES

AQUEOUS	S - SOIL
COMPLEX	SL - SLUDGE
SOLID WASTE	W - WIPE
OIL	O - OTHER
	FB - FIELD BLANK
	TB - TRIP BLANK

BOTTLES PREPARED BY — DATE / TIME
SIGNATURE

SAMPLES COLLECTED BY: S. WALLETT — DATE / TIME: 3-2-99 1400
SIGNATURE

BOTTLES REC'D BY — DATE / TIME
SIGNATURE

RECEIVED IN LAB BY — DATE / TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SAMPLE CONTROL COPY

STL
Committed To *Your* Success

200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

CHAIN OF CUSTODY RECORD

PAGE | OF | NO.

STL JOB #:

CLIENT: GEI #98248

PROJECT ID: CLIFTON FORMER MGP

STL PROJECT MGR:

RUSH ☐ YES ☐ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC	TESTS: BTEX	SVOC, TCN, RCRA MTLS	GRAIN SIZE TOC	GASOL					GENERAL REMARKS / SAMPLE REMARKS
						BOTTLE TYPE AND PRESERVATION								
						FIELD FILTERED: CIRCLE Y or N								
						Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
	CF-RW4(16-20)	3-2-99 1600	Soil			X	X							
	CF-RW4(4-8)	1530				X	X							
	CF-SB23(4-8)	1650				X	X							
	CF-SB18(4-7.5)	1320				X	X							
	CF-SB17(16-20)	3-3-99 1630				X	X		X					
	CF-HSAEQ2	1000	AQU			X	X							
	CF-SB23(7-9)	3-4-99 1100	Soil					X						

MATRIX CODES

A	- AIR	S	- SOIL
AQ	- AQUEOUS	SL	- SLUDGE
C	- COMPLEX	W	- WIPE
D	- DRUM WASTE	O	- OTHER
OI	- OIL	FB	- FIELD BLANK
		TB	- TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME 3-4 1430
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY J. Wallett	DATE / TIME 3-4-99 1130	RECEIVED IN LAB BY	DATE / TIME
SIGNATURE		SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEAL
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SAMPLE CONTROL COPY

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tel: (203) 261-4458
Fax: (203) 268-5346

PAGE 1 OF 1 | NO.

JOB #: 2099 ~~0300~~ 0527A
T: GEI / Atlantic
ECT ID: Statten Island
ROJECT MGR: SNP
ISH [ ] YES [ ] NO | DUE DATE

TESTS | GENERAL REMARKS

MTZ	CNT		BTEX	SVOC, TCL, RCRA TMTL, TCL	GRAIN SIZE		
HNO3	NaOH 4 acetic						
PL500	PL500						

FIELD FILTERED : CIRCLE Y or N

CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
		FB			1	1							w/ FB water
		FB			1	1							
		FB			1	1							
					VOA	G/250	SCHA 60						
CF-SB23 (109-111)	3-11-99 1400 1500	SA	01			2	1	X	X				
CF-SB18 (73-76)	03-09-99 1200	SB	02			1	1	X	X				
CF-SB23 (92-94)	3-10-99 1325	SA	03			1	1	X	X				
CF-SBTB 4	3-11-99	SA	04		2			X					
CF-DUP3	3-10-99 1200	SB	05			1	1	X	X				
CF-RW4 (80-90)	3-11-99 1300	SA	06			2	1	X	X	X			

PASSED RAD SCREEN

@ 3/12/99

MATRIX CODES

AIR	S	SOIL	
AQUEOUS	SL	SLUDGE	
COMPLEX	W	WIPE	
DRUM WASTE	O	OTHER	
OIL	FB	FIELD BLANK	
	TB	TRIP BLANK	

BOTTLES PREPARED BY | DATE / TIME: 2/22/99 13:15
SIGNATURE:

SAMPLES COLLECTED BY | DATE / TIME
SIGNATURE

BOTTLES REC'D BY | DATE / TIME
SIGNATURE

RECEIVED IN LAB BY: S. Madumadu | DATE / TIME: 3/11/99 2155
SIGNATURE: S. Madumadu

REMARKS ON SAMPLE RECEIPT

- [ ] BOTTLES INTACT
- [ ] CUSTODY SEALS
- [ ] PRESERVED
- [ ] SEALS INTACT
- [ ] CHILLED
- [ ] SEE REMARKS

LABORATORY COPY

Brooklyn Union

Brooklyn Union - Laboratory Services
287 Maspeth Avenue, Brooklyn, NY 11211
Phone: (718) 963-5421, (800) 223-4768
Fax: (718) 963-5667

Emergency Service (718) 403-2921
(Off-hours / Weekends)

2

CUSTOMER INFORMATION

CLIENT NAME:	S. Wallett	COMPANY NAME:	GEI
BUSINESS AREA:		PROJECT I.D.:	CLIFTON MGP
ADDRESS:	138 Norwich Ave Colchester CT	SAMPLE LOCATION:	BAY STREET STATION
PHONE NUMBER:	860 537 0751	FAX NUMBER:	
AREA & W.O. NUMBER:		P.O. NUMBER:	
REQUEST DATE:		SAMPLE DATE:	

SPECIAL I
SPECIAL I

ANALYSIS REQUEST / OTHER / MATRIX / QA/QC / REMARKS

SAMPLE ID	GAS ANALYSIS	MERCAPTAN ANALYSIS	NATURAL GAS QUALITY	LEAK INVESTIGATION	ANNULAR SPACE ANALYSIS	PURGEABLE AROMATICS	VOLATILE ORGANICS	SEMI-VOLATILE ORGANICS	PCB: LIQUID ANALYSIS	PCB: WIPE ANALYSIS	PCB: SOLID ANALYSIS	TCLP	TCLP METALS	TOTAL RCRA METALS	OIL & GREASE / TPH	DRIP WATER ANALYSIS	WASTE WATER	WASTE OIL	ASBESTOS BULK SAMPLE	METHANOL	NYS DOH ELAP SAMPLE	QA/QC	VISCOSITY	BULK DENSITY	SPECIFIC GRAVITY	POROSITY	SOLID	LIQUID	WASTEWATER	GAS	REFERENCE	SPIKE	SURROGATE	DUPLICATE	BLANK	DESCRIPTION
1 CF-RW2(9-11)																							X	X	X	X											2-21-99 1400
1 CF-SB16(5-7)																							X	X	X	X											2-22-99 1411
C																																					

DESCRIPTION

NO QC Basis

1- Standard analysis turnaround time is five business days unless otherwise noted
2- Composite sample must be approved by Chief Chemist

GENERAL INFORMATION

- Refer to Laboratory Number when making inquiries
- Gas samples require landmark location
- Samples are retained for seven days following analysis unless otherwise specified

SAMPLE CUSTODY RECORD

RELINQUISHED BY SAMPLER:
Print: S. Wallett Signature:

RELINQUISHED BY:

RELINQUISHED BY:

RELINQUISHED BY:

Internal Use Only

Logged-In	☐	Approved	☐
Entered	☐	Reported	☐
Validated	☐	Invoiced	☐

White - Lab Coordinator

Yellow - Sample Custodian

Pink - Customer

Brooklyn Union - Laboratory Services
287 Maspeth Avenue, Brooklyn, NY 11211
Phone: (718) 963-5421, (800) 223-4768
Fax: (718) 963-5667

Emergency Service (718) 403-2921
(Off[illegible] / Weekends)

2 of 2

CUSTOMER INFORMATION

CLIENT NAME:	S. Wallett	COMPANY NAME:	GEI
BUSINESS AREA:		PROJECT I.D.:	CLIFTON MGP
ADDRESS:	132 Nunnill Ave Cheshire CT	SAMPLE LOCATION:	BAY STREET STATION
PHONE NUMBER:	860 272 0751	FAX NUMBER:	
AREA & W.O. NUMBER:		P.O. NUMBER:	
REQUEST DATE:		SAMPLE DATE:	

SPECIAL DETI

SPECIAL REP

ANALYSIS REQUEST / OTHER / MATRIX / QA/QC / REMARKS

SAMPLE ID	GAS ANALYSIS	MERCAPTAN ANALYSIS	NATURAL GAS QUALITY	LEAK INVESTIGATION	ANNULAR SPACE ANALYSIS	PURGEABLE AROMATICS	VOLATILE ORGANICS	SEMI-VOLATILE ORGANICS	PCB: LIQUID ANALYSIS	PCB: WIPE ANALYSIS	PCB: SOLID ANALYSIS	TCLP	TCLP METALS	TOTAL RCRA METALS	OIL & GREASE / TPH	DRUP WATER ANALYSIS	WASTE WATER	WASTE OIL	ASBESTOS BULK SAMPLE	METHANOL	NYS DOH ELAP SAMPLE	QAQC	VISCOSITY	FLUID DENSITY	SPECIFIC GRAVITY	POUR POINT	SOLID	LIQUID	WASTEWATER	GAS	REFERENCE	SPIKE	SURROGATE	DUPLICATE	BLANK	DESCRIPTION
CF-RW2(9-11)																							X	X	X	X				X							2-21-99 14:00
CF-SB16(5-7)																							X	X	X	X				X							2-22-99 14:00
C																																					

NO QC BASIS

1- Standard analysis turnaround time is five business days unless otherwise noted
2- Composite sample must be approved by Chief Chemist

GENERAL INFORMATION

- Refer to Laboratory Number when making inquiries
- Gas samples require landmark location
- Samples are retained for seven days following analysis unless otherwise specified

SAMPLE CUSTODY RECORD

RELINQUISHED BY SAMPLER:
Print: S. Wallett Signature:

RELINQUISHED BY:

RELINQUISHED BY:

RELINQUISHED BY:

Internal Use Only
Logged-In ☐ Approved ☐
Entered ☐ Reported ☐
Validated ☐ Invoiced ☐

White - Lab Coordinator

Yellow - Sample Custodian

Pink - Customer

No 3437

CHAIN OF CUSTODY RECORD

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

PROJECT NAME: Clifton Fuel MGP Station I Staten, NY

PROJECT NUMBER: [redacted] 78248-2004

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	ANALYSIS: VOCs 8260 PRSV.	SVOCs 8270 PRSV.	TCL Chem PRSV.	Pest & Metals PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CFSB-52(5'-7')	7/29/04		X		2	Soil	X	X	X	X								
CFSB-52(11'-13')	7/29/04		X		2		X	X	X	X								
CFSB-52(39'-41')	7/29/04	0930	X		2		X	X	X	X								
CFSB-57(29-31')	7/30/04	1410	X		2		X	X	X	X								
CFSB-57(5'-7')	7/30/04	1225	X		2		X	X	X	X								
FB073004	7/30/04	1425	X		5	water	X	X	X	X								
TB073004	7/30/04	-	X		2	water	X											Trip Blank

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
D.B. TT	7/30/04 1430				
Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:

Method of Shipment:

Shipping Waybill No.:

Remarks: Standard Turnaround
Call Dave Terry 860 537-0751 ext. 128 if any questions

SAMPLED BY: David B. Terry (Print Name) D.B. TT (Signature)
Lynn Willey (Print Name) [signature] (Signature)

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

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CHAIN CUSTODY RECORD

PAGE 1 OF 1

NO. 21099-1582A

STL JOB #:

CLIENT: GEI/ATLANTIC ENVIRONMENTAL

PROJECT ID: ATOOTO-SPATTEN ISL.

STL PROJECT MGR: STEPHANIE PLUNKETT

RUSH ☐ YES ☒ NO DUE DATE Standard

TESTS: MET-RCRA; CNT; BNA-TCL-26VOA-BTEX

BOTTLE TYPE AND PRESERVATION: GL250; SEPTA60

GENERAL REMARKS

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	FIELD FILTERED - CIRCLE Y or N	SAMPLE REMARKS
01	CF-SB-50 (39-41')	8/2/99 13:25	SO		N	Y / N; Y / N	
02	CF-SB-1000	8/2/99 8:00	SO		N	Y / N; Y / N	
03	CF-SB-50 (17-19) MS	8/2/99 10:45	SO		N	Y / N; Y / N	
04	CF-SB-50 (17-19) MSD	8/2/99 10:45	SO		N	Y / N; Y / N	
05 *	CF-SB-50 (9-11)	8/2/99 10:15	SO		N	Y / N; Y / N	* Possible
06 **	CF-SB-50 (3-5)	8/2/99 9:50	SO	+	N	Y / N; Y / N	** Possible
07			SO		N	Y / N; Y / N	
08			SO		N	Y / N; Y / N	
09			SO		N	Y / N; Y / N	
10			SO		N	Y / N; Y / N	

MATRIX CODES

A	- AIR	S	- SOIL
AQ	- AQUEOUS	SL	- SLUDGE
C	- COMPLEX	W	- WIPE
D	- DRUM WASTE	O	- OTHER
OI	- OIL	FB	- FIELD BLANK
		TB	- TRIP BLANK

BOTTLES PREPARED BY: Lynn E. Willey — DATE / TIME: 8/3/99 11:14

SIGNATURE: Lynn E. Willey

SAMPLES COLLECTED BY: Lynn Willey — DATE / TIME: 8/3/99 11:14

SIGNATURE: Lynn Willey

BOTTLES REC'D BY: [illegible] — DATE / TIME: 8/4/99 11:30

SIGNATURE: [illegible]

RECEIVED IN LAB BY: — DATE / TIME:

SIGNATURE:

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEAL

☐ PRESERVED ☐ SEALS INTACT

☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

NO. P7099-1682A

STL JOB #:

CLIENT: GZA/ATLANTIC ENVIRONMENTAL

PROJECT ID: ATOCO-STATTEN ISL.

STL PROJECT MGR: STEPHANIE PLUNKETT

RUSH ☐ YES ☒ NO

DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	FIELD FILTERED - CIRCLE Y or N								SAMPLE REMARKS
						TESTS: MET-RCRA CN? BNA-TCL-20VOA-BTEX	TCLP organics							
						BOTTLE TYPE AND PRESERVATION: GL250	SEPTA60							
						Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
21	* CF-SB-51 (5-7)	8/4/99 10:20	SO		N	Y	Y							Petroleum gasoline heavy
22	CF-SB-51 (39-41)	8/4/99 14:35	SO		N	Y	Y							
23	** CF-SB-37 (14.5-16)	8/5/99 9:37	SO		N	Y	Y	X						Possible heavy coal tar zone.
24	** CF-SB-37 (4-8)	8/5/99 8:10	SO		N	Y	Y	X						Possible heavy coal tar zone.
			SO		N	Y	Y							
26			SO		N	Y	Y							
27			SO		N	Y	Y							
28			SO		N	Y	Y							
29			SO		N	Y	Y							
30			SO		N	Y	Y							

GENERAL REMARKS

MATRIX CODES

A	- AIR	S	- SOIL
AQ	- AQUEOUS	SL	- SLUDGE
C	- COMPLEX	W	- WIPE
D	- DRUM WASTE	O	- OTHER
OI	- OIL	FB	- FIELD BLANK
		TB	- TRIP BLANK

BOTTLES PREPARED BY: Lynn E. Willey — DATE / TIME: 8/5/99 1105

SIGNATURE: Lynn E. Willey

SAMPLES COLLECTED BY: Lynn E. Willey — DATE / TIME: 8/5/99 11:

SIGNATURE: Lynn E. Willey

BOTTLES REC'D BY: Bob Kunkel — DATE / TIME: 8/5/99 1730

SIGNATURE

RECEIVED IN LAB BY — DATE / TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS

☐ PRESERVED ☐ SEALS INTACT

☐ CHILLED ☐ SEE REMARKS

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CHAIN OF CUSTODY RECORD

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

PROJECT NAME: CLIFTON FUEL DEP

PROJECT NUMBER: 98248-2004

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	ANALYSIS: VOCs, 8260 PRSV.	SVOCs, 8270 PRSV.	TOTAL CYANIDE PRSV.	CLP 8 METALS PRSV.	COMMENTS
CFSB55 18'-20'	8/10/99	0835	X		2	SOIL	X	X	X	X	HEAVILY CONTAMINATED!
CFSB55 56'-58'		1530	X		2	SOIL	X	X	X	X	
CFSB55 56'-58' MS		1530	X		2		X	X	X	X	MATRIX SPIKE
CFSB55 56'-58' MSD		1530	X		2		X	X	X	X	MATRIX SPIKE DUP.
CFSB55 73'-75'		1600	X		2		X	X	X	X	
CF081099		2000	X		2		X	X	X	X	
CFTB081099	—	—			2	WATER	X				TRIP BLANK

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
D. B. Terry	8/11/99				
D. B. Terry	8/11/99 11:10	[illegible] STL			

Method of Shipment:	Shipping Waybill No.:	Remarks:
		STANDARD TURNAROUND CALL DAVE TERRY IF QUESTIONS OFFICE: 860-537-0751 EXT. 129 CELL: 860-214-0327

SAMPLED BY: DAVID B. TERRY (Print Name) D. B. Terry (Signature)

(Print Name) (Signature)

TRANSFER TO SEVERN TRENT LABS (STL) BY STL COURIER

PT 1: ORIGINAL PT 2: Laboratory Project Manager-yellow PT 3: Field Copy-pink

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

NO. PT099-1082X

STL JOB #:

CLIENT: ~~GRI/ATLANTIC ENVIRONMENTAL~~ ~~ATOOTO-STATTEN ISL.~~

PROJECT ID: ~~STEPHANIE PLONKETT~~

STL PROJECT MGR:

RUSH ☐ YES ☒ NO DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	GC Y / N	TESTS: MET-RCRA CNT BNA-TCL-20	TESTS: VOA-BTEX	TESTS: VOC BTEX						FIELD FILTERED - CIRCLE Y or N	SAMPLE REMARKS
						BOTTLE TYPE AND PRESERVATION: GL250	SEPTA60	(2) 40mL Vials							
41	CF-SB-56 (12.5-13.5)	8/18 13:05	SO		N	✓	✓							Y / N ✓ ✓	Possible cool for contamination present.
42	CF-SB-56 (43-44')	8/18 18:10	SO		N	✓	✓							Y / N ✓ ✓	Possible cool for contamination present
43	CF-SB-OE1899	8/18 19:00	SO		N	✓	✓							Y / N ✓ ✓	Possible cool for contamination.
44	CF-TB-OE1899	8/18 ~~TBLD~~	20 WTR		N	✓	✓	✓						Y / N ✓ ✓	
45	CF-SB-56 (2E-30)	8/18 15:25	SO		N	✓	✓							Y / N ✓ ✓	
46	CF-SB-56 (2E-30)MS	8/18 15:25	SO		N	✓	✓							Y / N ✓ ✓	
47	CF-SB-56 (2E-30)MSD	8/18 15:25	SO		N	✓	✓							Y / N ✓ ✓	
48	CF-SB-56 (63-63.5)	8/19 11:15	SO		N	✓	✓							Y / N ✓ ✓	
49			SO		N									Y / N	
50			SO		N									Y / N	

GENERAL REMARKS

MATRIX CODES

A	AIR	S	SOIL
AQ	AQUEOUS	SL	SLUDGE
C	COMPLEX	W	WIPE
D	DRUM WASTE	O	OTHER
OI	OIL	FB	FIELD BLANK
		TB	TRIP BLANK

BOTTLES PREPARED BY: Lynn E Willey — DATE / TIME: 8/18 920

SIGNATURE: Lynn E Willey — 8/18 9:20

SAMPLES COLLECTED BY: Lynn E Willey, Jacob Terry — DATE / TIME: 8/19 1929

SIGNATURE: Lynn E Willey

BOTTLES REC'D BY: Bob Kunkel — DATE / TIME: 8/19/99 12

SIGNATURE

RECEIVED IN LAB BY — DATE / TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS

☐ PRESERVED ☐ SEALS INTACT

☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

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200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

NO.

STL JOB #:

CLIENT: Keyspan 98248

PROJECT ID: Clifton

STL PROJECT MGR: DAVID TERRY

RUSH ☐ YES ☒ NO DUE DATE STANDARD

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	FD Y / N	TESTS: VOCs 8260 BTEX	TESTS: SVOCs w/TICs, RCRA mtls, TCN	TESTS: VOCs 8260 BTEX	TESTS: SVOCs w/TICs	TESTS: TCN	TESTS: RCRA8	TESTS:	TESTS:	SAMPLE REMARKS
						BOTTLE TYPE AND PRESERVATION: Septa 2 oz Jar	8oz Jar	40mL VOA Vial HCl	1L Amber unpres	500mL Plastic NaOH	500mL Plastic HNO3			
						FIELD FILTERED - CIRCLE Y or N: Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
	CF-SB-42 (24.0-25.0)	8/23/99 16:15	Soil			✓	✓							Possible Heavy coal tar impacts.
	CF-TB-082499	8/24/99	H2O					✓						
	CF-FB-08-24-99	8/24/99 10:12	H2O					✓	✓	✓	✓			
	CF-SB-42 (5E-6')	8/24/99 13:45	Soil			✓	✓							Possible coal tar impacts
	CF-SB-42 (5E-6')MD	8/24/99 13:45	Soil			✓	✓							" MS (matrix Spike)
	CF-SB-42 (5E-6')MSD	8/24/99 13:45	Soil			✓	✓							" matrix (MSD) Spike duplicate
	CF-SB-42 (78-78.5)	8/24/99 16:45	Soil			✓	✓							

Any questions or comments Please call David Terry @ GEI Consultants 860-537-0751

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY: Lynn Willy — DATE / TIME: 8/24/99 923
SIGNATURE: Lynn Willy

SAMPLES COLLECTED BY: Jeff Willson — DATE / TIME: 8/24/99 9:23
SIGNATURE: Jeff Willson

BOTTLES REC'D BY: Bob Kunkel — DATE / TIME: 8/25/99 1235
SIGNATURE:

RECEIVED IN LAB BY: — DATE / TIME:
SIGNATURE:

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SAMPLE CONTROL COPY

№ 3466

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: CT Ave Former MGP

PROJECT NUMBER: Keyspan 98248

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	ANALYSIS: VOC 8260B	PRSV.	SVOC PAH (BTEX) 8270C	PRSV.	RCRA-8 MHG EPA method 6010B/7471A	PRSV.	TCLP EPA METHOD 8260	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-SB-47 (5-7)	9/15	1015	✓		2	Soil	✓	✓	✓	✓											
CF-SB-47 (39-41)	9/15	1205	✓		2	Soil	✓	✓	✓	✓											
CF-SB-49 (7-9-11)	9/16	935	✓		2	Soil	✓	✓	✓	✓											
CF-SB-49 (39-41)	9/16	1210	✓		2	Soil	✓	✓	✓	✓											
~~CF-SB~~ CF-TB-09152149	9/15	-	-		2	H2O	✓														

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn Willey	9/17 11:25	Daniel J. Jones			
Daniel J. Jones	9/17/09 1420	[signature] 9/17/09 1420			

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:

Method of Shipment: Daniel J. Jones

Shipping Waybill No.:

Remarks: Standard Turn around Time
Any questions call David Terry at 860-537-0751

SAMPLED BY: Lynn Willey (Print Name) [signature] (Signature)

(Print Name) (Signature)

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

Nº 3467

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Clifton Former MGP

PROJECT NUMBER: Keyspan

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC EPA METHOD 8260 (BTEX) PRSV. (cool)	SVOC 8270 TICS EPA method 8270 PRSV. (cool)	RCRA-8 MTLS EPA method 6010 7000s PRSV. (cool)	TCN EPA method 9012 PRSV. (cool)	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-SB-48(3-5)	9/20	915	✓		2	soil	✓	✓	✓	✓							Poss Petroleum Cont.
CF-SB-48(39-41)	9/20	1300	✓		2	soil	✓	✓	✓	✓							
CF-TB-092099	9/20	-	-		2	H_2O	✓										

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn E Willey	9/21 1204	Bob Funkel STL			
Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:

Method of Shipment:

Shipping Waybill No.:

SAMPLED BY: Lynn E. Willey (Print Name) — Lynn E Willey (Signature)

(Print Name) — (Signature)

Remarks: CF-SB-48 (3-5) has poss petroleum contamination
Standard Turnaround Time any questions call David Terry 860-537-0751

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

3481

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Raytheon (Ken Lane) MCP

PROJECT NUMBER: 9626-1004

ANALYSIS

	SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC (8260) PRSV.	SVOC (8270) PRSV.	EPH PRSV.	VPH PRSV.	MA-MCP PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
*	CF-SB-62 (0-4)	11/26/99	1136	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-62 (4-6)	11/26/99	1146	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-61 (0-4)	11/26/99	1205	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-61 (4-6)	11/26/99	1215	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-59 (0-4)	11/29/99	1520	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-59 (4-6)	11/29/99	1545	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-58 (0-4)	11/30/99	930	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-58 (4-6)	11/30/99	940	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-60 (4-6)	11/30/99	1140	✓		6	So.1	✓	✓	✓	✓	✓							MS/MSD
*	CF-SB-11/30/99	11/30/99	800	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-60 (0-4)	11/30/99	1120	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-65 (0-4)	11/30/99	1735	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-65 (4-6)	11/30/99	1740	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-66-(0-2)	11/30/99	1930	✓		2	So.1	✓	✓	✓	✓	✓							
*	CF-SB-66 (2-6)	11/30/99	1905	✓		2	So.1	✓	✓	✓	✓	✓							

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
	12/1/99 1015				
Relinquished by:	**Date/Time**	**Received by:**	**Relinquished by:**	**Date/Time**	**Received for Laboratory by:**

Method of Shipment:	Shipping Waybill No.:	Remarks:
		STANDARD CALL TIM KERRY w/ ?'s . 860-537-0751

SAMPLED BY: ANDREW BRAY (Print Name) — Signature

(Print Name) — Signature

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

SEVERN TRENT SERVICES

STL Connecticut
Long Hill Cross Road
Shelton CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI CONSULTANTS, INC.

PROJECT ID: CLIFTON FORMER MGP : 98248-1004

STL PROJECT MGR: GREG KUDEJ

RUSH ☐ YES ☒ NO | DUE DATE

TEST

						VOC (Volatile Organic Compounds) (BTEX only) EPA 8260	SVOC (Polynuclear Aromatic Hydrocarbons) PAH - EPA 8270	Resource Conservation Recovery Act Metals (RCRA-8)	Total Cyanide TCN					
BOTTLE TYPE AND PRESERVATION						2 2oz or 2 40 ml vials CLEAR GLASS	8oz CLEAR GLASS	→	8oz CLEAR GLASS					
FIELD FILTERED - CIRCLE Y/N						Y/(N)	Y/(N)	Y/(N)	Y/(N)	Y/N	Y/N	Y/N	Y/N	
BOTTLE SET #	**CLIENT SAMPLE ID**	**DATE / TIME SAMPLED**	**MATRIX**	**LAB ID**	**QC Y/N**									**SAMPLE REMARKS**
	CF-SB-68 (33-33.5)	12/4/01 1720	SOIL			X	X	X	X					
	CF-SB-68 (54.5-55)	12/5/01 830	↓			↓	↓	↓	↓					
	CF-SB-69 (33-33.5)	12/5/01 1125	↓			↓	↓	↓	↓					Possible Petroleum/NAPL impacts.
	CF-SB-69 (44.5-45)	12/5/01 1155	↓			↓	↓	↓	↓					
	CF-SB-68 (54.5-55) MS	12/5/01 835	↓			↓	↓	↓	↓					
	CF-SB-68 (54.5-55) MSD	12/5/01 837				X	X	X	X					
	CF-TB-121601	12/6/01 —	LAB H2O			X								

MATRIX CODES

A – AIR
AQ – AQUEOUS
C – COMPLEX
D – DRUM WASTE
OI – OIL
S – SOIL
SL – SLUDGE
W – WIPE
O – OTHER
FB – FIELD BLANK
TB – TRIP BLANK

BOTTLES PREPARED BY: Lynn Willey/Andrew Stone — **DATE / TIME:** 12/6/01 830
SIGNATURE: [signature] / Andrew Stone

SAMPLES COLLECTED BY: Lynn Willey — **DATE / TIME:** 12/6/01 830
SIGNATURE: [signature] — 1440 Lab pickup

BOTTLES REC'D BY: RICHARD L. FORD — **DATE / TIME:** 12/6/01
SIGNATURE: Richard L. Ford 14:40

RECEIVED IN LAB — **DATE / TIME**
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

8122 (0700)

CLIENT COPY

SEVERN TRENT SERVICES

Connecticut
[redacted] Long Hill Cross Road
Shelton CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF [redacted]TODY RECORD

PAGE 1 OF 12

NO. [redacted]

STL JOB #:

CLIENT: GEI Consultants - Colchester

PROJECT ID: Clifton NY - KEYSPAN

STL PROJECT MGR: Greg Kudej

RUSH ☐ YES ☒ NO

DUE DATE

BTEX	PAHs	RCRA 8 Metals	Total CN				
①	①	→					

?'s call Andrew Brey 860-608-9714 or Lynn Willey 860-537-0751

BOTTLE SET #	LAB SAMPLE ID	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y/N	FIELD FILTERED (CIRCLE Y OR N)								SAMPLE REMARKS
							Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
		CF-SB-71-30-30.5	12/11/01, 15:30	SOIL			①	①	→						
		CF-SB-71-44-45	12/11/01, 15:45	SOIL			①	①	→						
		CF-SB-75-52-52.5	12/11/01, 09:30	SOIL			①	①	→						
		CF-SB-75-70-72 *	12/11/01, 10:20	SOIL			①	①	→						
		CF-SB-74-21-21.5	12/10/01, 14:30	SOIL			①	①	→						
		CF-SB-74-34.5-35	12/10/01, 14:55	SOIL			①	①	→						
		TRIP BLANK		AQ			②								
		CF-SB-72-48-49	12/12/01, 0930	SOIL			①	①	→						
		CF-SB-72-24.5-25	12/12/01, 0855	SOIL			①	①	→						
		CF-SB-73-30-31	12/12/01, 1130	SOIL			①	①	→						

MATRIX CODES

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OI – OIL
S – SOIL
SL – SLUDGE
W – WIPE
O – OTHER
FB – FIELD BLANK
TB – TRIP BLANK

BOTTLES PREPARED BY — DATE / TIME

SIGNATURE

SAMPLES COLLECTED BY: Andrew P. Brey — DATE / TIME: 12/12/01 16:00

SIGNATURE: A.P.B.

BOTTLES REC'D BY: Lynn E. Willey — DATE / TIME: 12/12/01 2000

SIGNATURE: Lynn E Willey

RECEIVED IN LAB: Sarah Widomski — DATE / TIME: 12-12-01 20:00

SIGNATURE: Sarah Widomski

REMARKS

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

SEVERN TRENT SERVICES
STL Connecticut
[illegible]8 Long Hill Cross Road
Shelton CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

 NO.

STL JOB #:

CLIENT: GEI CONSULTANTS, INC.

PROJECT ID: CLIFTON FORMER MGP - GEI JOB# 982462-1-1004

STL PROJECT MGR: GREG KUDEJ

RUSH [ ] YES [X] NO

DUE DATE: AS PER CONTRACT DETAILS

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y/N	EPA METHOD 8260 VOC [BTEX ONLY]	EPA METHOD 8270 SVOC [PAH ONLY]	RCRA-8 Metals 6010/7470/7471	TOTAL CYANIDE 9012A					SEE CONTRACT DETAILS FOR MDL SPECIFICATIONS. CALL DAVID TERRY REGARDING ANY OTHER QUESTIONS
						2oz Glass Soil jar, *2 40ml Glass vials/HCl	8oz Glass Soil jar, *2 1L Glass Amber/UNP	8oz Glass Soil jar, 1 500mL Plastic Pres HNO3	8oz Glass Soil JAR, 1 500mL Plas Pres NaOH					*INDICATES WATER ONLY
						Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	
	CF-SB-81 (17-21)	5/22/02 0855	S			X	X	X	X					POSSIBLE PETROLEUM-like impacts.
	CF-SB-81 (41-45)	5/22/02 1350	S			X	X	X	X					
	CF-SB-82 (5-9')	5/23/02 0805	S			X	X	X	X					
	CF-SB-82 (25-29')	5/23/02 1145	S			X	X	X	X					
	CF-TB-5/21/02	1650 5/21/02	AQ			*X								
	CF-FB-5/21/02	1550 5/21/02	AQ			*X	*X	*X	*X					

MATRIX CODE

A – AIR
AQ – AQUEOUS
C – COMPLEX
D – DRUM WASTE
OI – OIL
S – SOIL
SL – SLUDGE
W – WIPE
O – OTHER
FB – FIELD BLANK
TB – TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY: Lynn E. WILLEY	5/25/02 1120	RECEIVED IN LAB: Alex Yaworowski	05/25/02 11:25
SIGNATURE: Lynn E. Willey		SIGNATURE: Alex C. Yaworowski	

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT SERVICES

STL Connecticut
Long Hill Cross Road
Shelton CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE OF | NO.

STL JOB #:

CLIENT: CET CONSULTANTS, INC

PROJECT ID: Clifton Farm NGP

STL PROJECT MGR: CARLO Kucej

RUSH ☐ YES ☒ NO | DUE DATE SEE CONTRACT

SAMPLE NO.	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	# OF CONT.	FILTERED Y / N	VOC EPA METHOD 8260 (FULL SCAN) Y/N	SVOC EPA METHOD 8270 (FULL SCAN) Y/N	EPA METHOD 8260 [STEK ONLY] Y/N	EPA METHOD 8270 (DAHL ONLY) Y/N	RCRA-8 METALS EPA method 6010 Y/N	Total Cyanide EPA METHOD 9012 Y/N			
						2 40ml vials HCl	2 1L Glass UNP	2oz Glass Jar	8oz glass jar	8oz glass Jar	8oz glass Jar			
	CF-TB-061202	6/1/02 / 730	AQ			X								
	CF-TB-061202A	6/1/02 / 0730	AQ			X								
	CF-PZ-7	6/1/02 / 1130	AQ			X	X							MS/MSD
	CF-PZ-6	6/1/02 / 1555	AQ			X	X							
	CF-PZ-12	6/1/02 / 1050	AQ			X	X							
	CF-PZ-11	6/1/02 / 1510	AQ			X	X							
	CF-PZ-49	6/1/02 / EOC	AQ			X	X							
	CF-SB-86(28-32')	6/1/02 / 1020	S					X	X	X	X			MS/MSD
	CF-SB-86(44-46)	6/1/02 / 1435	S					X	X	X	X			
	CF-SB-86(48-52)	6/1/02 / 1500						X	X	X	X			
	CF-BG-060102	6/1/02				X	X							

MATRIX CODES

A – AIR
AQ – AQUEOUS
C – COMPLEX
D – DRUM WASTE
OI – OIL
S – SOIL
SL – SLUDGE
W – WIPE
O – OTHER
FB – FIELD BLANK
TB – TRIP BLANK

BOTTLES PREPARED BY | DATE / TIME

SIGNATURE

SAMPLES COLLECTED BY: Lynne Willey, Chris Hayward | DATE / TIME

SIGNATURE

BOTTLES REC'D BY: RICHARD L. FORD | DATE / TIME 6/1/02

SIGNATURE: Richard L. Ford 13:30

RECEIVED IN LAB | DATE / TIME

SIGNATURE

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

I-8122 (0700)

Chain of Custody Record

202480

12/04/2002

GEI/ATLANTIC ENVIRONMENTAL
DAVE TERRY
CLIFTON MGP

VERN RENT SERVICES — Severn Trent Laboratories

STL-4124 (0901)

Client: GEI CONSULTANTS, INC.		Dave Terry		Date: 11-14-2002	Chain of Custody Number: 170671
Address: 100 Norwich Avenue		Telephone Number (Area Code)/Fax Number: 860 537-0751		Lab Number	Page 1 of 1
City: COLCHESTER	State: CT	Zip Code: 06415	Site Contact: Lynn Willey	Lab Contact: Paul Hobart	
Project Name and Location (State): CLIFTON FORMER MGP Staten Island, NY			Carrier/Waybill Number		
Contract/Purchase Order/Quote No.: See quote - Rick Corr					

Sample I.D. No. and Description (Containers for each sample may be combined on one line)	Date	Time	Matrix: Air	Aqueous	Sed.	Soil	Containers & Preservatives: Unpres.	H2SO4	HNO3	HCl	NaOH	ZnAc/NaOH	Analysis: EPA 8260 BTEX ONLY	EPA 8270 Parts Only RCRA-8 Only	TCLP 8017	Special Instructions/ Conditions of Receipt
CF-SB-92 (5-9') 01	11-12-02	1640				✓	✓						✓	✓	✓	
CF-SB-92 (37-41') 02		1300				✓	✓									
CF-SB-92 (45-50') 03		800				✓	✓									
CF-SB-93 (8-12') 04	11-13-02	935				✓	✓									Possible petroleum-like impacts
CF-SB-93 (36-40') 05	11-13-02	1155				✓	✓									
CF-TB-111302 06	11-13-02	1700		✓			✓			✓		✓				
CF-FB-111302 07	11-13-02	1125		✓			✓		✓	✓		✓				

"PASSED RAD SCREEN" 02 06

Possible Hazard Identification
☐ Non-Hazard ☐ Flammable ☐ Skin Irritant ☐ Poison B ☐ Unknown

Sample Disposal
☐ Return To Client ☑ Disposal By Lab ☐ Archive For _____ Months (A fee may be assessed if samples are retained longer than 1 month)

Turn Around Time Required
☐ 24 Hours ☐ 48 Hours ☐ 7 Days ☐ 14 Days ☐ 21 Days ☒ Other As specified by Rick Corr.

QC Requirements (Specify): NYS Category B Deliverables

1. Relinquished By: Dave E. Willey GEI	Date: 11/14/02	Time: 1230	1. Received By: Richard L Frei	Date: 11/14/02	Time: 12:30
2. Relinquished By	Date	Time	2. Received By	Date	Time
3. Relinquished By	Date	Time	3. Received By	Date	Time

Comments

DISTRIBUTION: WHITE - Returned to Client with Report; CANARY - Stays with the Sample; PINK - Field Copy

No 3468

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Keyspan 98248-1005

PROJECT NUMBER: 98248

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC (STEV) / PRSV. (UAP Tier I)	SVOC EPA Method 8270 / PRSV. (UAP Level I)	TCN / PRSV.	RCRA 8 metals EPA / PRSV. (Level I)	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-TB-101499	10/14	–	✓		2	GH2O	✓										
CF-GW-06	10/14	1740	✓		4	GH2O	✓	✓	✓	✓							
CF-RW-03	10/14	1845	✓		4	GH2O	✓	✓	✓	✓							
CF-RW-08	10/15	1345	✓		4	GH2O	✓	✓	✓	✓							
~~CF-RW-06~~																	
CF-OW-07	10/15	1545	✓		4	GH2O	✓	✓	✓	✓							

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn C. Willey (signature)	10/15/99 1228				B. [illegible]
Relinquished by:	**Date/Time**	**Received by:**	**Relinquished by:**	**Date/Time**	**Received for Laboratory by:**

Method of Shipment:

Shipping Waybill No.:

Remarks: Contact David Terry for any questions or comments. 860-537-0751

SAMPLED BY: Lynn Willey (Print Name) — [signature] (Signature)

Bruce Marcinus (Print Name) — (Signature)

STL. NORWICH CT

NO 3470

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Keyspan 98246

PROJECT NUMBER: 98246-1005

ANALYSIS

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-RW-01	10/7	1600	✓		6	Gw/SG	✓	✓	✓	✓								
CF-RW-09	10/8	1510	✓		6	Gw/SG	✓	✓	✓	✓								
CF-OW-06	10/8	1500	✓		6	Gw/SG	✓	✓	✓	✓								
CF-RW-10	10/8	1210	✓		6	Gw/SG	✓	✓	✓	✓								
CF-FB-101899	10/8	1300	✓		6	Gw/SG	✓	✓	✓	✓								
CF-TB-101899	10/8	—	✓		2	LAB H2O	✓											

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lyon C Lulley	10/9 1536				
Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:

Method of Shipment:

Shipping Waybill No.:

SAMPLED BY: Lyon Lulley (Print Name) — Signature

Bruce Machus (Print Name) — Signature

Remarks:
Any questions or comments contact David Terry at 860-537-0751.
NOTE Sorry about short notice of Colchester Pick up. Thanks

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

Committed To *Your* Success

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

NO. [redacted]1199

STL JOB #:

CLIENT: GFT/Atlantic Consultants Inc

PROJECT ID: Keyspan Clifton Former MGP 98248

STL PROJECT MGR:

RUSH ☐ YES ☒ NO

DUE DATE Standard

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC (Y) / N	TESTS: VOC (BTEX) EPA method 8260B	TESTS: SVOC 8270 20 TICs	TESTS: RCRA 8 mtls 6010/7000C	TESTS: Total Cyanide EPA method 9012				
						BOTTLE TYPE AND PRESERVATION: (2) 40ml vial ICE/LMP	(2) 1L Amber UNP/ICE	(1) 500ml plastic HNO3/ICE	(1) 500ml plastic UNPR				
						FIELD FILTERED - CIRCLE Y or N							
						Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N
	CF-RW-16	10/12/99 1230	GW		MS MSD	✓	✓	✓	✓				
	CF-RW-14	10/13/99 1355	GW			✓	✓	✓	✓				
	CF-RW-16/12/99	10/12/99 800	GW			✓	✓	✓	✓				

GENERAL REMARKS: Any questions or comments call Dave T. @ GEI/Atlantic 860-537-0751

SAMPLE REMARKS

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE / TIME
SIGNATURE

SAMPLES COLLECTED BY — DATE / TIME 10/12/99
Lynn Willey, Bruce Mosbius 10/13/99
SIGNATURE

BOTTLES REC'D BY — DATE / TIME
SIGNATURE

RECEIVED IN LAB BY — DATE / TIME
SIGNATURE 10/14/99 16:30

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

SEVERN TRENT

STL

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI CONSULTANTS INC.

PROJECT ID: CLIFTON FORMER MGP [GEI PROJECT # 982462-1]

STL PROJECT MGR: PAUL HOBART

RUSH ☐ YES ☒ NO | DUE DATE SEE CONTRACT

TESTS

EPA METHOD 8260 [BTEX ONLY]	EPA METHOD 8270 [DAILS ONLY]	RESOURCE CONSERVATION RECOVERY ACT METALS EPA Method 6010	EPA Method 8270 QUIZ Lycon DC				
BOTTLE TYPE AND PRESERVATION							
2oz Glass ~~8oz Glass~~	8oz Glass	→					

GENERAL REMARKS

CATEGORY B DATA Deliverable.
- Equis / GIS key data deliverable
- Form I hard copies
- Call Karen Swartz / Lynn Willey w/ questions @ 860-527-0751

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	FIELD FILTERED – CIRCLE Y or N								SAMPLE REMARKS
						Y / (N)	Y / (N)	Y / (N)	Y / (N)	Y / N	Y / N	Y / N	Y / N	
	CF-FB042804	4/28/04 0835	W	—		✓	✓	✓	✓					
	CF-TRIP BLNK	4/28/04 1080	W			✓								
	CF-SB-97 (5-10)	4/26/04 1230	S			✓	✓	✓	✓					
	CF-SB-97 (25-30)	↓ 1455	S			✓	✓	✓	✓		CLIFTON FIELD			
	CF-SB-96 (5-10)	4/27/04 1230	S			✓	✓	✓	✓		COMBINED		COC	
	CF-SB-96A (30-35)	↓ 1435	S		Y	✓	✓	✓	✓			LFW		MS/MSD
	CF-SB-95 (25-30)	4/28/04 1015	S			✓	✓	✓	✓			✓		
	CF-SB-95 (10-15)	4/28/04 0910	S			✓	✓	✓	✓					
	CF-SB-XX (0-5')	4/28/04	S	duplicate of CF-SB-95 (10-15)		✓	✓	✓	✓					
	CF-SB-96 ~~(25-30)~~ (20-25)	4/27/04 1245	S			✓	✓	✓	✓					

206467

MATRIX CODES

A - AIR, AQ - AQUEOUS, C - COMPLEX, D - DRUM WASTE, OI - OIL, S - SOIL, SL - SLUDGE, W - WIPE, O - OTHER, FB - FIELD BLANK, TB - TRIP BLANK

BOTTLES PREPARED BY	DATE/TIME	BOTTLES REC'D BY	DATE/TIME
		RICHARD L FORD	4/28/04
SIGNATURE		SIGNATURE	1440
SAMPLES COLLECTED BY	DATE/TIME	RECEIVED IN LAB BY	DATE/TIME
Lynn Willey	4/28/04		
SIGNATURE	1440	SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE OF NO.

STL JOB #:

CLIENT: GEI Consultants Inc.

PROJECT ID: Clifton Former MGP (GEI Project # 982482-1)

STL PROJECT MGR: Paul Hubart

RUSH ☐ YES ☒ NO DUE DATE see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA Method 8260 (BTEX only)	EPA Method 8270 (PAHs only)	RCRA Metals EPA method 6010	EPA Method 9012 (TCN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8 oz →	→						
						FIELD FILTERED – CIRCLE Y or N: Y/(N)	Y/(N)	Y/(N)	Y/(N)	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
	CF-SB-98A (25-30)	4/28/04 1630	S	-	N	✓	✓	✓	✓					
	CF-SB-98A (16.5-17.5)	4/28/04 1550	S											
	CF-SB-98A (45-50)	4/29/04 1150												
	CF-SB-99 (45-50')	4/29/04 1555												
	CF-SB-99 (25-27')	4/29/04 1350	↓		↓	↓	↓	↓	↓					
	TB-043004	4/30/04	lab H_2O		Y	✓								

20646

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE/TIME

SIGNATURE

SAMPLES COLLECTED BY: Katie Amos DATE/TIME: 4/30/04

SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD DATE/TIME: 4/30/04

SIGNATURE: Richard L Ford 1220

RECEIVED IN LAB BY — DATE/TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE OF | NO.

STL JOB #:

CLIENT: GEI Consultants, Inc.

PROJECT ID: Clifton Former MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC? Y / N	TESTS: EPA Method 8260 (BTEX only)	TESTS: EPA Method 8270 (PAHs only)	TESTS: RCRA Metals EPA Method 6010	TESTS: EPA Method 9012 (TCN)	GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz. glass	8oz glass	→	→	
						FIELD FILTERED – CIRCLE Y or N: Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
	CF-SB-100 (3-5)	5/3/04 0820	S			✓	✓	✓	✓	
	CF-SB-100 (8-10)	0830	S							
	CF-SB-100 (15-17)	0845								
	CF-SB-101 (3-5)	1015								
	CF-SB-101 (10-11)	1035								
	CF-SB-101 (15-16)	1055								
	CF-SB-102 (1-5)	1315								
	CF-SB-102 (10-12)	1335								
	CF-SB-102 (28-30)	1415								
	TB050304	5/3/04	lab H2O		Y	✓				
	FB050404	5/4/04 1000	FB		Y	✓	✓	✓	✓	

206497

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY | DATE/TIME

SIGNATURE

SAMPLES COLLECTED BY: Katie Amos | DATE/TIME: 5/4/04 1200

SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD | DATE/TIME: 5/4/04

SIGNATURE: Richard L Ford 1200

RECEIVED IN LAB BY | DATE/TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT **STL**

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Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI Consultants

PROJECT ID: Clifton MGP, Staten Island

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAH's only)	RCRA metals EPA 6010	EPA 9012 (TCN)	GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→	→	
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
	CF-SB-103 12-13'	5/4/04 1530	S			✓	✓	✓	✓	
	CF-SB-103 20-25'	↓ 1805	↓			↓	↓	↓	↓	
	CF-SB-104 12-13'	5/5/04 1055								
	CF-SB-104 28-30'	5/5/04 1130								
	CF-SB-XX 10-12'	0700		duplicate of CF-SB-104 (12-13)						
	CF-SB-105 12-13'	1350								
	CF-SB-105 27-30'	1450			Y					MS/MSD
	CF-SB-106 12-13'	5/6/04 0920								
	CF-SB-106 15-17'	↓ 0935	↓			↓	↓	↓	↓	
	TB-050604		TB		Y	✓				

20649

MATRIX CODES

A - AIR; AQ - AQUEOUS; C - COMPLEX; D - DRUM WASTE; OI - OIL; S - SOIL; SL - SLUDGE; W - WIPE; O - OTHER; FB - FIELD BLANK; TB - TRIP BLANK

BOTTLES PREPARED BY — DATE/TIME

SIGNATURE

SAMPLES COLLECTED BY: Katie Amos — DATE/TIME: 5/6/04 1330

SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD — DATE/TIME: 5/6/04

SIGNATURE: Richard L Ford 1330

RECEIVED IN LAB BY — DATE/TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

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Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE OF | NO.

STL JOB #:

CLIENT: GEI Consultants Inc.

PROJECT ID: Clifton MGP, Staten Island

STL PROJECT MGR: Paul Hobart

RUSH: ☐ YES ☒ NO DUE DATE: see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	RCRA metals (EPA 6010)	EPA 9012 (TCN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→	→					
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-107 (9-10)	5/6/04 1140	S			✓	✓	✓	✓					
↓	CF-SB-107 (12-13)	↓ 1155	↓			↓	↓	↓	↓					
↓	CF-SB-107 (15-18)	↓ 1220	↓			↓	↓	↓	↓					
↓	TB-050704	05/07/04	TB		Y	↓								
2	CF-SB-108 (13-15)	5/7/04 1145	S			✓	✓	✓	✓					
2	CF-SB-108 (20-25)	5/7/04 1210	S			✓	✓	✓	✓					
										206537				

MATRIX CODES

A	AIR	S	SOIL
AQ	AQUEOUS	SL	SLUDGE
C	COMPLEX	W	WIPE
D	DRUM WASTE	O	OTHER
OI	OIL	FB	FIELD BLANK
		TB	TRIP BLANK

BOTTLES PREPARED BY DATE/TIME

SIGNATURE

SAMPLES COLLECTED BY DATE/TIME: 5/7/04 1400

SIGNATURE: Katie Amos

BOTTLES REC'D BY DATE/TIME: RICHARD L FORD 5/7/04

SIGNATURE: Richard L Ford 1400

RECEIVED IN LAB BY DATE/TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS

☐ PRESERVED ☐ SEALS INTACT

☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: (203) 929-8140
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CHAIN OF CUSTODY RECORD

PAGE OF | NO.

STL JOB #:

CLIENT: GEI Consultants, Inc.

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE: see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	ZRA metals EPA 6010	EPA 7012 (Total (N))					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→	→					
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-109A (12-15)	5/7/04 1410	S			✓	✓	✓	✓					
2	CF-SB-109A (20-25)	5/7/04 1435	S			✓	✓	✓	✓					
	CF-SB-110 (10-15)	5/10/04 1050				✓		✓	✓					
	CF-SB-110 (15-16)	1105				✓		✓	✓					
	CF-SB-110 (19.5-20)	1110				✓								
	CF-SB-110 (23-25)	1120	↓			✓	✓	✓	✓					
2	CF-SB-109A (15-20)	5/7/04 1425	S			✓	✓	✓	✓					

206537

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE/TIME
SIGNATURE

SAMPLES COLLECTED BY: Katie Amos — DATE/TIME: 5/10/04 1345
SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD — DATE/TIME: 5/11/04
SIGNATURE: Richard L Ford 1345

RECEIVED IN LAB BY — DATE/TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT **STL**

STL Connecticut
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CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 | NO.

STL JOB #:

CLIENT: GZA Consultants Inc.

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE: see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	RCRA metals (EPA 6010)	EPA 9012 (TCN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2 oz glass	8 oz glass	→	→					
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-111 (15-17.5)	5/10/04 1425	S			✓	✓	✓	✓					
	CF-SB-112 (13-14)	1630				✓								
	CF-SB-112 (16-20)	1645				✓	✓	✓	✓					
	CF-SB-113 (14.5-15)	5/11/04 1010				✓								
	CF-SB-113 (15-15.5)	1025						✓	✓					
	CF-SB-113 (20-25)	1035				✓	✓	✓	✓					
	CF-SB-114A (13-14)	1205				✓	✓	✓	✓					
	CF-SB-114B (15-20)	1230				✓	✓	✓	✓					
	CF-SB-115 (14-15)	1440				✓		✓	✓					
	CF-SB-115 (18-20)	1500				✓	✓	✓	✓					

206537

206586

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
DW - DRUM WASTE
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE/TIME

SIGNATURE

SAMPLES COLLECTED BY: Katie Amos — DATE/TIME: 5/12/04 1340

SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD — DATE/TIME: 5/12/04

SIGNATURE: Richard Ford 1705

RECEIVED IN LAB BY — DATE/TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 2 OF 2 | NO.

STL JOB #:

CLIENT: GEI Consultants

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE See contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	EPA 6010 (RCRA metals)	EPA 9012 (T CN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→	→					
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-116 (12.5-15)	5/11/04 1625	S			✓	✓	✓	✓					
	CF-SB-116 (19-20)	5/11/04 1650				✓	✓	✓	✓					
	CF-SB-117 (10-12)	5/12/04 0930				✓		✓	✓					
	CF-SB-117 (24-25)	5/12/04 1005				✓	✓	✓	✓					
↓	CF-SB-118 (32.5-35)	5/12/04 1250	↓			✓	✓	✓	✓					
2	TB-051204	5/12/04	TB		Y	✓								
2	CF-SB-119 (17-18.5)	5/12/04 1550	S			✓	✓	✓	✓					
2	CF-SB-119 (25-27.5)	5/12/04 1620	S			✓	✓	✓	✓					

206586

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
O - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY | DATE/TIME
SIGNATURE

SAMPLES COLLECTED BY: Katie Amos | DATE/TIME: 1340 5/12/04
SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD | DATE/TIME: 5/12/04
SIGNATURE: Richard L Ford 1723

RECEIVED IN LAB BY | DATE/TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-812

SEVERN TRENT **STL**

META Environmental

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484
617 923- 4662
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #: META
CLIENT: GEI Consultants
PROJECT ID: Clifton MGP
STL PROJECT MGR:
RUSH ☐ YES ☒ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: Forensics (PAHs)	BOTTLE TYPE AND PRESERVATION: 4oz glass	FIELD FILTERED – CIRCLE Y or N	SAMPLE REMARKS
1	CF-SB-111 (14.5-15)	5/10/04 1410	S			✓		Y / N	
	CF-SB-112 (13-14)	5/10/04 1630							
	CF-SB-115 (14-15)	5/11/04 1440							
	CF-SB-116 (15-15.5)	5/11/04 1610							
	CF-SB-117 (10-12)	5/12/04 0930							
	CF-SB-118 (16-17)	1210							
	CF-SB-118 (17-17.5)	1210				✓			
1	CF-SB-119 (17-17.5)	5/12/04 1550	S						

KS e-mail RSIEGENER@metaenv.com

MATRIX CODES

S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK
D - DRUM WASTE
OI - OIL
COMPLEX
EOUS

BOTTLES PREPARED BY	DATE/TIME	BOTTLES REC'D BY	DATE/TIME
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY: Katy Amos	DATE/TIME: 5/12/04 1730	RECEIVED IN LAB BY	DATE/TIME
SIGNATURE: Katy Amos		SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
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Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 | NO.

STL JOB #:

CLIENT: GEI Consultants

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH [ ] YES [X] NO | DUE DATE see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	EPA 6010B RCRA metals	EPA 9012 (TCN)	GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→	→	
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-120 (10-15)	5/13/04 0900	S			✓	✓	✓	✓	
	CF-SB-120 (10-15) MS	5/13/04 0900								
	CF-SB-120 (10-15) MSD	0900								
	CF-SB-120 (17-18)	0915								
	CF-SB-120 (32.5-35)	0915								
	CF-SB-XX (18-20)	1000				duplicate of CF-SB-120 (17-18)				
	CF-SB-121 (18.0-19.5)	1130				✓		✓	✓	
	CF-SB-121 (33-35)	1200					✓			
	CF-SB-122 (17.5-20)	1355								
	CF-SB-122 (25-27.5)	1410								

206586

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY / DATE/TIME	BOTTLES REC'D BY / DATE/TIME: RICHARD L FORD 5/14/04
SIGNATURE	SIGNATURE: Richard L Ford 1575
SAMPLES COLLECTED BY / DATE/TIME: Katie Amos 13:5 5/14/04	RECEIVED IN LAB BY / DATE/TIME
SIGNATURE: Katie Amos	SIGNATURE

REMARKS ON SAMPLE RECEIPT

[ ] BOTTLES INTACT [ ] CUSTODY SEALS
[ ] PRESERVED [ ] SEALS INTACT
[ ] CHILLED [ ] SEE REMARKS

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2 | NO.

STL JOB #:

CLIENT: GEI Consultants

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE SU contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	EPA 6010 RCRA Metals	EPA 9012 (T(N)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→						
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-123 (15-17)	5/14/04 0825	S			✓	✓	✓	✓	206586				
2	CF-SB-123 (27-30)	5/14/04 0850	S			✓	✓	✓	✓					
6	FB-051304	5/13/04 1500	FB		Y	✓	✓*	✓	✓					* use FB-051304A for SVOC's if you do not need both jars
2	TB-051404	5/14/04	TB		Y	✓								
2	CF-SB-124 (13-15)	5/14/04 1050	S			✓		✓	✓			206618		
2	CF-SB-124 (35-40)	5/14/04 1130	S			✓	✓	✓	✓					
1	CF-SB-125 (20-21)	5/11/04 1320	S			✓								
2	CF-SB-125 (30-35)	5/14/04 1335	S			✓	✓	✓	✓					
2	CF-SB-126 ~~(25-27)~~ (20-24) KA	5/14/04 1415	S			✓		✓	✓					

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY / DATE/TIME	BOTTLES REC'D BY / DATE/TIME: RICHARD L FORD 5/14/04
SIGNATURE	SIGNATURE: Richard L Ford 1515
SAMPLES COLLECTED BY / DATE/TIME: Katie Amos 5/14/04 1515	RECEIVED IN LAB BY / DATE/TIME
SIGNATURE: K Amos	SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT

STL

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

META

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI Consultants INC

PROJECT ID: Clifton Former MGP

~~STL~~ PROJECT MGR: Dave Craig

RUSH ☐ YES ☒ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: FORENSIC PAH ANALYSIS	BOTTLE TYPE AND PRESERVATION: 4oz glass	FIELD FILTERED – CIRCLE Y or N	SAMPLE REMARKS
1	CF-SB-121 (19.5-20')	5/13/04 11:30	So.1			Y / N	Y / N	Y / N	
1	CF-SB-121 (18-19.5')	5/13/04 11:35	So.1			Y / N	Y / N	Y / N	
1	CF-SB-124 (13-15')	5/14/04 10:50	So.1			Y / N	Y / N	Y / N	
1	CF-SB-~~124~~ 126 (2022)	5/14/04 14:45	So.1			Y / N	Y / N	Y / N	
						Y / N	Y / N	Y / N	
						Y / N	Y / N	Y / N	
						Y / N	Y / N	Y / N	
						Y / N	Y / N	Y / N	
						Y / N	Y / N	Y / N	
						Y / N	Y / N	Y / N	

not submitted to STL

also submitted to STL

GENERAL REMARKS: PLEASE COMPLETE FORENSIC PAH ANALYSIS. IF ANY QUESTIONS ON SAMPLES PLEASE CONTACT KATIE AMOS / Lynn Willey

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY | DATE/TIME
SIGNATURE

SAMPLES COLLECTED BY: Katie Amos / Lynn Willey | DATE/TIME: 5/14/04 1400
SIGNATURE

BOTTLES REC'D BY | DATE/TIME
SIGNATURE

RECEIVED IN LAB BY | DATE/TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT **STL**

STL Connecticut
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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GZA Consultants, Inc

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE see contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: SW 8260 (BTEX only)	SW 8270 (PAH's only)	SW 6010 (RCRA metals)	SW 7012 (TCN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	↓	↓					
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-126A (33-34)	5/17/04 1135	S			✓	✓	✓	✓					
	CF-SB-126A (43-44)	1245				✓	✓	✓	✓					
	CF-SB-127 (19-20)	1625				✓	no	✓	✓					
↓	CF-SB-127 (40-45)	↓ 1740	↓			✓	✓	✓	✓					
2	CF-SB-128 (17-18)	5/18/04 0955	S			✓	✓	✓	✓					
2	CF-SB-128 (33-35)	5/18/04 1030	S			✓	✓	✓	✓					
2	CF-SB-129 (18-20)	5/18/04 1335	S			✓	✓	✓	✓					
2	CF-SB-129 (25-30)	5/18/04 1400	S			✓	✓	✓	✓					
2	TB-051804	5/18/04	TB		Y	✓								

200618

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE/TIME

SIGNATURE

SAMPLES COLLECTED BY: Katie Amos — DATE/TIME: 5/18/04 1155

SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD — DATE/TIME: 5/18/04

SIGNATURE: Richard L Ford 1500

RECEIVED IN LAB BY — DATE/TIME

SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT

STL

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META environmental

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI Consultants, Inc.

PROJECT ID: Clifton MGP

STL PROJECT MGR: Dave Craig

RUSH ☐ YES ☒ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y / N	FIELD FILTERED - CIRCLE Y or N								SAMPLE REMARKS
						TESTS: forensic PAHs								GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 4oz glass								
						Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
1	CF-SB-131 (18-19)	5/19/04 0815	S			✓								
1	CF-SB-127 (19-20)	5/17/04 1625	S			✓								
1	CF-SB-131 (17-18)	5/19/04 0840	S			✓								
1	CF-SB-133 (9.5-10)	5/19/04 1200	S			✓								
1	CF-SB-137 (21.5-23.5)	5/20/04 0840	S			✓								
1	CF-SB-137 (27.5-28)	5/20/04 0900	S			✓								
1	CF-SB-139 (13-15)	5/20/04 1630	S			✓								

MATRIX CODES

A - AIR
AQ - AQUEOUS
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D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY	DATE/TIME	BOTTLES REC'D BY	DATE/TIME
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY: Katie Amos	DATE/TIME: 5/20/04 1700	RECEIVED IN LAB BY	DATE/TIME
SIGNATURE: Katie Amos		SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8

SEVERN TRENT **STL**

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 2 NO.

STL JOB #:

CLIENT: GEI Consultants

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO DUE DATE See contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAH's only)	EPA 6010 (RCRA metals)	EPA 9012 (TCN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	4oz glass	→						
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-132 (15-18)	5/19/04 1055	S			✓	✓	✓	✓					
2	CF-SB-133 (16-18)	5/19/04 1215	S			✓	✓	✓	✓					
1	CF-SB-133 (9.5-10)	5/19/04 1200	S			✓								
1	CF-SB-132 (10-11)	5/19/04 1050	S			✓								
2	CF-SB-XX (18-20)	5/19/04 0900	S			✓	✓	✓	✓	duplicate of CF-SB-132 (15-18)				
2	CF-SB-131 (17-18)	5/19/04 1330	S			✓	✓	✓	✓					
2	CF-SB-131 (11-11.5)	5/19/04 1320	S			✓	✓	✓	✓					
2	CF-SB-135 (11.5-15)	5/19/04 1505	S			✓	✓	✓	✓					
2	CF-SB-135 (21-25)	5/19/04 1530	S			✓	✓	✓	✓					
2	CF-SB-136 (23-25)	5/19/04 1720	S			✓	✓	✓	✓					

206654

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY / DATE/TIME	BOTTLES REC'D BY / DATE/TIME: Richard L Ford 5/20/04
SIGNATURE	SIGNATURE: Richard L Ford 1530
SAMPLES COLLECTED BY / DATE/TIME: Katie Amos 5/20/04 1520	RECEIVED IN LAB BY / DATE/TIME
SIGNATURE: Katie Amos	SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

SEVERN TRENT **STL**

STL Connecticut
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CHAIN OF CUSTODY RECORD

PAGE 2 OF 2 | NO.

STL JOB #:

CLIENT: GEI Consultants, Inc.

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE: See contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	FIELD FILTERED – CIRCLE Y or N (SVOA 8260 (BTEX only) / SVOA 8270 (PAHs only) / SVOA 6010 (RCRA metals) / SPA 9012 (TCN))	SAMPLE REMARKS
2	CF-SB-136 (13-18)	5/19/04 1705	S			✓ ✓ ✓ ✓	
2	CF-SB-137 (22.5-23.5)	5/20/04 0810				✓ ✓ ✓	
2	CF-SB-137 (18.5-20)	5/20/04 0805				✓ ✓ ✓ ✓	
1	CF-SB-137 (32-33)	5/20/04 0915				✓ ✓ ✓ ✓	
2	CF-SB-138 (18-20)	5/20/04 1100	S			✓ ✓ ✓	
2	CF-SB-138 (30-35)	5/20/04 1220	S			✓ ✓ ✓ ✓	
2	CF-SB-130 (25-30)	5/18/04 1135	S			✓ ✓ ✓ ✓	
2	CF-SB-131 (17-18)	5/18/04 0810	S			✓ ✓ ✓	
2	CF-SB-130 (22-25)	5/19/04 1605	S			✓ ✓ ✓ ✓	
2	CF-SB-131 (25-30) MS/MSD	5/19/04 0905	S			✓ ✓ ✓ ✓	MS/MSD

GENERAL REMARKS: 3/4 12 15 18 PAH

206054

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

	DATE/TIME
BOTTLES PREPARED BY	
SIGNATURE	
SAMPLES COLLECTED BY: Katie Amos	5/20/04 1520
SIGNATURE: Katie Amos	

	DATE/TIME
BOTTLES REC'D BY: RICHARD L FORD	5/20/04
SIGNATURE: Richard L Ford	1520
RECEIVED IN LAB BY	
SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

SEVERN TRENT **STL**

STL Connecticut
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Shelton, CT 06484

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Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI Consultants, Inc.

PROJECT ID: Clifton MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE: sel contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	TESTS: EPA 8260 (BTEX only)	EPA 8270 (PAHs only)	EPA 6010 (RCRA metals)	EPA 9012 (TCN)					GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2oz glass	8oz glass	→	→					
						FIELD FILTERED – CIRCLE Y or N: Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	Y/N	SAMPLE REMARKS
2	CF-SB-139 (7.5-10)	5/20/04 1420	S			✓	✓	✓	✓					
2	CF-SB-139 (16.5-18)	1440				✓	✓	✓	✓					
1	CF-SB-139 (13-15)	1430				✓								
6	FB-052104	5/21/04 0915	FB		Y	✓	✓	✓	✓					
2	TB-052104	5/21/04	TB		Y	✓								

206665

Verified Login on my SL

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE/TIME
SIGNATURE

SAMPLES COLLECTED BY: Katie Amos — DATE/TIME: 5/21/04 1000
SIGNATURE: Katie Amos

BOTTLES REC'D BY: RICHARD L FORD — DATE/TIME: 5/21/04
SIGNATURE: Richard L Ford 1350

RECEIVED IN LAB BY — DATE/TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

TABLE VO-3.2 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(4-6)	CF-SB20(5-7)	CF-SB16(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05	990302A-07	990302A-08	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	6.10	1.14	1.19	
Benzene	5J	U	U	5.0
Toluene	10J	U	U	5.0
Ethylbenzene	U	U	2J	5.0
Xylene (total)	U	U	2J	5.0
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/25/99	02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Report this analysis CF-RW1(17)	CF-RW1(17) RE	CF-RW1(4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-04	990302A-04RE	990302A-05	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	2.86	2.86	12.2	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	250J	230J	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	160J	140J	350J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U UJ15	330
2,4,6-Trichlorophenol	U	U	U UJ15	330
2,4,5-Trichlorophenol	U	U	U UJ15	1600
2-Chloronaphthalene	U	U	U UJ15	330
2-Nitroaniline	U	U	U UJ15	1600
Dimethylphthalate	U	U	U UJ15	330
Acenaphthylene	71J	120J	3600J J15	330
2,6-Dinitrotoluene	U	U	U UJ15	330
3-Nitroaniline	U	U	U UJ15	1600
Acenaphthene	48J	U	3100J J15	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Repeat CF-RW1(17)	CF-RW1(17) RE	CF-RW1(4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-04	990302A-04RE	990302A-05	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	2.86	2.86	12.2	
2,4-Dinitrophenol	U	U	U UJ	1600
4-Nitrophenol	U	U	U UJ	1600
Dibenzofuran	25J	U	950J J	330
2,4-Dinitrotoluene	U	U	U UJ	330
Diethylphthalate	U	U	U UJ	330
4-Chlorophenyl-phenylether	U	U	U UJ	330
Fluorene	U	U	4900 J	330
4-Nitroaniline	U	U	U UJ	1600
4,6-Dinitro-2-methylphenol	U UJ	U UJ	U UJ	1600
N-Nitrosodiphenylamine (1)	U UJ	U UJ	U UJ	330
4-Bromophenyl-phenylether	U UJ	U UJ	U UJ	330
Hexachlorobenzene	U UJ	U UJ	U UJ	330
Pentachlorophenol	U UJ	U UJ	U UJ	1600
Phenanthrene	440J J	420J J	13000 J	330
Anthracene	U UJ	U UJ	4300 J	330
Carbazole	U UJ	U UJ	U UJ	330
Di-n-butylphthalate	U UJ	U UJ	U UJ	330
Fluoranthene	U UJ	U UJ	3200J J	330
Pyrene	450J J	400J J	7700	330
Butylbenzylphthalate	U UJ	U UJ	U	330
3,3'-Dichlorobenzidine	U UJ	U UJ	U UJ	660
Benzo(a)anthracene	230J J	240J J	3400J	330
Chrysene	370J J	360J J	11000	330
bis(2-Ethylhexyl)phthalate	440JB J	440JB J	U UJ	330
Di-n-octylphthalate	U	U	U UJ	330
Benzo(b)fluoranthene	200J	210J	3600J J	330
Benzo(k)fluoranthene	250J	290J	3600J J	330
Benzo(a)pyrene	340J	350J	6400 J	330
Indeno(1,2,3-cd)pyrene	780J	760J	U UJ	330
Dibenzo(a,h)anthracene	U	U	U UJ	330
Benzo(g,h,i)perylene	850J	820J	U UJ	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

revised from validators

JKJ

TABLE SV-1.1
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(17) Repeat	CF-RW1(17) RE	CF-RW1(4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-04	990302A-04RE	990302A-05	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	2.86	2.86	12.2	
2,4-Dinitrophenol	U	U	U UJ|S	1600
4-Nitrophenol	U	U	U UJ|S	1600
Dibenzofuran	25J	U	950J J|S	330
2,4-Dinitrotoluene	U	U	U UJ|S	330
Diethylphthalate	U	U	U UJ|S	330
4-Chlorophenyl-phenylether	U	U	U UJ|S	330
Fluorene	U	U	4900 J|S	330
4-Nitroaniline	U	U	U UJ|S	1600
4,6-Dinitro-2-methylphenol	U UJ|S	U UJ|S	U UJ|S	1600
N-Nitrosodiphenylamine (1)	U UJ|S	U UJ|S	U UJ|S	330
4-Bromophenyl-phenylether	U UJ|S	U UJ|S	U UJ|S	330
Hexachlorobenzene	U UJ|S	U UJ|S	U UJ|S	330
Pentachlorophenol	U UJ|S	U UJ|S	U UJ|S	1600
Phenanthrene	440J J|S	420J J|S	13000 J|S	330
Anthracene	U UJ|S	U UJ|S	4300 J|S	330
Carbazole	U UJ|S	U UJ|S	U UJ|S	330
Di-n-butylphthalate	U UJ|S	U UJ|S	U UJ|S	330
Fluoranthene	U UJ|S	U UJ|S	32000 J|S	330
Pyrene	450J J|S	400J J|S	7700	330
Butylbenzylphthalate	U UJ|S	U UJ|S	U	330
3,3'-Dichlorobenzidine	U UJ|S	U UJ|S	U UJ|S	660
Benzo(a)anthracene	230J J|S	240J J|S	3400J	330
Chrysene	370J J|S	360J J|S	11000	330
bis(2-Ethylhexyl)phthalate	440JB J|S	440JB J|S	U	330
Di-n-octylphthalate	U	U	U UJ|S	330
Benzo(b)fluoranthene	200J	210J	3600J J|S	330
Benzo(k)fluoranthene	250J	290J	3600J J|S	330
Benzo(a)pyrene	340J	350J	6400 J|S	330
Indeno(1,2,3-cd)pyrene	780J	760J	U UJ|S	330
Dibenzo(a,h)anthracene	U	U	U UJ|S	330
Benzo(g,h,i)perylene	850J	820J	U UJ|S	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Report CF-RW1(4-6) DL	report CF-TP1(3)	CF-TP1(3) RE	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05DL	990302A-06	990302A-06RE	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	61.0	12.8	12.8	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
^ 4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	2500J	2500J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	16000	16000	330
Hexachlorocyclopentadiene	U UJ J5	U UJ J5	U UJ J5	330
2,4,6-Trichlorophenol	U UJ J5	U UJ J5	U UJ J5	330
2,4,5-Trichlorophenol	U UJ J5	U UJ J5	U UJ J5	1600
2-Chloronaphthalene	U UJ J5	U UJ J5	U UJ J5	330
2-Nitroaniline	U UJ J5	U UJ J5	U UJ J5	1600
Dimethylphthalate	U UJ J5	U UJ J5	U UJ J5	330
Acenaphthylene	4200JD J J5	2900J J J5	2900J J J5	330
2,6-Dinitrotoluene	U UJ J5	U UJ J5	U UJ J5	330
3-Nitroaniline	U UJ J5	U UJ J5	U UJ J5	1600
Acenaphthene	3600JD J J5	6100 J J5	6600 J J5	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/05/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(4-6) DL	CF-TP1(3)	CF-TP1(3) RE	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05DL	990302A-06	990302A-06RE	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	61.0	12.8	12.8	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	1100JD	1400J	1400J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	4400	3400J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	16000JD	23000	22000	330
Anthracene	U	1400J	1100J	330
C--bazole	U	U	U	330
n-butylphthalate	U	U	U	330
Fluoranthene	U	3400J	3600J	330
Pyrene	12000JD	7700	6700	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	5400JD	3600J	3700J	330
Chrysene	12000JD	6900	7000	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	3000JD	2500J	2600J	330
Benzo(k)fluoranthene	2200JD	2800J	2300J	330
Benzo(a)pyrene	6300JD	4600	4300	330
Indeno(1,2,3-cd)pyrene	U	4200	3800J	330
Dibenzo(a,h)anthracene	U	3200J	3000J	330
Benzo(g,h,i)perylene	U	4700	4200	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/05/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-RW1(4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-05

Level (low/med): LOW Date Received: 02/23/99

% Solids: 82.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.6			P
7440-39-3	Barium	112.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	84.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.84	B	J3	P
7440-22-4	Silver	0.39	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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DM 5/12

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW1(4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-05

% Solids: 81.3 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.36		mg/Kg		L

Comments:

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TABLE VO-3.1 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB15(5-8)	CF-RW1(17)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKB	990302A-03	990302A-04	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	1.00	1.49	3.12	
Benzene	U	3J	U	5.0
Toluene	U	2J	U	5.0
Ethylbenzene	U	.7J	U	5.0
Xylene (total)	U	2J	U	5.0
Date Received		02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/25/99	02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(17)	CF-RW1(17) RE	CF-RW1(4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-04	990302A-04RE	990302A-05	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	2.86	2.86	12.2	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
zoic acid	250J	230J	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	160J	140J	350J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U UJ/R	330
2,4,6-Trichlorophenol	U	U	U UJ/R	330
2,4,5-Trichlorophenol	U	U	U UJ/R	1600
2-Chloronaphthalene	U	U	U UJ/R	330
2-Nitroaniline	U	U	U UJ/R	1600
Dimethylphthalate	U	U	U UJ/R	330
Acenaphthylene	71J	120J	360J UJ/R	330
2,6-Dinitrotoluene	U	U	U UJ/R	330
3-Nitroaniline	U	U	U UJ/R	1600
Acenaphthene	48J	U	3100J UJ/R	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

TABLE SV-1.1 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Repeat CF-RW1(17)	CF-RW1(17) RE	CF-RW1(4-6)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-04	990302A-04RE	990302A-05	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	2.86	2.86	12.2	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	25J	U	950J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	4900	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	440J	420J	13000	330
Anthracene	U	U	4300	330
Carbazole	U	U	U	330
n-butylphthalate	U	U	U	330
Fluoranthene	U	U	32000	330
Pyrene	450J	400J	7700	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	230J	240J	3400J	330
Chrysene	370J	360J	11000	330
bis(2-Ethylhexyl)phthalate	440JB	440JB	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	200J	210J	3600J	330
Benzo(k)fluoranthene	250J	290J	3600J	330
Benzo(a)pyrene	340J	350J	6400	330
Indeno(1,2,3-cd)pyrene	780J	760J	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	850J	820J	U	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKJ

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-RW1(17)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-04

Level (low/med): LOW Date Received: 02/23/99

% Solids: 29.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.2	B	J23	P
7440-39-3	Barium	180.		J23	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.1	B	J23	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	38.6		J23	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	8.1		J23	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U	UJ23	CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.6	U	UJ23, UJ3	P
7440-22-4	Silver	1.3	U	UJ23	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW1(17)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-04

% Solids: 29.6 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	24.0		J19 mg/Kg		L

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW2(9-11)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): NA Lab Sample ID: 990302A-01

% Solids: 84.9 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
	TOC	516.		mg/Kg		D

Comments:

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JM 5/12.

TABLE VO-3.4 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW3(8-10)			Quant. Limits with no Dilution
Lab Sample I.D.	990302A-20			
Method Blank I.D.	VBLKKD			
Quant. Factor	1.14			
Benzene	2J			5.0
Toluene	U			5.0
Ethylbenzene	U			5.0
Xylene (total)	U			5.0
Date Received	02/25/99			
Date Extracted	N/A			
Date Analyzed	02/27/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.8
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB14 (24-28)	CF-RW3 (8-10)		
Lab Sample I.D.	990302A-19	990302A-20		Quant. Limits with no Dilution
Method Blank I.D.	SBLKNP	SBLKNP		
Quant. Factor	1.12	1.14		
Phenol	46J	U		330
bis(2-Chloroethyl)ether	U	U		330
2-Chlorophenol	U	U		330
1,3-Dichlorobenzene	U	U		330
1,4-Dichlorobenzene	U	U		330
Benzyl alcohol	U	U		330
1,2-Dichlorobenzene	U	U		330
2-Methylphenol	U	U		330
2,2'-oxybis(1-Chloropropane)	U	U		330
4-Methylphenol	U	U		330
N-Nitroso-di-n-propylamine	U	U		330
Hexachloroethane	U	U		330
Nitrobenzene	U	U		330
Isophorone	U	U		330
2-Nitrophenol	U	U		330
4-Dimethylphenol	U	U		330
Benzoic acid	U	U		1600
bis(2-Chloroethoxy)methane	U	U		330
2,4-Dichlorophenol	U	U		330
1,2,4-Trichlorobenzene	U	U		330
Naphthalene	1100	7J		330
4-Chloroaniline	U	U		330
Hexachlorobutadiene	U	U		330
4-Chloro-3-methylphenol	U	U		330
2-Methylnaphthalene	510	U		330
Hexachlorocyclopentadiene	U	U		330
2,4,6-Trichlorophenol	U	U		330
2,4,5-Trichlorophenol	U	U		1600
2-Chloronaphthalene	U	U		330
2-Nitroaniline	U	U		1600
Dimethylphthalate	U	U		330
Acenaphthylene	21J	U		330
2,6-Dinitrotoluene	U	U		330
3-Nitroaniline	U	U		1600
Acenaphthene	200J	U		330
Date Received	02/25/99	02/25/99		
Date Extracted	02/26/99	02/26/99		
Date Analyzed	03/05/99	03/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.8
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB14 (24-28)	CF-RW3 (8-10)		Quant. Limits with no Dilution
Lab Sample I.D.	990302A-19	990302A-20		
Method Blank I.D.	SBLKNP	SBLKNP		
Quant. Factor	1.12	1.14		
2,4-Dinitrophenol	U	U		1600
4-Nitrophenol	U	U		1600
Dibenzofuran	67J	U		330
2,4-Dinitrotoluene	U	U		330
Diethylphthalate	U	U		330
4-Chlorophenyl-phenylether	U	U		330
Fluorene	U	U		330
4-Nitroaniline	U	U		1600
4,6-Dinitro-2-methylphenol	U	U		1600
N-Nitrosodiphenylamine (1)	U	U		330
4-Bromophenyl-phenylether	U	U		330
Hexachlorobenzene	U	U		330
Pentachlorophenol	U	U		1600
Phenanthrene	380	24J		330
Anthracene	U	U		330
Carbazole	U	U		330
Di-n-butylphthalate	U	U		330
Fluoranthene	U	U		330
Pyrene	94J	12J		330
Butylbenzylphthalate	U	U		330
3,3'-Dichlorobenzidine	U	U		660
Benzo(a)anthracene	40J	U		330
Chrysene	J 49J	UJ U		330
bis(2-Ethylhexyl)phthalate	9J 37DJ	19J 38DJ		330
Di-n-octylphthalate	U	U		330
Benzo(b)fluoranthene	13J	U		330
Benzo(k)fluoranthene	22J	U		330
Benzo(a)pyrene	36J	U		330
Indeno(1,2,3-cd)pyrene	260J	U		330
Dibenzo(a,h)anthracene	U	U		330
Benzo(g,h,i)perylene	290J	U		330
Date Received	02/25/99	02/25/99		
Date Extracted	02/26/99	02/26/99		
Date Analyzed	03/05/99	03/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-RW3(8-10)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-20

Level (low/med): LOW Date Received: 02/25/99

% Solids: 88.4

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9			P
7440-39-3	Barium	47.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.17	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	37.4			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.034	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.69	U	UJ3	P
7440-22-4	Silver	0.34	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: RED Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

JAM 5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW3(8-10)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-20

% Solids: 88.4 Date Received: 02/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.549	U	mg/Kg		L

Comments:

FORM I - WC

5/12

Soil

TABLE VO-1.2
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-RW4 (16-20)	CSB36 CF-RW4(4-8)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKL	990302D-02	990302D-03	
Method Blank I.D.	VBLKKL	VBLKKL	VBLKKL	
Quant. Factor	1.00	1.10	1.26	
Benzene	U	10	2J	5.0
Toluene	U	3J	1J	5.0
Ethylbenzene	U	2J	3J	5.0
Xylene (total)	U	4J	12	5.0
Date Received		03/04/99	03/04/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/06/99	03/06/99	03/06/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

removed original qualifications revision from validator

JKC

TABLE VO-3.5
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB9(8-10)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKE	990302A-09	990302A-12	
Method Blank I.D.	VBLKKE	VBLKKE	VBLKKE	
Quant. Factor	1.00	37.9	12.3	
Benzene	U	43000	U	1000
Toluene	U	130000	U	1000
Ethylbenzene	U	510000	13000	1000
Xylene (total)	U	830000	1100J	1000
Date Received		02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/01/99	03/01/99	03/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB20(5-7)	CF-SB16(5-7)	CF-SB9(8-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-07	990302A-08	990302A-09	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.11	1.14	290.	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
?.4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	9J	100J	560000	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	180000	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	37J	15000J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	30J	55000J	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/05/99	03/05/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.1
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

Soil Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB9 (24-26)		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKF	990302A-10		
Method Blank I.D.	VBLKKF	VBLKKF		
Quant. Factor	1.00	2.53		
Chloromethane	U	U		1000
Bromomethane	U	U		1000
Vinyl Chloride	U	U		1000
Chloroethane	U	U	removed UJ's	1000
Methylene Chloride	U	U		1000
Acetone	U	U		1000
Carbon Disulfide	U	U		1000
Vinyl Acetate	U	U UJ1		1000
1,1-Dichloroethene	U	U		1000
1,1-Dichloroethane	U	U		1000
1,2-Dichloroethene (total)	U	U		1000
Chloroform	U	U		1000
1,2-Dichloroethane	U	U		1000
2-Butanone	U	U UJ11		1000
1,1,1-Trichloroethane	U	U		1000
Carbon Tetrachloride	U	U		1000
Bromodichloromethane	U	U		1000
1,2-Dichloropropane	U	U		1000
cis-1,3-Dichloropropene	U	U		1000
Trichloroethene	U	U		1000
Dibromochloromethane	U	U		1000
1,1,2-Trichloroethane	U	U	highlight	1000
Benzene	U	4500		1000
trans-1,3-Dichloropropene	U	U		1000
Bromoform	U	U	UJ 11	1000
4-Methyl-2-Pentanone	U	1400J UJ11 J24		1000
2-Hexanone	U	U UJ11		1000
Tetrachloroethene	U	U		1000
Toluene	U	1300J		1000
1,1,2,2-Tetrachloroethane	U	U		1000
Chlorobenzene	U	U		1000
Ethylbenzene	U	33000		1000
Styrene	U	U		1000
Xylene (total)	U	26000		1000
Date Received		02/23/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/02/99	03/02/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

validators revisions

TABLE SV-1.4
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB9 (24-26)	CF-TP3(1)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-10	990302A-11	990302A-12	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	267.	30.1	13.9	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U R20	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U R20	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U UJ15	330
Isophorone	U	U	U UJ15	330
2-Nitrophenol	U	U	U UJ15	330
2,4-Dimethylphenol	U	U	U UJ15	330
Benzoic acid	U	U	U UJ15	1600
bis(2-Chloroethoxy)methane	U	U	U UJ15	330
2,4-Dichlorophenol	U	U	U UJ15	330
1,2,4-Trichlorobenzene	U R20	U	U UJ15	330
Naphthalene	630000	19000	230000E UJ15 UJ17	330
4-Chloroaniline	U	U	U UJ15	330
Hexachlorobutadiene	U	U	U UJ15	330
4-Chloro-3-methylphenol	U R20	U	U UJ15	330
2-Methylnaphthalene	350000	43000	260000E UJ15 UJ17	330
Hexachlorocyclopentadiene	U	U	U UJ15	330
2,4,6-Trichlorophenol	U	U	U UJ15	330
2,4,5-Trichlorophenol	U	U	U UJ15	1600
2-Chloronaphthalene	U	U	U UJ15	330
2-Nitroaniline	U	U	U UJ15	1600
Dimethylphthalate	U	U	U UJ15	330
Acenaphthylene	99000	5400J	20000 UJ15	330
2,6-Dinitrotoluene	U	U	U UJ15	330
3-Nitroaniline	U	U	U UJ15	1600
Acenaphthene	90000 J20, UJ21	4300J	85000E UJ15 UJ17	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB9 (24-26)	CF-TP3(1)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-10	990302A-11	990302A-12	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	267.	30.1	13.9	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	4500J	2800J	12000	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	30000J	15000	66000E	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	310000	58000	220000E	330
Anthracene	16000J	1700J	90000E	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	15000J	11000	82000E	330
Pyrene	90000	28000	45000E	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	43000J	10000	25000	330
Chrysene	45000J	14000	36000	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	13000J	3400J	8100	330
Benzo(k)fluoranthene	24000J	5400J	14000	330
Benzo(a)pyrene	33000J	8200J	21000	330
Indeno(1,2,3-cd)pyrene	67000J	11000	6200	330
Dibenzo(a,h)anthracene	U	8000J	4200J	330
Benzo(g,h,i)perylene	76000J	13000	6900	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB9(24-26)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-10

Level (low/med): LOW Date Received: 02/23/99

% Solids: 83

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3990			P
7440-36-0	Antimony	1.4	U		P
7440-38-2	Arsenic	8.6			P
7440-39-3	Barium	39.0			P
7440-41-7	Beryllium	0.18	B		P
7440-43-9	Cadmium	0.21	B	~~J32~~ V12	P
7440-70-2	Calcium	2110		J3	P
7440-47-3	Chromium	28.9			P
7440-48-4	Cobalt	20.9			P
7440-50-8	Copper	14.0		*	P
7439-89-6	Iron	21500		*	P
7439-92-1	Lead	4.8			P
7439-95-4	Magnesium	29400			P
7439-96-5	Manganese	222.			P
7439-97-6	Mercury	0.020	U		CV
7440-02-0	Nickel	383.			P
7440-09-7	Potassium	671.	B	J4	P
7782-49-2	Selenium	1.6		J3	P
7440-22-4	Silver	0.28	U		P
7440-23-5	Sodium	142.	B	V12	P
7440-28-0	Thallium	1.0	U	V13	P
7440-62-2	Vanadium	13.5		J32	P
7440-66-6	Zinc	31.0			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB9(24-26)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-10

% Solids: 83 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.579	U	mg/Kg		L

Comments:

FORM I - WC

5/12

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: CF-SB9(24-26)

Lab Code: IEACT Case No.: 0302A SDG No.: A0302

Matrix: (soil/water): SOIL Lab Sample ID: 990302A-10

Sample wt/vol: 30.9 (g/ml) G Lab File ID: D4019066

% Moisture: 16 decanted: (Y/N) __ Date Received : 02/23/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 02/25/99

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 03/09/99

Injection Volume: 1.0 (uL) Dilution Factor: 5.0

GPC Cleanup: (Y/N) N pH: 8 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
319-84-6	alpha-BHC	9.8	U	
319-85-7	beta-BHC	9.8	U	
319-86-8	delta-BHC	9.8	U	
58-89-9	gamma-BHC (Lindane)	9.8	U	
76-44-8	Heptachlor	1.6	J	J27, J31
309-00-2	Aldrin	9.8	U	
1024-57-3	Heptachlor Epoxide	9.8	U	
959-98-8	Endosulfan I	9.8	U	
60-57-1	Dieldrin	15.	J	J31
72-55-9	4,4'-DDE	26.		
72-20-8	Endrin	19.	U	
33213-65-9	Endosulfan II	19.	U	
72-54-8	4,4'-DDD	19.	U	
1031-07-8	Endosulfan Sulfate	19.	U	
50-29-3	4,4'-DDT	9.4	J	J31
72-43-5	Methoxychlor	98.	U	
53494-70-5	Endrin ketone	19.	U	
7421-93-4	Endrin aldehyde	19.	U	
5103-71-9	alpha-Chlordane	9.8	U	
5103-74-2	gamma-Chlordane	5.8	J	J31
8001-35-2	Toxaphene	190	U	
12674-11-2	Aroclor-1016	190	U	
11104-28-2	Aroclor-1221	390	U	
11141-16-5	Aroclor-1232	190	U	
53469-21-9	Aroclor-1242	190	U	
12672-29-6	Aroclor-1248	190	U	
11097-69-1	Aroclor-1254	190	U	
11096-82-5	Aroclor-1260	190	U	

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB9(33-34)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-08

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2842

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: not dec. 14 Date Analyzed: 02/27/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

JRM 5/12

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB9(33-34)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3084

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	98	J 370012
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	370	U
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	370	U
606-20-2	2,6-Dinitrotoluene	370	U

DM 5/12

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB9(33-34)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3084

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1800	U
83-32-9	Acenaphthene	370	U
51-28-5	2,4-Dinitrophenol	1800	U
100-02-7	4-Nitrophenol	1800	U
132-64-9	Dibenzofuran	370	U
121-14-2	2,4-Dinitrotoluene	370	U
84-66-2	Diethylphthalate	370	U
7005-72-3	4-Chlorophenyl-phenylether	370	U
86-73-7	Fluorene	370	U
100-01-6	4-Nitroaniline	1800	U
534-52-1	4,6-Dinitro-2-methylphenol	1800	U
86-30-6	N-Nitrosodiphenylamine (1)	370	U
101-55-3	4-Bromophenyl-phenylether	370	U
118-74-1	Hexachlorobenzene	370	U
87-86-5	Pentachlorophenol	1800	U
85-01-8	Phenanthrene	370	U
120-12-7	Anthracene	370	U
86-74-8	Carbazole	370	U
84-74-2	Di-n-butylphthalate	370	U
206-44-0	Fluoranthene	370	U
129-00-0	Pyrene	13	J
85-68-7	Butylbenzylphthalate	370	U
91-94-1	3,3'-Dichlorobenzidine	740	U
56-55-3	Benzo(a)anthracene	6	J
218-01-9	Chrysene	370	U
117-81-7	bis(2-Ethylhexyl)phthalate	60	JB
117-84-0	Di-n-octylphthalate	370	U
205-99-2	Benzo(b)fluoranthene	370	U
207-08-9	Benzo(k)fluoranthene	370	U
50-32-8	Benzo(a)pyrene	370	U
193-39-5	Indeno(1,2,3-cd)pyrene	370	U
53-70-3	Dibenzo(a,h)anthracene	370	U
191-24-2	Benzo(g,h,i)perylene	370	U

370012

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

5/12

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB9(33-34)

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-08

Level (low/med): LOW Date Received: 02/25/99

% Solids: 89.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2	B	J3	P
7440-39-3	Barium	66.7			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.28	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	26.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.4		J32	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.021	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.64	B		P
7440-22-4	Silver	0.28	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: RED Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB9(33-34)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302108

% Solids: 89.6 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

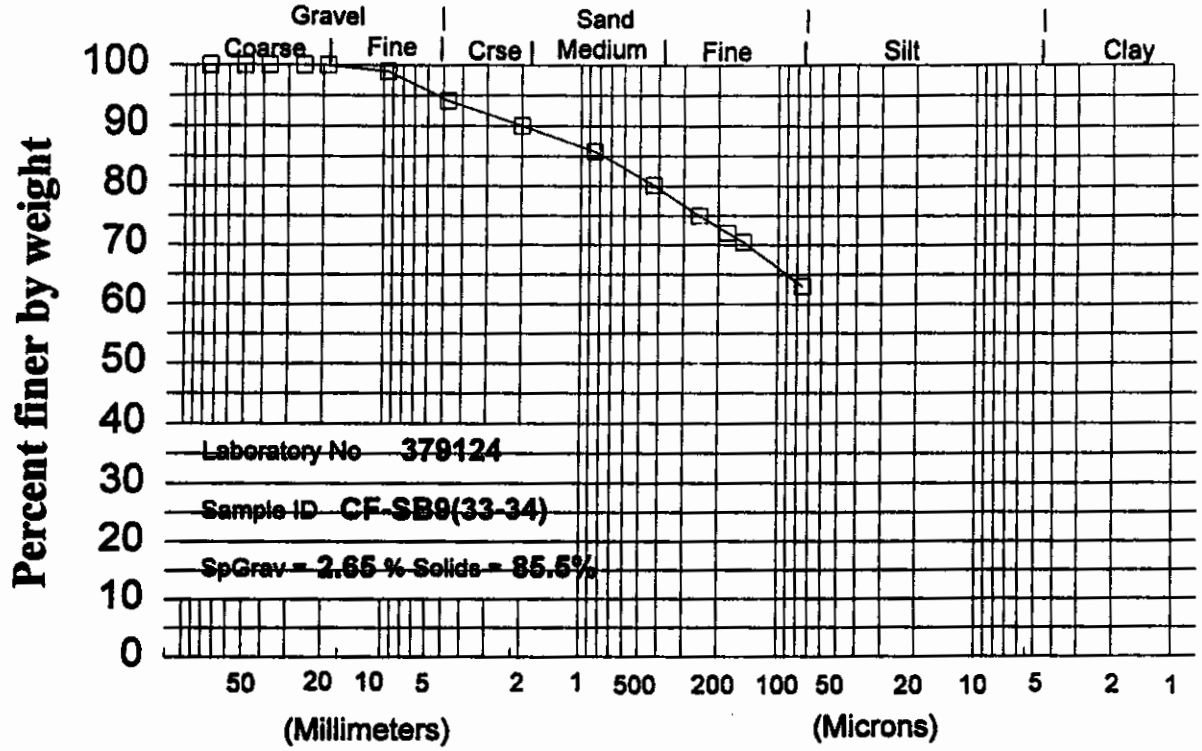
Analyte	Concentration	C	Q	M
CYAN-T	0.564	U		
TOC-D	1270			

Comments: _____

FORM I - WC

STL-VT ASTM D422 Particle Size Analysis Sample ID: CF-SB9(33-34)

Sample preparation by: D2217



Particle Size

Maximum particle size: 19 mm

Shape and hardness (>#10): Subrounded | Hard

Sieve size	Particle Size		Percent finer	Incremental percent
3 inch	75.00	mm	100.0	0.0
2 inch	50.00		100.0	0.0
1.5 inch	37.50		100.0	0.0
1 inch	25.00		100.0	0.0
3/4 inch	19.00		100.0	0.0
3/8 inch	9.50		99.0	1.0
#4	4.75		94.2	4.8
#10	2.00		90.0	4.1
#20A	850.0	um	85.8	4.2
#40A	425.0		80.2	5.6
#60A	250.0		75.0	5.2
#80A	180.0		72.1	2.9
#100A	150.0		70.5	1.6
#200A	75.0		63.0	7.5

Set 72678

Submitted By _____ 16:12 _____ 16 Mar 00 Lab No. 379124

TABLE VO-3.5
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB9(8-10)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKE	990302A-09	990302A-12	
Method Blank I.D.	VBLKKE	VBLKKE	VBLKKE	
Quant. Factor	1.00	37.9	12.3	
Benzene	U	43000	U	1000
Toluene	U	130000	U	1000
Ethylbenzene	U	510000	13000	1000
Xylene (total)	U	830000	1100J	1000
Date Received		02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/01/99	03/01/99	03/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB9 (24-26)	CF-TP3(1)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-10	990302A-11	990302A-12	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	267.	30.1	13.9	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U R20	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U R20	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U J0J5	330
Isophorone	U	U	U J0J5	330
2-Nitrophenol	U	U	U J0J5	330
2,4-Dimethylphenol	U	U	U J0J5	330
Benzoic acid	U	U	U J0J5	1600
bis(2-Chloroethoxy)methane	U	U	U J0J5	330
2,4-Dichlorophenol	U	U	U J0J5	330
1,2,4-Trichlorobenzene	U R20	U	U J0J5	330
Naphthalene	630000	19000	230000E J0J5 J17	330
4-Chloroaniline	U	U	U J0J5	330
Hexachlorobutadiene	U	U	U J0J5	330
4-Chloro-3-methylphenol	U R20	U	U J0J5	330
2-Methylnaphthalene	350000	43000	260000E J0J5 J17	330
Hexachlorocyclopentadiene	U	U	U J0J5	330
2,4,6-Trichlorophenol	U	U	U J0J5	330
2,4,5-Trichlorophenol	U	U	U J0J5	1600
2-Chloronaphthalene	U	U	U J0J5	330
2-Nitroaniline	U	U	U J0J5	1600
Dimethylphthalate	U	U	U J0J5	330
Acenaphthylene	99000	5400J	20000 J0J5	330
2,6-Dinitrotoluene	U	U	U J0J5	330
3-Nitroaniline	U	U	U J0J5	1600
Acenaphthene	90000J J20, J21	4300J	85000E J0J5 J17	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB9 (24-26)	CF-TP3(1)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-10	990302A-11	990302A-12	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	267.	30.1	13.9	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	4500J	2800J	12000	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	30000J	15000	66000E	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	310000	58000	220000E	330
Anthracene	16000J	1700J	90000E	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	15000J	11000	82000E	330
Pyrene	90000	28000	45000E	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	43000J	10000	25000	330
Chrysene	45000J	14000	36000	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	13000J	3400J	8100	330
Benzo(k)fluoranthene	24000J	5400J	14000	330
Benzo(a)pyrene	33000J	8200J	21000	330
Indeno(1,2,3-cd)pyrene	67000J	11000	6200	330
Dibenzo(a,h)anthracene	U	8000J	4200J	330
Benzo(g,h,i)perylene	76000J	13000	6900	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.5
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-SB10 (5-6.5) DL 990302A-12DL SBLKKP 139.	CF-SB11(4-6) 990302A-13 SBLKKP 253.		Quant. Limits with no Dilution
Phenol	U	U		330
bis(2-Chloroethyl)ether	U	U		330
2-Chlorophenol	U	U		330
1,3-Dichlorobenzene	U	U		330
1,4-Dichlorobenzene	U	U		330
Benzyl alcohol	U	U		330
1,2-Dichlorobenzene	U	U		330
2-Methylphenol	U	U		330
2,2'-oxybis(1-Chloropropane)	U	U		330
4-Methylphenol	U	U		330
N-Nitroso-di-n-propylamine	U	U		330
Hexachloroethane	U	U		330
Nitrobenzene	U	U		330
Isophorone	U	U		330
2-Nitrophenol	U	U		330
2,4-Dimethylphenol	U	U		330
enzoic acid	U	U		1600
bis(2-Chloroethoxy)methane	U	U		330
2,4-Dichlorophenol	U	U		330
1,2,4-Trichlorobenzene	U	U		330
Naphthalene	300000D	310000		330
4-Chloroaniline	U	U		330
Hexachlorobutadiene	U	U		330
4-Chloro-3-methylphenol	U	U		330
2-Methylnaphthalene	300000D	320000		330
Hexachlorocyclopentadiene	U	U		330
2,4,6-Trichlorophenol	U	U		330
2,4,5-Trichlorophenol	U	U		1600
2-Chloronaphthalene	U	U		330
2-Nitroaniline	U	U		1600
Dimethylphthalate	U	U		330
Acenaphthylene	19000JD	23000J		330
2,6-Dinitrotoluene	U	U		330
3-Nitroaniline	U	U		1600
Acenaphthene	140000D	48000J		330
Date Received	02/23/99	02/23/99		
Date Extracted	02/25/99	02/25/99		
Date Analyzed	03/09/99	03/09/99		

Report circled results & all other results from original analysis.

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.5 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB10 (5-6.5) DL	CF-SB11(4-6)		Quant. Limits with no Dilution
Lab Sample I.D.	990302A-12DL	990302A-13		
Method Blank I.D.	SBLKKP	SBLKKP		
Quant. Factor	139.	253.		
2,4-Dinitrophenol	U	U		1600
4-Nitrophenol	U	U		1600
Dibenzofuran	16000JD	13000J		330
2,4-Dinitrotoluene	U	U		330
Diethylphthalate	U	U		330
4-Chlorophenyl-phenylether	U	U		330
Fluorene	110000D	42000J		330
4-Nitroaniline	U	U		1600
4,6-Dinitro-2-methylphenol	U UJ15	U		1600
N-Nitrosodiphenylamine (1)	U UJ15	U		330
4-Bromophenyl-phenylether	U UJ15	U		330
Hexachlorobenzene	U UJ15	U		330
Pentachlorophenol	U UJ15	U		1600
Phenanthrene	270000D	240000		330
Anthracene	53000D	U		330
Carbazole	U UJ15	U		330
n-butylphthalate	U UJ15	U		330
Fluoranthene	29000JD	U UJ15		330
Pyrene	78000D	88000		330
Butylbenzylphthalate	U	U		330
3,3'-Dichlorobenzidine	U UJ11	U UJ11		660
Benzo(a)anthracene	25000JD	36000J		330
Chrysene	36000JD	52000J		330
bis(2-Ethylhexyl)phthalate	UJ11 U	UJ11 U	highlighted	330
Di-n-octylphthalate	U	U		330
Benzo(b)fluoranthene	8200JD	17000J		330
Benzo(k)fluoranthene	15000JD	27000J		330
Benzo(a)pyrene	24000JD	32000J		330
Indeno(1,2,3-cd)pyrene	41000JD	78000J		330
Dibenzo(a,h)anthracene	31000JD	58000J		330
Benzo(g,h,i)perylene	49000D	93000		330
Date Received	02/23/99	02/23/99		
Date Extracted	02/25/99	02/25/99		
Date Analyzed	03/09/99	03/09/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

validators revisions

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB10(5-6.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-12

Level (low/med): LOW Date Received: 02/23/99

% Solids: 69.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.4			P
7440-39-3	Barium	206.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.25	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	75.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	137.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.36			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.2		J3	P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB10(5-6.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-12

% Solids: 69.5 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	12.0		J[4] mg/Kg		L

Comments:

FORM I - WC

3/12

TABLE VO-3.6
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB11(4-6)	CF-SB13(7-9)	CF-SB13 (18-20)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-13	990302A-15	990302A-16	
Method Blank I.D.	VBLKKE	VBLKKE	VBLKKE	
Quant. Factor	12.2	6.02	22.2	
Benzene	42000	5900J	16000J	1000
Toluene	U	U	19000J	1000
Ethylbenzene	140000	12000	92000	1000
Xylene (total)	48000	3000J	81000	1000
Date Received	02/23/99	02/25/99	02/25/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/01/99	03/01/99	03/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.5
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB10 (5-6.5) DL	CF-SB11(4-6)		Quant. Limits with no Dilution
Lab Sample I.D.	990302A-12DL	990302A-13		
Method Blank I.D.	SBLKKP	SBLKKP		
Quant. Factor	139.	253.		
Phenol	U	U		330
bis(2-Chloroethyl)ether	U	U		330
2-Chlorophenol	U	U		330
1,3-Dichlorobenzene	U	U		330
1,4-Dichlorobenzene	U	U		330
Benzyl alcohol	U	U		330
1,2-Dichlorobenzene	U	U		330
2-Methylphenol	U	U		330
2,2'-oxybis(1-Chloropropane)	U	U		330
4-Methylphenol	U	U		330
N-Nitroso-di-n-propylamine	U	U		330
Hexachloroethane	U	U		330
Nitrobenzene	U	U		330
Isophorone	U	U		330
2-Nitrophenol	U	U		330
2,4-Dimethylphenol	U	U		330
enzoic acid	U	U		1600
bis(2-Chloroethoxy)methane	U	U		330
2,4-Dichlorophenol	U	U		330
1,2,4-Trichlorobenzene	U	U		330
Naphthalene	300000D	310000		330
4-Chloroaniline	U	U		330
Hexachlorobutadiene	U	U		330
4-Chloro-3-methylphenol	U	U		330
2-Methylnaphthalene	300000D	320000		330
Hexachlorocyclopentadiene	U	U		330
2,4,6-Trichlorophenol	U	U		330
2,4,5-Trichlorophenol	U	U		1600
2-Chloronaphthalene	U	U		330
2-Nitroaniline	U	U		1600
Dimethylphthalate	U	U		330
Acenaphthylene	19000JD	23000J		330
2,6-Dinitrotoluene	U	U		330
3-Nitroaniline	U	U		1600
Acenaphthene	140000D	48000J		330
Date Received	02/23/99	02/23/99		
Date Extracted	02/25/99	02/25/99		
Date Analyzed	03/09/99	03/09/99		

Report circled results & all other results from original analysis.

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.5
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB10 (5-6.5) DL	CF-SB11(4-6)		Quant. Limits with no Dilution
Lab Sample I.D.	990302A-12DL	990302A-13		
Method Blank I.D.	SBLKKP	SBLKKP		
Quant. Factor	139.	253.		
2,4-Dinitrophenol	U	U		1600
4-Nitrophenol	U	U		1600
Dibenzofuran	16000JD	13000J		330
2,4-Dinitrotoluene	U	U		330
Diethylphthalate	U	U		330
4-Chlorophenyl-phenylether	U	U		330
Fluorene	110000D	42000J		330
4-Nitroaniline	U	U		1600
4,6-Dinitro-2-methylphenol	U UJ1S	U		1600
N-Nitrosodiphenylamine (1)	U UJ1S	U		330
4-Bromophenyl-phenylether	U UJ1S	U		330
Hexachlorobenzene	U UJ1S	U		330
Pentachlorophenol	U UJ1S	U		1600
Phenanthrene	470000D	240000		330
Anthracene	53000D	U		330
Carbazole	U UJ1S	U		330
-n-butylphthalate	U UJ1S	U		330
Fluoranthene	29000JD UJ1S	U		330
Pyrene	78000D	88000		330
Butylbenzylphthalate	U	U		330
3,3'-Dichlorobenzidine	U UJ1I	U UJ1I		660
Benzo(a)anthracene	25000JD	36000J		330
Chrysene	36000JD	52000J		330
bis(2-Ethylhexyl)phthalate	UJ1I U	UJ1I U	highlight	330
Di-n-octylphthalate	U	U		330
Benzo(b)fluoranthene	8200JD	17000J		330
Benzo(k)fluoranthene	15000JD	27000J		330
Benzo(a)pyrene	24000JD	32000J		330
Indeno(1,2,3-cd)pyrene	41000JD	78000J		330
Dibenzo(a,h)anthracene	31000JD	58000J		330
Benzo(g,h,i)perylene	49000D	93000		330
Date Received	02/23/99	02/23/99		
Date Extracted	02/25/99	02/25/99		
Date Analyzed	03/09/99	03/09/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB11(4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-13

Level (low/med): LOW Date Received: 02/23/99

% Solids: 76.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.2			P
7440-39-3	Barium	43.0	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.22	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	25.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	33.7			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.28			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.4		J3	P
7440-22-4	Silver	0.44	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB11(4-6)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-13

% Solids: 76.3 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	39.8		J 19 mg/Kg		L

Comments:

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB11(21-23)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-07

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2879

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 16 Date Analyzed: 03/02/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6600	
108-88-3	Toluene	11000	
100-41-4	Ethylbenzene	10000	
1330-20-7	Xylene (total)	14000	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB11(21-23)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3101

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	38000	U
111-44-4	bis(2-Chloroethyl)ether	38000	U
95-57-8	2-Chlorophenol	38000	U
541-73-1	1,3-Dichlorobenzene	38000	U
106-46-7	1,4-Dichlorobenzene	38000	U
100-51-6	Benzyl alcohol	38000	U
95-50-1	1,2-Dichlorobenzene	38000	U
95-48-7	2-Methylphenol	38000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	38000	U
106-44-5	4-Methylphenol	38000	U
621-64-7	N-Nitroso-di-n-propylamine	38000	U
67-72-1	Hexachloroethane	38000	U
98-95-3	Nitrobenzene	38000	U
78-59-1	Isophorone	38000	U
88-75-5	2-Nitrophenol	38000	U
105-67-9	2,4-Dimethylphenol	38000	U
65-85-0	Benzoic acid	190000	U
111-91-1	bis(2-Chloroethoxy)methane	38000	U
120-83-2	2,4-Dichlorophenol	38000	U
120-82-1	1,2,4-Trichlorobenzene	38000	U
91-20-3	Naphthalene	190000	
106-47-8	4-Chloroaniline	38000	U
87-68-3	Hexachlorobutadiene	38000	U
59-50-7	4-Chloro-3-methylphenol	38000	U
91-57-6	2-Methylnaphthalene	160000	JL
77-47-4	Hexachlorocyclopentadiene	38000	U
88-06-2	2,4,6-Trichlorophenol	38000	U
95-95-4	2,4,5-Trichlorophenol	190000	U
91-58-7	2-Chloronaphthalene	38000	U
88-74-4	2-Nitroaniline	190000	U
131-11-3	Dimethylphthalate	38000	U
208-96-8	Acenaphthylene	11000	J JL
606-20-2	2,6-Dinitrotoluene	38000	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB11(21-23)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3101

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	190000	U
83-32-9	Acenaphthene	38000	U
51-28-5	2,4-Dinitrophenol	190000	U
100-02-7	4-Nitrophenol	190000	U
132-64-9	Dibenzofuran	38000	U
121-14-2	2,4-Dinitrotoluene	38000	U
84-66-2	Diethylphthalate	38000	U
7005-72-3	4-Chlorophenyl-phenylether	38000	U
86-73-7	Fluorene	38000	U
100-01-6	4-Nitroaniline	190000	U
534-52-1	4,6-Dinitro-2-methylphenol	190000	U
86-30-6	N-Nitrosodiphenylamine (1)	38000	U
101-55-3	4-Bromophenyl-phenylether	38000	U
118-74-1	Hexachlorobenzene	38000	U
87-86-5	Pentachlorophenol	190000	U
85-01-8	Phenanthrene	92000	J
120-12-7	Anthracene	38000	U
86-74-8	Carbazole	38000	U
84-74-2	Di-n-butylphthalate	38000	U
206-44-0	Fluoranthene	38000	U
129-00-0	Pyrene	38000	
85-68-7	Butylbenzylphthalate	38000	U
91-94-1	3,3'-Dichlorobenzidine	77000	U
56-55-3	Benzo(a)anthracene	14000	J
218-01-9	Chrysene	14000	J
117-81-7	bis(2-Ethylhexyl)phthalate	38000	U
117-84-0	Di-n-octylphthalate	38000	U
205-99-2	Benzo(b)fluoranthene	4700	J
207-08-9	Benzo(k)fluoranthene	38000	U
50-32-8	Benzo(a)pyrene	10000	J
193-39-5	Indeno(1,2,3-cd)pyrene	3100	J
53-70-3	Dibenzo(a,h)anthracene	38000	U
191-24-2	Benzo(g,h,i)perylene	4000	J

(1) - Cannot be separated from Diphenylamine

5/12

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB11(21-23)

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-07

Level (low/med): LOW Date Received: 02/25/99

% Solids: 88

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.0		J3	P
7440-39-3	Barium	61.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.63	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	50.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.1		J32	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.020	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.90			P
7440-22-4	Silver	0.35	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB11(21-23)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302107

% Solids: 88.0 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.541	U		

Comments: _____

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB12(4-6)

Lab Name: STL/CT Contract: _____

b Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-06

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2862

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 11 Date Analyzed: 03/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	22000	
108-88-3	Toluene	41000	
100-41-4	Ethylbenzene	71000	
1330-20-7	Xylene (total)	70000	

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB12(4-6)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3099

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 27 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	900000	U
111-44-4	bis(2-Chloroethyl)ether	900000	U
95-57-8	2-Chlorophenol	900000	U
541-73-1	1,3-Dichlorobenzene	900000	U
106-46-7	1,4-Dichlorobenzene	900000	U
100-51-6	Benzyl alcohol	900000	U
95-50-1	1,2-Dichlorobenzene	900000	U
95-48-7	2-Methylphenol	900000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	900000	U
106-44-5	4-Methylphenol	900000	U
621-64-7	N-Nitroso-di-n-propylamine	900000	U
67-72-1	Hexachloroethane	900000	U
98-95-3	Nitrobenzene	900000	U
78-59-1	Isophorone	900000	U
88-75-5	2-Nitrophenol	900000	U
105-67-9	2,4-Dimethylphenol	900000	U
65-85-0	Benzoic acid	4400000	U
111-91-1	bis(2-Chloroethoxy)methane	900000	U
120-83-2	2,4-Dichlorophenol	900000	U
120-82-1	1,2,4-Trichlorobenzene	900000	U
91-20-3	Naphthalene	4600000	
106-47-8	4-Chloroaniline	900000	U
87-68-3	Hexachlorobutadiene	900000	U
59-50-7	4-Chloro-3-methylphenol	900000	U
91-57-6	2-Methylnaphthalene	3000000	J
77-47-4	Hexachlorocyclopentadiene	900000	U
88-06-2	2,4,6-Trichlorophenol	900000	U
95-95-4	2,4,5-Trichlorophenol	4400000	U
91-58-7	2-Chloronaphthalene	900000	U
88-74-4	2-Nitroaniline	4400000	U
131-11-3	Dimethylphthalate	900000	U
208-96-8	Acenaphthylene	900000	U
606-20-2	2,6-Dinitrotoluene	900000	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB12(4-6)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3099

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 27 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	4400000	U
83-32-9	Acenaphthene	900000	U
51-28-5	2,4-Dinitrophenol	4400000	U
100-02-7	4-Nitrophenol	4400000	U
132-64-9	Dibenzofuran	900000	U
121-14-2	2,4-Dinitrotoluene	900000	U
84-66-2	Diethylphthalate	900000	U
7005-72-3	4-Chlorophenyl-phenylether	900000	U
86-73-7	Fluorene	900000	U
100-01-6	4-Nitroaniline	4400000	U
534-52-1	4,6-Dinitro-2-methylphenol	4400000	U
86-30-6	N-Nitrosodiphenylamine (1)	900000	U
101-55-3	4-Bromophenyl-phenylether	900000	U
118-74-1	Hexachlorobenzene	900000	U
87-86-5	Pentachlorophenol	4400000	U
85-01-8	Phenanthrene	900000	U
120-12-7	Anthracene	900000	U
86-74-8	Carbazole	900000	U
84-74-2	Di-n-butylphthalate	900000	U
206-44-0	Fluoranthene	900000	U
129-00-0	Pyrene	110000	J
85-68-7	Butylbenzylphthalate	900000	U
91-94-1	3,3'-Dichlorobenzidine	1800000	U
56-55-3	Benzo(a)anthracene	42000	J
218-01-9	Chrysene	42000	J
117-81-7	bis(2-Ethylhexyl)phthalate	900000	U
117-84-0	Di-n-octylphthalate	900000	U
205-99-2	Benzo(b)fluoranthene	900000	U
207-08-9	Benzo(k)fluoranthene	900000	U
50-32-8	Benzo(a)pyrene	32000	J
193-39-5	Indeno(1,2,3-cd)pyrene	900000	U
53-70-3	Dibenzo(a,h)anthracene	900000	U
191-24-2	Benzo(g,h,i)perylene	900000	U

(1) - Cannot be separated from Diphenylamine

5/12

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB12(4-6)

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-06

Level (low/med): LOW Date Received: 02/25/99

% Solids: 73.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.3		J3	P
7440-39-3	Barium	57.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.36	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	35.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	174.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.6			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	3.1			P
7440-22-4	Silver	0.45	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

5/12

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB12(4-6)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302106

% Solids: 73.8 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	47.6			

Comments: _____

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VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB13(COMP)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-02

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2901

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 11 Date Analyzed: 03/03/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	1100	U
108-88-3	Toluene	89	J
100-41-4	Ethylbenzene	1100	U
1330-20-7	Xylene (total)	1100	U

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB13(COMP)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3104

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1500	U
111-44-4	bis(2-Chloroethyl)ether	1500	U
95-57-8	2-Chlorophenol	1500	U
541-73-1	1,3-Dichlorobenzene	1500	U
106-46-7	1,4-Dichlorobenzene	1500	U
100-51-6	Benzyl alcohol	1500	U
95-50-1	1,2-Dichlorobenzene	1500	U
95-48-7	2-Methylphenol	1500	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1500	U
106-44-5	4-Methylphenol	1500	U
621-64-7	N-Nitroso-di-n-propylamine	1500	U
67-72-1	Hexachloroethane	1500	U
98-95-3	Nitrobenzene	1500	U
78-59-1	Isophorone	1500	U
88-75-5	2-Nitrophenol	1500	U
105-67-9	2,4-Dimethylphenol	1500	U
65-85-0	Benzoic acid	7400	U
111-91-1	bis(2-Chloroethoxy)methane	1500	U
120-83-2	2,4-Dichlorophenol	1500	U
120-82-1	1,2,4-Trichlorobenzene	1500	U
91-20-3	Naphthalene	5100	
106-47-8	4-Chloroaniline	1500	U
87-68-3	Hexachlorobutadiene	1500	U
59-50-7	4-Chloro-3-methylphenol	1500	U
91-57-6	2-Methylnaphthalene	240	J
77-47-4	Hexachlorocyclopentadiene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	7400	U
91-58-7	2-Chloronaphthalene	1500	U
88-74-4	2-Nitroaniline	7400	U
131-11-3	Dimethylphthalate	1500	U
208-96-8	Acenaphthylene	1500	U
606-20-2	2,6-Dinitrotoluene	1500	U

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1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB13(COMP)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3104

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	7400	U
83-32-9	Acenaphthene	1700	J
51-28-5	2,4-Dinitrophenol	7400	U
100-02-7	4-Nitrophenol	7400	U
132-64-9	Dibenzofuran	1500	U
121-14-2	2,4-Dinitrotoluene	1500	U
84-66-2	Diethylphthalate	1500	U
7005-72-3	4-Chlorophenyl-phenylether	1500	U
86-73-7	Fluorene	1700	J
100-01-6	4-Nitroaniline	7400	U
534-52-1	4,6-Dinitro-2-methylphenol	7400	U
86-30-6	N-Nitrosodiphenylamine (1)	1500	U
101-55-3	4-Bromophenyl-phenylether	1500	U
118-74-1	Hexachlorobenzene	1500	U
87-86-5	Pentachlorophenol	7400	U
85-01-8	Phenanthrene	7400	J
120-12-7	Anthracene	1200	J
86-74-8	Carbazole	1500	U
84-74-2	Di-n-butylphthalate	1500	U
206-44-0	Fluoranthene	2100	J
129-00-0	Pyrene	5500	J
85-68-7	Butylbenzylphthalate	1500	U
91-94-1	3,3'-Dichlorobenzidine	3000	U
56-55-3	Benzo(a)anthracene	2000	J
218-01-9	Chrysene	2700	J
117-81-7	bis(2-Ethylhexyl)phthalate	1500	U
117-84-0	Di-n-octylphthalate	1500	U
205-99-2	Benzo(b)fluoranthene	960	J
207-08-9	Benzo(k)fluoranthene	350	J
50-32-8	Benzo(a)pyrene	1500	
193-39-5	Indeno(1,2,3-cd)pyrene	1300	J
53-70-3	Dibenzo(a,h)anthracene	500	J
191-24-2	Benzo(g,h,i)perylene	1300	J

(1) - Cannot be separated from Diphenylamine

5/12

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB13(COMP)RE

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-02RE

Sample wt/vol: 30 (g/mL) G Lab File ID: >R2416

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	~~1500~~	U
111-44-4	bis(2-Chloroethyl)ether	1500	U
95-57-8	2-Chlorophenol	1500	U
541-73-1	1,3-Dichlorobenzene	1500	U
106-46-7	1,4-Dichlorobenzene	1500	U
100-51-6	Benzyl alcohol	1500	U
95-50-1	1,2-Dichlorobenzene	1500	U
95-48-7	2-Methylphenol	1500	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1500	U
106-44-5	4-Methylphenol	1500	U
621-64-7	N-Nitroso-di-n-propylamine	1500	U
67-72-1	Hexachloroethane	1500	U
98-95-3	Nitrobenzene	1500	U
78-59-1	Isophorone	1500	U
88-75-5	2-Nitrophenol	1500	U
105-67-9	2,4-Dimethylphenol	1500	U
65-85-0	Benzoic acid	7400	U
111-91-1	bis(2-Chloroethoxy)methane	1500	U
120-83-2	2,4-Dichlorophenol	1500	U
120-82-1	1,2,4-Trichlorobenzene	1500	U
91-20-3	Naphthalene	5900	
106-47-8	4-Chloroaniline	1500	U
87-68-3	Hexachlorobutadiene	1500	U
59-50-7	4-Chloro-3-methylphenol	1500	U
91-57-6	2-Methylnaphthalene	1600	
77-47-4	Hexachlorocyclopentadiene	1500	U
88-06-2	2,4,6-Trichlorophenol	1500	U
95-95-4	2,4,5-Trichlorophenol	7400	U
91-58-7	2-Chloronaphthalene	1500	U
88-74-4	2-Nitroaniline	7400	U
131-11-3	Dimethylphthalate	1500	U
208-96-8	Acenaphthylene	700	J
606-20-2	2,6-Dinitrotoluene	~~1500~~	~~U~~

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JAM 5/12

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB13(COMP)RE

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-02RE

Sample wt/vol: 30 (g/mL) G Lab File ID: >R2416

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 13 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	~~7400~~	U UJ11
83-32-9	Acenaphthene	2200	
51-28-5	2,4-Dinitrophenol	7400	U UJ11
100-02-7	4-Nitrophenol	7400	U
132-64-9	Dibenzofuran	460	J
121-14-2	2,4-Dinitrotoluene	1500	U
84-66-2	Diethylphthalate	1500	U
7005-72-3	4-Chlorophenyl-phenylether	1500	U
86-73-7	Fluorene	2400	
100-01-6	4-Nitroaniline	~~7400~~	U UJ11
534-52-1	4,6-Dinitro-2-methylphenol	7400	U
86-30-6	N-Nitrosodiphenylamine (1)	1500	U
101-55-3	4-Bromophenyl-phenylether	1500	U
118-74-1	Hexachlorobenzene	1500	U
87-86-5	Pentachlorophenol	7400	U
85-01-8	Phenanthrene	6800	
120-12-7	Anthracene	1800	
86-74-8	Carbazole	240	J
84-74-2	Di-n-butylphthalate	1500	U
206-44-0	Fluoranthene	3900	
129-00-0	Pyrene	7700	
85-68-7	Butylbenzylphthalate	1500	U
91-94-1	3,3'-Dichlorobenzidine	3000	U UJ11
56-55-3	Benzo(a)anthracene	2400	
218-01-9	Chrysene	2700	
117-81-7	bis(2-Ethylhexyl)phthalate	1500	U
117-84-0	Di-n-octylphthalate	~~1500~~	U UJ15
205-99-2	Benzo(b)fluoranthene	1900	J15
207-08-9	Benzo(k)fluoranthene	2200	J15
50-32-8	Benzo(a)pyrene	1800	J15
193-39-5	Indeno(1,2,3-cd)pyrene	1100	J J15
53-70-3	Dibenzo(a,h)anthracene	490	J J15
191-24-2	Benzo(g,h,i)perylene	~~1200~~	J J15

(1) - Cannot be separated from Diphenylamine

5/2

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB13(COMP)

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-02

Level (low/med): LOW Date Received: 02/25/99

% Solids: 85.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U	UJ3	P
7440-39-3	Barium	68.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.17	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	29.5			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.027	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.68	U		P
7440-22-4	Silver	0.34	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN ILM03.0

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB13(COMP)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302102

% Solids: 85.5 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	3.46			

Comments: _____

FORM I - WC

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TABLE VO-3.6
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB11(4-6)	CF-SB13(7-9)	CF-SB13 (18-20)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-13	990302A-15	990302A-16	
Method Blank I.D.	VBLKKE	VBLKKE	VBLKKE	
Quant. Factor	12.2	6.02	22.2	
Benzene	42000	5900J	16000J	1000
Toluene	U	U	19000J	1000
Ethylbenzene	140000	12000	92000	1000
Xylene (total)	48000	3000J	81000	1000
Date Received	02/23/99	02/25/99	02/25/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/01/99	03/01/99	03/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB13(7-9)	report these results CF-SB13(7-9) DL	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKNP	990302A-15	990302A-15DL	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	1.00	13.9	69.4	
Phenol	U	U	U 23000	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U UJ15	U	330
Isophorone	U	U UJ15	U	330
2-Nitrophenol	U	U UJ15	U	330
2,4-Dimethylphenol	U	U UJ15	U 110,000	330
Benzoic acid	U	U UJ15	U	1600
bis(2-Chloroethoxy)methane	U	U UJ15	U	330
2,4-Dichlorophenol	U	U UJ15	U	330
1,2,4-Trichlorobenzene	U	U UJ15	U	330
Naphthalene	U	15000 J15	16000JD	330
4-Chloroaniline	U	U UJ15	U	330
Hexachlorobutadiene	U	U UJ15	U	330
4-Chloro-3-methylphenol	U	U UJ15	U	330
2-Methylnaphthalene	U	U UJ15	U	330
Hexachlorocyclopentadiene	U	U UJ15	U	330
2,4,6-Trichlorophenol	U	U UJ15	U	330
2,4,5-Trichlorophenol	U	U UJ15	U	1600
2-Chloronaphthalene	U	U UJ15	U	330
2-Nitroaniline	U	U UJ15	U	1600
Dimethylphthalate	U	U UJ15	U	330
Acenaphthylene	U	7600 J15	6200JD	330
2,6-Dinitrotoluene	U	U UJ15	U	330
3-Nitroaniline	U	U UJ15	U	1600
Acenaphthene	U	34000 J15	36000D	330
Date Received		02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/08/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB13(7-9)	CF-SB13(7-9) DL	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKNP	990302A-15	990302A-15DL	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	1.00	13.9	69.4	
2,4-Dinitrophenol	U	U UJ1S	U	1600
4-Nitrophenol	U	U UJ1S	U	1600
Dibenzofuran	U	4400J UJ1S	4600JD	330
2,4-Dinitrotoluene	U	U UJ1S	U	330
Diethylphthalate	U	U UJ1S	U	330
4-Chlorophenyl-phenylether	U	U UJ1S	U	330
Fluorene	U	35000 J UJ1S	35000D	330
4-Nitroaniline	U	U UJ1S	U	1600
4,6-Dinitro-2-methylphenol	U	U UJ1S	U UJ1S	1600
N-Nitrosodiphenylamine (1)	U	U UJ1S	U UJ1S	330
4-Bromophenyl-phenylether	U	U UJ1S	U UJ1S	330
Hexachlorobenzene	U	U UJ1S	U UJ1S	330
Pentachlorophenol	U	U UJ1S	U UJ1S	1600
Phenanthrene	U	83000E UJ1S	92000D UJ1S	330
Anthracene	U	45000E UJ1S	23000D UJ1S	330
Carbazole	U	U UJ1S	U UJ1S	330
-n-butylphthalate	U	U UJ1S	U UJ1S	330
Fluoranthene	U	36000 UJ1S	15000JD UJ1S	330
Pyrene	U	21000 UJ1S	31000D	330
Butylbenzylphthalate	U	U UJ1S	U	330
3,3'-Dichlorobenzidine	U	U UJ1S	U UJ1S	660
Benzo(a)anthracene	U	12000 UJ1S	12000JD	330
Chrysene	U	17000 UJ1S	18000JD	330
bis(2-Ethylhexyl)phthalate	U UJ1S	U UJ1S	U UJ1S	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	4200J	3600JD	330
Benzo(k)fluoranthene	U	8300	8900JD	330
Benzo(a)pyrene	U	8200	8500JD	330
Indeno(1,2,3-cd)pyrene	U	4600	19000JD	330
Dibenzo(a,h)anthracene	U	3500J	U	330
Benzo(g,h,i)perylene	U	4500J	21000JD	330
Date Received		02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/08/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB13(7-9)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-15

Level (low/med): LOW Date Received: 02/25/99

% Solids: 73.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.2			P
7440-39-3	Barium	146.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.49	B	~~J32~~ U12	P
7440-70-2	Calcium			~~J~~	NR
7440-47-3	Chromium	15.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	33.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.034	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.0		J3	P
7440-22-4	Silver	0.50	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB13(7-9)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-15

% Solids: 73.6 Date Received: 02/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.961		J19 mg/Kg		L
	TOC	56200		mg/Kg		D

Comments:

FORM I - WC

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TABLE VO-3.6
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB11(4-6)	CF-SB13(7-9)	CF-SB13 (18-20)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-13	990302A-15	990302A-16	
Method Blank I.D.	VBLKKE	VBLKKE	VBLKKE	
Quant. Factor	12.2	6.02	22.2	
Benzene	42000	5900J	16000J	1000
Toluene	U	U	19000J	1000
Ethylbenzene	140000	12000	92000	1000
Xylene (total)	48000	3000J	81000	1000
Date Received	02/23/99	02/25/99	02/25/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/01/99	03/01/99	03/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB13 (18-20)	CF-SB14(6-8)	CF-SB19(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-16	990302A-17	990302A-18	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	56.8	1010	1.22	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
?.4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	110000J	1400000	51J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	56000J	1200000	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	3500J	49000J	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	28000J	230000J	U	330
Date Received	02/25/99	02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/09/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB13 (18-20)	CF-SB14(6-8)	CF-SB19(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-16	990302A-17	990302A-18	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	56.8	1010	1.22	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	1200J	34000J	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	6J 400U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	6300J	62000J	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	62000 J5	940000	45J	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	18000J	290000J	15J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ 11	U UJ 11	U	660
Benzo(a)anthracene	7900J	110000J	U	330
Chrysene	8200J	140000J	UJ 11 U	330
bis(2-Ethylhexyl)phthalate	UJ 11 U	UJ 11 U	12J 400U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	2700J	40000J	U	330
Benzo(k)fluoranthene	3800J	63000J	U	330
Benzo(a)pyrene	6600J	91000J	U	330
Indeno(1,2,3-cd)pyrene	15000J	260000J	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	17000J J5	300000J	U	330
Date Received	02/25/99	02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/09/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB13(18-20)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-16

Level (low/med): LOW Date Received: 02/25/99

% Solids: 89

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.1			P
7440-39-3	Barium	46.4			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.36	B	~~J32~~ UJ2	P
7440-70-2	Calcium			um	NR
7440-47-3	Chromium	172.		J5	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	8.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.026	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.1		J3	P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB13(18-20)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-16

% Solids: 89 Date Received: 02/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.546	U	0.119 mg/Kg		L
	TOC	4380		mg/Kg		D

Comments:

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VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-DUP-1

Lab Name: STL/CT Contract: _____

b Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-04

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2860

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 12 Date Analyzed: 03/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 20 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	11000	
108-88-3	Toluene	24000	
100-41-4	Ethylbenzene	79000	
1330-20-7	Xylene (total)	61000	

for SOIL

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-DUP-1

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3102

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	7300	U
111-44-4	bis(2-Chloroethyl)ether	7300	U
95-57-8	2-Chlorophenol	7300	U
541-73-1	1,3-Dichlorobenzene	7300	U
106-46-7	1,4-Dichlorobenzene	7300	U
100-51-6	Benzyl alcohol	7300	U
95-50-1	1,2-Dichlorobenzene	7300	U
95-48-7	2-Methylphenol	7300	U
108-60-1	2,2'-oxybis(1-Chloropropane)	7300	U
106-44-5	4-Methylphenol	7300	U
621-64-7	N-Nitroso-di-n-propylamine	7300	U
67-72-1	Hexachloroethane	7300	U
98-95-3	Nitrobenzene	7300	U
78-59-1	Isophorone	7300	U
88-75-5	2-Nitrophenol	7300	U
105-67-9	2,4-Dimethylphenol	7300	U
65-85-0	Benzoic acid	36000	U
111-91-1	bis(2-Chloroethoxy)methane	7300	U
120-83-2	2,4-Dichlorophenol	7300	U
120-82-1	1,2,4-Trichlorobenzene	7300	U
91-20-3	Naphthalene	30000	J5
106-47-8	4-Chloroaniline	7300	U
87-68-3	Hexachlorobutadiene	7300	U
59-50-7	4-Chloro-3-methylphenol	7300	U
91-57-6	2-Methylnaphthalene	18000	J5, J6
77-47-4	Hexachlorocyclopentadiene	7300	U
88-06-2	2,4,6-Trichlorophenol	7300	U
95-95-4	2,4,5-Trichlorophenol	36000	U
91-58-7	2-Chloronaphthalene	7300	U
88-74-4	2-Nitroaniline	36000	U
131-11-3	Dimethylphthalate	7300	U
208-96-8	Acenaphthylene	7300	U
606-20-2	2,6-Dinitrotoluene	7300	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-DUP-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3102

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	36000	U
83-32-9	Acenaphthene	8000	J5, J6
51-28-5	2,4-Dinitrophenol	36000	U
100-02-7	4-Nitrophenol	36000	U
132-64-9	Dibenzofuran	7300	U
121-14-2	2,4-Dinitrotoluene	7300	U
84-66-2	Diethylphthalate	7300	U
7005-72-3	4-Chlorophenyl-phenylether	7300	U
86-73-7	Fluorene	7300	U
100-01-6	4-Nitroaniline	36000	U
534-52-1	4,6-Dinitro-2-methylphenol	36000	U
86-30-6	N-Nitrosodiphenylamine (1)	7300	U
101-55-3	4-Bromophenyl-phenylether	7300	U
118-74-1	Hexachlorobenzene	7300	U
87-86-5	Pentachlorophenol	36000	U
85-01-8	Phenanthrene	24000	J5
120-12-7	Anthracene	7300	U
86-74-8	Carbazole	7300	U
84-74-2	Di-n-butylphthalate	7300	U
206-44-0	Fluoranthene	7300	U
129-00-0	Pyrene	8600	
85-68-7	Butylbenzylphthalate	7300	U
91-94-1	3,3'-Dichlorobenzidine	15000	U
56-55-3	Benzo(a)anthracene	3000	J
218-01-9	Chrysene	3200	J
117-81-7	bis(2-Ethylhexyl)phthalate	7300	U
117-84-0	Di-n-octylphthalate	7300	U
205-99-2	Benzo(b)fluoranthene	1100	J
207-08-9	Benzo(k)fluoranthene	7300	U
50-32-8	Benzo(a)pyrene	2500	J
193-39-5	Indeno(1,2,3-cd)pyrene	940	J
53-70-3	Dibenzo(a,h)anthracene	7300	U
191-24-2	Benzo(g,h,i)perylene	1100	J J5

(1) - Cannot be separated from Diphenylamine

DPM 5/12

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-DUP-1

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-04

Level (low/med): LOW Date Received: 02/25/99

% Solids: 88.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.0	U	W3	P
7440-39-3	Barium	39.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.60	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	52.4		J5	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	5.3		~~J32~~ W2	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.029	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.85	B		P
7440-22-4	Silver	0.34	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

5/12

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-DUP-1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302104

% Solids: 88.6 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.553	U		

Comments: _____

FORM I - WC

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TABLE VO-3.7
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB14(6-8)		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKF	990302A-17		
Method Blank I.D.	VBLKKF	VBLKKF		
Quant. Factor	1.00	61.7		
Benzene	U	180000 J5		1000
Toluene	U	U		1000
Ethylbenzene	U	820000 J5		1000
Xylene (total)	U	260000 J5		1000
Date Received		02/25/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/02/99	03/02/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB13 (18-20)	CF-SB14(6-8)	CF-SB19(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-16	990302A-17	990302A-18	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	56.8	1010	1.22	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
?,4-Dimethylphenol	U	U	U	330
anzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	110000 J6	1400000	51J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	56000 J6	1200000	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	3500J	49000J	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	28000 J6	230000J	U	330
Date Received	02/25/99	02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/09/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB13 (18-20)	CF-SB14(6-8)	CF-SB19(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-16	990302A-17	990302A-18	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	56.8	1010	1.22	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	1200J	34000J	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	6J 400U UJ	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	6300J	62000J	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	62000J J5	940000	45J	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	18000J	290000J	15J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ 11	U UJ 11	U	660
Benzo(a)anthracene	7900J	110000J	U	330
Chrysene	8200J	140000J	UJ 11 U [redacted]	330
bis(2-Ethylhexyl)phthalate	UJ 11 U [redacted]	UJ 11 U [redacted]	12J 400U UJ	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	2700J	40000J	U	330
Benzo(k)fluoranthene	3800J	63000J	U	330
Benzo(a)pyrene	6600J	91000J	U	330
Indeno(1,2,3-cd)pyrene	15000J	260000J	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	17000J J5	300000J	U	330
Date Received	02/25/99	02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/09/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB14(6-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-17

Level (low/med): LOW Date Received: 02/25/99

% Solids: 81.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.7			P
7440-39-3	Barium	24.2	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	23.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	76.4		J5	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.14			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	4.0			P
7440-22-4	Silver	0.41	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

OM 5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB14(6-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-17

% Solids: 81.3 Date Received: 02/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.615	U	mg/Kg		L

Comments:

FORM I - WC

5/12

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-DUP-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-05

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2875

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 24 Date Analyzed: 03/02/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 4 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	58000	J5
108-88-3	Toluene	33000	U
100-41-4	Ethylbenzene	420000	J5
1330-20-7	Xylene (total)	130000	J5

JM 5/12

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-DUP-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3100

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400000	U
111-44-4	bis(2-Chloroethyl)ether	400000	U
95-57-8	2-Chlorophenol	400000	U
541-73-1	1,3-Dichlorobenzene	400000	U
106-46-7	1,4-Dichlorobenzene	400000	U
100-51-6	Benzyl alcohol	400000	U
95-50-1	1,2-Dichlorobenzene	400000	U
95-48-7	2-Methylphenol	400000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400000	U
106-44-5	4-Methylphenol	400000	U
621-64-7	N-Nitroso-di-n-propylamine	400000	U
67-72-1	Hexachloroethane	400000	U
98-95-3	Nitrobenzene	400000	U
78-59-1	Isophorone	400000	U
88-75-5	2-Nitrophenol	400000	U
105-67-9	2,4-Dimethylphenol	400000	U
65-85-0	Benzoic acid	2000000	U
111-91-1	bis(2-Chloroethoxy)methane	400000	U
120-83-2	2,4-Dichlorophenol	400000	U
120-82-1	1,2,4-Trichlorobenzene	400000	U
91-20-3	Naphthalene	1500000	
106-47-8	4-Chloroaniline	400000	U
87-68-3	Hexachlorobutadiene	400000	U
59-50-7	4-Chloro-3-methylphenol	400000	U
91-57-6	2-Methylnaphthalene	1900000	J
77-47-4	Hexachlorocyclopentadiene	400000	U
88-06-2	2,4,6-Trichlorophenol	400000	U
95-95-4	2,4,5-Trichlorophenol	2000000	U
91-58-7	2-Chloronaphthalene	400000	U
88-74-4	2-Nitroaniline	2000000	U
131-11-3	Dimethylphthalate	400000	U
208-96-8	Acenaphthylene	400000	U
606-20-2	2,6-Dinitrotoluene	400000	U

JPM 5/12

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-DUP-2

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3100

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	2000000	U
83-32-9	Acenaphthene	400000	U
51-28-5	2,4-Dinitrophenol	2000000	U
100-02-7	4-Nitrophenol	2000000	U
132-64-9	Dibenzofuran	400000	U
121-14-2	2,4-Dinitrotoluene	400000	U
84-66-2	Diethylphthalate	400000	U
7005-72-3	4-Chlorophenyl-phenylether	400000	U
86-73-7	Fluorene	86000	J J6
100-01-6	4-Nitroaniline	2000000	U
534-52-1	4,6-Dinitro-2-methylphenol	2000000	U
86-30-6	N-Nitrosodiphenylamine (1)	400000	U
101-55-3	4-Bromophenyl-phenylether	400000	U
118-74-1	Hexachlorobenzene	400000	U
87-86-5	Pentachlorophenol	2000000	U
85-01-8	Phenanthrene	1400000	J6
120-12-7	Anthracene	400000	U
86-74-8	Carbazole	400000	U
84-74-2	Di-n-butylphthalate	400000	U
206-44-0	Fluoranthene	400000	U
129-00-0	Pyrene	580000	
85-68-7	Butylbenzylphthalate	400000	U
91-94-1	3,3'-Dichlorobenzidine	800000	U
56-55-3	Benzo(a)anthracene	180000	J
218-01-9	Chrysene	200000	J
117-81-7	bis(2-Ethylhexyl)phthalate	400000	U
117-84-0	Di-n-octylphthalate	400000	U
205-99-2	Benzo(b)fluoranthene	56000	J
207-08-9	Benzo(k)fluoranthene	400000	U
50-32-8	Benzo(a)pyrene	140000	J
193-39-5	Indeno(1,2,3-cd)pyrene	60000	J
53-70-3	Dibenzo(a,h)anthracene	400000	U
191-24-2	Benzo(g,h,i)perylene	79000	J

(1) - Cannot be separated from Diphenylamine

5/12

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-DUP-2

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-05

Level (low/med): LOW Date Received: 02/25/99

% Solids: 81.7

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.4	B	J3	P
7440-39-3	Barium	16.8	B	J12	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	26.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	20.7		J5	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.069	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.5			P
7440-22-4	Silver	0.39	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

5/12

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-DUP-2

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302105

% Solids: 81.7 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.666			

Comments: _____

FORM I - WC

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TABLE VO-3.3 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB19(5-7)	CF-SB14 (24-28)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKD	990302A-18	990302A-19	
Method Blank I.D.	VBLKKD	VBLKKD	VBLKKD	
Quant. Factor	1.00	1.26	1.10	
Benzene	U	3J	150	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	200	5.0
Xylene (total)	U	U	100	5.0
Date Received		02/25/99	02/25/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/27/99	02/27/99	02/27/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.8
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB14 (24-28)	CF-RW3(8-10)		Quant. Limits with no Dilution
Lab Sample I.D.	990302A-19	990302A-20		
Method Blank I.D.	SBLKNP	SBLKNP		
Quant. Factor	1.12	1.14		
Phenol	46J	U		330
bis(2-Chloroethyl)ether	U	U		330
2-Chlorophenol	U	U		330
1,3-Dichlorobenzene	U	U		330
1,4-Dichlorobenzene	U	U		330
Benzyl alcohol	U	U		330
1,2-Dichlorobenzene	U	U		330
2-Methylphenol	U	U		330
2,2'-oxybis(1-Chloropropane)	U	U		330
4-Methylphenol	U	U		330
N-Nitroso-di-n-propylamine	U	U		330
Hexachloroethane	U	U		330
Nitrobenzene	U	U		330
Isophorone	U	U		330
2-Nitrophenol	U	U		330
^ 4-Dimethylphenol	U	U		330
.nzoic acid	U	U		1600
bis(2-Chloroethoxy)methane	U	U		330
2,4-Dichlorophenol	U	U		330
1,2,4-Trichlorobenzene	U	U		330
Naphthalene	1100	7J		330
4-Chloroaniline	U	U		330
Hexachlorobutadiene	U	U		330
4-Chloro-3-methylphenol	U	U		330
2-Methylnaphthalene	510	U		330
Hexachlorocyclopentadiene	U	U		330
2,4,6-Trichlorophenol	U	U		330
2,4,5-Trichlorophenol	U	U		1600
2-Chloronaphthalene	U	U		330
2-Nitroaniline	U	U		1600
Dimethylphthalate	U	U		330
Acenaphthylene	21J	U		330
2,6-Dinitrotoluene	U	U		330
3-Nitroaniline	U	U		1600
Acenaphthene	200J	U		330
Date Received	02/25/99	02/25/99		
Date Extracted	02/26/99	02/26/99		
Date Analyzed	03/05/99	03/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.8
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB14 (24-28)	CF-RW3(8-10)		Quant. Limits with no Dilution
Lab Sample I.D.	990302A-19	990302A-20		
Method Blank I.D.	SBLKNP	SBLKNP		
Quant. Factor	1.12	1.14		
2,4-Dinitrophenol	U	U		1600
4-Nitrophenol	U	U		1600
Dibenzofuran	67J	U		330
2,4-Dinitrotoluene	U	U		330
Diethylphthalate	U	U		330
4-Chlorophenyl-phenylether	U	U		330
Fluorene	U	U		330
4-Nitroaniline	U	U		1600
4,6-Dinitro-2-methylphenol	U	U		1600
N-Nitrosodiphenylamine (1)	U	U		330
4-Bromophenyl-phenylether	U	U		330
Hexachlorobenzene	U	U		330
Pentachlorophenol	U	U		1600
Phenanthrene	380	24J		330
Anthracene	U	U		330
Carbazole	U	U		330
n-butylphthalate	U	U		330
Fluoranthene	U	U		330
Pyrene	94J	12J		330
Butylbenzylphthalate	U	U		330
3,3'-Dichlorobenzidine	U	U		660
Benzo(a)anthracene	40J	U		330
Chrysene	J 49J	UJ U		330
bis(2-Ethylhexyl)phthalate	9J (370J)	19J (310J)		330
Di-n-octylphthalate	U	U		330
Benzo(b)fluoranthene	13J	U		330
Benzo(k)fluoranthene	22J	U		330
Benzo(a)pyrene	36J	U		330
Indeno(1,2,3-cd)pyrene	260J	U		330
Dibenzo(a,h)anthracene	U	U		330
Benzo(g,h,i)perylene	290J	U		330
Date Received	02/25/99	02/25/99		
Date Extracted	02/26/99	02/26/99		
Date Analyzed	03/05/99	03/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB14(24-28)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-19

Level (low/med): LOW Date Received: 02/25/99

% Solids: 89.1

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.2			P
7440-39-3	Barium	44.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.41	B	~~J3~~ UJ2 UM	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	35.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.030	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.70		J3	P
7440-22-4	Silver	0.25	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

DAM 5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB14(24-28)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-19

% Solids: 89.1 Date Received: 02/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.556	U	0.719 mg/Kg		L
	TOC	3000		mg/Kg		D

Comments:

FORM I - WC

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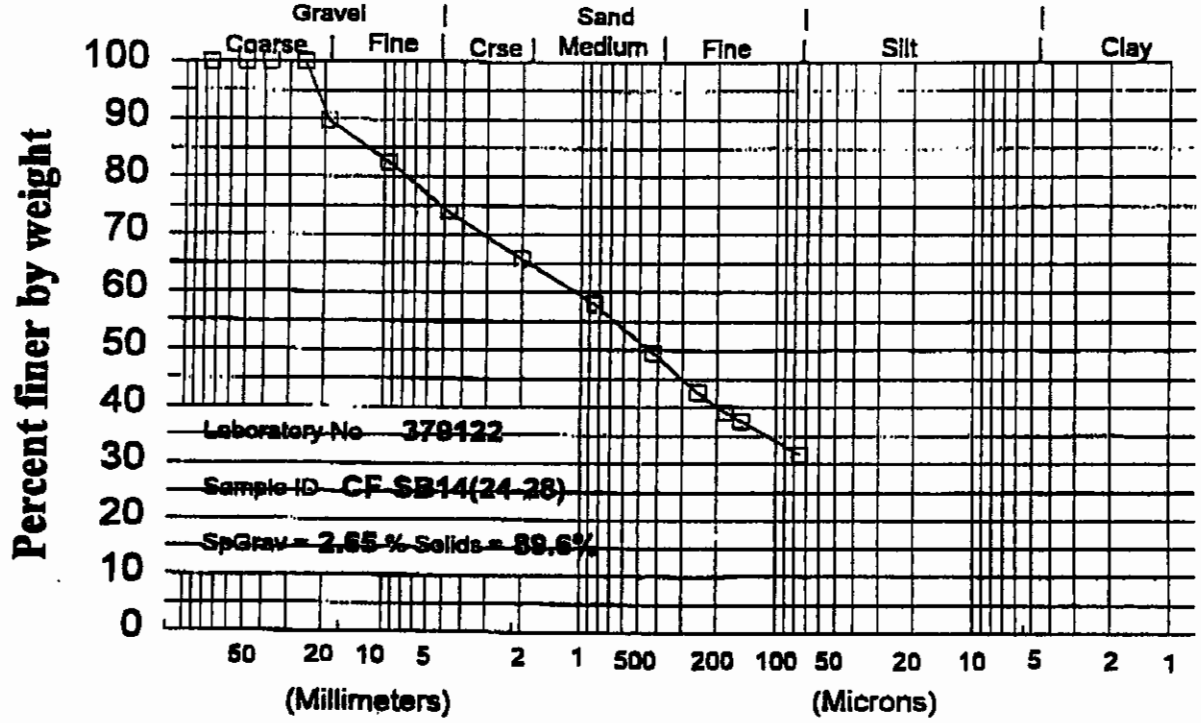
STL-VT ASTM D422 Particle Size Analysis Sample ID: **CF-SB14(24-28)**

Sample preparation by: D2217



Particle Size

Maximum particle size: 25 mm

Shape and hardness (>#10): Subrounded | Hard

Sieve size	Particle Size		Percent finer	Incremental percent
3 inch	75.00	mm	100.0	0.0
2 inch	50.00		100.0	0.0
1.5 inch	37.50		100.0	0.0
1 inch	25.00		100.0	0.0
3/4 inch	19.00		90.0	10.0
3/8 inch	9.50		82.6	7.4
#4	4.75		74.0	8.6
#10	2.00		65.7	8.3
#20A	850.0	um	58.0	7.7
#40A	425.0		49.5	8.4
#60A	250.0		42.7	6.8
#80A	180.0		39.2	3.5
#100A	150.0		37.6	1.6
#200A	75.0		31.7	6.0

Submitted By: [signature] 15:13 on 16-Mar-99

Set 72678

Lab No 379122

TABLE VO-3.1 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB15(5-8)	CF-RW1(17)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKB	990302A-03	990302A-04	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	1.00	1.49	3.12	
Benzene	U	3J	U	5.0
Toluene	U	2J	U	5.0
Ethylbenzene	U	.7J	U	5.0
Xylene (total)	U	2J	U	5.0
Date Received		02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/25/99	02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

report this analysis

Client Sample I.D.	Method Blank	CF-SB15(5-8)	CF-SB15(5-8) RE	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKKP	990302A-03	990302A-03RE	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.00	1.33	1.33	
Phenol	U	U	8J (J-24)	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	67J	53J	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	130J	130J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	32J	26J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	180J	170J	330
Date Received		02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/04/99	03/05/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JRD

TABLE SV-1.0 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis. report this analysis

Client Sample I.D.	Method Blank	CF-SB15(5-8)	CF-SB15(5-8) RE	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKKP	990302A-03	990302A-03RE	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.00	1.33	1.33	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	34J	31J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	7J	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	610	600	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
-n-butylphthalate	U	U	U	330
Fluoranthene	U	800 JJ6	710 JJ6	330
Pyrene	U	820 JJ15	880 JJ15	330
Butylbenzylphthalate	U	U UJJ15	U UJJ15	330
3,3'-Dichlorobenzidine	U	U UJJ15	U UJJ11	UJJ15 660
Benzo(a)anthracene	U	440 JJ15	420J JJ15	330
Chrysene	U	500 JJ15	500 JJ11	JJ15 330
bis(2-Ethylhexyl)phthalate	6J	63JB 440 U JJ13	50JB 440 U JJ13	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	280J	290J	330
Benzo(k)fluoranthene	U	460	420J	330
Benzo(a)pyrene	U	450	490	330
Indeno(1,2,3-cd)pyrene	U	590	620	330
Dibenzo(a,h)anthracene	U	390J	400J	330
Benzo(g,h,i)perylene	U	620	630	330
Date Received		02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/04/99	03/05/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB15(5-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-03

Level (low/med): LOW Date Received: 02/23/99

% Solids: 63.9

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.7			P
7440-39-3	Barium	75.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.29	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	37.5			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	101.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.21			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.8		J3	P
7440-22-4	Silver	0.58	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB15(5-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-03

% Solids: 63.9 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.775	U	mg/Kg		L

Comments:

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TABLE VO-3.2
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(4-6)	CF-SB20(5-7)	CF-SB16(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05	990302A-07	990302A-08	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	6.10	1.14	1.19	
Benzene	5J	U	U	5.0
Toluene	10J	U	U	5.0
Ethylbenzene	U	U	2J	5.0
Xylene (total)	U	U	2J	5.0
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/25/99	02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB20(5-7)	CF-SB16(5-7)	CF-SB9(8-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-07	990302A-08	990302A-09	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.11	1.14	290.	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	3000J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	7JB 370J	6JB 380J	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	8J	230J	140000	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	8J	82J	57000J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U UJ11	660
Benzo(a)anthracene	6J	41J	27000J	330
Chrysene	UJ K U [redacted]	J11 40J [redacted]	32000J	330
bis(2-Ethylhexyl)phthalate	14JB 370J	11JB 380J	UJ11 U [redacted]	330
Di-n-octylphthalate	5J	U	U	330
Benzo(b)fluoranthene	U	15J	17000J	330
Benzo(k)fluoranthene	U	25J	24000J	330
Benzo(a)pyrene	U	32J	33000J	330
Indeno(1,2,3-cd)pyrene	U	270J	81000J	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	290J	94000J	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/05/99	03/05/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB9(8-10)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-09

Level (low/med): LOW Date Received: 02/23/99

% Solids: 78.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.5			P
7440-39-3	Barium	23.4	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.24	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	34.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.045	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.5		J3	P
7440-22-4	Silver	0.48	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB9(8-10)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-09

% Solids: 78.6 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.848		J|9 mg/Kg		L

Comments:

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TABLE SV-1.3
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB20(5-7)	CF-SB16(5-7)	CF-SB9(8-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-07	990302A-08	990302A-09	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.11	1.14	290.	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
? 4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	9J	100J	560000	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	180000	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	37J	15000J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	30J	55000J	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/05/99	03/05/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB20(5-7)	CF-SB16(5-7)	CF-SB9(8-10)	
Lab Sample I.D.	990302A-07	990302A-08	990302A-09	Quant. Limits with no Dilution
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.11	1.14	290.	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	3000J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	7JB 370J D	6JB 380J D	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	8J	230J	140000	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	8J	82J	57000J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U DJ11	660
Benzo(a)anthracene	6J	41J	27000J	330
Chrysene	UJ U [redacted]	J 40J [redacted]	32000J	330
bis(2-Ethylhexyl)phthalate	14JB 3700 D	11JB 3800 D	U U [redacted]	330
Di-n-octylphthalate	5J	U	U	330
Benzo(b)fluoranthene	U	15J	17000J	330
Benzo(k)fluoranthene	U	25J	24000J	330
Benzo(a)pyrene	U	32J	33000J	330
Indeno(1,2,3-cd)pyrene	U	270J	81000J	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	290J	94000J	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/05/99	03/05/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB16(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-08

Level (low/med): LOW Date Received: 02/23/99

% Solids: 88.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.9	B		P
7440-39-3	Barium	51.3			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.20	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	15.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.024	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.80	U	UJ3	P
7440-22-4	Silver	0.40	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB16(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-08

% Solids: 88.5 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.554	U	~~mg/Kg~~		L
	TOC	402.		mg/Kg		D

Comments:

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TABLE VO-3.4
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB22 (20-21)	CF-SB17 (13-16)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKF	990302C-02	990302C-04	
Method Blank I.D.	VBLKKF	VBLKKF	VBLKKF	
Quant. Factor	1.00	1.14	11.2	
Benzene	U	2000 J,D	3500J	1000
Toluene	U	860J	9200J	1000
Ethylbenzene	U	390J	22000	1000
Xylene (total)	U	580J	25000	1000
Date Received		02/26/99	02/26/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/02/99	03/02/99	03/02/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE VO-1.3
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-SB23(4-8) 990302D-04 VBLKKL 1.19	CF-SB18 (4-7.5) 990302D-05 VBLKKL 1.19		Quant. Limits with no Dilution
Benzene	2J	4J		5.0
Toluene	1J	2J		5.0
Ethylbenzene	4J	U		5.0
Xylene (total)	16	U		5.0
Date Received Date Extracted Date Analyzed	03/04/99 N/A 03/06/99	03/04/99 N/A 03/06/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

revision from validator

V128

TABLE SV-1.2
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB23(4-8)	CF-SB18 (4-7.5)	CF-SB17 (76-78)	Quant. Limits with no Dilution
Lab Sample I.D.	990302D-04	990302D-05	990302D-06	
Method Blank I.D.	SBLKMP	SBLKMP	SBLKMP	
Quant. Factor	1.23	1.16	1760	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	26J (41DJ)	170J	3500000	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	2600000	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	46J	190J	780000	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	230J	96000J	330
Date Received	03/04/99	03/04/99	03/04/99	
Date Extracted	03/09/99	03/09/99	03/09/99	
Date Analyzed	04/08/99	04/05/99	04/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Validators revisions - remove "R" from benzoic acid. ✓ KS

TABLE SV-1.2
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB23(4-8)	CF-SB18 (4-7.5)	CF-SB17 (76-78)	Quant. Limits with no Dilution
Lab Sample I.D.	990302D-04	990302D-05	990302D-06	
Method Blank I.D.	SBLKMP	SBLKMP	SBLKMP	
Quant. Factor	1.23	1.16	1760	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	220J	230000J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	500	960000	330
Anthracene	U	330J	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	24J	U	U	330
Fluoranthene	U	2900	U	330
Pyrene	250J	2400	400000J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	1900	U	330
Chrysene	U	1700	U	330
bis(2-Ethylhexyl)phthalate	16J 410J	22J 310J	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	1000	U	330
Benzo(k)fluoranthene	U	1600	U	330
Benzo(a)pyrene	130J	1800	130000J	330
Indeno(1,2,3-cd)pyrene	33J	1200	27000J	330
Dibenzo(a,h)anthracene	14J	400	U	330
Benzo(g,h,i)perylene	30J	1000	22000J	330
Date Received	03/04/99	03/04/99	03/04/99	
Date Extracted	03/09/99	03/09/99	03/09/99	
Date Analyzed	04/08/99	04/05/99	04/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKD

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB18(4-7.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302D SAS No.: _____ SDG No.: D0302

Matrix (soil/water): SOIL Lab Sample ID: 990302D-05

Level (low/med): LOW Date Received: 03/04/99

% Solids: 82.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.1			P
7440-39-3	Barium	50.5			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.21	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	38.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	56.6			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.050	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.83	U	UT3	P
7440-22-4	Silver	0.41	U	UT3	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

ypm 5/12

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB18(4-7.5)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302D SAS No. : _____ SDG No.: D0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302305

% Solids: 82.8 Date Received: 03/02/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.586	U	UJ19	

Comments: _____

FORM I - WC

JMM 5/12

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB18(73-76)

46

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527

Matrix: (soil/water) SOIL Lab Sample ID: 990527A-02

Sample wt/vol: 5 (g/mL) G Lab File ID: >O2601

Level: (low/med) MED Date Received: 03/11/99

% Moisture: not dec. 10 Date Analyzed: 03/16/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	1100	U
108-88-3	Toluene	720	J
100-41-4	Ethylbenzene	590	J
1330-20-7	Xylene (total)	7200	

5/16

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB18(73-76)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527 226

Matrix: (soil/water) SOIL Lab Sample ID: 990527A-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q3069

Level: (low/med) LOW Date Received: 03/11/99

% Moisture: 9 decanted: (Y/N) N Date Extracted: 03/16/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	9100	U
111-44-4	bis(2-Chloroethyl)ether	9100	U
95-57-8	2-Chlorophenol	9100	U
541-73-1	1,3-Dichlorobenzene	9100	U
106-46-7	1,4-Dichlorobenzene	9100	U
100-51-6	Benzyl alcohol	9100	U
95-50-1	1,2-Dichlorobenzene	9100	U
95-48-7	2-Methylphenol	9100	U
108-60-1	2,2'-oxybis(1-Chloropropane)	9100	U
106-44-5	4-Methylphenol	9100	U
621-64-7	N-Nitroso-di-n-propylamine	9100	U
67-72-1	Hexachloroethane	9100	U
98-95-3	Nitrobenzene	9100	U
78-59-1	Isophorone	9100	U
88-75-5	2-Nitrophenol	9100	U
105-67-9	2,4-Dimethylphenol	9100	U
65-85-0	Benzoic acid	44000	U VTII
111-91-1	bis(2-Chloroethoxy)methane	9100	U
120-83-2	2,4-Dichlorophenol	9100	U
120-82-1	1,2,4-Trichlorobenzene	9100	U
91-20-3	Naphthalene	58000	B JS
106-47-8	4-Chloroaniline	9100	U
87-68-3	Hexachlorobutadiene	9100	U
59-50-7	4-Chloro-3-methylphenol	9100	U
91-57-6	2-Methylnaphthalene	69000	JS
77-47-4	Hexachlorocyclopentadiene	9100	U
88-06-2	2,4,6-Trichlorophenol	9100	U
95-95-4	2,4,5-Trichlorophenol	44000	U
91-58-7	2-Chloronaphthalene	9100	U
88-74-4	2-Nitroaniline	44000	U
131-11-3	Dimethylphthalate	9100	U
208-96-8	Acenaphthylene	29000	
606-20-2	2,6-Dinitrotoluene	9100	U

5/16

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB18(73-76)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527 227

Matrix: (soil/water) SOIL Lab Sample ID: 990527A-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q3069

Level: (low/med) LOW Date Received: 03/11/99

% Moisture: 9 decanted: (Y/N) N Date Extracted: 03/16/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 8.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	44000	U
83-32-9	Acenaphthene	4000	J
51-28-5	2,4-Dinitrophenol	44000	U
100-02-7	4-Nitrophenol	44000	U
132-64-9	Dibenzofuran	2800	J
121-14-2	2,4-Dinitrotoluene	9100	U
84-66-2	Diethylphthalate	9100	U
7005-72-3	4-Chlorophenyl-phenylether	9100	U
86-73-7	Fluorene	19000	
100-01-6	4-Nitroaniline	44000	U
534-52-1	4,6-Dinitro-2-methylphenol	44000	U
86-30-6	N-Nitrosodiphenylamine (1)	9100	U
101-55-3	4-Bromophenyl-phenylether	9100	U
118-74-1	Hexachlorobenzene	9100	U
87-86-5	Pentachlorophenol	44000	U
85-01-8	Phenanthrene	33000	B
120-12-7	Anthracene	7500	J
86-74-8	Carbazole	9100	U
84-74-2	Di-n-butylphthalate	9100	U
206-44-0	Fluoranthene	12000	B
129-00-0	Pyrene	15000	B
85-68-7	Butylbenzylphthalate	9100	U
91-94-1	3,3'-Dichlorobenzidine	18000	U
56-55-3	Benzo(a)anthracene	6900	JB
218-01-9	Chrysene	6100	JB
117-81-7	bis(2-Ethylhexyl)phthalate	~~170~~	~~JB~~
117-84-0	Di-n-octylphthalate	9100	U
205-99-2	Benzo(b)fluoranthene	2000	JB
207-08-9	Benzo(k)fluoranthene	3200	JB
50-32-8	Benzo(a)pyrene	4500	JB
193-39-5	Indeno(1,2,3-cd)pyrene	1200	JB
53-70-3	Dibenzo(a,h)anthracene	480	JB
191-24-2	Benzo(g,h,i)perylene	1100	JB

9100012

(1) - Cannot be separated from Diphenylamine

5/16

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB18(73-76)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0527A SAS No.: _____ SDG No.: A0527

Matrix (soil/water): SOIL Lab Sample ID: 990527A-02

Level (low/med): LOW Date Received: 03/11/99

% Solids: 90.4

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M	
7429-90-5	Aluminum				NR	
7440-36-0	Antimony				NR	
7440-38-2	Arsenic	3.6			P	
7440-39-3	Barium	57.6		E J4	P	
7440-41-7	Beryllium				NR	
7440-43-9	Cadmium	0.17		J32	P	
7440-70-2	Calcium				NR	
7440-47-3	Chromium	18.8			P	
7440-48-4	Cobalt				NR	
7440-50-8	Copper				NR	
7439-89-6	Iron				NR	
7439-92-1	Lead	8.8		J32	P	
7439-95-4	Magnesium				NR	
7439-96-5	Manganese				NR	
7439-97-6	Mercury	0.023	U		CV	
7440-02-0	Nickel				NR	
7440-09-7	Potassium				NR	
7782-49-2	Selenium	0.69	U J	J3 N J29	P	UJ32, UJ19
7440-22-4	Silver	0.34	U J	J3	P	
7440-23-5	Sodium				NR	
7440-28-0	Thallium				NR	
7440-62-2	Vanadium				NR	
7440-66-6	Zinc				NR	
57-12-5	Cyanide				NR	

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

5116

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB18(73-76)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0527A SAS No.: _____ SDG No.: A0527

Matrix (soil/water): SOIL Lab Sample ID: 990527A-02

% Solids: 90.4 Date Received: 03/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.559	U	mg/Kg		L
	TOC	4980		mg/Kg		D

Comments:

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SB-18

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-DUP3

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527

63

Matrix: (soil/water) SOIL Lab Sample ID: 990527A-05

Sample wt/vol: 5 (g/mL) G Lab File ID: >O2602

Level: (low/med) MED Date Received: 03/11/99

% Moisture: not dec. 11 Date Analyzed: 03/16/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	100	J
108-88-3	Toluene	560	J
100-41-4	Ethylbenzene	470	J
1330-20-7	Xylene (total)	5500	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-DUP3

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527 315

Matrix: (soil/water) SOIL Lab Sample ID: 990527A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q3068

Level: (low/med) LOW Date Received: 03/11/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 03/16/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	18000	U
111-44-4	bis(2-Chloroethyl)ether	18000	U
95-57-8	2-Chlorophenol	18000	U
541-73-1	1,3-Dichlorobenzene	18000	U
106-46-7	1,4-Dichlorobenzene	18000	U
100-51-6	Benzyl alcohol	18000	U
95-50-1	1,2-Dichlorobenzene	18000	U
95-48-7	2-Methylphenol	18000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	18000	U
106-44-5	4-Methylphenol	18000	U
621-64-7	N-Nitroso-di-n-propylamine	18000	U
67-72-1	Hexachloroethane	18000	U
98-95-3	Nitrobenzene	18000	U
78-59-1	Isophorone	18000	U
88-75-5	2-Nitrophenol	18000	U
105-67-9	2,4-Dimethylphenol	18000	U
65-85-0	Benzoic acid	89000	U VJII
111-91-1	bis(2-Chloroethoxy)methane	18000	U
120-83-2	2,4-Dichlorophenol	18000	U
120-82-1	1,2,4-Trichlorobenzene	18000	U
91-20-3	Naphthalene	120000	B JS
106-47-8	4-Chloroaniline	18000	U
87-68-3	Hexachlorobutadiene	18000	U
59-50-7	4-Chloro-3-methylphenol	18000	U
91-57-6	2-Methylnaphthalene	140000	JS
77-47-4	Hexachlorocyclopentadiene	18000	U
88-06-2	2,4,6-Trichlorophenol	18000	U
95-95-4	2,4,5-Trichlorophenol	89000	U
91-58-7	2-Chloronaphthalene	18000	U
88-74-4	2-Nitroaniline	89000	U
131-11-3	Dimethylphthalate	18000	U
208-96-8	Acenaphthylene	54000	
606-20-2	2,6-Dinitrotoluene	18000	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-DUP3

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527 316

Matrix: (soil/water) SOIL Lab Sample ID: 990527A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q3068

Level: (low/med) LOW Date Received: 03/11/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 03/16/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 50.0

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	89000	U VSH
83-32-9	Acenaphthene	7500	J
51-28-5	2,4-Dinitrophenol	89000	U VSH
100-02-7	4-Nitrophenol	89000	U
132-64-9	Dibenzofuran	5500	J
121-14-2	2,4-Dinitrotoluene	18000	U VSH
84-66-2	Diethylphthalate	18000	U
7005-72-3	4-Chlorophenyl-phenylether	18000	U
86-73-7	Fluorene	32000	
100-01-6	4-Nitroaniline	89000	U VSH
534-52-1	4,6-Dinitro-2-methylphenol	89000	U VSH
86-30-6	N-Nitrosodiphenylamine (1)	18000	U
101-55-3	4-Bromophenyl-phenylether	18000	U
118-74-1	Hexachlorobenzene	18000	U
87-86-5	Pentachlorophenol	89000	U
85-01-8	Phenanthrene	66000	B
120-12-7	Anthracene	15000	J
86-74-8	Carbazole	18000	U
84-74-2	Di-n-butylphthalate	18000	U
206-44-0	Fluoranthene	23000	B
129-00-0	Pyrene	30000	B
85-68-7	Butylbenzylphthalate	18000	U
91-94-1	3,3'-Dichlorobenzidine	37000	U
56-55-3	Benzo(a)anthracene	14000	JB
218-01-9	Chrysene	12000	JB
117-81-7	bis(2-Ethylhexyl)phthalate	~~300~~	~~JB~~ 18000012
117-84-0	Di-n-octylphthalate	18000	U
205-99-2	Benzo(b)fluoranthene	3600	JB
207-08-9	Benzo(k)fluoranthene	7000	JB
50-32-8	Benzo(a)pyrene	9400	JB
193-39-5	Indeno(1,2,3-cd)pyrene	2400	JB
53-70-3	Dibenzo(a,h)anthracene	900	JB
191-24-2	Benzo(g,h,i)perylene	2400	JB

(1) - Cannot be separated from Diphenylamine

5/16

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-DUP3

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0527A SAS No.: _____ SDG No.: A0527

Matrix (soil/water): SOIL Lab Sample ID: 990527A-05

Level (low/med): LOW Date Received: 03/11/99

% Solids: 89.4

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.4			P
7440-39-3	Barium	51.9		E J4	P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	12.5		J32	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.026	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.72	U	UJ3, N UJ29	P
7440-22-4	Silver	0.36	U	UJ3	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

UJ32, UJ19

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

5/10

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO. 642

CF-DUP3

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0527A SAS No.: _____ SDG No.: A0527

Matrix (soil/water): SOIL Lab Sample ID: 990527A-05

% Solids: 89.4 Date Received: 03/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.554	U	mg/Kg		L
	TOC	3450		mg/Kg		D

Comments:

FORM I - WC

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TABLE VO-3.3 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKD VBLKKD 1.00	CF-SB19(5-7) 990302A-18 VBLKKD 1.26	CF-SB14 (24-28) 990302A-19 VBLKKD 1.10	Quant. Limits with no Dilution
Benzene	U	3J	150	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	200	5.0
Xylene (total)	U	U	100	5.0
Date Received		02/25/99	02/25/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/27/99	02/27/99	02/27/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB13 (18-20)	CF-SB14(6-8)	CF-SB19(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-16	990302A-17	990302A-18	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	56.8	1010	1.22	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
4-Dimethylphenol	U	U	U	330
anzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	110000J	1400000	51J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	56000J	1200000	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	3500J	49000J	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	28000J	230000J	U	330
Date Received	02/25/99	02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/09/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB13 (18-20)	CF-SB14(6-8)	CF-SB19(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-16	990302A-17	990302A-18	
Method Blank I.D.	SBLKNP	SBLKNP	SBLKNP	
Quant. Factor	56.8	1010	1.22	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	1200J	34000J	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	6J 400J	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	6300J	62000J	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	62000 J5	940000	45J	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
-n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	18000J	290000J	15J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ 11	U UJ 11	U	660
Benzo(a)anthracene	7900J	110000J	U	330
Chrysene	8200J	140000J	UJ 11 U [redacted]	330
bis(2-Ethylhexyl)phthalate	UJ 11 U [redacted]	UJ 11 U [redacted]	12J 400J	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	2700J	40000J	U	330
Benzo(k)fluoranthene	3800J	63000J	U	330
Benzo(a)pyrene	6600J	91000J	U	330
Indeno(1,2,3-cd)pyrene	15000J	260000J	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	17000J J5	300000J	U	330
Date Received	02/25/99	02/25/99	02/25/99	
Date Extracted	02/26/99	02/26/99	02/26/99	
Date Analyzed	03/09/99	03/09/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

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1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB19(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-18

Level (low/med): LOW Date Received: 02/25/99

% Solids: 75

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.4			P
7440-39-3	Barium	44.6	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.23	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	70.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.029	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.3		J3	P
7440-22-4	Silver	0.47	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: RED Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

Dpm 5/12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB19(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-18

% Solids: 75 Date Received: 02/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.687	U	UJ mg/Kg		L

Comments:

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB19(34-36)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-03

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2838

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: not dec. 9 Date Analyzed: 02/27/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	1	J
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	2	J

5/12

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB19(34-36)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3072

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	230	J
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

5/12

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB19(34-36)

ıb Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3072

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	1900	U
83-32-9	Acenaphthene	380	U
51-28-5	2,4-Dinitrophenol	1900	U
100-02-7	4-Nitrophenol	1900	U
132-64-9	Dibenzofuran	380	U
121-14-2	2,4-Dinitrotoluene	380	U
84-66-2	Diethylphthalate	380	U
7005-72-3	4-Chlorophenyl-phenylether	380	U
86-73-7	Fluorene	380	U
100-01-6	4-Nitroaniline	1900	U
534-52-1	4,6-Dinitro-2-methylphenol	1900	U
86-30-6	N-Nitrosodiphenylamine (1)	380	U
101-55-3	4-Bromophenyl-phenylether	380	U
118-74-1	Hexachlorobenzene	380	U
87-86-5	Pentachlorophenol	1900	U
85-01-8	Phenanthrene.	380	U
120-12-7	Anthracene	380	U
86-74-8	Carbazole	380	U
84-74-2	Di-n-butylphthalate	380	U
206-44-0	Fluoranthene	380	U
129-00-0	Pyrene	9	JB
85-68-7	Butylbenzylphthalate	380	U
91-94-1	3,3'-Dichlorobenzidine	770	U
56-55-3	Benzo(a)anthracene	380	U
218-01-9	Chrysene	380	U
117-81-7	bis(2-Ethylhexyl)phthalate	190	JB
117-84-0	Di-n-octylphthalate	380	U
205-99-2	Benzo(b)fluoranthene	380	U
207-08-9	Benzo(k)fluoranthene	380	U
50-32-8	Benzo(a)pyrene	380	U
193-39-5	Indeno(1,2,3-cd)pyrene	380	U
53-70-3	Dibenzo(a,h)anthracene	380	U
191-24-2	Benzo(g,h,i)perylene	380	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB19(34-36)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-03

Level (low/med): LOW Date Received: 02/25/99

% Solids: 85.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.8		J3	P
7440-39-3	Barium	54.5			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.21	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	18.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	8.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.019	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.63	U		P
7440-22-4	Silver	0.31	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: RED Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB19(34-36)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302103

% Solids: 85.8 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.583	U		
TOCD	2230.			

Comments: _____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB19(34-36)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302103D

% Solids: 85.8 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.571	U		
TOCD	2460.			

Comments: _____

FORM I - WC

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB19(34-36)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302103S

% Solids: 85.8 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	5.05			
TOCD	5460.			

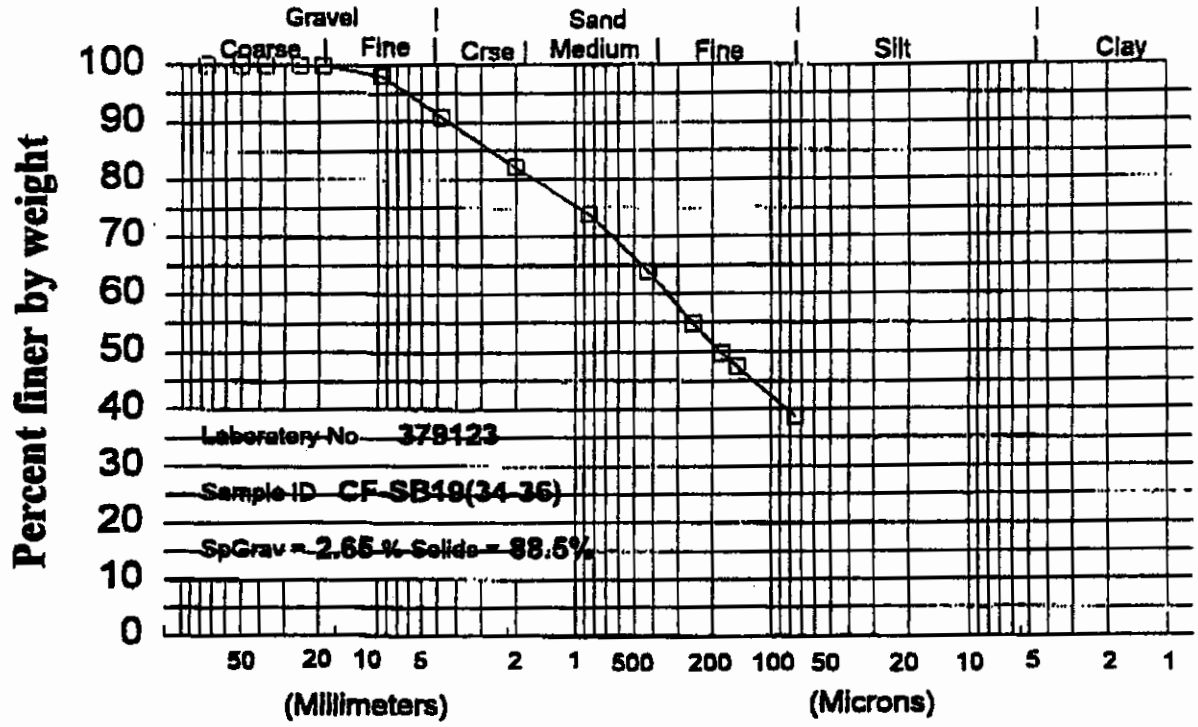
Comments: _____

FORM I - WC

JAM 5/12

STL-VT ASTM D422 Particle Size Analysis Sample ID: CF-SB19(34-36)

Sample preparation by: D2217



Particle Size

Maximum particle size: 19 mm

Shape and hardness (>#10): Subrounded | Hard

Sieve size	Particle Size		Percent finer	Incremental percent
3 inch	75.00	mm	100.0	0.0
2 inch	50.00		100.0	0.0
1.5 inch	37.50		100.0	0.0
1 inch	25.00		100.0	0.0
3/4 inch	19.00		100.0	0.0
3/8 inch	9.50		98.1	1.9
#4	4.75		90.9	7.1
#10	2.00		82.2	8.8
#20A	850.0	um	73.8	8.4
#40A	425.0		63.9	9.9
#60A	250.0		54.9	9.1
#80A	180.0		49.8	5.1
#100A	150.0		47.4	2.4
#200A	75.0		38.7	8.7

Submitted By: 15:08 on 16-Mar-99

Set 72678

Lab No 378123

TABLE VO-3.2 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(4-6)	CF-SB20(5-7)	CF-SB16(5-7)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05	990302A-07	990302A-08	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	6.10	1.14	1.19	
Benzene	5J	U	U	5.0
Toluene	10J	U	U	5.0
Ethylbenzene	U	U	2J	5.0
Xylene (total)	U	U	2J	5.0
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/25/99	02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB20(5-7)	CF-SB16(5-7)	CF-SB9(8-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-07	990302A-08	990302A-09	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.11	1.14	290.	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
? 4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	9J	100J	560000	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	180000	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	37J	15000J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	30J	55000J	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/05/99	03/05/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB20(5-7)	CF-SB16(5-7)	CF-SB9(8-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-07	990302A-08	990302A-09	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	1.11	1.14	290.	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	3000J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	7JB370U	6JB380U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	8J	230J	140000	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	8J	82J	57000J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U UJ11	660
Benzo(a)anthracene	6J	41J	27000J	330
Chrysene	UJ11 U	J11 40J	32000J	330
bis(2-Ethylhexyl)phthalate	14JB370U	11JB380U	U11 U	330
Di-n-octylphthalate	5J	U	U	330
Benzo(b)fluoranthene	U	15J	17000J	330
Benzo(k)fluoranthene	U	25J	24000J	330
Benzo(a)pyrene	U	32J	33000J	330
Indeno(1,2,3-cd)pyrene	U	270J	81000J	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	290J	94000J	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/05/99	03/05/99	03/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

TABLE VO-3.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB22(2-3)	CF-SB2I(5-7)	CF-SB33(7-9)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-05	990302C-06	990302C-15	
Method Blank I.D.	VBLKKG	VBLKKG	VBLKKG	
Quant. Factor	12.5	1.16	11.5	
Benzene	2600J	1500	3900J	1000
Toluene	32000	110J	U	1000
Ethylbenzene	150000	5800	43000	1000
Xylene (total)	150000	1900	47000	1000
Date Received	02/26/99	02/26/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/03/99	03/03/99	03/03/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB20(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-07

% Solids: 89.2 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.566	U	mg/Kg		L

Comments:

FORM I - WC

TABLE VO-3.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB22(2-3)	CF-SB2I(5-7)	CF-SB33(7-9)	
Lab Sample I.D.	990302C-05	990302C-06	990302C-15	Quant. Limits with no Dilution
Method Blank I.D.	VBLKKG	VBLKKG	VBLKKG	
Quant. Factor	12.5	1.16	11.5	
Benzene	2600J	1500	3900J	1000
Toluene	32000	110J	U	1000
Ethylbenzene	150000	5800	43000	1000
Xylene (total)	150000	1900	47000	1000
Date Received	02/26/99	02/26/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/03/99	03/03/99	03/03/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-3.4
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil Medium

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKF VBLKKF 1.00	CF-SB22 (20-21) 990302C-02 VBLKKF 1.14	CF-SB17 (13-16) 990302C-04 VBLKKF 11.2	Quant. Limits with no Dilution
Benzene	U	2000 J, J	3500J	1000
Toluene	U	860J	9200J	1000
Ethylbenzene	U	390J	22000	1000
Xylene (total)	U	580J	25000	1000
Date Received Date Extracted Date Analyzed	N/A 03/02/99	02/26/99 N/A 03/02/99	02/26/99 N/A 03/02/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB22 (20-21)	CF-SB17 (13-16)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKSP	990302C-02	990302C-04	
Method Blank I.D.	SBLKSP	SBLKSP	SBLKSP	
Quant. Factor	1.00	11.2	235.	
Phenol	U	510J	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	220J	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	240J	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	9J	16000B	420000B	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	19000 J6	440000 J6	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	4000	64000J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	500J	11000J	330
Date Received		02/26/99	02/26/99	
Date Extracted	03/03/99	03/03/99	03/03/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB22 (20-21)	CF-SB17 (13-16)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKSP	990302C-02	990302C-04	
Method Blank I.D.	SBLKSP	SBLKSP	SBLKSP	
Quant. Factor	1.00	11.2	235.	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	460J	7000J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	140J	3600J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	3800	69000J	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	U	1800J	37000J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	670J	16000J	330
Chrysene	U	640J	15000J	330
bis(2-Ethylhexyl)phthalate	8J	72JB 3700U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	270J	4700J	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	570J	14000J	330
Indeno(1,2,3-cd)pyrene	U	2200J	47000J	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	2600J	54000J	330
Date Received		02/26/99	02/26/99	
Date Extracted	03/03/99	03/03/99	03/03/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE VO-1.3
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB23(4-8)	CF-SB18 (4-7.5)		Quant. Limits with no Dilution
Lab Sample I.D.	990302D-04	990302D-05		
Method Blank I.D.	VBLKKL	VBLKKL		
Quant. Factor	1.19	1.19		
Benzene	2J	4J		5.0
Toluene	1J	2J		5.0
Ethylbenzene	4J	U		5.0
Xylene (total)	16	U		5.0
Date Received	03/04/99	03/04/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/06/99	03/06/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

revision from validator

V1.2

TABLE SV-1.2
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB23(4-8)	CF-SB18 (4-7.5)	CF-SB17 (76-78)	Quant. Limits with no Dilution
Lab Sample I.D.	990302D-04	990302D-05	990302D-06	
Method Blank I.D.	SBLKMP	SBLKMP	SBLKMP	
Quant. Factor	1.23	1.16	1760	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	26J (41DJ)	170J	3500000	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	2600000	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	46J	190J	780000	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	230J	96000J	330
Date Received	03/04/99	03/04/99	03/04/99	
Date Extracted	03/09/99	03/09/99	03/09/99	
Date Analyzed	04/08/99	04/05/99	04/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Validators revisions - remove "R" from benzoic acid. ✓ MS

TABLE SV-1.2
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB23(4-8)	CF-SB18 (4-7.5)	CF-SB17 (76-78)	Quant. Limits with no Dilution
Lab Sample I.D.	990302D-04	990302D-05	990302D-06	
Method Blank I.D.	SBLKMP	SBLKMP	SBLKMP	
Quant. Factor	1.23	1.16	1760	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	220J	230000J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	500	960000	330
Anthracene	U	330J	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	24J	U	U	330
[illegible]oranthene	U	JM 2900	U	330
[illegible]ene	250J	2400	400000J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	1900	U	330
Chrysene	U	1700	U	330
bis(2-Ethylhexyl)phthalate	16J (410J)	22J (360J)	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	1000 JM JC	U	330
Benzo(k)fluoranthene	U	1600 JC	U	330
Benzo(a)pyrene	130J	1800	130000J	330
Indeno(1,2,3-cd)pyrene	33J	1200	27000J	330
Dibenzo(a,h)anthracene	14J	400	U	330
Benzo(g,h,i)perylene	30J	1000	22000J	330
Date Received	03/04/99	03/04/99	03/04/99	
Date Extracted	03/09/99	03/09/99	03/09/99	
Date Analyzed	04/08/99	04/05/99	04/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB23(4-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302D SAS No.: _____ SDG No.: D0302

Matrix (soil/water): SOIL Lab Sample ID: 990302D-04

Level (low/med): LOW Date Received: 03/04/99

% Solids: 89.1

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.2			P
7440-39-3	Barium	89.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.18	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	25.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	162.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.24			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.6		J3	P
7440-22-4	Silver	0.36	U	UJ3	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

5/12

TABLE VO-3.0 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB3 0(7-11)	CF-SB30 (19-23)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKK	990302C-09	990302C-10	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.00	1.14	1.39	
Benzene	U	U	U	5.0
Toluene	U	1J	1J	5.0
Ethylbenzene	U	.6J	.5J	5.0
Xylene (total)	U	3J	3J	5.0
Date Received		03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB3 0(7-11)	CF-SB30 (19-23)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCR	990302C-09	990302C-10	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.00	1.15	1.49	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	10J 380J [12]	49J 490J [12]	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	49J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	58J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U UJ [11]	1600
Acenaphthene	U	U	U	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/19/99	03/19/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB3 0(7-11)	CF-SB30 (19-23)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCR	990302C-09	990302C-10	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.00	1.15	1.49	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	16J	70J	330
Anthracene	U	U	19J	330
Carbazole	U	U	U	330
-n-butylphthalate	9J	18JB 380U[12]	19JB 490U[12]	330
uoranthene	U	18J	U	330
Pyrene	U	22J	29J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U UJ[11]	660
Benzo(a)anthracene	U	16J	U	330
Chrysene	U	17J	U	330
bis(2-Ethylhexyl)phthalate	8J	20JB 380U[12]	U	330
Di-n-octylphthalate	5J	21JB ~~380U~~ 380U[12]	U	330
Benzo(b)fluoranthene	U	18OJ	U	330
Benzo(k)fluoranthene	U	26J	U	330
Benzo(a)pyrene	U	24J	U	330
Indeno(1,2,3-cd)pyrene	U	17J	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/19/99	03/19/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB30(7-11)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-09

Level (low/med): LOW Date Received: 03/02/99

% Solids: 85.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.5		J3	P
7440-39-3	Barium	50.3			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.22		U12N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	49.7		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	11.9		J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.021	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.1		J32	P
7440-22-4	Silver	0.35			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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JAM 5/12

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB30(7-11)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302209

% Solids: 85.5 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.585	U	1019	

Comments: _____

FORM I - WC

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TABLE VO-3.0
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB3 0(7-11)	CF-SB30 (19-23)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKK	990302C-09	990302C-10	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.00	1.14	1.39	
Benzene	U	U	U	5.0
Toluene	U	1J	1J	5.0
Ethylbenzene	U	.6J	.5J	5.0
Xylene (total)	U	3J	3J	5.0
Date Received		03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB3 0(7-11)	CF-SB30 (19-23)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCR	990302C-09	990302C-10	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.00	1.15	1.49	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Ben ic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	10J 380J (12)	49J 490J (2)	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	49J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	58J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U UJ (1)	1600
Acenaphthene	U	U	U	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/19/99	03/19/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKCR SBLKCR 1.00	CF-SB3 0(7-11) 990302C-09 SBLKCR 1.15	CF-SB30 (19-23) 990302C-10 SBLKCR 1.49	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	16J	70J	330
Anthracene	U	U	19J	330
Carbazole	U	U	U	330
Di butylphthalate	9J	18JB 380J 12	19JB 440J 12	330
Fl anthene	U	18J	U	330
Pyrene	U	22J	29J	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U UJ11	660
Benzo(a)anthracene	U	16J	U	330
Chrysene	U	17J	U	330
bis(2-Ethylhexyl)phthalate	8J	20JB 380J 12	U	330
Di-n-octylphthalate	5J	21JB ~~180J~~ 380J 12	U	330
Benzo(b)fluoranthene	U	180J	U	330
Benzo(k)fluoranthene	U	26J	U	330
Benzo(a)pyrene	U	24J	U	330
Indeno(1,2,3-cd)pyrene	U	17J	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/19/99	03/19/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB30(19-23)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-10

Level (low/med): LOW Date Received: 03/02/99

% Solids: 70.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.2		J3	P
7440-39-3	Barium	95.3			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.34		W2N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	33.5		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	11.5		J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.026	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.5		J32	P
7440-22-4	Silver	0.50			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB30(19-23)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302210

% Solids: 70 % Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.679	U	UJ	

Comments: _____

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TABLE VO-3.1 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (20-23)	CF-SB3 1(7-11)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-13	990302C-14	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.14	1.20	1.14	
Benzene	3J	U	U	5.0
Toluene	.8J	U	U	5.0
Ethylbenzene	U	.8J	U	5.0
Xylene (total)	U	2J	U	5.0
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB3 1(7-11)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-14	990302C-17	990302C-19	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.16	1.28	1.22	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
s(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	63J	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U UJ11	U UJ11	U UJ11	1600
Acenaphthene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/28/99	03/28/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB3 1(7-11)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-14	990302C-17	990302C-19	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.16	1.28	1.22	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	U	U	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	14JB380 UJ	14JB420 UJ	16JB400 UJ	330
Fluoranthene	U	U	U	330
Pyrene	U	U	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ11	U UJ11	U UJ11	660
Benzo(a)anthracene	U	U	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/28/99	03/28/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB31(7-11)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-14

Level (low/med): LOW Date Received: 03/02/99

% Solids: 83.2

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.4		J3	P
7440-39-3	Barium	44.7			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.51		J12 N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	50.0		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	7.8		J32, J8	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.032	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.8		J32	P
7440-22-4	Silver	0.29			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB31(7-11)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302214

% Solids: 83.2 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.583	U	UJ9	

Comments: _____

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Soil

TABLE VO-3.1
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (20-23)	CF-SB3 1(7-11)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-13	990302C-14	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.14	1.20	1.14	
Benzene	3J	U	U	5.0
Toluene	.8J	U	U	5.0
Ethylbenzene	U	.8J	U	5.0
Xylene (total)	U	2J	U	5.0
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (11-15)	CF-SB32 (20-23)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-12	990302C-13	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.22	1.16	1.14	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
s(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	880	37J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	200J	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	16J	25J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U UJ11	U UJ11	U UJ11	1600
Acenaphthene	29J	25J	67J	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/24/99	03/24/99	03/24/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (11-15)	CF-SB32 (20-23)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-12	990302C-13	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.22	1.16	1.14	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	18J	U	330
4-Nitroaniline	U UJ11	U UJ11	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	66J	U	330
Anthracene	U	14J	U	330
Carbazole	U	U	U	330
di-n-butylphthalate	17JB 400 UJ12	16JB 380 UJ12	18JB	330
Fluoranthene	U	19J	U	330
Pyrene	U	31J	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ11	U UJ11	U UJ11	660
Benzo(a)anthracene	U	11J	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	U	12JB 380 UJ12	11JB	330
Di-n-octylphthalate	5JB 400 UJ12	7JB 380 UJ12	U	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/24/99	03/24/99	03/24/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB31(15-19)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-11

Level (low/med): LOW Date Received: 03/02/99

% Solids: 84

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2		J3	P
7440-39-3	Barium	23.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.32		U12N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	50.8		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	4.0		J32, J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.025	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.6		J32	P
7440-22-4	Silver	0.38			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB31(15-19)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302211

% Solids: 84.6 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.614	U	UJ19	
TOCD	1410.			

Comments: _____

FORM I - WC

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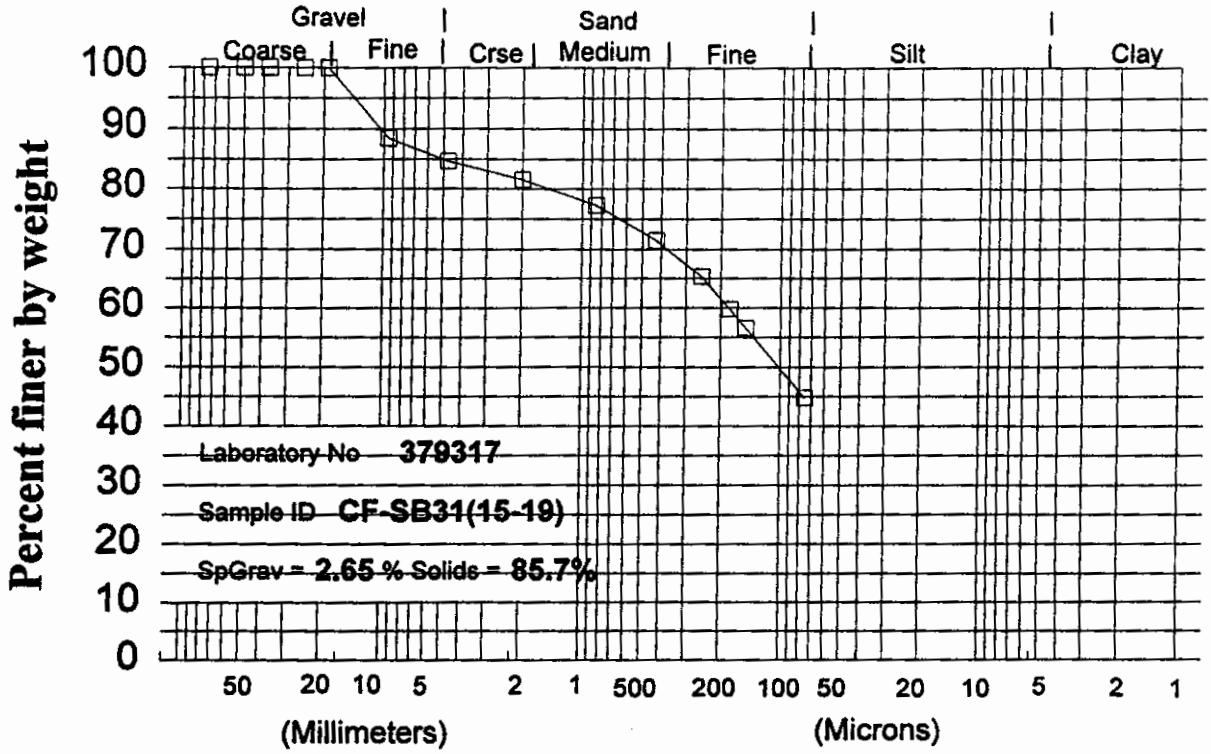
STL-VT ASTM D422 Particle Size Analysis Sample ID: CF-SB31(15-19)

Sample preparation by: D2217



Particle Size

Maximum particle size: 19 mm

Shape and hardness (>#10): Subrounded | Hard

Sieve size	Particle Size		Percent finer	Incremental percent
3 inch	75.00	mm	100.0	0.0
2 inch	50.00		100.0	0.0
1.5 inch	37.50		100.0	0.0
1 inch	25.00		100.0	0.0
3/4 inch	19.00		100.0	0.0
3/8 inch	9.50		88.5	11.5
#4	4.75		84.7	3.8
#10	2.00		81.6	3.1
#20A	850.0	um	77.3	4.3
#40A	425.0		71.5	5.8
#60A	250.0		65.4	6.1
#80A	180.0		59.8	5.6
#100A	150.0		56.6	3.2
#200A	75.0		44.8	11.8

0006

Set 72678

Submitted By:

TABLE VO-1.4 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB32 (11-15)		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKN	990302C-12		
Method Blank I.D.	VBLKKN	VBLKKN		
Quant. Factor	1.00	6.17		
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U UJ04		10
Methylene Chloride	8	47B JB4	47 U13	5.0
Acetone	5J	55JB JB4	55 U13, UJ11	10
Carbon Disulfide	U	U		5.0
Vinyl Acetate	U	U UJ11		10
1,1-Dichloroethene	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethene (total)	U	U		5.0
Chloroform	U	U		5.0
1,2-Dichloroethane	U	U		5.0
2-Butanone	U	U UJ11		10
1,1,1-Trichloroethane	U	U		5.0
Carbon Tetrachloride	U	U UJ11		5.0
omodichloromethane	U	U		5.0
,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
Trichloroethene	U	U		5.0
Dibromochloromethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Benzene	U	U		5.0
trans-1,3-Dichloropropene	U	U		5.0
Bromoform	U	U		5.0
4-Methyl-2-Pentanone	U	U UJ11		10
2-Hexanone	U	U UJ11		10
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,2,2-Tetrachloroethane	U	U UJ11		5.0
Chlorobenzene	U	U		5.0
Ethylbenzene	U	150		5.0
Styrene	U	U		5.0
Xylene (total)	U	340		5.0
Date Received		03/02/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/09/99	03/09/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (11-15)	CF-SB32 (20-23)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-12	990302C-13	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.22	1.16	1.14	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
is(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	880	37J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	200J	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	16J	25J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U UJ11	U UJ11	U UJ11	1600
Acenaphthene	29J	25J	67J	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/24/99	03/24/99	03/24/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (11-15)	CF-SB32 (20-23)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-12	990302C-13	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.22	1.16	1.14	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	18J	U	330
4-Nitroaniline	U UJ11	U UJ11	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	66J	U	330
Anthracene	U	14J	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	17JB 400UJ12	16JB 380UJ12	18JB	330
Fluoranthene	U	19J	U	330
Pyrene	U	31J	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ11	U UJ11	U UJ11	660
Benzo(a)anthracene	U	11J	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	U	12JB 380UJ12	11JB	330
Di-n-octylphthalate	5JB J24 400UJ12	7JB J24 380UJ12	U	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/24/99	03/24/99	03/24/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB32(11-15)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-12

Level (low/med): LOW Date Received: 03/02/99

% Solids: 86

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4420		*	P
7440-36-0	Antimony	1.8		U12, V19	P
7440-38-2	Arsenic	1.5		J3	P
7440-39-3	Barium	42.1			P
7440-41-7	Beryllium	0.25			P
7440-43-9	Cadmium	0.50		U12 N	P
7440-70-2	Calcium	1850			P
7440-47-3	Chromium	44.2		J19	P
7440-48-4	Cobalt	28.1			P
7440-50-8	Copper	13.8			P
7439-89-6	Iron	22400			P
7439-92-1	Lead	6.1		J32, J19	P
7439-95-4	Magnesium	44200			P
7439-96-5	Manganese	396.			P
7439-97-6	Mercury	0.032	U		CV
7440-02-0	Nickel	541.			P
7440-09-7	Potassium	997.			P
7782-49-2	Selenium	2.0		J32	P
7440-22-4	Silver	0.36			P
7440-23-5	Sodium	154.		U12	P
7440-28-0	Thallium	1.2			P
7440-62-2	Vanadium	14.8			P
7440-66-6	Zinc	30.4			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB32(11-15)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302212

% Solids: 86.0 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.593	U	UJ9	

Comments: _____

FORM I - WC

YPM 5/12

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: CF-SB32(11-15)

Lab Code: IEACT Case No.: 0302C SDG No.: C0302

Matrix: (soil/water): SOIL Lab Sample ID: 990302C-12

Sample wt/vol: 30.5 (g/ml) G Lab File ID: D4019045

% Moisture: 14 decanted: (Y/N) Date Received : 03/02/99

Extraction: (SepF/Cont/Sonc) SONC Date Extracted: 03/04/99

Concentrated Extract Volume: 10000 (ul) Date Analyzed : 03/06/99

Injection Volume: 1.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1 Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1.9	U
319-85-7	beta-BHC	1.9	U
319-86-8	delta-BHC	1.9	U
58-89-9	gamma-BHC (Lindane)	1.9	U
76-44-8	Heptachlor	1.9	U
309-00-2	Aldrin	1.9	U
1024-57-3	Heptachlor Epoxide	1.9	U
959-98-8	Endosulfan I	1.9	U
60-57-1	Dieldrin	3.8	U
72-55-9	4,4'-DDE	3.8	U
72-20-8	Endrin	3.8	U
33213-65-9	Endosulfan II	3.8	U
72-54-8	4,4'-DDD	3.8	U
1031-07-8	Endosulfan Sulfate	3.8	U
50-29-3	4,4'-DDT	0.31	J J31
72-43-5	Methoxychlor	19.	U
53494-70-5	Endrin ketone	3.8	U
7421-93-4	Endrin aldehyde	3.8	U
5103-71-9	alpha-Chlordane	1.9	U
5103-74-2	gamma-Chlordane	1.9	U
8001-35-2	Toxaphene	38.	U
12674-11-2	Aroclor-1016	38.	U
11104-28-2	Aroclor-1221	77.	U
11141-16-5	Aroclor-1232	38.	U
53469-21-9	Aroclor-1242	38.	U
12672-29-6	Aroclor-1248	38.	U
11097-69-1	Aroclor-1254	38.	U
11096-82-5	Aroclor-1260	38.	U

jmm 5/12

Soil

TABLE VO-3.1
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (20-23)	CF-SB3 1(7-11)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-13	990302C-14	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.14	1.20	1.14	
Benzene	3J	U	U	5.0
Toluene	.8J	U	U	5.0
Ethylbenzene	U	.8J	U	5.0
Xylene (total)	U	2J	U	5.0
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (11-15)	CF-SB32 (20-23)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-12	990302C-13	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.22	1.16	1.14	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
enzoic acid	U	U	U	1600
is(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	880	37J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	200J	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	16J	25J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U UJ11	U UJ11	U UJ11	1600
Acenaphthene	29J	25J	67J	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/24/99	03/24/99	03/24/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB31 (15-19)	CF-SB32 (11-15)	CF-SB32 (20-23)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-11	990302C-12	990302C-13	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.22	1.16	1.14	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	18J	U	330
4-Nitroaniline	U UJ11	U UJ11	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	66J	U	330
Anthracene	U	14J	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	17JB 400 U12	16JB 380 U12	18JB	330
Fluoranthene	U	19J	U	330
Pyrene	U	31J	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ11	U UJ11	U UJ11	660
Benzo(a)anthracene	U	11J	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	U	12JB 380 U12	11JB	330
Di-n-octylphthalate	5JB JB4 400 U12	7JB JB4	380 U12 U	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/24/99	03/24/99	03/24/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB32(20-23)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-13

Level (low/med): LOW Date Received: 03/02/99

% Solids: 85.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.7		J3	P
7440-39-3	Barium	31.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.64		W2N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	36.6		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	5.5		J32, J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.022	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.2		J32	P
7440-22-4	Silver	0.36			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB32(20-23)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302213

% Solids: 85.6 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.567	U	UJ19	

Comments: _____

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TABLE VO-3.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB22(2-3)	CF-SB2I(5-7)	CF-SB33(7-9)	
Lab Sample I.D.	990302C-05	990302C-06	990302C-15	Quant. Limits with no Dilution
Method Blank I.D.	VBLKKG	VBLKKG	VBLKKG	
Quant. Factor	12.5	1.16	11.5	
Benzene	2600J	1500	3900J	1000
Toluene	32000	110J	U	1000
Ethylbenzene	150000	5800	43000	1000
Xylene (total)	150000	1900	47000	1000
Date Received	02/26/99	02/26/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/03/99	03/03/99	03/03/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB33(7-9)	CF-SB34(5-9)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCP	990302C-15	990302C-16	
Method Blank I.D.	SBLKCP	SBLKCP	SBLKCP	
Quant. Factor	1.00	118	2.25	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	7J	150000B	590JB	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	120000 J6	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	3200J	160J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	26000J	320J	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB33(7-9)	CF-SB34(5-9)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCP	990302C-15	990302C-16	
Method Blank I.D.	SBLKCP	SBLKCP	SBLKCP	
Quant. Factor	1.00	118	2.25	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	1800J	220J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	17000J	1300	330
Anthracene	U	U	210J	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	U	U	1700	330
Pyrene	U	9200J	2100	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	3900J	1800	330
Chrysene	U	3300J	1700	330
bis(2-Ethylhexyl)phthalate	9J	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	1200J	1500	330
Benzo(k)fluoranthene	U	U	1400 J6	330
Benzo(a)pyrene	U	2800J	2000	330
Indeno(1,2,3-cd)pyrene	U	U	1600	330
Dibenzo(a,h)anthracene	U	U	840	330
Benzo(g,h,i)perylene	U	U	1500	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB33(7-9)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-15

Level (low/med): LOW Date Received: 03/02/99

% Solids: 83.4

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.3		J3	P
7440-39-3	Barium	72.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.19		U12 N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	69.8		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	9.3		J32, J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.035	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.4		J32	P
7440-22-4	Silver	0.33			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB33(7-9)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302215

% Solids: 83.4 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.588	U	VT19	

Comments: _____

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TABLE VO-3.7
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB33 (23-25)		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKJ	990302C-18		
Method Blank I.D.	VBLKKJ	VBLKKJ		
Quant. Factor	1.00	5.49		
Benzene	U	1000J		1000
Toluene	U	730J		1000
Ethylbenzene	U	4900J		1000
Xylene (total)	100J	6600B		1000
Date Received		03/02/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/04/99	03/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB33 (23-25)	CF-SB3 5(6-10) MS	CF-SB3 5(6-10) MSD	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-18	990302C-19MS	990302C-19 MSD	
Method Blank I.D.	SBLKCP	SBLKCP	SBLKCP	
Quant. Factor	110.	1.22	1.22	
Phenol	U	2000X	2000X	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	2600X	2600X	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	1300X	1300X	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	1600X	1500X	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	1600X	1600X	330
Naphthalene	210000B	8JB	8JB	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	3000X	2900X	330
2-Methylnaphthalene	260000J6	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	46000	7J	7J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	41000	1200X	1300X	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.7
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB33 (23-25)	CF-SB3 5(6-10) MS	CF-SB3 5(6-10) MSD	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-18	990302C-19MS	990302C-19 MSD	
Method Blank I.D.	SBLKCP	SBLKCP	SBLKCP	
Quant. Factor	110.	1.22	1.22	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	3600EX	3700EX	1600
Dibenzofuran	6000J	U	U	330
2,4-Dinitrotoluene	U	1400X	1500X	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	36000	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	2800X	3100X	1600
Phenanthrene	110000	U	U	330
Anthracene	7400J	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	U	U	U	330
Pyrene	35000J	980X	970X	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	13000J	5J	U	330
Chrysene	11000J	6J	U	330
bis(2-Ethylhexyl)phthalate	U	12JB	12JB	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	3400J	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	8600J	U	U	330
Indeno(1,2,3-cd)pyrene	22000J	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	26000J	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB33(23-25)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-18

Level (low/med): LOW Date Received: 03/02/99

% Solids: 92

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.4		J3	P
7440-39-3	Barium	35.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.41		J12 N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	41.5		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.3		J32, J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.020	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.85		J32	P
7440-22-4	Silver	0.29			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB33(23-25)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302218

% Solids: 92.0 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.549	U	UJ19	

Comments: _____

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TABLE VO-3.2 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB34(5-9)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-16	990302C-17	990302C-19	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.23	1.23	1.32	
Benzene	4J	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	.7J	U	5.0
Xylene (total)	62	3J	U	5.0
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB33(7-9)	CF-SB34(5-9)	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCP	990302C-15	990302C-16	
Method Blank I.D.	SBLKCP	SBLKCP	SBLKCP	
Quant. Factor	1.00	118.	2.25	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
is(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	7J	150000B	590JB	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	120000 J6	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	3200J	160J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	26000J	320J	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKCP SBLKCP 1.00	CF-SB33(7-9) 990302C-15 SBLKCP 118.	CF-SB34(5-9) 990302C-16 SBLKCP 2.25	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	1800J	220J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	17000J	1300	330
Anthracene	U	U	210J	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	U	U	1700	330
Pyrene	U	9200J	2100	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	U	3900J	1800	330
Chrysene	U	3300J	1700	330
bis(2-Ethylhexyl)phthalate	9J	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	1200J	1500	330
Benzo(k)fluoranthene	U	U	1400 J6	330
Benzo(a)pyrene	U	2800J	2000	330
Indeno(1,2,3-cd)pyrene	U	U	1600	330
Dibenzo(a,h)anthracene	U	U	840	330
Benzo(g,h,i)perylene	U	U	1500	330
Date Received		03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	04/01/99	04/01/99	04/01/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB34(5-9)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-16

Level (low/med): LOW Date Received: 03/02/99

% Solids: 83.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.8		J3	P
7440-39-3	Barium	43.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.20		U12 N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	52.8		T19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	18.8		T19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.058	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.96		J32	P
7440-22-4	Silver	0.40			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB34(5-9)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302216

% Solids: 83.8 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.591	U	UJ\9	

Comments: _____

FORM I - WC

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TABLE VO-3.2 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB34(5-9)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-16	990302C-17	990302C-19	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.23	1.23	1.32	
Benzene	4J	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	.7J	U	5.0
Xylene (total)	62	3J	U	5.0
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB3 1(7-11)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-14	990302C-17	990302C-19	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.16	1.28	1.22	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
s(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	63J	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U UJ|	U UJ|	U UJ|	1600
Acenaphthene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/28/99	03/28/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

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All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB3 1(7-11)	CF-SB3 4(9-13)	CF-SB3 5(6-10)
Lab Sample I.D.	990302C-14	990302C-17	990302C-19
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR
Quant. Factor	1.16	1.28	1.22
2,4-Dinitrophenol	U	U	U
4-Nitrophenol	U	U	U
Dibenzofuran	U	U	U
2,4-Dinitrotoluene	U	U	U
Diethylphthalate	U	U	U
4-Chlorophenyl-phenylether	U	U	U
Fluorene	U	U	U
4-Nitroaniline	U	U	U
4,6-Dinitro-2-methylphenol	U	U	U
N-Nitrosodiphenylamine (1)	U	U	U
4-Bromophenyl-phenylether	U	U	U
Hexachlorobenzene	U	U	U
Pentachlorophenol	U	U	U
Phenanthrene	U	U	U
Anthracene	U	U	U
Carbazole	U	U	U
Di-n-butylphthalate	14JB380UJ	14JB420UJ	16JB400UJ
Fluoranthene	U	U	U
Pyrene	U	U	U
Butylbenzylphthalate	U	U	U
3,3'-Dichlorobenzidine	U UJ	U UJ	U UJ
Benzo(a)anthracene	U	U	U
Chrysene	U	U	U
bis(2-Ethylhexyl)phthalate	U	U	U
Di-n-octylphthalate	U	U	U
Benzo(b)fluoranthene	U	U	U
Benzo(k)fluoranthene	U	U	U
Benzo(a)pyrene	U	U	U
Indeno(1,2,3-cd)pyrene	U	U	U
Dibenzo(a,h)anthracene	U	U	U
Benzo(g,h,i)perylene	U	U	U
Date Received	03/02/99	03/02/99	03/02/99
Date Extracted	03/04/99	03/04/99	03/04/99
Date Analyzed	03/28/99	03/28/99	03/28/99

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation f
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB34(9-13)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-17

Level (low/med): LOW Date Received: 03/02/99

% Solids: 79.7

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2		T3	P
7440-39-3	Barium	319.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.20		D12 N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.9		T9	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	9.8		J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.035	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.2			P
7440-22-4	Silver	0.40			P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: GREY Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB34(9-13)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302217

% Solids: 79.7 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.615	U	VJ19	

Comments: _____

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TABLE VO-3.2 Soil
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB34(5-9)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-16	990302C-17	990302C-19	
Method Blank I.D.	VBLKKK	VBLKKK	VBLKKK	
Quant. Factor	1.23	1.23	1.32	
Benzene	4J	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	.7J	U	5.0
Xylene (total)	62	3J	U	5.0
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	03/05/99	03/05/99	03/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB3 1(7-11)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-14	990302C-17	990302C-19	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.16	1.28	1.22	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
nzoic acid	U	U	U	1600
is(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	63J	U	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	U	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	U	U	U	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U UJ|	U UJ|	U UJ|	1600
Acenaphthene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/28/99	03/28/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB3 1(7-11)	CF-SB3 4(9-13)	CF-SB3 5(6-10)	Quant. Limits with no Dilution
Lab Sample I.D.	990302C-14	990302C-17	990302C-19	
Method Blank I.D.	SBLKCR	SBLKCR	SBLKCR	
Quant. Factor	1.16	1.28	1.22	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	U	U	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	U	U	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	U	U	U	330
Anthracene	U	U	U	330
Carbazole	U	U	U	330
Di-n-butylphthalate	14JB380UJ	14JB420UJ	16JB400UJ	330
Fluoranthene	U	U	U	330
Pyrene	U	U	U	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U UJ11	U UJ11	U UJ11	660
Benzo(a)anthracene	U	U	U	330
Chrysene	U	U	U	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	U	U	U	330
Benzo(k)fluoranthene	U	U	U	330
Benzo(a)pyrene	U	U	U	330
Indeno(1,2,3-cd)pyrene	U	U	U	330
Dibenzo(a,h)anthracene	U	U	U	330
Benzo(g,h,i)perylene	U	U	U	330
Date Received	03/02/99	03/02/99	03/02/99	
Date Extracted	03/04/99	03/04/99	03/04/99	
Date Analyzed	03/28/99	03/28/99	03/28/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB35(6-10)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): SOIL Lab Sample ID: 990302C-19

Level (low/med): LOW Date Received: 03/02/99

% Solids: 77.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.3	U		P
7440-39-3	Barium	74.0			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.21	U	N	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	64.5		J19	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.6		J19	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.029	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.3		J32	P
7440-22-4	Silver	0.43	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: GREY Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB35(6-10)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302219

% Solids: 77.8 Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.618	U	UJ19	

Comments: _____

FORM I - WC

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TABLE VO-1.1 Soil
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKK VBLKKK 1.00	CF-SB35 (18-22) 990302D-01 VBLKKK 1.12		Quant. Limits with no Dilution
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		03/02/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/05/99	03/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB35 (18-22)		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCP	990302D-01		
Method Blank I.D.	SBLKCP	SBLKCP		
Quant. Factor	1.00	1.14		
Phenol	U	U		330
bis(2-Chloroethyl)ether	U	U		330
2-Chlorophenol	U	U		330
1,3-Dichlorobenzene	U	U		330
1,4-Dichlorobenzene	U	U		330
Benzyl alcohol	U	U		330
1,2-Dichlorobenzene	U	U		330
2-Methylphenol	U	U		330
2,2'-oxybis(1-Chloropropane)	U	U		330
4-Methylphenol	U	U		330
N-Nitroso-di-n-propylamine	U	U		330
Hexachloroethane	U	U		330
Nitrobenzene	U	U		330
Isophorone	U	U		330
2-Nitrophenol	U	U	validators revision remove P- from benzoic acid	330
2,4-Dimethylphenol	U	U		330
Benzoic acid	U	U		1600
bis(2-Chloroethoxy)methane	U	U		330
2,4-Dichlorophenol	U	U		330
1,2,4-Trichlorobenzene	U	U		330
Naphthalene	10J	10J 380J		330
4-Chloroaniline	U	U		330
Hexachlorobutadiene	U	U		330
4-Chloro-3-methylphenol	U	U		330
2-Methylnaphthalene	U	U		330
Hexachlorocyclopentadiene	U	U		330
2,4,6-Trichlorophenol	U	U		330
2,4,5-Trichlorophenol	U	U		1600
2-Chloronaphthalene	U	U		330
2-Nitroaniline	U	U		1600
Dimethylphthalate	U	U		330
Acenaphthylene	U	U		330
2,6-Dinitrotoluene	U	U		330
3-Nitroaniline	U	U		1600
Acenaphthene	U	U		330
Date Received		03/02/99		
Date Extracted	03/04/99	03/04/99		
Date Analyzed	04/05/99	04/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB35 (18-22)		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKCP	990302D-01		
Method Blank I.D.	SBLKCP	SBLKCP		
Quant. Factor	1.00	1.14		
2,4-Dinitrophenol	U	U		1600
4-Nitrophenol	U	U		1600
Dibenzofuran	U	U		330
2,4-Dinitrotoluene	U	U		330
Diethylphthalate	U	U		330
4-Chlorophenyl-phenylether	U	U		330
Fluorene	U	U		330
4-Nitroaniline	U	U		1600
4,6-Dinitro-2-methylphenol	U	U		1600
N-Nitrosodiphenylamine (1)	U	U		330
4-Bromophenyl-phenylether	U	U		330
Hexachlorobenzene	U	U		330
Pentachlorophenol	U	U		1600
Phenanthrene	U	8J		330
Anthracene	U	U		330
Carbazole	U	U		330
Di-n-butylphthalate	U	U		330
Fluoranthene	U	U		330
Pyrene	U	6J		330
Butylbenzylphthalate	U	U		330
3,3'-Dichlorobenzidine	U	U		660
Benzo(a)anthracene	U	8J		330
Chrysene	U	8J		330
bis(2-Ethylhexyl)phthalate	11J	17JB380J		330
Di-n-octylphthalate	U	U		330
Benzo(b)fluoranthene	U	U		330
Benzo(k)fluoranthene	U	U		330
Benzo(a)pyrene	U	14J		330
Indeno(1,2,3-cd)pyrene	U	U		330
Dibenzo(a,h)anthracene	U	U		330
Benzo(g,h,i)perylene	U	180J		330
Date Received		03/02/99		
Date Extracted	03/04/99	03/04/99		
Date Analyzed	04/05/99	04/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB35(18-22)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302D SAS No.: _____ SDG No.: D0302

Matrix (soil/water): SOIL Lab Sample ID: 990302D-01

Level (low/med): LOW Date Received: 03/02/99

% Solids: 89.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.5			P
7440-39-3	Barium	54.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.17	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	47.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.0		J32	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.029	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.67	U	UJ3	P
7440-22-4	Silver	0.33	U	UJ3	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB35(18-22)

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302D SAS No. : _____ SDG No.: D0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302301

% Solids: 89.3 Date Received: 03/02/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.566	U	UJ19	

Comments: _____

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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SS1

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >R2478

Level: (low/med) LOW Date Received: 02/26/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	750	U
111-44-4	bis(2-Chloroethyl)ether	750	U
95-57-8	2-Chlorophenol	750	U
541-73-1	1,3-Dichlorobenzene	750	U
106-46-7	1,4-Dichlorobenzene	750	U
100-51-6	Benzyl alcohol	750	U
95-50-1	1,2-Dichlorobenzene	750	U
95-48-7	2-Methylphenol	750	U
108-60-1	2,2'-oxybis(1-Chloropropane)	750	U
106-44-5	4-Methylphenol	750	U
621-64-7	N-Nitroso-di-n-propylamine	750	U
67-72-1	Hexachloroethane	750	U
98-95-3	Nitrobenzene	750	U
78-59-1	Isophorone	750	U
88-75-5	2-Nitrophenol	750	U
105-67-9	2,4-Dimethylphenol	58	J
65-85-0	Benzoic acid	3600	U
111-91-1	bis(2-Chloroethoxy)methane	750	U
120-83-2	2,4-Dichlorophenol	750	U
120-82-1	1,2,4-Trichlorobenzene	750	U
91-20-3	Naphthalene	900	
106-47-8	4-Chloroaniline	750	U
87-68-3	Hexachlorobutadiene	750	U
59-50-7	4-Chloro-3-methylphenol	750	U
91-57-6	2-Methylnaphthalene	350	J
77-47-4	Hexachlorocyclopentadiene	750	U
88-06-2	2,4,6-Trichlorophenol	750	U
95-95-4	2,4,5-Trichlorophenol	3600	U
91-58-7	2-Chloronaphthalene	750	U
88-74-4	2-Nitroaniline	3600	U
131-11-3	Dimethylphthalate	750	U
208-96-8	Acenaphthylene	~~7600~~	~~E~~
606-20-2	2,6-Dinitrotoluene	750	U

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SS1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >R2478

Level: (low/med) LOW Date Received: 02/26/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	3600	U	
83-32-9	Acenaphthene	450	J	
51-28-5	2,4-Dinitrophenol	3600	U	
100-02-7	4-Nitrophenol	3600	U	
132-64-9	Dibenzofuran	140	J	
121-14-2	2,4-Dinitrotoluene	750	U	
84-66-2	Diethylphthalate	750	U	
7005-72-3	4-Chlorophenyl-phenylether	750	U	
86-73-7	Fluorene	62	J	
100-01-6	4-Nitroaniline	3600	U	
534-52-1	4,6-Dinitro-2-methylphenol	3600	U	
86-30-6	N-Nitrosodiphenylamine (1)	750	U	
101-55-3	4-Bromophenyl-phenylether	750	U	
118-74-1	Hexachlorobenzene	750	U	
87-86-5	Pentachlorophenol	3600	U	
85-01-8	Phenanthrene	680	J	750 U12
120-12-7	Anthracene	960		
86-74-8	Carbazole	50	J	
84-74-2	Di-n-butylphthalate	750	U	
206-44-0	Fluoranthene	1100		
129-00-0	Pyrene	3400		
85-68-7	Butylbenzylphthalate	750	U	
91-94-1	3,3'-Dichlorobenzidine	1500	U	
56-55-3	Benzo(a)anthracene	1100		
218-01-9	Chrysene	1600		
117-81-7	bis(2-Ethylhexyl)phthalate	79	J	
117-84-0	Di-n-octylphthalate	750	U	U 3/15
205-99-2	Benzo(b)fluoranthene	2300		J 3/5
207-08-9	Benzo(k)fluoranthene	3300		
50-32-8	Benzo(a)pyrene	1400		
193-39-5	Indeno(1,2,3-cd)pyrene	690	J	
53-70-3	Dibenzo(a,h)anthracene	270	J	
191-24-2	Benzo(g,h,i)perylene	850		J 3/5

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

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[redacted] changes highlighted

Soil

TABLE VO-1.0
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-TP1(3)	CF-TP3(1)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKB	990302A-06	990302A-11	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	1.00	6.49	2.50	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	4J	160B U[13]	30B U[13]	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	47J [redacted]	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	14J	47	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	UJ[11] U [redacted]	UJ[11] U [redacted]	10
Tetrachloroethene	U	U	U	5.0
Toluene	U	U	30	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	17J	130	5.0
Styrene	U	U	21	5.0
Xylene (total)	U	49	96	5.0
Date Received	N/A	02/23/99	02/23/99	
Date Extracted	02/25/99	N/A	N/A	
Date Analyzed		02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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TABLE SV-1.2
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Report CF-RW1(4-6) DL	Report CF-TP1(3)	CF-TP1(3) RE	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05DL	990302A-06	990302A-06RE	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	61.0	12.8	12.8	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	2500J	2500J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	16000	16000	330
Hexachlorocyclopentadiene	U UJ 15	U UJ 15	U UJ 15	330
2,4,6-Trichlorophenol	U UJ 15	U UJ 15	U UJ 15	330
2,4,5-Trichlorophenol	U UJ 15	U UJ 15	U UJ 15	1600
2-Chloronaphthalene	U UJ 15	U UJ 15	U UJ 15	330
2-Nitroaniline	U UJ 15	U UJ 15	U UJ 15	1600
Dimethylphthalate	U UJ 15	U UJ 15	U UJ 15	330
Acenaphthylene	4200JD J 15	2900J J 15	2900J J 15	330
2,6-Dinitrotoluene	U UJ 15	U UJ 15	U UJ 15	330
3-Nitroaniline	U UJ 15	U UJ 15	U UJ 15	1600
Acenaphthene	3600JD J 15	6100 J 15	6600 J 15	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/05/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-RW1(4-6) DL	CF-TP1(3)	CF-TP1(3) RE	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-05DL	990302A-06	990302A-06RE	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	61.0	12.8	12.8	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	1100JD	1400J	1400J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	4400	3400J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	16000JD	23000	22000	330
Anthracene	U	1400J	1100J	330
Carbazole	U	U	U	330
-n-butylphthalate	U	U	U	330
Fluoranthene	U	3400J	3600J	330
Pyrene	12000JD	7700	6700	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	5400JD	3600J	3700J	330
Chrysene	12000JD	6900	7000	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	3000JD	2500J	2600J	330
Benzo(k)fluoranthene	2200JD	2800J	2300J	330
Benzo(a)pyrene	6300JD	4600	4300	330
Indeno(1,2,3-cd)pyrene	U	4200	3800J	330
Dibenzo(a,h)anthracene	U	3200J	3000J	330
Benzo(g,h,i)perylene	U	4700	4200	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/05/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-TP1(3)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-06

Level (low/med): LOW Date Received: 02/23/99

% Solids: 77.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.1			P
7440-39-3	Barium	109.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.78	B	~~J32~~ W12	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	35.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	227.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.49			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.2		J3	P
7440-22-4	Silver	0.36	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-TP1(3)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-06

% Solids: 77.5 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.639	U	WJ19 mg/Kg		L

Comments:

FORM I - WC

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[redacted] changes highlighted

TABLE VO-1.0 Soil
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-TP1(3)	CF-TP3(1)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKB	990302A-06	990302A-11	
Method Blank I.D.	VBLKKB	VBLKKB	VBLKKB	
Quant. Factor	1.00	6.49	2.50	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	U	U	5.0
Acetone	4J	160B U[13]	30B U[13]	10
Carbon Disulfide	U	U	U	5.0
Vinyl Acetate	U	U	U	10
1,1-Dichloroethene	U	U	U	5.0
1,1-Dichloroethane	U	U	U	5.0
1,2-Dichloroethene (total)	U	U	U	5.0
Chloroform	U	U	U	5.0
1,2-Dichloroethane	U	U	U	5.0
2-Butanone	U	47J [redacted]	U	10
1,1,1-Trichloroethane	U	U	U	5.0
Carbon Tetrachloride	U	U	U	5.0
Bromodichloromethane	U	U	U	5.0
1,2-Dichloropropane	U	U	U	5.0
cis-1,3-Dichloropropene	U	U	U	5.0
Trichloroethene	U	U	U	5.0
Dibromochloromethane	U	U	U	5.0
1,1,2-Trichloroethane	U	U	U	5.0
Benzene	U	14J	47	5.0
trans-1,3-Dichloropropene	U	U	U	5.0
Bromoform	U	U	U	5.0
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	UJ[11] U [redacted]	UJ[11] U [redacted]	10
Tetrachloroethene	U	U	U	5.0
Toluene	U	U	30	5.0
1,1,2,2-Tetrachloroethane	U	U	U	5.0
Chlorobenzene	U	U	U	5.0
Ethylbenzene	U	17J	130	5.0
Styrene	U	U	21	5.0
Xylene (total)	U	49	96	5.0
Date Received		02/23/99	02/23/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	02/25/99	02/25/99	02/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

✓ KS

TABLE SV-1.4
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB9 (24-26)	CF-TP3(1)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-10	990302A-11	990302A-12	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	267.	30.1	13.9	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U R20	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U R20	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	U	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U R20	U	U	330
Naphthalene	630000	19000	230000E J5 J17	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U R20	U	U	330
2-Methylnaphthalene	350000	43000	260000E J5 J17	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	99000	5400J	20000 J17	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	90000 J20, J17	4300J	85000E J17	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB9 (24-26)	CF-TP3(1)	CF-SB10 (5-6.5)	Quant. Limits with no Dilution
Lab Sample I.D.	990302A-10	990302A-11	990302A-12	
Method Blank I.D.	SBLKKP	SBLKKP	SBLKKP	
Quant. Factor	267.	30.1	13.9	
2,4-Dinitrophenol	U	U	U	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	4500J	2800J	12000	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	30000J	15000	66000E	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	310000	58000	220000E	330
Anthracene	16000J	1700J	90000E	330
Carbazole	U	U	U	330
Di-n-butylphthalate	U	U	U	330
Fluoranthene	15000J	11000	82000E	330
Pyrene	90000	28000	45000E	330
Butylbenzylphthalate	U	U	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	43000J	10000	25000	330
Chrysene	45000J	14000	36000	330
bis(2-Ethylhexyl)phthalate	U	U	U	330
Di-n-octylphthalate	U	U	U	330
Benzo(b)fluoranthene	13000J	3400J	8100	330
Benzo(k)fluoranthene	24000J	5400J	14000	330
Benzo(a)pyrene	33000J	8200J	21000	330
Indeno(1,2,3-cd)pyrene	67000J	11000	6200	330
Dibenzo(a,h)anthracene	U	8000J	4200J	330
Benzo(g,h,i)perylene	76000J	13000	6900	330
Date Received	02/23/99	02/23/99	02/23/99	
Date Extracted	02/25/99	02/25/99	02/25/99	
Date Analyzed	03/08/99	03/09/99	03/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-TP3(1)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-11

Level (low/med): LOW Date Received: 02/23/99

% Solids: 81.7

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.6			P
7440-39-3	Barium	38.1			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.34	B	~~J~~ U12	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	46.8			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.81			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.8		J3	P
7440-22-4	Silver	0.28	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-TP3(1)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302A SAS No.: _____ SDG No.: A0302

Matrix (soil/water): SOIL Lab Sample ID: 990302A-11

% Solids: 81.7 Date Received: 02/23/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	2.01		J19 mg/Kg		L

Comments:

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CF-TP4(3)

Lab Name: STL/OT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-09

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2880

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 24 Date Analyzed: 03/02/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	12000	
108-88-3	Toluene	1200	J
100-41-4	Ethylbenzene	49000	
1330-20-7	Xylene (total)	16000	

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-TP4(3)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3093

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 23 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	8600	U
111-44-4	bis(2-Chloroethyl)ether	8600	U
95-57-8	2-Chlorophenol	8600	U
541-73-1	1,3-Dichlorobenzene	8600	U
106-46-7	1,4-Dichlorobenzene	8600	U
100-51-6	Benzyl alcohol	8600	U
95-50-1	1,2-Dichlorobenzene	8600	U
95-48-7	2-Methylphenol	8600	U
108-60-1	2,2'-oxybis(1-Chloropropane)	8600	U
106-44-5	4-Methylphenol	8600	U
621-64-7	N-Nitroso-di-n-propylamine	8600	U
67-72-1	Hexachloroethane	8600	U
98-95-3	Nitrobenzene	8600	U
78-59-1	Isophorone	8600	U
88-75-5	2-Nitrophenol	8600	U
105-67-9	2,4-Dimethylphenol	8600	U
65-85-0	Benzoic acid	42000	U
111-91-1	bis(2-Chloroethoxy)methane	8600	U
120-83-2	2,4-Dichlorophenol	8600	U
120-82-1	1,2,4-Trichlorobenzene	8600	U
91-20-3	Naphthalene	26000	
106-47-8	4-Chloroaniline	8600	U
87-68-3	Hexachlorobutadiene	8600	U
59-50-7	4-Chloro-3-methylphenol	8600	U
91-57-6	2-Methylnaphthalene	8600	U
77-47-4	Hexachlorocyclopentadiene	8600	U
88-06-2	2,4,6-Trichlorophenol	8600	U
95-95-4	2,4,5-Trichlorophenol	42000	U
91-58-7	2-Chloronaphthalene	8600	U
88-74-4	2-Nitroaniline	42000	U
131-11-3	Dimethylphthalate	8600	U
208-96-8	Acenaphthylene	3100	J No
606-20-2	2,6-Dinitrotoluene	8600	U

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1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-TP4(3)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3093

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 23 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	42000	U
83-32-9	Acenaphthene	3800	J Jb
51-28-5	2,4-Dinitrophenol	42000	U
100-02-7	4-Nitrophenol	42000	U
132-64-9	Dibenzofuran	8600	U
121-14-2	2,4-Dinitrotoluene	8600	U
84-66-2	Diethylphthalate	8600	U
7005-72-3	4-Chlorophenyl-phenylether	8600	U
86-73-7	Fluorene	22000	
100-01-6	4-Nitroaniline	42000	U
534-52-1	4,6-Dinitro-2-methylphenol	42000	U
86-30-6	N-Nitrosodiphenylamine (1)	8600	U
101-55-3	4-Bromophenyl-phenylether	8600	U
118-74-1	Hexachlorobenzene	8600	U
87-86-5	Pentachlorophenol	42000	U
85-01-8	Phenanthrene.	~~89000~~	~~E~~
120-12-7	Anthracene	34000	Jb
86-74-8	Carbazole	8600	U
84-74-2	Di-n-butylphthalate	8600	U
206-44-0	Fluoranthene	42000	J10, Jb
129-00-0	Pyrene	~~94000~~	~~E~~ J15
85-68-7	Butylbenzylphthalate	8600	U UJ15
91-94-1	3,3'-Dichlorobenzidine	17000	U UJ15
56-55-3	Benzo(a)anthracene	29000	J15
218-01-9	Chrysene	33000	J15
117-81-7	bis(2-Ethylhexyl)phthalate	8600	U UJ15
117-84-0	Di-n-octylphthalate	8600	U
205-99-2	Benzo(b)fluoranthene	13000	
207-08-9	Benzo(k)fluoranthene	17000	Jb
50-32-8	Benzo(a)pyrene	25000	
193-39-5	Indeno(1,2,3-cd)pyrene	19000	
53-70-3	Dibenzo(a,h)anthracene	6000	J
191-24-2	Benzo(g,h,i)perylene	22000	

(1) - Cannot be separated from Diphenylamine

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-TP4(3)DL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-09DL

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3103

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 23 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	17000	U
111-44-4	bis(2-Chloroethyl)ether	17000	U
95-57-8	2-Chlorophenol	17000	U
541-73-1	1,3-Dichlorobenzene	17000	U
106-46-7	1,4-Dichlorobenzene	17000	U
100-51-6	Benzyl alcohol	17000	U
95-50-1	1,2-Dichlorobenzene	17000	U
95-48-7	2-Methylphenol	17000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	17000	U
106-44-5	4-Methylphenol	17000	U
621-64-7	N-Nitroso-di-n-propylamine	17000	U
67-72-1	Hexachloroethane	17000	U
98-95-3	Nitrobenzene	17000	U
78-59-1	Isophorone	17000	U
88-75-5	2-Nitrophenol	17000	U
105-67-9	2,4-Dimethylphenol	17000	U
65-85-0	Benzoic acid	83000	U
111-91-1	bis(2-Chloroethoxy)methane	17000	U
120-83-2	2,4-Dichlorophenol	17000	U
120-82-1	1,2,4-Trichlorobenzene	17000	U
91-20-3	Naphthalene	27000	
106-47-8	4-Chloroaniline	17000	U
87-68-3	Hexachlorobutadiene	17000	U
59-50-7	4-Chloro-3-methylphenol	17000	U
91-57-6	2-Methylnaphthalene	17000	U
77-47-4	Hexachlorocyclopentadiene	17000	U
88-06-2	2,4,6-Trichlorophenol	17000	U
95-95-4	2,4,5-Trichlorophenol	83000	U
91-58-7	2-Chloronaphthalene	17000	U
88-74-4	2-Nitroaniline	83000	U
131-11-3	Dimethylphthalate	17000	U
208-96-8	Acenaphthylene	17000	U
606-20-2	2,6-Dinitrotoluene	17000	U

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1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-TP4(3)DL

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-09DL

Sample wt/vol: 30 (g/mL) G Lab File ID: >P3103

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: 23 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 03/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	~~83000~~	U
83-32-9	Acenaphthene	17000	U
51-28-5	2,4-Dinitrophenol	83000	U
100-02-7	4-Nitrophenol	83000	U
132-64-9	Dibenzofuran	17000	U
121-14-2	2,4-Dinitrotoluene	17000	U
84-66-2	Diethylphthalate	17000	U
7005-72-3	4-Chlorophenyl-phenylether	17000	U
86-73-7	Fluorene	8000	J
100-01-6	4-Nitroaniline	83000	U
534-52-1	4,6-Dinitro-2-methylphenol	83000	U
86-30-6	N-Nitrosodiphenylamine (1)	17000	U
101-55-3	4-Bromophenyl-phenylether	17000	U
118-74-1	Hexachlorobenzene	17000	U
87-86-5	Pentachlorophenol	~~83000~~	~~U~~
85-01-8	Phenanthrene	78000	J
120-12-7	Anthracene	24000	
86-74-8	Carbazole	17000	U
84-74-2	Di-n-butylphthalate	17000	U
206-44-0	Fluoranthene	~~28000~~	
129-00-0	Pyrene	110000	J
85-68-7	Butylbenzylphthalate	17000	U
91-94-1	3,3'-Dichlorobenzidine	34000	U
56-55-3	Benzo(a)anthracene	26000	J
218-01-9	Chrysene	34000	J
117-81-7	bis(2-Ethylhexyl)phthalate	17000	U
117-84-0	Di-n-octylphthalate	17000	U
205-99-2	Benzo(b)fluoranthene	12000	J
207-08-9	Benzo(k)fluoranthene	2700	J
50-32-8	Benzo(a)pyrene	21000	
193-39-5	Indeno(1,2,3-cd)pyrene	19000	
53-70-3	Dibenzo(a,h)anthracene	5700	J
191-24-2	Benzo(g,h,i)perylene	~~23000~~	

(1) - Cannot be separated from Diphenylamine

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-TP8(2)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-11

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2881

Level: (low/med) MED Date Received: 02/25/99

% Moisture: not dec. 23 Date Analyzed: 03/02/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	130000	U
74-83-9	Bromomethane	130000	U
75-01-4	Vinyl Chloride	130000	U
75-00-3	Chloroethane	130000	U VTH
75-09-2	Methylene Chloride	130000	U
67-64-1	Acetone	130000	U
75-15-0	Carbon Disulfide	130000	U
108-05-4	Vinyl Acetate	130000	U VTH
75-35-4	1,1-Dichloroethene	130000	U
75-34-3	1,1-Dichloroethane	130000	U
540-59-0	1,2-Dichloroethene (total)	130000	U
67-66-3	Chloroform	130000	U
107-06-2	1,2-Dichloroethane	130000	U
78-93-3	2-Butanone	130000	U VTH
71-55-6	1,1,1-Trichloroethane	130000	U
56-23-5	Carbon Tetrachloride	130000	U
75-27-4	Bromodichloromethane	130000	U
78-87-5	1,2-Dichloropropane	130000	U
10061-01-5	cis-1,3-Dichloropropene	130000	U
79-01-6	Trichloroethene	130000	U
124-48-1	Dibromochloromethane	130000	U
79-00-5	1,1,2-Trichloroethane	130000	U
71-43-2	Benzene	1000000	
10061-02-6	trans-1,3-Dichloropropene	130000	U
75-25-2	Bromoform	130000	U VTH
108-10-1	4-Methyl-2-Pentanone	130000	U VTH
591-78-6	2-Hexanone	130000	U VTH
127-18-4	Tetrachloroethene	130000	U
108-88-3	Toluene	1800000	
79-34-5	1,1,2,2-Tetrachloroethane	130000	U
108-90-7	Chlorobenzene	130000	U
100-41-4	Ethylbenzene	1500000	
100-42-5	Styrene	130000	U
[illegible]-7	Xylene (total)	1800000	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-TP8(2)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-11

Sample wt/vol: 1 (g/mL) G Lab File ID: >P2966

Level: (low/med) MED Date Received: 02/25/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 20000 (uL) Date Analyzed: 03/10/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	130000	U
111-44-4	bis(2-Chloroethyl)ether	130000	U
95-57-8	2-Chlorophenol	130000	U
541-73-1	1,3-Dichlorobenzene	130000	U
106-46-7	1,4-Dichlorobenzene	130000	U
100-51-6	Benzyl alcohol	130000	U
95-50-1	1,2-Dichlorobenzene	130000	U
95-48-7	2-Methylphenol	130000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	130000	U
106-44-5	4-Methylphenol	130000	U
621-64-7	N-Nitroso-di-n-propylamine	130000	U
67-72-1	Hexachloroethane	130000	U
98-95-3	Nitrobenzene	130000	U
78-59-1	Isophorone	130000	U
88-75-5	2-Nitrophenol	130000	U
105-67-9	2,4-Dimethylphenol	130000	U
65-85-0	Benzoic acid	640000	U
111-91-1	bis(2-Chloroethoxy)methane	130000	U
120-83-2	2,4-Dichlorophenol	130000	U
120-82-1	1,2,4-Trichlorobenzene	130000	U
91-20-3	Naphthalene	27000000	
106-47-8	4-Chloroaniline	130000	U
87-68-3	Hexachlorobutadiene	130000	U
59-50-7	4-Chloro-3-methylphenol	130000	U
91-57-6	2-Methylnaphthalene	26000000	
77-47-4	Hexachlorocyclopentadiene	130000	U VJH
88-06-2	2,4,6-Trichlorophenol	130000	U
95-95-4	2,4,5-Trichlorophenol	640000	U
91-58-7	2-Chloronaphthalene	130000	U
88-74-4	2-Nitroaniline	640000	U
131-11-3	Dimethylphthalate	130000	U
208-96-8	Acenaphthylene	3300000	
606-20-2	2,6-Dinitrotoluene	130000	U

JAM 5/12

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-TP8(2)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-11

Sample wt/vol: 1 (g/mL) G Lab File ID: >P2966

Level: (low/med) MED Date Received: 02/25/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 03/02/99

Concentrated Extract Volume: 20000 (uL) Date Analyzed: 03/10/99

Injection Volume: 2.0 (uL) Dilution Factor: 20.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	640000	U
83-32-9	Acenaphthene	1500000	
51-28-5	2,4-Dinitrophenol	640000	U
100-02-7	4-Nitrophenol	640000	U
132-64-9	Dibenzofuran	890000	
121-14-2	2,4-Dinitrotoluene	130000	U
84-66-2	Diethylphthalate	130000	U
7005-72-3	4-Chlorophenyl-phenylether	130000	U
86-73-7	Fluorene	3200000	
100-01-6	4-Nitroaniline	640000	U
534-52-1	4,6-Dinitro-2-methylphenol	640000	U
86-30-6	N-Nitrosodiphenylamine (1)	130000	U
101-55-3	4-Bromophenyl-phenylether	130000	U
118-74-1	Hexachlorobenzene	130000	U
87-86-5	Pentachlorophenol	640000	U
85-01-8	Phenanthrene	14000000	
120-12-7	Anthracene	130000	U
86-74-8	Carbazole	130000	U
84-74-2	Di-n-butylphthalate	130000	U
206-44-0	Fluoranthene	130000	J
129-00-0	Pyrene	4700000	J
85-68-7	Butylbenzylphthalate	130000	U
91-94-1	3,3'-Dichlorobenzidine	260000	U
56-55-3	Benzo(a)anthracene	1700000	J
218-01-9	Chrysene	2200000	
117-81-7	bis(2-Ethylhexyl)phthalate	130000	U
117-84-0	Di-n-octylphthalate	130000	U
205-99-2	Benzo(b)fluoranthene	590000	
207-08-9	Benzo(k)fluoranthene	870000	
50-32-8	Benzo(a)pyrene	1500000	
193-39-5	Indeno(1,2,3-cd)pyrene	3200000	J
53-70-3	Dibenzo(a,h)anthracene	2600000	J
191-24-2	Benzo(g,h,i)perylene	3600000	

(1) - Cannot be separated from Diphenylamine

JPR 5/11

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

Lab Name: STL-CT Contract: _____ Client ID: CF-TP8(2)

Lab Code: IEACT Case No.: 0302B SDG No.: B0302

Matrix: (soil/water): OIL Lab Sample ID: 990302B-11

Sample wt/vol: 1 (g/ml) G Lab File ID: D4019068

% Moisture: _____ decanted: (Y/N)__ Date Received : 02/25/99

Extraction: (SepF/Cont/Sonc) BALA Date Extracted: 03/01/99

Concentrated Extract Volume: 20000 (ul) Date Analyzed : 03/09/99

Injection Volume: 1.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: ____ Sulfur Cleanup: (Y/N) N

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	1000	U
319-85-7	beta-BHC	1000	U
319-86-8	delta-BHC	1000	U
58-89-9	gamma-BHC (Lindane)	1000	U
76-44-8	Heptachlor	1000	U
309-00-2	Aldrin	1000	U
1024-57-3	Heptachlor Epoxide	640	J J31
59-98-8	Endosulfan I	1000	U
60-57-1	Dieldrin	2000	U
72-55-9	4,4'-DDE	680	J J31
72-20-8	Endrin	2000	U
33213-65-9	Endosulfan II	2000	U
72-54-8	4,4'-DDD	2000	U
1031-07-8	Endosulfan Sulfate	2100	J31
50-29-3	4,4'-DDT	2000	U
72-43-5	Methoxychlor	10000	U
53494-70-5	Endrin ketone	2000	U
7421-93-4	Endrin aldehyde	2000	U
5103-71-9	alpha-Chlordane	1000	U
5103-74-2	gamma-Chlordane	160	J J31
8001-35-2	Toxaphene	20000	U
12674-11-2	Aroclor-1016	20000	U
11104-28-2	Aroclor-1221	40000	U
11141-16-5	Aroclor-1232	20000	U
53469-21-9	Aroclor-1242	20000	U
12672-29-6	Aroclor-1248	20000	U
11097-69-1	Aroclor-1254	20000	U
11096-82-5	Aroclor-1260	20000	U

5/12

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-TP8(2)

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): SOIL Lab Sample ID: 990302B-11

Level (low/med): LOW Date Received: 02/25/99

% Solids: 75.9

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	297.			P
7440-36-0	Antimony	2.5	U	U19N	P
7440-38-2	Arsenic	11.9			P
7440-39-3	Barium	21.8	B	U12	P
7440-41-7	Beryllium	0.25	U		P
7440-43-9	Cadmium	1.4			P
7440-70-2	Calcium	816.	B		P
7440-47-3	Chromium	2.1	B	U12	P
7440-48-4	Cobalt	0.72	B		P
7440-50-8	Copper	28.3			P
7439-89-6	Iron	1560			P
7439-92-1	Lead	429.			P
7439-95-4	Magnesium	176.	B		P
7439-96-5	Manganese	18.6		J19 * J2	P
7439-97-6	Mercury	0.12			CV
7440-02-0	Nickel	13.7			P
7440-09-7	Potassium	57.8	B	J4	P
7782-49-2	Selenium	4.6			P
7440-22-4	Silver	0.51	U		P
7440-23-5	Sodium	202.	B		P
7440-28-0	Thallium	1.8	U	U33	P
7440-62-2	Vanadium	16.2		J19 N J2	P
7440-66-6	Zinc	208.			P
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

5/12

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-TP8(2)

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 0302111

% Solids: 75.9 Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/Kg

Analyte	Concentration	C	Q	M
CYAN-T	0.679	U		

Comments: _____

FORM I - WC

YPM 5/12

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-TP10(3)

Lab Name: STL/CT Contract: _____

.b Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) SOIL Lab Sample ID: 990302B-01

Sample wt/vol: 5 (g/mL) G Lab File ID: >K2837

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: not dec. 18 Date Analyzed: 02/27/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

5/12

Brooklyn Union

287 Maspeth Ave.
Brooklyn, NY 11211-1788
(718-963-5421)

LABORATORY SERVICES FAX TRANSMISSION

Fax # : 718-963-5667

To: John Repp Date: 4/13 Time: 11:10

Bus. Name: GEI Consu Pages: 4, including this cover sheet.

From: Yvonne E

Subject: 990300019

COMMENTS:

g:\guest\lab\labfax.wpd

Brooklyn Union
A KeySpan Energy Company

287 Maspeth Avenue, Brooklyn, NY 11211
Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030019
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: John Ripp
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347

Customer PO: E9260280001100

Laboratory Acceptance

Collect Date: 2/24/99
Collector: S.Wallett
Receive Date: 3/4/99 2:03:43 PM
Approved By: 0414
Approved Date: 4/12/99 9:47:00 AM

Matrix: Soil | Sample ID: 99030019-01 | Customer Sample #: CF-TP1 (3)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.776mg/Kg	

Sample Comment:

Matrix: Soil | Sample ID: 99030019-02 | Customer Sample #: CF-SB21 (5-7)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.777 mg/Kg	

Sample Comment:

Matrix: Soil | Sample ID: 99030019-03 | Customer Sample #: CF-SB19 (5-7)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.674mg/Kg	

Sample Comment:

Matrix: Soil | Sample ID: 99030019-04 | Customer Sample #: CF-TP4 (3)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.635mg/Kg	

Sample Comment:

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Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030019
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: John Ripp
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347

Customer PO: E9260280001100

Laboratory Acceptance

Collect Date: 3/1/99
Collector: S.Wallett
Receive Date: 3/4/99 2:03:43 PM
Approved By: 0414
Approved Date: 4/12/99 9:47:00 AM

Matrix: Soil | Sample ID: 99030019-05 | Customer Sample #: CF-SB31 (7-11)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.652mg/Kg	

Sample Comment:

Matrix: Soil | Sample ID: 99030019-06 | Customer Sample #: CF-SB32 (11-15)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
PCBs	Aroclor 1016 (PCB-1016)	<2.0mg/Kg	
	Aroclor 1221 (PCB-1221)	<2.0mg/Kg	
	Aroclor 1232 (PCB-1232)	<2.0mg/Kg	
	Aroclor 1242 (PCB-1242)	<2.0mg/Kg	
	Aroclor 1248 (PCB-1248)	<2.0mg/Kg	
	Aroclor 1254 (PCB-1254)	<2.0mg/Kg	
	Aroclor 1260 (PCB-1260)	<2.0mg/Kg	

Sample Comment: PCB Analysis via Single Column

Matrix: Soil | Sample ID: 99030019-07 | Customer Sample #: CF-RW2 (9-11)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.682mg/Kg	

Sample Comment:

Matrix: Soil | Sample ID: 99030019-08 | Customer Sample #: CF-SB16 (5-7)
Location: Clifton, MGP | Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	0.815mg/Kg	

Sample Comment:

Brooklyn Union
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Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030019
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations
Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: John Ripp
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347
Customer PO: E9260280001100

Laboratory Acceptance

Collect Date: 2/22/99
Collector: S.Wallett
Receive Date: 3/4/99 2:03:43 PM
Approved By: 0414
Approved Date: 4/12/99 9:47:00 AM

CERTIFIED HAZARDOUS MATERIALS MANAGER
ROBERT D. WILSON
2508
CHMM

Laboratory Director

Comments:

Brooklyn Union
A KeySpan Energy Company

287 Maspeth Avenue, Brooklyn, NY 11211
Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030062
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations
Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: Steven J. Wallett
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347

Customer PO: E926-0820001100

Laboratory Acceptance

Collect Date: 3/16/1999
Collector: Leo Tyrrell
Receive Date: 3/17/1999 12:00:06 PM
Approved By: 0414
Approved Date: 4/7/1999 12:55:00 PM

Matrix: Soil Sample ID: 99030062-04 Customer Sample #: Clifton - S5
Location: Clifton, SI Project ID: Well Cuttings

Test	Parameters	Result	Comments
Corrosivity	Corrosivity	12.37	
Ignitability	Ignitability	>140°F	
PCBs	Aroclor 1016 (PCB-1016)	<2.0mg/Kg	
	Aroclor 1221 (PCB-1221)	<2.0mg/Kg	
	Aroclor 1232 (PCB-1232)	<2.0mg/Kg	
	Aroclor 1242 (PCB-1242)	<2.0mg/Kg	
	Aroclor 1248 (PCB-1248)	<2.0mg/Kg	
	Aroclor 1254 (PCB-1254)	<2.0mg/Kg	
	Aroclor 1260 (PCB-1260)	<2.0mg/Kg	
TCLP - Volatile Organics	Benzene	4.2µg/L	
TOX	Total Organic Halides (TOX)	<10mg/Kg	MDL-10 mg/Kg
TPH	TPH	1231mg/Kg	
Reactivity	Cyanide, Total	<10mg/Kg	MDL-10 mg-Kg
	Sulfide	<40mg/Kg	MDL-40 mg/Kg
Total RCRA Metals + Cu, Ni, Zn (ICP	Arsenic (As)	<1.65mg/Kg	
	Barium (Ba)	40.7mg/Kg	
	Cadmium (Cd)	0.50mg/Kg	
	Chromium (Cr)	22.8mg/Kg	
	Copper (Cu)	296mg/Kg	
	Lead (Pb)	8.92mg/Kg	
	Mercury (Hg)	<0.41mg/Kg	
	Nickel (Ni)	111mg/Kg	
	Selenium (Se)	<0.66mg/Kg	
	Silver (Ag)	<0.99mg/Kg	
	Zinc (Zn)	21.8mg/Kg	

Sample Comment:
DCL - 99-085,086,087,088,089,090

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Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030062
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations
Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: Steven J. Wallett
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347

Customer PO: E926-0820001100

Laboratory Acceptance

Collect Date: 3/16/1999
Collector: Leo Tyrrell
Receive Date: 3/17/1999 12:00:06 PM
Approved By: 0414
Approved Date: 4/7/1999 12:55:00 PM

Matrix: Soil Sample ID: 99030062-05 Customer Sample #: Clifton - S6
Location: Clifton, SI Project ID: Well Cuttings

Test	Parameters	Result	Comments
Corrosivity	Corrosivity	9.698	
Ignitability	Ignitability	>140°F	
PCBs	Aroclor 1016 (PCB-1016)	<2.0mg/Kg	
	Aroclor 1221 (PCB-1221)	<2.0mg/Kg	
	Aroclor 1232 (PCB-1232)	<2.0mg/Kg	
	Aroclor 1242 (PCB-1242)	<2.0mg/Kg	
	Aroclor 1248 (PCB-1248)	<2.0mg/Kg	
	Aroclor 1254 (PCB-1254)	<2.0mg/Kg	
	Aroclor 1260 (PCB-1260)	<2.0mg/Kg	
TCLP - Volatile Organics	Benzene	45µg/L	
TOX	Total Organic Halides (TOX)	<10mg/Kg	MDL-10 mg/Kg
TPH	TPH	1964mg/Kg	
Reactivity	Cyanide, Total	<10mg/Kg	MDL-10 mg/Kg
	Sulfide	<40mg/Kg	MDL-40 mg/Kg
Total RCRA Metals + Cu, Ni, Zn (ICP	Arsenic (As)	3.58mg/Kg	
	Barium (Ba)	74.7mg/Kg	
	Cadmium (Cd)	1.19mg/Kg	
	Chromium (Cr)	30.5mg/Kg	
	Copper (Cu)	30mg/Kg	
	Lead (Pb)	91.9mg/Kg	
	Mercury (Hg)	<0.33mg/Kg	
	Nickel (Ni)	116mg/Kg	
	Selenium (Se)	<0.52mg/Kg	
	Silver (Ag)	5.07mg/Kg	
	Zinc (Zn)	148mg/Kg	

Sample Comment:
DCL - 99-049,050,051,052,053,054,065

Brooklyn Union

287 Maspeth Ave.
Brooklyn, NY 11211-1788
(718-963-5421)

LABORATORY SERVICES FAX TRANSMISSION

Fax # : 718-963-5667

To: John Rupp Date: 4/12 Time: 920

Bus. Name: GEI Con. Pages: 2, including this cover sheet.

From: Yvonne E

Subject: 99030003

COMMENTS:

g:\quan\lab\labfax.wpd

Brooklyn Union
A KeySpan Energy Company

287 Maspeth Avenue, Brooklyn, NY 11211
Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030003
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: John Ripp
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347

Customer PO: E9260820001100

Laboratory Acceptance

Collect Date: 3/1/1999
Collector: S.Wallett
Receive Date: 2/24/1999 2:00:00 PM
Approved By: 5895
Approved Date: 4/8/1999 12:40:00 PM

Matrix: Soil
Location: CLIFON, MGP
Sample ID: 99030003-01
Customer Sample #: CF-TB8 (2)
Project ID:

Test	Parameters	Result	Comments
Bulk Density	Bulk Density	1.1082mg/Kg	
PCBs	Aroclor 1016 (PCB-1016)	<2.0mg/Kg	
	Aroclor 1221 (PCB-1221)	<2.0mg/Kg	
	Aroclor 1232 (PCB-1232)	<2.0mg/Kg	
	Aroclor 1242 (PCB-1242)	<2.0mg/Kg	
	Aroclor 1248 (PCB-1248)	<2.0mg/Kg	
	Aroclor 1254 (PCB-1254)	<2.0mg/Kg	
	Aroclor 1260 (PCB-1260)	<2.0mg/Kg	

Sample Comment: PCB Analysis via Single Column

Comments:

CERTIFIED HAZARDOUS MATERIALS MANAGER
ROBERT D. WILSON
2508
Laboratory Director

NOTE: The liability of BROOKLYN UNION shall in no event exceed the amount of the invoice with respect to the services charged for therein.

04-12-99 09:06 OUT

Brooklyn Union

287 Maspeth Ave.
Brooklyn, NY 11211-1788
(718-963-5421)

LABORATORY SERVICES FAX TRANSMISSION

FAX #: 718-963-5667

To: John Repp Date: 4/13 Time: 11:15

Bus. Name: GEI Conn Pages: 11, including this cover sheet.

From: Yvonne E

Subject: 990029

COMMENTS:

g:\gasm\Lab\labfax.wpd

Brooklyn Union
A KeySpan Energy Company

287 Maspeth Avenue, Brooklyn, NY 11211
Phone: (718) 963-5421, Fax: (718) 963-3026

Lab Report #: 99030029
ELAP Number: 11173
NJDEP Certification Number: 73940

Laboratory Operations Analysis Report

Customer Information

Company Name: GEI Consultants, Inc.
Customer Contact: John Ripp
Address: 188 Norwich Avenue
Colchester CT 06415
Phone Number: 860-537-0751 Fax Number: 860-537-6347
Customer PO: 926-5162410109

Laboratory Acceptance

Collect Date: 3/8/99
Collector: Jeff Brathwiate
Receive Date: 3/8/99 6:16:06 PM
Approved By: 0414
Approved Date: 4/7/99 2:50:00 PM

Matrix: Soil Sample ID: 99030029-01 Customer Sample #: 99-008
Location: Clifton, MGP Project ID: Staten Island - Clifton MGP

Test	Parameters	Result	Comments
Corrosivity	Corrosivity	8.45	
Ignitability	Ignitability	>140°F	
TCLP - Volatile Organics	Benzene	0.5µg/L	
TOX	Total Organic Halides (TOX)	<10mg/Kg	MDL-10.0 mg/Kg
TPH	TPH	8686mg/Kg	
Reactivity	Cyanide, Total	<0.28mg/Kg	MDL-0.28 mg/Kg
	Sulfide	<28mg/Kg	MDL-28.0 mg/Kg
Total RCRA Metals + Cu, Ni, Zn (ICP	Arsenic (As)	7.13mg/Kg	
	Barium (Ba)	114mg/Kg	
	Cadmium (Cd)	0.833mg/Kg	
	Chromium (Cr)	40.3mg/Kg	
	Copper (Cu)	46.8mg/Kg	
	Lead (Pb)	143mg/Kg	
	Mercury (Hg)	0.737mg/Kg	
	Nickel (Ni)	157mg/Kg	
	Selenium (Se)	<0.029mg/Kg	
	Silver (Ag)	<0.013mg/Kg	
	Zinc (Zn)	140mg/Kg	

Sample Comment:

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 74656

Client Code: STLCT | Job No.: 99000 | SDG(s): 1836A

Date Received: 03-Aug-99 | Start Date: 04-Aug-99 | End Date: 06-Aug-99

Lab ID: 392397 **Sample ID:** SS-11

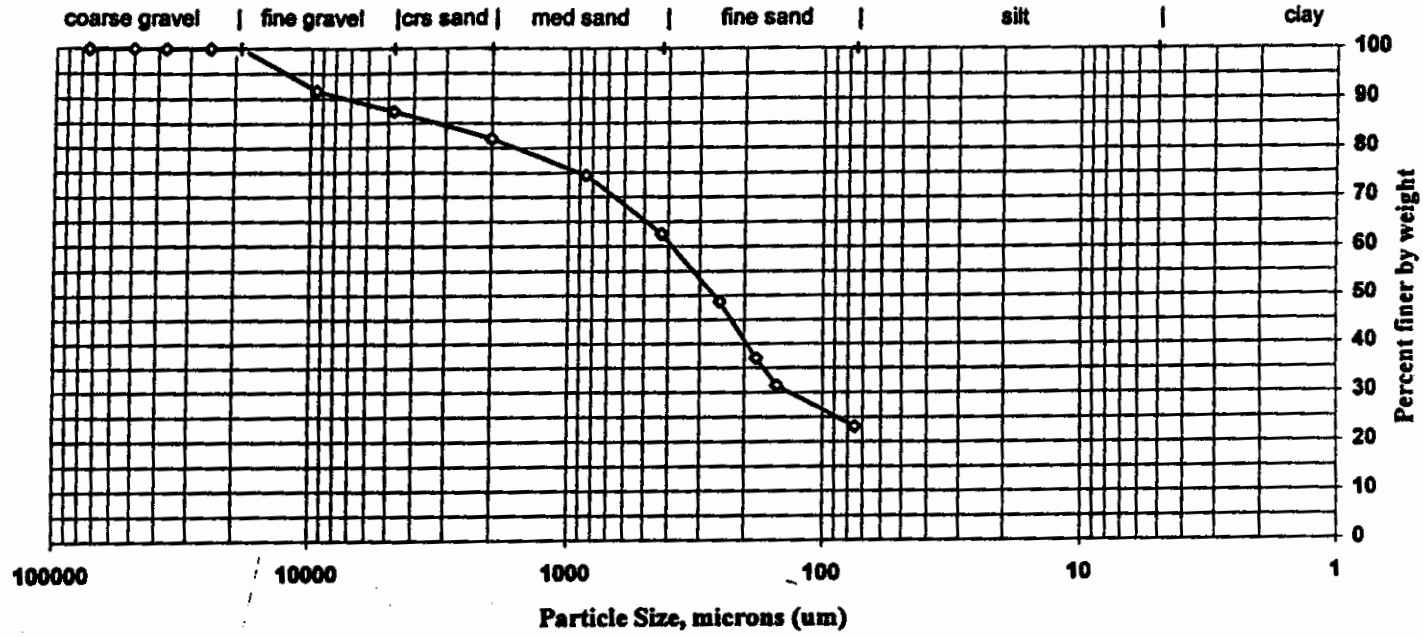
Percent Solids: 88.6%

Specific Gravity: 2.65

Maximum Particle Size: 19 mm

Shape (> #10): N/A

Hardness (> #10): N/A



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	91.7	8.3
#4	4750	87.4	4.3
#10	2000	81.9	5.5
#20B	850	74.5	7.4
#40B	425	62.5	12.0
#60B	250	48.8	13.7
#80B	180	37.0	11.7
#100B	150	31.5	5.5
#200B	75	23.1	8.4
Hydrometer	0.0	0.0	23.1
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-37(4-8)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-12

Sample wt/vol: 5.18 (g/mL) G Lab File ID: >M5352

Level: (low/med) MED Date Received: 08/05/99

% Moisture: not dec. 11 Date Analyzed: 08/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 25 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	2900	J
108-88-3	Toluene	190	J
100-41-4	Ethylbenzene	13000	
1330-20-7	Xylene (total)	3800	J

Tom 9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-37(4-8)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5256

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	7300	U
111-44-4	bis(2-Chloroethyl)ether	7300	U
95-57-8	2-Chlorophenol	7300	U
541-73-1	1,3-Dichlorobenzene	7300	U
106-46-7	1,4-Dichlorobenzene	7300	U
100-51-6	Benzyl alcohol	7300	U
95-50-1	1,2-Dichlorobenzene	7300	U
95-48-7	2-Methylphenol	7300	U
108-60-1	2,2'-oxybis(1-Chloropropane)	7300	U
106-44-5	4-Methylphenol	7300	U
621-64-7	N-Nitroso-di-n-propylamine	7300	U
67-72-1	Hexachloroethane	7300	U
98-95-3	Nitrobenzene	7300	U
78-59-1	Isophorone	7300	U
88-75-5	2-Nitrophenol	7300	U
105-67-9	2,4-Dimethylphenol	7300	U
65-85-0	Benzoic acid	36000	U
111-91-1	bis(2-Chloroethoxy)methane	7300	U
120-83-2	2,4-Dichlorophenol	7300	U
120-82-1	1,2,4-Trichlorobenzene	7300	U
91-20-3	Naphthalene	10000	B
106-47-8	4-Chloroaniline	7300	U
87-68-3	Hexachlorobutadiene	7300	U
59-50-7	4-Chloro-3-methylphenol	7300	U
91-57-6	2-Methylnaphthalene	12000	
77-47-4	Hexachlorocyclopentadiene	7300	U
88-06-2	2,4,6-Trichlorophenol	7300	U
95-95-4	2,4,5-Trichlorophenol	36000	U
91-58-7	2-Chloronaphthalene	7300	U
88-74-4	2-Nitroaniline	36000	U
131-11-3	Dimethylphthalate	7300	U
208-96-8	Acenaphthylene	1400	J
606-20-2	2,6-Dinitrotoluene	7300	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-37(4-8)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5256

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	36000	U	
83-32-9	Acenaphthene	3400	J	
51-28-5	2,4-Dinitrophenol	36000	U	UJ11
100-02-7	4-Nitrophenol	36000	U	UJ11
132-64-9	Dibenzofuran	690	J	
121-14-2	2,4-Dinitrotoluene	7300	U	
84-66-2	Diethylphthalate	7300	U	
7005-72-3	4-Chlorophenyl-phenylether	7300	U	
86-73-7	Fluorene	3800	J	
100-01-6	4-Nitroaniline	36000	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	36000	U	
86-30-6	N-Nitrosodiphenylamine (1)	7300	U	
101-55-3	4-Bromophenyl-phenylether	7300	U	
118-74-1	Hexachlorobenzene	7300	U	
87-86-5	Pentachlorophenol	36000	U	
85-01-8	Phenanthrene	18000		
120-12-7	Anthracene	3700	J	
86-74-8	Carbazole	160	J	
84-74-2	Di-n-butylphthalate	7300	U	
206-44-0	Fluoranthene	8100		
129-00-0	Pyrene	13000		
85-68-7	Butylbenzylphthalate	7300	U	
91-94-1	3,3'-Dichlorobenzidine	15000	U	
56-55-3	Benzo(a)anthracene	5400	J	
218-01-9	Chrysene	6400	J	
117-81-7	bis(2-Ethylhexyl)phthalate	7300	U	
117-84-0	Di-n-octylphthalate	7300	U	
205-99-2	Benzo(b)fluoranthene	2600	J	
207-08-9	Benzo(k)fluoranthene	2600	J	
50-32-8	Benzo(a)pyrene	4100	J	
193-39-5	Indeno(1,2,3-cd)pyrene	2000	J	
53-70-3	Dibenzo(a,h)anthracene	1000	J	
191-24-2	Benzo(g,h,i)perylene	3000	J	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-37(4-8)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5256

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 9.1

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	4.09	45000	JAB	J33
02.	UNKNOWN	26.32	12000	J	J33
03.	UNKNOWN C15H12 PAH	18.70	7900	J	J33
04.	UNKNOWN C19H14 PAH	24.10	7500	J	J33
05.	UNKNOWN C15H12 PAH	18.76	6800	J	J33
06.	UNKNOWN C15H12 PAH	18.94	6800	J	J33
07.90-12-0	NAPHTHALENE, 1-METHYL-	12.47	6500	JN	J33
08.	UNKNOWN DIMETHYL PHENANTHREN	19.86	5400	J	J33
09.	UNKNOWN DIMETHYL NAPHTHALENE	13.85	5400	J	J33
10.	UNKNOWN DIMETHYL NAPHTHALENE	13.66	5300	J	J33
11.	UNKNOWN C17H12 PAH	21.28	5300	J	J33
12.	UNKNOWN C17H12 PAH	21.73	4600	J	J33
13.	UNKNOWN C17H12 PAH	21.48	4200	J	J33
14.	UNKNOWN C15H12 PAH	18.98	3900	J	J33
15.	UNKNOWN C16H10 PAH	20.32	3700	J	J33
16.	UNKNOWN DIMETHYL PHENANTHREN	20.02	3600	J	J33
17.	UNKNOWN	19.92	3500	J	J33
18.	UNKNOWN	24.84	3400	J	J33
19.	UNKNOWN C17H10O ISOMER	23.33	3100	J	J33
20.	UNKNOWN C19H14 PAH	23.84	3000	J	J33
21.	UNKNOWN C17H12 PAH	21.06	3000	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-37(4-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-12

Level (low/med): LOW Date Received: 08/05/99

% Solids: 91.9

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.4		J3	P
7440-39-3	Barium	51.4			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.22	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	19.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	38.3			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.20			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.81	U	UJ3N UJ1	P
7440-22-4	Silver	0.16	U	UJ1, UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN ILM03.0

9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-37(4-8)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-12

% Solids: 91.4 Date Received: 08/05/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.70		mg/Kg		L

Comments:

FORM I - WC

tm 9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-37(14.5-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-11

Sample wt/vol: 4.85 (g/mL) G Lab File ID: >M5351

Level: (low/med) MED Date Received: 08/05/99

% Moisture: not dec. 19 Date Analyzed: 08/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	490000	
108-88-3	Toluene	780000	
100-41-4	Ethylbenzene	680000	
1330-20-7	Xylene (total)	840000	

JBM 9/20

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-37(14.5-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) WATER Lab Sample ID: 991811B-11

Sample wt/vol: 500 (g/mL) ML Lab File ID: >P5235

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/16/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH:_____ Leach Date: 08/16/99

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
106-46-7	1,4-Dichlorobenzene	40	U
67-72-1	Hexachloroethane	40	U
98-95-3	Nitrobenzene	40	U
87-68-3	Hexachlorobutadiene	40	U
88-06-2	2,4,6-Trichlorophenol	40	U
95-95-4	2,4,5-Trichlorophenol	200	U
121-14-2	2,4-Dinitrotoluene	40	U
118-74-1	Hexachlorobenzene	40	U
87-86-5	Pentachlorophenol	200	U
95-48-7	2-Methylphenol	130	
106-44-5	4-Methylphenol	190	
110-86-1	Pyridine	4	J

J11, J10

1B EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-37(14.5-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-11

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5255

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	650000	U
111-44-4	bis(2-Chloroethyl)ether	650000	U
95-57-8	2-Chlorophenol	650000	U
541-73-1	1,3-Dichlorobenzene	650000	U
106-46-7	1,4-Dichlorobenzene	650000	U
100-51-6	Benzyl alcohol	650000	U
95-50-1	1,2-Dichlorobenzene	650000	U
95-48-7	2-Methylphenol	650000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	650000	U
106-44-5	4-Methylphenol	650000	U
621-64-7	N-Nitroso-di-n-propylamine	650000	U
67-72-1	Hexachloroethane	650000	U
98-95-3	Nitrobenzene	650000	U
78-59-1	Isophorone	650000	U
88-75-5	2-Nitrophenol	650000	U
105-67-9	2,4-Dimethylphenol	650000	U
65-85-0	Benzoic acid	3200000	U
111-91-1	bis(2-Chloroethoxy)methane	650000	U
120-83-2	2,4-Dichlorophenol	650000	U
120-82-1	1,2,4-Trichlorobenzene	650000	U
91-20-3	Naphthalene	3800000	B
106-47-8	4-Chloroaniline	650000	U
87-68-3	Hexachlorobutadiene	650000	U
59-50-7	4-Chloro-3-methylphenol	650000	U
91-57-6	2-Methylnaphthalene	2700000	
77-47-4	Hexachlorocyclopentadiene	650000	U
88-06-2	2,4,6-Trichlorophenol	650000	U
95-95-4	2,4,5-Trichlorophenol	3200000	U
91-58-7	2-Chloronaphthalene	650000	U
88-74-4	2-Nitroaniline	3200000	U
131-11-3	Dimethylphthalate	650000	U
208-96-8	Acenaphthylene	500000	J
606-20-2	2,6-Dinitrotoluene	650000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-37(14.5-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-11

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5255

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	3200000	U	
83-32-9	Acenaphthene	140000	J	
51-28-5	2,4-Dinitrophenol	3200000	U	UJ1
100-02-7	4-Nitrophenol	3200000	U	UJ1
132-64-9	Dibenzofuran	120000	J	
121-14-2	2,4-Dinitrotoluene	650000	U	
84-66-2	Diethylphthalate	650000	U	
7005-72-3	4-Chlorophenyl-phenylether	650000	U	
86-73-7	Fluorene	640000	J	
100-01-6	4-Nitroaniline	3200000	U	UJ1
534-52-1	4,6-Dinitro-2-methylphenol	3200000	U	
86-30-6	N-Nitrosodiphenylamine (1)	650000	U	
101-55-3	4-Bromophenyl-phenylether	650000	U	
118-74-1	Hexachlorobenzene	650000	U	
87-86-5	Pentachlorophenol	3200000	U	
85-01-8	Phenanthrene	1400000		
120-12-7	Anthracene	400000	J	
86-74-8	Carbazole	25000	J	
84-74-2	Di-n-butylphthalate	650000	U	
206-44-0	Fluoranthene	440000	J	
129-00-0	Pyrene	650000		
85-68-7	Butylbenzylphthalate	650000	U	
91-94-1	3,3'-Dichlorobenzidine	1300000	U	
56-55-3	Benzo(a)anthracene	240000	J	
218-01-9	Chrysene	230000	J	
117-81-7	bis(2-Ethylhexyl)phthalate	650000	U	
117-84-0	Di-n-octylphthalate	650000	U	
205-99-2	Benzo(b)fluoranthene	91000	J	
207-08-9	Benzo(k)fluoranthene	140000	J	
50-32-8	Benzo(a)pyrene	210000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	79000	J	
53-70-3	Dibenzo(a,h)anthracene	34000	J	
191-24-2	Benzo(g,h,i)perylene	110000	J	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-37(14.5-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-11

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5255

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.2

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN C9H8 ISOMER	8.22	1200000	J	J33
02.	UNKNOWN DIMETHYL NAPHTHALENE	13.84	780000	J	J33
03.	UNKNOWN DIMETHYL NAPHTHALENE	13.66	750000	J	J33
04.	UNKNOWN C3 ALKYL BENZENE	7.26	650000	J	J33
05.	UNKNOWN	18.93	400000	J	J33
06.90-12-0	NAPHTHALENE, 1-METHYL	12.48	380000	JN	J33
07.	UNKNOWN C15H12 PAH	18.70	360000	J	J33
08.	UNKNOWN C15H12 PAH	18.75	320000	J	J33
09.	UNKNOWN C19H14 PAH	24.10	300000	J	J33
10.	UNKNOWN C17H12 PAH	21.28	280000	J	J33
11.	UNKNOWN DIMETHYL NAPHTHALENE	14.08	270000	J	J33
12.	UNKNOWN DIMETHYL NAPHTHALENE	13.88	260000	J	J33
13.	UNKNOWN C3 ALKYL BENZENE	6.63	250000	J	J33
14.	UNKNOWN TRIMETHYL NAPHTHALEN	15.32	250000	J	J33
15.92-52-4	BIPHENYL	13.33	220000	JN	J33
16.	UNKNOWN DIMETHYL PHENANTHREN	19.86	220000	J	J33
17.	ALDOL CONDENSATION PRODUCT	4.02	210000	JAB	J33
18.	UNKNOWN C17H12 PAH	21.72	210000	J	J33
19.	UNKNOWN METHYL 9H-FLUORENE	16.88	190000	J	J33
20.	UNKNOWN	22.16	190000	J	J33
21.	UNKNOWN ETHYL NAPHTHALENE	13.52	190000	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-37(14.5-19)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-11

Level (low/med): LOW Date Received: 08/05/99

% Solids: 74.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	9.8			P
7440-39-3	Barium	149.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	16.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	606.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	3.6			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.0	U	VJ3, N VJ1	P
7440-22-4	Silver	0.20	U	VJ1, VJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-37(14.5-19)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-11

% Solids: 74.8 Date Received: 08/05/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	19.4		mg/Kg		L

Comments:

FORM I - WC

JAM 9/20

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-39(0-4)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-13

Sample wt/vol: 5.01 (g/mL) G Lab File ID: >M5396

Level: (low/med) MED Date Received: 08/06/99

% Moisture: not dec. 10 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	15000	J
108-88-3	Toluene	40000	
100-41-4	Ethylbenzene	32000	
1330-20-7	Xylene (total)	62000	

TOM 9/20

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-39(0-4)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-13

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5204

Level: (low/med) LOW Date Received: 08/06/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	360000	U	
111-44-4	bis(2-Chloroethyl)ether	360000	U	
95-57-8	2-Chlorophenol	360000	U	
541-73-1	1,3-Dichlorobenzene	360000	U	
106-46-7	1,4-Dichlorobenzene	360000	U	
100-51-6	Benzyl alcohol	360000	U	
95-50-1	1,2-Dichlorobenzene	360000	U	
95-48-7	2-Methylphenol	360000	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	360000	U	
106-44-5	4-Methylphenol	360000	U	
621-64-7	N-Nitroso-di-n-propylamine	360000	U	
67-72-1	Hexachloroethane	360000	U	
98-95-3	Nitrobenzene	360000	U	
78-59-1	Isophorone	360000	U	
88-75-5	2-Nitrophenol	360000	U	
105-67-9	2,4-Dimethylphenol	360000	U	
65-85-0	Benzoic acid	1700000	U	
111-91-1	bis(2-Chloroethoxy)methane	360000	U	
120-83-2	2,4-Dichlorophenol	360000	U	
120-82-1	1,2,4-Trichlorobenzene	360000	U	
91-20-3	Naphthalene	1900000	B	
106-47-8	4-Chloroaniline	360000	U	UJ11
87-68-3	Hexachlorobutadiene	360000	U	
59-50-7	4-Chloro-3-methylphenol	360000	U	
91-57-6	2-Methylnaphthalene	1700000	J27	
77-47-4	Hexachlorocyclopentadiene	360000	U	
88-06-2	2,4,6-Trichlorophenol	360000	U	
95-95-4	2,4,5-Trichlorophenol	1700000	U	
91-58-7	2-Chloronaphthalene	360000	U	
88-74-4	2-Nitroaniline	1700000	U	
131-11-3	Dimethylphthalate	360000	U	
208-96-8	Acenaphthylene	420000		
606-20-2	2,6-Dinitrotoluene	360000	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-39(0-4)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-13

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5204

Level: (low/med) LOW Date Received: 08/06/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1700000	U	UJ11
83-32-9	Acenaphthene	88000	J	
51-28-5	2,4-Dinitrophenol	1700000	U	
100-02-7	4-Nitrophenol	1700000	U	
132-64-9	Dibenzofuran	65000	J	J27
121-14-2	2,4-Dinitrotoluene	360000	U	
84-66-2	Diethylphthalate	360000	U	
7005-72-3	4-Chlorophenyl-phenylether	360000	U	
86-73-7	Fluorene	370000		J27
100-01-6	4-Nitroaniline	1700000	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700000	U	
86-30-6	N-Nitrosodiphenylamine (1)	360000	U	
101-55-3	4-Bromophenyl-phenylether	360000	U	
118-74-1	Hexachlorobenzene	360000	U	
87-86-5	Pentachlorophenol	1700000	U	
85-01-8	Phenanthrene	810000		J27
120-12-7	Anthracene	230000	J	
86-74-8	Carbazole	13000	J	
84-74-2	Di-n-butylphthalate	360000	U	
206-44-0	Fluoranthene	270000	J	J27
129-00-0	Pyrene	540000		J27
85-68-7	Butylbenzylphthalate	360000	U	
91-94-1	3,3'-Dichlorobenzidine	720000	U	UJ11
56-55-3	Benzo(a)anthracene	180000	J	
218-01-9	Chrysene	200000	J	
117-81-7	bis(2-Ethylhexyl)phthalate	360000	U	
117-84-0	Di-n-octylphthalate	360000	U	
205-99-2	Benzo(b)fluoranthene	78000	J	
207-08-9	Benzo(k)fluoranthene	98000	J	
50-32-8	Benzo(a)pyrene	170000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	74000	J	
53-70-3	Dibenzo(a,h)anthracene	39000	J	
191-24-2	Benzo(g,h,i)perylene	110000	J	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-39(0-4)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-13

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5204

Level: (low/med) LOW Date Received: 08/06/99

% Moisture: 8 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/17/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 8.1

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.90-12-0	NAPHTHALENE, 1-METHYL-	12.59	1000000	JN	J33
02.	ALDOL CONDENSATION PRODUCT	4.11	580000	JAB	K33
03.	UNKNOWN DIMETHYL NAPHTHALENE	13.95	470000	J	J33
04.	UNKNOWN DIMETHYL NAPHTHALENE	13.76	420000	J	J33
05.	UNKNOWN C9H8 ISOMER	8.32	410000	J	J33
06.	UNKNOWN C19H14 PAH	23.86	310000	J	J33
07.	UNKNOWN C15H12 PAH	19.04	290000	J	J33
08.	UNKNOWN C15H12 PAH	18.81	280000	J	J33
09.	UNKNOWN C15H12 PAH	18.87	270000	J	J33
10.	UNKNOWN C17H12 PAH	21.39	250000	J	J33
11.	UNKNOWN DIMETHYL NAPHTHALENE	14.00	200000	J	J33
12.	UNKNOWN C10H10 ISOMER	10.10	190000	J	J33
13.	UNKNOWN C10H10 ISOMER	10.21	180000	J	J33
14.	UNKNOWN TRIMETHYL NAPHTHALEN	15.42	170000	J	J33
15.	UNKNOWN DIMETHYL NAPHTHALENE	14.19	170000	J	J33
16.	UNKNOWN C15H12 PAH	19.09	160000	J	J33
17.	UNKNOWN	24.67	150000	J	J33
18.	UNKNOWN C3 ALKYL BENZENE	7.37	140000	J	J33
19.	UNKNOWN C14H12 PAH	16.99	130000	J	J33
20.	UNKNOWN C18H12 PAH	22.71	130000	J	J33
21.	UNKNOWN C17H12 PAH	21.16	120000	J	J33
22.					
23.					
24.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-39(0-4)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-13

Level (low/med): LOW Date Received: 08/06/99

% Solids: 93.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.5		J3	P
7440-39-3	Barium	40.6			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.66	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	17.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	92.4			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.042	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.2	U12	U3, N U1	P
7440-22-4	Silver	0.20	B	J1, J9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

Jam 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-39(0-4)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-13

% Solids: 93.5 Date Received: 08/06/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.530	U	mg/Kg		L

Comments:

FORM I - WC

9/20

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-39(5.5')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-14

Sample wt/vol: 5.04 (g/mL) G Lab File ID: >M5398

Level: (low/med) MED Date Received: 08/06/99

% Moisture: not dec. 7 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	34000	
108-88-3	Toluene	66000	
100-41-4	Ethylbenzene	20000	J
1330-20-7	Xylene (total)	89000	

TOM 9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-39(5.5')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-14

Sample wt/vol: 1 (g/mL) G Lab File ID: >P5292

Level: (low/med) MED Date Received: 08/06/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/11/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: _____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	2500000	U
111-44-4	bis(2-Chloroethyl)ether	2500000	U
95-57-8	2-Chlorophenol	2500000	U
541-73-1	1,3-Dichlorobenzene	2500000	U
106-46-7	1,4-Dichlorobenzene	2500000	U
100-51-6	Benzyl alcohol	2500000	U
95-50-1	1,2-Dichlorobenzene	2500000	U
95-48-7	2-Methylphenol	2500000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	2500000	U
106-44-5	4-Methylphenol	2500000	U
621-64-7	N-Nitroso-di-n-propylamine	2500000	U
67-72-1	Hexachloroethane	2500000	U
98-95-3	Nitrobenzene	2500000	U
78-59-1	Isophorone	2500000	U
88-75-5	2-Nitrophenol	2500000	U
105-67-9	2,4-Dimethylphenol	2500000	U
65-85-0	Benzoic acid	12000000	U
111-91-1	bis(2-Chloroethoxy)methane	2500000	U
120-83-2	2,4-Dichlorophenol	2500000	U
120-82-1	1,2,4-Trichlorobenzene	2500000	U
91-20-3	Naphthalene	14000000	B
106-47-8	4-Chloroaniline	2500000	U
87-68-3	Hexachlorobutadiene	2500000	U
59-50-7	4-Chloro-3-methylphenol	2500000	U
91-57-6	2-Methylnaphthalene	11000000	B
77-47-4	Hexachlorocyclopentadiene	2500000	U
88-06-2	2,4,6-Trichlorophenol	2500000	U
95-95-4	2,4,5-Trichlorophenol	12000000	U
91-58-7	2-Chloronaphthalene	2500000	U
88-74-4	2-Nitroaniline	12000000	U
131-11-3	Dimethylphthalate	2500000	U
208-96-8	Acenaphthylene	3000000	
606-20-2	2,6-Dinitrotoluene	2500000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-39(5.5')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-14

Sample wt/vol: 1 (g/mL) G Lab File ID: >P5292

Level: (low/med) MED Date Received: 08/06/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/11/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	12000000	U
83-32-9	Acenaphthene	600000	J
51-28-5	2,4-Dinitrophenol	12000000	U
100-02-7	4-Nitrophenol	12000000	U
132-64-9	Dibenzofuran	490000	J
121-14-2	2,4-Dinitrotoluene	2500000	U
84-66-2	Diethylphthalate	2500000	U
7005-72-3	4-Chlorophenyl-phenylether	2500000	U
86-73-7	Fluorene	2900000	
100-01-6	4-Nitroaniline	12000000	U
534-52-1	4,6-Dinitro-2-methylphenol	12000000	U
86-30-6	N-Nitrosodiphenylamine (1)	2500000	U
101-55-3	4-Bromophenyl-phenylether	2500000	U
118-74-1	Hexachlorobenzene	2500000	U
87-86-5	Pentachlorophenol	12000000	U
85-01-8	Phenanthrene	6600000	
120-12-7	Anthracene	1700000	J
86-74-8	Carbazole	86000	J
84-74-2	Di-n-butylphthalate	2500000	U
206-44-0	Fluoranthene	1800000	J
129-00-0	Pyrene	4200000	
85-68-7	Butylbenzylphthalate	2500000	U
91-94-1	3,3'-Dichlorobenzidine	5000000	U
56-55-3	Benzo(a)anthracene	1400000	J
218-01-9	Chrysene	1400000	J
117-81-7	bis(2-Ethylhexyl)phthalate	2500000	U
117-84-0	Di-n-octylphthalate	2500000	U
205-99-2	Benzo(b)fluoranthene	400000	J
207-08-9	Benzo(k)fluoranthene	810000	J
50-32-8	Benzo(a)pyrene	1100000	J
193-39-5	Indeno(1,2,3-cd)pyrene	420000	J
53-70-3	Dibenzo(a,h)anthracene	240000	J
191-24-2	Benzo(g,h,i)perylene	640000	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE N

CF-SB-39(5.5'

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-14

Sample wt/vol: 1 (g/mL) G Lab File ID: >P5292

Level: (low/med) MED Date Received: 08/06/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/11/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: _____

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	UNKNOWN C19H14 PAH	24.05	6600000	J
02. 90-12-0	NAPHTHALENE, 1-METHYL-	12.42	6600000	JN
03.	UNKNOWN C9H8 ISOMER	8.15	3500000	J
04.	UNKNOWN DIMETHYL NAPHTHALENE	13.79	3500000	J
05.	UNKNOWN DIMETHYL NAPHTHALENE	13.61	3500000	J
06.	UNKNOWN C15H12 PAH	18.65	2000000	J
07.	UNKNOWN C15H12 PAH	18.88	2000000	J
08.	UNKNOWN C17H12 PAH	21.22	1800000	J
09.	UNKNOWN C15H12 PAH	18.70	1800000	J
10.	UNKNOWN DIMETHYL NAPHTHALENE	13.83	1500000	J
11.	UNKNOWN C18H12 PAH	23.19	1400000	J
12.	UNKNOWN C10H10 ISOMER	9.93	1300000	J
13.	UNKNOWN DIMETHYL NAPHTHALENE	14.03	1300000	J
14.	UNKNOWN DIMETHYL PHENANTHREN	19.80	1300000	J
15.	UNKNOWN C18H12 PAH	22.54	1300000	J
16.	UNKNOWN C9H10 ISOMER	7.20	1300000	J
17.	UNKNOWN C17H12 PAH	21.67	1300000	J
18.	UNKNOWN TRIMETHYL NAPHTHALEN	15.26	1200000	J
19.	UNKNOWN C10H10 ISOMER	10.03	1200000	J
20.	UNKNOWN	23.95	1200000	J
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-39(5.5')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-14

Level (low/med): LOW Date Received: 08/06/99

% Solids: 94.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.9		J3	P
7440-39-3	Barium	34.0	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.9			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	55.9			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.1	U	UJ3,N,UJ1	P
7440-22-4	Silver	0.21	U	UJ1,UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-39(5.5')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-14

% Solids: 94.3 Date Received: 08/06/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.510	U	mg/Kg		L

Comments:

FORM I - WC

9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB-44(29'-31')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-02

% Solids: 89.3 Date Received: 07/28/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.580	U	UJ mg/Kg		L

Comments:

FORM I - WC

JPM 9/6

TABLE VO-1.3
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKY VBLKKY 1.00	CF-SB-45 (13-15) 992348A-03 VBLKKY 1.03	CF-SB-45 (37-39) 992348A-04 VBLKKY 1.41	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received Date Extracted Date Analyzed	N/A 09/17/99	09/15/99 N/A 09/17/99	09/15/99 N/A 09/17/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/16/99

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-45 (13-15)

@RW08

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5747

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	17	J	
111-44-4	bis(2-Chloroethyl)ether	410	U	
95-57-8	2-Chlorophenol	410	U	
541-73-1	1,3-Dichlorobenzene	410	U	
106-46-7	1,4-Dichlorobenzene	410	U	
100-51-6	Benzyl alcohol	410	U	
95-50-1	1,2-Dichlorobenzene	410	U	
95-48-7	2-Methylphenol	410	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	410	U	
106-44-5	4-Methylphenol	78	J	
621-64-7	N-Nitroso-di-n-propylamine	410	U	
67-72-1	Hexachloroethane	410	U	
98-95-3	Nitrobenzene	410	U	
78-59-1	Isophorone	410	U	
88-75-5	2-Nitrophenol	410	U	
105-67-9	2,4-Dimethylphenol	410	U	
65-85-0	Benzoic acid	140	J	
111-91-1	bis(2-Chloroethoxy)methane	410	U	
120-83-2	2,4-Dichlorophenol	410	U	
120-82-1	1,2,4-Trichlorobenzene	410	U	
91-20-3	Naphthalene	110	J	
106-47-8	4-Chloroaniline	410	U	
87-68-3	Hexachlorobutadiene	410	U	
59-50-7	4-Chloro-3-methylphenol	410	U	
91-57-6	2-Methylnaphthalene	72	J	
77-47-4	Hexachlorocyclopentadiene	410	U	UJ|
88-06-2	2,4,6-Trichlorophenol	410	U	
95-95-4	2,4,5-Trichlorophenol	2000	U	
91-58-7	2-Chloronaphthalene	410	U	
88-74-4	2-Nitroaniline	2000	U	
131-11-3	Dimethylphthalate	410	U	
208-96-8	Acenaphthylene	150	J	
606-20-2	2,6-Dinitrotoluene	410	U	

FORM I SV-1

Validation codes entered ✓

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-45 (13-15)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW08

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5747

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	2000	U	
83-32-9	Acenaphthene	44	J	
51-28-5	2,4-Dinitrophenol	2000	U	
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	76	J	
121-14-2	2,4-Dinitrotoluene	410	U	
84-66-2	Diethylphthalate	8	J	410U 12
7005-72-3	4-Chlorophenyl-phenylether	410	U	
86-73-7	Fluorene	120	J	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	410	U	
101-55-3	4-Bromophenyl-phenylether	410	U	
118-74-1	Hexachlorobenzene	410	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	650		
120-12-7	Anthracene	200	J	
86-74-8	Carbazole	62	J	
84-74-2	Di-n-butylphthalate	34	JB	410U 12
206-44-0	Fluoranthene	710		
129-00-0	Pyrene	760		
85-68-7	Butylbenzylphthalate	410	U	
91-94-1	3,3'-Dichlorobenzidine	810	U	
56-55-3	Benzo(a)anthracene	480		
218-01-9	Chrysene	490		
117-81-7	bis(2-Ethylhexyl)phthalate	43	JB	410U 12
117-84-0	Di-n-octylphthalate	6	JB	410U 12
205-99-2	Benzo(b)fluoranthene	300	J	
207-08-9	Benzo(k)fluoranthene	500	J10	
50-32-8	Benzo(a)pyrene	460		
193-39-5	Indeno(1,2,3-cd)pyrene	360	J	
53-70-3	Dibenzo(a,h)anthracene	120	J	
191-24-2	Benzo(g,h,i)perylene	340	J	

(1) - Cannot be separated from Diphenylamine

J MRS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-45 (13-15)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5747

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 19 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.33	38000	JAB	R33
02.	UNKNOWN	7.74	3500	JB	R33
03.	UNKNOWN	5.58	2100	JB	R33
04.	UNKNOWN	21.02	1400	J	J33
05.	UNKNOWN	21.25	1300	J	J33
06.	UNKNOWN	21.17	1100	J	J33
07.	UNKNOWN	20.81	1100	J	J33
08.	UNKNOWN ACID	20.59	870	J	J33
09.	UNKNOWN	21.10	810	J	J33
10.	UNKNOWN ALKANE	28.32	740	J	J33
11.	UNKNOWN C18H18 PAH	23.12	660	J	J33
12.	UNKNOWN	21.51	590	J	J33
13.	UNKNOWN ALKANE	26.90	570	J	J33
14.	UNKNOWN	32.86	540	J	J33
15.	UNKNOWN ALKANE	20.86	540	J	J33
16.	UNKNOWN	22.14	500	J	J33
17. 10544-50-0	SULFUR, MOL. (S8)	20.93	490	JN	J33
18.	UNKNOWN	31.76	480	J	J33
19.	UNKNOWN	21.36	470	J	J33
20.	UNKNOWN ALKANE	9.25	420	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Soil

TABLE AS-1.1
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-45 (13-15)	CF-SB-45 (37-39)	CF-SB-45 (19-21)	CF-SB-45 (19-21) D
Lab Sample I.D.	992348A-03	992348A-04	992348A-05	992348A-05D
Arsenic	5.0	4.5	2.9B J23	2.6B
Barium	95.9	138.	611. J23	535.
Cadmium	0.22BN J1	0.19UN	0.41BN J123	0.37U
Chromium	42.1	79.9	88.9 J23	78.3
Lead	93.7	12.7 J23	12.1 J23	9.6
Mercury	0.69N J1	0.016N J1	0.20N J123	0.21
Selenium	0.92UN UJ1	0.97UN UJ1	4.2N J123	3.4
Silver	0.18U	0.19U	0.35U UJ	0.37U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-45 (13-15)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-03

% Solids: 79.6 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.650	U	Ri mg/Kg		L

Comments:

FORM I - WC

11/16/99

TABLE VO-1.4 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB-45 (19-21)		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKZ	992348A-05		
Method Blank I.D.	VBLKKZ	VBLKKZ		
Quant. Factor	1.00	2.44		
Benzene	U	U UJ15	UJ23	5.0
Toluene	U	U UJ15	UJ23	5.0
Ethylbenzene	U	U UJ15	UJ23	5.0
Xylene (total)	U	U UJ15	UJ23	5.0
Date Received		09/15/99		
Date Extracted	N/A	N/A		
Date Analyzed	09/17/99	09/18/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/10/99
JKS

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-45 (19-21)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW08

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5750

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 63 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	1800	U	UJa3
111-44-4	bis(2-Chloroethyl)ether	1800	U	
95-57-8	2-Chlorophenol	1800	U	
541-73-1	1,3-Dichlorobenzene	1800	U	
106-46-7	1,4-Dichlorobenzene	1800	U	
100-51-6	Benzyl alcohol	1800	U	
95-50-1	1,2-Dichlorobenzene	1800	U	
95-48-7	2-Methylphenol	1800	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	1800	U	
106-44-5	4-Methylphenol	1800	U	
621-64-7	N-Nitroso-di-n-propylamine	1800	U	
67-72-1	Hexachloroethane	1800	U	
98-95-3	Nitrobenzene	1800	U	
78-59-1	Isophorone	1800	U	
88-75-5	2-Nitrophenol	1800	U	
105-67-9	2,4-Dimethylphenol	1800	U	
65-85-0	Benzoic acid	560	J	Ja3
111-91-1	bis(2-Chloroethoxy)methane	1800	U	UJa3
120-83-2	2,4-Dichlorophenol	1800	U	
120-82-1	1,2,4-Trichlorobenzene	1800	U	
91-20-3	Naphthalene	1800	U	
106-47-8	4-Chloroaniline	1800	U	
87-68-3	Hexachlorobutadiene	1800	U	
59-50-7	4-Chloro-3-methylphenol	1800	U	
91-57-6	2-Methylnaphthalene	1800	U	
77-47-4	Hexachlorocyclopentadiene	1800	U	UJ11, UJa3
88-06-2	2,4,6-Trichlorophenol	1800	U	UJa3
95-95-4	2,4,5-Trichlorophenol	8600	U	
91-58-7	2-Chloronaphthalene	1800	U	
88-74-4	2-Nitroaniline	8600	U	
131-11-3	Dimethylphthalate	1800	U	
208-96-8	Acenaphthylene	64	J	Ja3
606-20-2	2,6-Dinitrotoluene	1800	U	UJa3

JKS

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-45 (19-21)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

@RW08

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5750

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 63 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	8600	U	UJ23
83-32-9	Acenaphthene	1800	U	
51-28-5	2,4-Dinitrophenol	8600	U	
100-02-7	4-Nitrophenol	8600	U	
132-64-9	Dibenzofuran	1800	U	
121-14-2	2,4-Dinitrotoluene	1800	U	
84-66-2	Diethylphthalate	1800	U	
7005-72-3	4-Chlorophenyl-phenylether	1800	U	
86-73-7	Fluorene	42	J	J23
100-01-6	4-Nitroaniline	8600	U	UJ23
534-52-1	4,6-Dinitro-2-methylphenol	8600	U	
86-30-6	N-Nitrosodiphenylamine (1)	1800	U	
101-55-3	4-Bromophenyl-phenylether	1800	U	
118-74-1	Hexachlorobenzene	1800	U	
87-86-5	Pentachlorophenol	8600	U	
85-01-8	Phenanthrene	1800	U	
120-12-7	Anthracene	1800	U	
86-74-8	Carbazole	1800	U	
84-74-2	Di-n-butylphthalate	71	JB	1800 U, J2 UJ23
206-44-0	Fluoranthene	27	J	J23
129-00-0	Pyrene	34	J	J23
85-68-7	Butylbenzylphthalate	1800	U	UJ23
91-94-1	3,3'-Dichlorobenzidine	3600	U	
56-55-3	Benzo(a)anthracene	1800	U	
218-01-9	Chrysene	1800	U	
117-81-7	bis(2-Ethylhexyl)phthalate	110	JB	1800 U, J2 UJ23
117-84-0	Di-n-octylphthalate	43	JB	1800 U, J2 UJ23
205-99-2	Benzo(b)fluoranthene	1800	U	UJ23
207-08-9	Benzo(k)fluoranthene	1800	U	
50-32-8	Benzo(a)pyrene	1800	U	
193-39-5	Indeno(1,2,3-cd)pyrene	1800	U	
53-70-3	Dibenzo(a,h)anthracene	1800	U	
191-24-2	Benzo(g,h,i)perylene	1800	U	

(1) - Cannot be separated from Diphenylamine

KS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-45 (19-21)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW08

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5750

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 63 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.6

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.18	61000	JAB	R33
02.	UNKNOWN	7.68	6000	JB	R33
03. 59-02-9	VITAMIN E	29.13	4700	JN	J33
04.	UNKNOWN	25.76	4000	J	J33
05.	UNKNOWN	31.92	3600	J	J33
06.	UNKNOWN	15.98	3100	J	J33
07.	UNKNOWN	5.50	2800	JB	R33
08.	UNKNOWN	24.48	2500	J	J33
09.	UNKNOWN ALKANE	23.10	2200	J	J33
10.	UNKNOWN	32.33	2200	J	J33
11.	UNKNOWN ALKANE	28.30	2200	J	J33
12.	UNKNOWN	32.84	2100	J	J33
13.	UNKNOWN	16.19	1900	J	J33
14.	UNKNOWN	32.49	1800	J	J33
15.	UNKNOWN	28.39	1700	J	J33
16.	UNKNOWN ALKANE	24.44	1600	J	J33
17.	UNKNOWN	32.01	1500	J	J33
18.	UNKNOWN ALKANE	26.89	1500	J	J33
19.	UNKNOWN	26.99	1400	J	J33
20.	UNKNOWN	23.80	1400	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Soil

TABLE AS-1.1
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-45 (13-15)	CF-SB-45 (37-39)	CF-SB-45 (19-21)	CF-SB-45 (19-21) D
Lab Sample I.D.	992348A-03	992348A-04	992348A-05	992348A-05D
Arsenic	5.0	4.5	2.9B J23	2.6B
Barium	95.9	138.	611. J23	535.
Cadmium	0.22BN J1	0.19UN	0.41BN J1 J23	0.37U
Chromium	42.1	79.9	88.9 J23	78.3
Lead	93.7	12.7 J3	12.1 J23	9.6
Mercury	0.69N J1	0.016N J1	0.20N J1 J23	0.21
Selenium	0.92UN UJ1	0.97UN UJ1	4.2N J1 J23	3.4
Silver	0.18U	0.19U	0.35U UJ	0.37U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-45 (19-21)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-05

% Solids: 42.6 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.16	U	RI mg/Kg		L

Comments:

FORM I - WC

TABLE VO-1.3 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB-45 (13-15)	CF-SB-45 (37-39)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKY	992348A-03	992348A-04	
Method Blank I.D.	VBLKKY	VBLKKY	VBLKKY	
Quant. Factor	1.00	1.03	1.41	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		09/15/99	09/15/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/17/99	09/17/99	09/17/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-45 (37-39)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW08

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5748

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 27 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	34	J	
111-44-4	bis(2-Chloroethyl)ether	450	U	
95-57-8	2-Chlorophenol	450	U	
541-73-1	1,3-Dichlorobenzene	450	U	
106-46-7	1,4-Dichlorobenzene	450	U	
100-51-6	Benzyl alcohol	450	U	
95-50-1	1,2-Dichlorobenzene	450	U	
95-48-7	2-Methylphenol	450	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	450	U	
106-44-5	4-Methylphenol	450	U	
621-64-7	N-Nitroso-di-n-propylamine	450	U	
67-72-1	Hexachloroethane	450	U	
98-95-3	Nitrobenzene	450	U	
78-59-1	Isophorone	450	U	
88-75-5	2-Nitrophenol	450	U	
105-67-9	2,4-Dimethylphenol	450	U	
65-85-0	Benzoic acid	71	J	
111-91-1	bis(2-Chloroethoxy)methane	450	U	
120-83-2	2,4-Dichlorophenol	450	U	
120-82-1	1,2,4-Trichlorobenzene	450	U	
91-20-3	Naphthalene	450	U	
106-47-8	4-Chloroaniline	450	U	
87-68-3	Hexachlorobutadiene	450	U	
59-50-7	4-Chloro-3-methylphenol	450	U	
91-57-6	2-Methylnaphthalene	450	U	
77-47-4	Hexachlorocyclopentadiene	450	U	UJ11
88-06-2	2,4,6-Trichlorophenol	450	U	
95-95-4	2,4,5-Trichlorophenol	2200	U	
91-58-7	2-Chloronaphthalene	450	U	
88-74-4	2-Nitroaniline	2200	U	
131-11-3	Dimethylphthalate	450	U	
208-96-8	Acenaphthylene	450	U	
606-20-2	2,6-Dinitrotoluene	450	U	

UKD

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-45 (37-39)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW 68

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5748

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 27 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	2200	U	
83-32-9	Acenaphthene	450	U	
51-28-5	2,4-Dinitrophenol	2200	U	
100-02-7	4-Nitrophenol	2200	U	
132-64-9	Dibenzofuran	14	J	
121-14-2	2,4-Dinitrotoluene	450	U	
84-66-2	Diethylphthalate	450	U	
7005-72-3	4-Chlorophenyl-phenylether	450	U	
86-73-7	Fluorene	450	U	
100-01-6	4-Nitroaniline	2200	U	
534-52-1	4,6-Dinitro-2-methylphenol	2200	U	
86-30-6	N-Nitrosodiphenylamine (1)	450	U	
101-55-3	4-Bromophenyl-phenylether	450	U	
118-74-1	Hexachlorobenzene	450	U	
87-86-5	Pentachlorophenol	2200	U	
85-01-8	Phenanthrene	450	U	
120-12-7	Anthracene	450	U	
86-74-8	Carbazole	450	U	
84-74-2	Di-n-butylphthalate	15	JB	450 U 12
206-44-0	Fluoranthene	450	U	
129-00-0	Pyrene	450	U	
85-68-7	Butylbenzylphthalate	450	U	
91-94-1	3,3'-Dichlorobenzidine	900	U	
56-55-3	Benzo(a)anthracene	450	U	
218-01-9	Chrysene	450	U	
117-81-7	bis(2-Ethylhexyl)phthalate	42	JB	450 U 12
117-84-0	Di-n-octylphthalate	39	JB	450 U 12
205-99-2	Benzo(b)fluoranthene	450	U	
207-08-9	Benzo(k)fluoranthene	450	U	
50-32-8	Benzo(a)pyrene	450	U	
193-39-5	Indeno(1,2,3-cd)pyrene	450	U	
53-70-3	Dibenzo(a,h)anthracene	450	U	
191-24-2	Benzo(g,h,i)perylene	450	U	

(1) - Cannot be separated from Diphenylamine

JKS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-45 (37-39)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW08

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5748

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 27 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.33	44000	JAB	RJ3
02.	UNKNOWN	7.75	3500	JB	RJ3
03.	UNKNOWN	5.65	2300	JB	RJ3
04.	UNKNOWN	26.68	1700	J	J3
05.	UNKNOWN ALKANE	26.89	1200	J	J3
06.	UNKNOWN	15.98	1000	J	J3
07.	UNKNOWN ALKANE	28.31	760	J	J3
08.	UNKNOWN ALKANE	25.70	690	J	J3
09.59-02-9	VITAMIN E	29.13	510	JN	J3
10.	UNKNOWN	32.00	480	J	J3
11.	UNKNOWN ALKANE	24.45	480	J	J3
12.	UNKNOWN	9.08	360	JB	RJ3
13.	UNKNOWN	7.00	350	JB	RJ3
14.	UNKNOWN	27.08	340	J	J3
15.	UNKNOWN	9.49	300	JB	RJ3
16.	UNKNOWN	28.48	290	J	J3
17.	UNKNOWN	28.59	280	J	J3
18.	UNKNOWN ALKANE	30.17	280	J	J3
19.	UNKNOWN	23.80	270	J	J3
20.	UNKNOWN	32.77	260	J	J3
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Soil

TABLE AS-1.1
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-45 (13-15)	CF-SB-45 (37-39)	CF-SB-45 (19-21)	CF-SB-45 (19-21) D
Lab Sample I.D.	992348A-03	992348A-04	992348A-05	992348A-05D
Arsenic	5.0	4.5	2.9B J 13	2.6B
Barium	95.9	138.	611. J 13	535.
Cadmium	0.22BN J 1	0.19UN	0.41BN J 1 J 13	0.37U
Chromium	42.1	79.9	88.9 J 23	78.3
Lead	93.7	12.7 J 32	12.1 J 23	9.6
Mercury	0.69N J 1	0.016N J 1	0.20N J 1 J 13	0.21
Selenium	0.92UN UJ 1	0.97UN UJ 1	4.2N J 1 J 13	3.4
Silver	0.18U	0.19U	0.35U UJ 13	0.37U

See Appendix for qualifier definitions

11/16/95

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-45 (37-39)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-04

% Solids: 69.9 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.750	U	RI mg/Kg		L

Comments:

FORM I - WC

11/16/99

TABLE VO-1.7 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKL VBLKKL 1.00	CF-SB-46 (15-17) 992348A-07 VBLKKL 1.12		Quant. Limits with no Dilution
Benzene	U	U UJ7		5.0
Toluene	U	U UJ7		5.0
Ethylbenzene	U	U UJ7		5.0
Xylene (total)	U	U UJ7		5.0
Date Received Date Extracted Date Analyzed	 N/A 09/20/99	09/15/99 N/A 09/20/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-46 (15-17)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW09

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5746

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	390	U	
111-44-4	bis(2-Chloroethyl)ether	390	U	
95-57-8	2-Chlorophenol	390	U	
541-73-1	1,3-Dichlorobenzene	390	U	
106-46-7	1,4-Dichlorobenzene	390	U	
100-51-6	Benzyl alcohol	390	U	
95-50-1	1,2-Dichlorobenzene	390	U	
95-48-7	2-Methylphenol	390	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	390	U	
106-44-5	4-Methylphenol	390	U	
621-64-7	N-Nitroso-di-n-propylamine	390	U	
67-72-1	Hexachloroethane	390	U	
98-95-3	Nitrobenzene	390	U	
78-59-1	Isophorone	390	U	
88-75-5	2-Nitrophenol	390	U	
105-67-9	2,4-Dimethylphenol	390	U	
65-85-0	Benzoic acid	76	J	
111-91-1	bis(2-Chloroethoxy)methane	390	U	
120-83-2	2,4-Dichlorophenol	390	U	
120-82-1	1,2,4-Trichlorobenzene	390	U	
91-20-3	Naphthalene	18	J	
106-47-8	4-Chloroaniline	390	U	
87-68-3	Hexachlorobutadiene	390	U	
59-50-7	4-Chloro-3-methylphenol	390	U	
91-57-6	2-Methylnaphthalene	22	J	
77-47-4	Hexachlorocyclopentadiene	390	U	UJ11
88-06-2	2,4,6-Trichlorophenol	390	U	
95-95-4	2,4,5-Trichlorophenol	1900	U	
91-58-7	2-Chloronaphthalene	390	U	
88-74-4	2-Nitroaniline	1900	U	
131-11-3	Dimethylphthalate	390	U	
208-96-8	Acenaphthylene	27	J	
606-20-2	2,6-Dinitrotoluene	390	U	

KS

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-46 (15-17)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW09

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5746

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1900	U	
83-32-9	Acenaphthene	390	U	
51-28-5	2,4-Dinitrophenol	1900	U	
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	12	J	
121-14-2	2,4-Dinitrotoluene	390	U	
84-66-2	Diethylphthalate	390	U	
7005-72-3	4-Chlorophenyl-phenylether	390	U	
86-73-7	Fluorene	390	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	390	U	
101-55-3	4-Bromophenyl-phenylether	390	U	
118-74-1	Hexachlorobenzene	390	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	130	J	
120-12-7	Anthracene	26	J	
86-74-8	Carbazole	9	J	
84-74-2	Di-n-butylphthalate	11	JB	390 U 12
206-44-0	Fluoranthene	200	J	
129-00-0	Pyrene	230	J	
85-68-7	Butylbenzylphthalate	390	U	
91-94-1	3,3'-Dichlorobenzidine	780	U	
56-55-3	Benzo(a)anthracene	140	J	
218-01-9	Chrysene	160	J	
117-81-7	bis(2-Ethylhexyl)phthalate	88	JB	390 U 12.
117-84-0	Di-n-octylphthalate	74	JB	390 U 12
205-99-2	Benzo(b)fluoranthene	110	J	
207-08-9	Benzo(k)fluoranthene	150	J	J to
50-32-8	Benzo(a)pyrene	120	J	
193-39-5	Indeno(1,2,3-cd)pyrene	83	J	
53-70-3	Dibenzo(a,h)anthracene	33	J	
191-24-2	Benzo(g,h,i)perylene	98	J	

(1) - Cannot be separated from Diphenylamine

VKS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-46 (15-17)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5746

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 15 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.4

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.33	33000	JAB	R33
02.	UNKNOWN	7.74	3000	JB	R33
03.	UNKNOWN	5.61	1800	JB	R33
04.	UNKNOWN	6.97	290	JB	R33
05.	UNKNOWN	9.06	210	JB	R33
06.	UNKNOWN	9.10	180	J	J33
07.	UNKNOWN ALKANE	20.85	160	J	J33
08.	UNKNOWN ALKANE	19.16	150	J	J33
09.	UNKNOWN	12.49	120	JB	R33
10.	UNKNOWN	26.89	120	J	J33
11.	UNKNOWN ALKANE	18.24	120	J	J33
12.	UNKNOWN	4.99	110	J	J33
13.	UNKNOWN C15H12 PAH	20.56	110	J	J33
14.	UNKNOWN C20H12 PAH	27.64	110	J	J33
15.	UNKNOWN ALKANE	24.45	110	J	J33
16.	UNKNOWN	8.73	110	J	J33
17.	UNKNOWN ALKANE	21.63	110	J	J33
18.	UNKNOWN ALKANE	23.79	110	J	J33
19.	UNKNOWN ALKANE	17.27	100	J	J33
20.	UNKNOWN SILOXANE	11.62	91	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Soil

TABLE AS-1.2
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-45 (19-21) S	CF-SB-46 (39-41)	CF-SB-46 (15-17)	CF-SB-0 9/14/99
Lab Sample I.D.	992348A-05S	992348A-06	992348A-07	992348A-08
Arsenic	18.5	10.3	7.4	11.4
Barium	1330	143.	50.2	149.
Cadmium	2.8N	0.32UN	0.19UN	0.32UN
Chromium	156.	33.3	13.1	35.9
Lead	21.0	13.6	203.	11.2
Mercury	0.15N	0.026NJ	0.34NJ	0.020BNJ
Selenium	5.5N	1.6UN	0.97UN	1.6UN
Silver	16.0	0.32U	0.19U	0.32U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-46 (15-17)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-07

% Solids: 86.2 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.590	U	R1 mg/Kg		L

Comments:

FORM I - WC

TABLE VO-1.6
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB-46 (39-41)	dupe of SB-46 (39-41) CF-SB-0 9/14/99		Quant. Limits with no Dilution
Lab Sample I.D.	992348A-06	992348A-08		
Method Blank I.D.	VBLKKK	VBLKKK		
Quant. Factor	1.82	2.04		
Benzene	U	U		5.0
Toluene	.6J	.7J		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received	09/15/99	09/15/99		
Date Extracted	N/A	N/A		
Date Analyzed	09/20/99	09/20/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-46 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW09

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5822

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 47 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	1200	U	
111-44-4	bis(2-Chloroethyl)ether	1200	U	
95-57-8	2-Chlorophenol	1200	U	
541-73-1	1,3-Dichlorobenzene	1200	U	
106-46-7	1,4-Dichlorobenzene	1200	U	
100-51-6	Benzyl alcohol	1200	U	
95-50-1	1,2-Dichlorobenzene	1200	U	
95-48-7	2-Methylphenol	1200	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	1200	U	
106-44-5	4-Methylphenol	1200	U	
621-64-7	N-Nitroso-di-n-propylamine	1200	U	
67-72-1	Hexachloroethane	1200	U	
98-95-3	Nitrobenzene	1200	U	
78-59-1	Isophorone	1200	U	
88-75-5	2-Nitrophenol	1200	U	
105-67-9	2,4-Dimethylphenol	1200	U	
65-85-0	Benzoic acid	160	J	JII
111-91-1	bis(2-Chloroethoxy)methane	1200	U	
120-83-2	2,4-Dichlorophenol	1200	U	
120-82-1	1,2,4-Trichlorobenzene	1200	U	
91-20-3	Naphthalene	1200	U	
106-47-8	4-Chloroaniline	1200	U	
87-68-3	Hexachlorobutadiene	1200	U	
59-50-7	4-Chloro-3-methylphenol	1200	U	
91-57-6	2-Methylnaphthalene	1200	U	
77-47-4	Hexachlorocyclopentadiene	1200	U	
88-06-2	2,4,6-Trichlorophenol	1200	U	
95-95-4	2,4,5-Trichlorophenol	6000	U	
91-58-7	2-Chloronaphthalene	1200	U	
88-74-4	2-Nitroaniline	6000	U	
131-11-3	Dimethylphthalate	1200	U	
208-96-8	Acenaphthylene	1200	U	
606-20-2	2,6-Dinitrotoluene	1200	U	

JKD

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-46 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW09

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5822

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 47 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	6000	U	
83-32-9	Acenaphthene	1200	U	
51-28-5	2,4-Dinitrophenol	6000	U	
100-02-7	4-Nitrophenol	6000	U	
132-64-9	Dibenzofuran	1200	U	
121-14-2	2,4-Dinitrotoluene	1200	U	
84-66-2	Diethylphthalate	1200	U	
7005-72-3	4-Chlorophenyl-phenylether	1200	U	
86-73-7	Fluorene	1200	U	
100-01-6	4-Nitroaniline	6000	U	
534-52-1	4,6-Dinitro-2-methylphenol	6000	U	
86-30-6	N-Nitrosodiphenylamine (1)	1200	U	
101-55-3	4-Bromophenyl-phenylether	1200	U	
118-74-1	Hexachlorobenzene	1200	U	
87-86-5	Pentachlorophenol	6000	U	
85-01-8	Phenanthrene	1200	U	
120-12-7	Anthracene	1200	U	
86-74-8	Carbazole	1200	U	
84-74-2	Di-n-butylphthalate	39	JB	1200 U 12
206-44-0	Fluoranthene	1200	U	
129-00-0	Pyrene	1200	U	
85-68-7	Butylbenzylphthalate	1200	U	
91-94-1	3,3'-Dichlorobenzidine	2500	U	
56-55-3	Benzo(a)anthracene	1200	U	
218-01-9	Chrysene	1200	U	
117-81-7	bis(2-Ethylhexyl)phthalate	100	JB	1200 U 12
117-84-0	Di-n-octylphthalate	1200	U	
205-99-2	Benzo(b)fluoranthene	1200	U	
207-08-9	Benzo(k)fluoranthene	1200	U	
50-32-8	Benzo(a)pyrene	1200	U	
193-39-5	Indeno(1,2,3-cd)pyrene	1200	U	
53-70-3	Dibenzo(a,h)anthracene	1200	U	
191-24-2	Benzo(g,h,i)perylene	1200	U	

(1) - Cannot be separated from Diphenylamine

JKD

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-46 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW09

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5822

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 47 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01. 7704-34-9	SULFUR	20.92	71000	JN	J33
02.	ALDOL CONDENSATION PRODUCT	5.82	22000	JAB	AJ3
03.	UNKNOWN	20.95	21000	J	J33
04.	UNKNOWN	28.08	3300	J	J33
05.	UNKNOWN ALKANE	25.44	3200	J	J33
06.	UNKNOWN ALKANE	24.19	2500	J	J33
07.	UNKNOWN	7.39	2500	JB	R33
08.	UNKNOWN	28.21	2400	J	J33
09.	UNKNOWN ALKANE	26.60	2400	J	J33
10.	UNKNOWN ALKANE	27.93	2200	J	J33
11.	UNKNOWN	26.80	2000	J	J33
12.	UNKNOWN	26.69	1800	J	J33
13.	UNKNOWN	29.69	1800	J	J33
14.	UNKNOWN	26.29	1600	J	J33
15. 103-82-2	BENZENEACETIC ACID	13.08	1500	JN	J33
16.	UNKNOWN	20.00	1300	J	J33
17. 59-02-9	VITAMIN E	28.68	1300	JN	J33
18.	UNKNOWN	31.34	1200	J	J33
19.	UNKNOWN ALKANE	22.84	1200	J	J33
20.	UNKNOWN	32.07	1100	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.2
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-45 (19-21) S	CF-SB-46 (39-41)	CF-SB-46 (15-17)	CF-SB-0 9/14/99
Lab Sample I.D.	992348A-05S	992348A-06	992348A-07	992348A-08
Arsenic	18.5	10.3	7.4	11.4
Barium	1330	143.	50.2	149.
Cadmium	2.8N	0.32UN	0.19UN	0.32UN
Chromium	156.	33.3	13.1	35.9
Lead	21.0	13.6	208.	11.2
Mercury	0.15N	0.026NJ	0.34NJ	0.020BNJ
Selenium	5.5N	1.6UN	0.97UN	1.6UN
Silver	16.0	0.32U	0.19U	0.32U

See Appendix for qualifier definitions

11/16/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-46 (39-41)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-06

% Solids: 51.3 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total.	0.970	U	RI mg/Kg		L

Comments:

FORM I - WC

11/16/99

TABLE VO-1.6
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB-46 (39-41)	dupe of SB-46 (39-41) CF-SB-0 9/14/99		Quant. Limits with no Dilution
Lab Sample I.D.	992348A-06	992348A-08		
Method Blank I.D.	VBLKKK	VBLKKK		
Quant. Factor	1.82	2.04		
Benzene	U	U		5.0
Toluene	.6J	.7J		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received	09/15/99	09/15/99		
Date Extracted	N/A	N/A		
Date Analyzed	09/20/99	09/20/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/16/99
NKS

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-09/14/99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

dupe of SB-46 (39-41')

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5801

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 48 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	1300	U	
111-44-4	bis(2-Chloroethyl)ether	1300	U	
95-57-8	2-Chlorophenol	1300	U	
541-73-1	1,3-Dichlorobenzene	1300	U	
106-46-7	1,4-Dichlorobenzene	1300	U	
100-51-6	Benzyl alcohol	1300	U	
95-50-1	1,2-Dichlorobenzene	1300	U	
95-48-7	2-Methylphenol	1300	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	1300	U	
106-44-5	4-Methylphenol	1300	U	
621-64-7	N-Nitroso-di-n-propylamine	1300	U	
67-72-1	Hexachloroethane	1300	U	
98-95-3	Nitrobenzene	1300	U	
78-59-1	Isophorone	1300	U	
88-75-5	2-Nitrophenol	1300	U	
105-67-9	2,4-Dimethylphenol	1300	U	
65-85-0	Benzoic acid	110	J	J11
111-91-1	bis(2-Chloroethoxy)methane	1300	U	
120-83-2	2,4-Dichlorophenol	1300	U	
120-82-1	1,2,4-Trichlorobenzene	1300	U	
91-20-3	Naphthalene	1300	U	
106-47-8	4-Chloroaniline	1300	U	
87-68-3	Hexachlorobutadiene	1300	U	
59-50-7	4-Chloro-3-methylphenol	1300	U	
91-57-6	2-Methylnaphthalene	1300	U	
77-47-4	Hexachlorocyclopentadiene	1300	U	UJ11
88-06-2	2,4,6-Trichlorophenol	1300	U	
95-95-4	2,4,5-Trichlorophenol	6200	U	
91-58-7	2-Chloronaphthalene	1300	U	
88-74-4	2-Nitroaniline	6200	U	
131-11-3	Dimethylphthalate	1300	U	
208-96-8	Acenaphthylene	1300	U	
606-20-2	2,6-Dinitrotoluene	1300	U	

JKS

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-09/14/99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5801

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 48 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	6200	U	
83-32-9	Acenaphthene	1300	U	
51-28-5	2,4-Dinitrophenol	6200	U	
100-02-7	4-Nitrophenol	6200	U	
132-64-9	Dibenzofuran	1300	U	
121-14-2	2,4-Dinitrotoluene	1300	U	
84-66-2	Diethylphthalate	1300	U	
7005-72-3	4-Chlorophenyl-phenylether	1300	U	
86-73-7	Fluorene	1300	U	
100-01-6	4-Nitroaniline	6200	U	
534-52-1	4,6-Dinitro-2-methylphenol	6200	U	
86-30-6	N-Nitrosodiphenylamine (1)	1300	U	
101-55-3	4-Bromophenyl-phenylether	1300	U	
118-74-1	Hexachlorobenzene	1300	U	
87-86-5	Pentachlorophenol	6200	U	
85-01-8	Phenanthrene	1300	U	
120-12-7	Anthracene	1300	U	
86-74-8	Carbazole	1300	U	
84-74-2	Di-n-butylphthalate	19	JB	1300 U 12
206-44-0	Fluoranthene	1300	U	
129-00-0	Pyrene	1300	U	
85-68-7	Butylbenzylphthalate	1300	U	
91-94-1	3,3'-Dichlorobenzidine	2500	U	
56-55-3	Benzo(a)anthracene	1300	U	
218-01-9	Chrysene	1300	U	
117-81-7	bis(2-Ethylhexyl)phthalate	71	JB	1300 U 12
117-84-0	Di-n-octylphthalate	1300	U	
205-99-2	Benzo(b)fluoranthene	1300	U	
207-08-9	Benzo(k)fluoranthene	1300	U	
50-32-8	Benzo(a)pyrene	1300	U	
193-39-5	Indeno(1,2,3-cd)pyrene	1300	U	
53-70-3	Dibenzo(a,h)anthracene	1300	U	
191-24-2	Benzo(g,h,i)perylene	1300	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-09/14/99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5801

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: 48 decanted: (Y/N) N Date Extracted: 09/17/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.2

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01. 10544-50-0	SULFUR, MOL. (S8)	20.84	43000	JN	J33
02.	ALDOL CONDENSATION PRODUCT	5.96	35000	JAB	R33
03.	UNKNOWN	20.89	4700	J	J33
04.	UNKNOWN	21.01	4500	J	J33
05.	UNKNOWN	7.47	3400	JB	R33
06.	UNKNOWN ALKANE	25.50	2200	J	J33
07.	UNKNOWN ALKANE	24.24	1800	J	J33
08.	UNKNOWN	21.17	1700	J	J33
09.	UNKNOWN	28.14	1600	J	J33
10.	UNKNOWN	26.75	1600	J	J33
11.	UNKNOWN	5.27	1600	JB	R33
12.	UNKNOWN ALKANE	26.67	1500	J	J33
13.	UNKNOWN	26.86	1400	J	J33
14.	UNKNOWN	25.16	1300	J	J33
15.	UNKNOWN	26.35	1300	J	J33
16.	UNKNOWN	28.29	1200	J	J33
17.	UNKNOWN ALKANE	28.01	1100	J	J33
18.	UNKNOWN	21.29	970	J	J33
19.	UNKNOWN ALKANE	22.89	870	J	J33
20. 59-02-9	VITAMIN E	28.78	820	JN	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.2
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-45 (19-21) S	CF-SB-46 (39-41)	CF-SB-46 (15-17)	dupe of SB 46 (39-41) CF-SB-0 9/14/99
Lab Sample I.D.	992348A-05S	992348A-06	992348A-07	992348A-08
Arsenic	18.5	10.3	7.4	11.4
Barium	1330	143.	50.2	149.
Cadmium	2.8N	0.32UN	0.19UN	0.32UN
Chromium	156.	33.3	13.1	35.9
Lead	21.0	13.6	203.	11.2
Mercury	0.15N	0.026NJ	0.34NJ	0.020BNJ
Selenium	5.5N	1.6UN	0.97UN	1.6UN
Silver	16.0	0.32U	0.19U	0.32U

See Appendix for qualifier definitions

11/16/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-09/14/99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-08

% Solids: 51.7 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total.	0.970	U	R1 mg/Kg		L

Comments:

FORM I - WC

TABLE VO-1.9
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKN VBLKKN 1.00	CF-SB-4 7 (5-7) 992348A-09 VBLKKN 1.23	CF-SB-47 (39-41) 992348A-10 VBLKKN 1.14	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received Date Extracted Date Analyzed	 N/A 09/21/99	09/17/99 N/A 09/21/99	09/17/99 N/A 09/22/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-47 (5-7)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW10

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5821

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	1700	U
111-44-4	bis(2-Chloroethyl)ether	1700	U
95-57-8	2-Chlorophenol	1700	U
541-73-1	1,3-Dichlorobenzene	1700	U
106-46-7	1,4-Dichlorobenzene	1700	U
100-51-6	Benzyl alcohol	1700	U
95-50-1	1,2-Dichlorobenzene	1700	U
95-48-7	2-Methylphenol	1700	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1700	U
106-44-5	4-Methylphenol	1700	U
621-64-7	N-Nitroso-di-n-propylamine	1700	U
67-72-1	Hexachloroethane	1700	U
98-95-3	Nitrobenzene	1700	U
78-59-1	Isophorone	1700	U
88-75-5	2-Nitrophenol	1700	U
105-67-9	2,4-Dimethylphenol	1700	U
65-85-0	Benzoic acid	8100	U UJ11
111-91-1	bis(2-Chloroethoxy)methane	1700	U
120-83-2	2,4-Dichlorophenol	1700	U
120-82-1	1,2,4-Trichlorobenzene	1700	U
91-20-3	Naphthalene	250	J
106-47-8	4-Chloroaniline	1700	U
87-68-3	Hexachlorobutadiene	1700	U
59-50-7	4-Chloro-3-methylphenol	1700	U
91-57-6	2-Methylnaphthalene	300	J
77-47-4	Hexachlorocyclopentadiene	1700	U
88-06-2	2,4,6-Trichlorophenol	1700	U
95-95-4	2,4,5-Trichlorophenol	8100	U
91-58-7	2-Chloronaphthalene	1700	U
88-74-4	2-Nitroaniline	8100	U
131-11-3	Dimethylphthalate	1700	U
208-96-8	Acenaphthylene	1700	
606-20-2	2,6-Dinitrotoluene	1700	U

KD ✓

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-47 (5-7)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW10

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5821

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 9.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	8100	U
83-32-9	Acenaphthene	110	J
51-28-5	2,4-Dinitrophenol	8100	U
100-02-7	4-Nitrophenol	8100	U
132-64-9	Dibenzofuran	130	J
121-14-2	2,4-Dinitrotoluene	1700	U
84-66-2	Diethylphthalate	1700	U
7005-72-3	4-Chlorophenyl-phenylether	1700	U
86-73-7	Fluorene	160	J
100-01-6	4-Nitroaniline	8100	U
534-52-1	4,6-Dinitro-2-methylphenol	8100	U
86-30-6	N-Nitrosodiphenylamine (1)	1700	U
101-55-3	4-Bromophenyl-phenylether	1700	U
118-74-1	Hexachlorobenzene	1700	U
87-86-5	Pentachlorophenol	8100	U
85-01-8	Phenanthrene	1500	J
120-12-7	Anthracene	660	J
86-74-8	Carbazole	160	J
84-74-2	Di-n-butylphthalate	31	JB
206-44-0	Fluoranthene	4200	
129-00-0	Pyrene	7600	
85-68-7	Butylbenzylphthalate	1700	U
91-94-1	3,3'-Dichlorobenzidine	3300	U
56-55-3	Benzo(a)anthracene	4300	
218-01-9	Chrysene	3600	
117-81-7	bis(2-Ethylhexyl)phthalate	1700	U
117-84-0	Di-n-octylphthalate	1700	U
205-99-2	Benzo(b)fluoranthene	1600	J
207-08-9	Benzo(k)fluoranthene	2700	J 10
50-32-8	Benzo(a)pyrene	2700	
193-39-5	Indeno(1,2,3-cd)pyrene	1600	J
53-70-3	Dibenzo(a,h)anthracene	730	J
191-24-2	Benzo(g,h,i)perylene	1600	J

1700U 12

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-47 (5-7)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5821

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/19/99

Injection Volume: 2.0 (uL) Dilution Factor: 4.0

GPC Cleanup: (Y/N) N pH: 9.1

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.91	54000	JAB	R33
02.	UNKNOWN	7.40	4900	JB	R33
03.	UNKNOWN C17H12 PAH	22.89	4800	J	J33
04.	UNKNOWN C19H14 PAH	25.45	3300	J	J33
05.	UNKNOWN C20H12 PAH	27.29	2500	J	J33
06.	UNKNOWN C17H10O ISOMER	24.99	2400	J	J33
07.	UNKNOWN	5.21	2300	J	J33
08.	UNKNOWN C16H14 PAH	21.43	2200	J	J33
09.	UNKNOWN C17H12 PAH	22.66	2200	J	J33
10.	UNKNOWN C15H12 PAH	20.52	2000	J	J33
11.	UNKNOWN C17H12 PAH	23.11	1900	J	J33
12.	UNKNOWN C19H14 PAH	25.74	1900	J	J33
13.	UNKNOWN C18H12 PAH	24.22	1800	J	J33
14.	UNKNOWN C17H12 PAH	23.36	1800	J	J33
15.	UNKNOWN C17H12 PAH	23.31	1800	J	J33
16.	UNKNOWN	21.63	1500	J	J33
17.	UNKNOWN C17H10O ISOMER	24.37	1500	J	J33
18.	UNKNOWN C17H10O ISOMER	23.95	1400	J	J33
19.	UNKNOWN C20H12 PAH	27.57	1400	J	J33
20.	UNKNOWN C19H14 PAH	25.61	1200	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.3
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-47 (5-7)	CF-SB-47 (39-41)	CF-SB-49 (9-11)	CF-SB-49 (39-41)
Lab Sample I.D.	992348A-09	992348A-10	992348A-11	992348A-12
Arsenic	8.8	2.0	4.0	1.7
Barium	105.	43.8	112.	65.7
Cadmium	0.19UN	0.18UN	0.20UN	0.13UN
Chromium	27.0	113.	62.6	13.5
Lead	138 J	5.8 J	10.4 J	5.8 J
Mercury	0.090N J	0.0037UN R	0.0051UN R	0.0040UN R
Selenium	1.4N J	0.90UN UJ	0.98UN UJ	0.66UN UJ
Silver	0.19U	0.18U	0.20U	0.13U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-47 (5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-09

% Solids: 79.7 Date Received: 09/17/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total.	0.600	U	RI mg/Kg		L

Comments:

FORM I - WC

11/16/99

TABLE VO-1.9 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SB-4 7 (5-7)	CF-SB-47 (39-41)	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKN	992348A-09	992348A-10	
Method Blank I.D.	VBLKKN	VBLKKN	VBLKKN	
Quant. Factor	1.00	1.23	1.14	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		09/17/99	09/17/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/21/99	09/21/99	09/22/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-47 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 CRW10

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-10

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5743

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	380	U	
111-44-4	bis(2-Chloroethyl)ether	380	U	
95-57-8	2-Chlorophenol	380	U	
541-73-1	1,3-Dichlorobenzene	380	U	
106-46-7	1,4-Dichlorobenzene	380	U	
100-51-6	Benzyl alcohol	380	U	
95-50-1	1,2-Dichlorobenzene	380	U	
95-48-7	2-Methylphenol	380	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U	
106-44-5	4-Methylphenol	380	U	
621-64-7	N-Nitroso-di-n-propylamine	380	U	
67-72-1	Hexachloroethane	380	U	
98-95-3	Nitrobenzene	380	U	
78-59-1	Isophorone	380	U	
88-75-5	2-Nitrophenol	380	U	
105-67-9	2,4-Dimethylphenol	380	U	
65-85-0	Benzoic acid	91	J	
111-91-1	bis(2-Chloroethoxy)methane	380	U	
120-83-2	2,4-Dichlorophenol	380	U	
120-82-1	1,2,4-Trichlorobenzene	380	U	
91-20-3	Naphthalene	380	U	
106-47-8	4-Chloroaniline	380	U	
87-68-3	Hexachlorobutadiene	380	U	
59-50-7	4-Chloro-3-methylphenol	380	U	
91-57-6	2-Methylnaphthalene	380	U	
77-47-4	Hexachlorocyclopentadiene	380	U	UJ1)
88-06-2	2,4,6-Trichlorophenol	380	U	
95-95-4	2,4,5-Trichlorophenol	1900	U	
91-58-7	2-Chloronaphthalene	380	U	
88-74-4	2-Nitroaniline	1900	U	
131-11-3	Dimethylphthalate	380	U	
208-96-8	Acenaphthylene	380	U	
606-20-2	2,6-Dinitrotoluene	380	U	

JKS

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-47 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW10

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-10

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5743

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1900	U	
83-32-9	Acenaphthene	380	U	
51-28-5	2,4-Dinitrophenol	1900	U	
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	380	U	
121-14-2	2,4-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	7	JB	380U12
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	380	U	
120-12-7	Anthracene	380	U	
86-74-8	Carbazole	380	U	
84-74-2	Di-n-butylphthalate	15	JB	380U12
206-44-0	Fluoranthene	380	U	
129-00-0	Pyrene	380	U	
85-68-7	Butylbenzylphthalate	380	U	
91-94-1	3,3'-Dichlorobenzidine	770	U	
56-55-3	Benzo(a)anthracene	380	U	
218-01-9	Chrysene	380	U	
117-81-7	bis(2-Ethylhexyl)phthalate	13	JB	380U12
117-84-0	Di-n-octylphthalate	5	JB	380U12
205-99-2	Benzo(b)fluoranthene	380	U	
207-08-9	Benzo(k)fluoranthene	380	U	
50-32-8	Benzo(a)pyrene	380	U	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	
53-70-3	Dibenzo(a,h)anthracene	380	U	
191-24-2	Benzo(g,h,i)perylene	380	U	

(1) - Cannot be separated from Diphenylamine

JKS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-47 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-10

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5743

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.3

Number TICs Found: 9 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.36	34000	JAB	R33
02.	UNKNOWN	7.75	2900	JB	R33
03.	UNKNOWN	5.66	1800	JB	R33
04.	UNKNOWN	6.99	280	JB	R33
05.	UNKNOWN	9.07	200	JB	R33
06.	UNKNOWN	9.11	130	JB	R33
07.	UNKNOWN	5.00	100	JB	R33
08.	UNKNOWN	12.49	99	JB	R33
09.	UNKNOWN	9.49	82	JB	R33
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.3
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-47 7 (5-7)	CF-SB-47 (39-41)	CF-SB-47 9 (9-11)	CF-SB-49 (39-41)
Lab Sample I.D.	992348A-09	992348A-10	992348A-11	992348A-12
Arsenic	8.8	2.0	4.0	1.7
Barium	105.	43.8	112.	65.7
Cadmium	0.19UN	0.18UN	0.20UN	0.13UN
Chromium	27.0	113.	62.6	13.5
Lead	13.80J	5.8	10.4	5.8
Mercury	0.090NJ	0.0037UN R	0.0051UN R	0.0040UN R
Selenium	1.4N J	0.90UN UJ	0.98UN UJ	0.66UN UJ
Silver	0.19U	0.18U	0.20U	0.13U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-47 (39-41)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-10

% Solids: 86.5 Date Received: 09/17/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.580	U	RI mg/Kg		L

Comments:

FORM I - WC

11/4/99 KD

TABLE VO-1.12
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMQ VBLKMQ 1.00	CF-SB-4 8 (3-5) 992348A-14 VBLKMQ 1.47		Quant. Limits with no Dilution
Benzene	U	47J J27		1000
Toluene	U	78J		1000
Ethylbenzene	U	160J		1000
Xylene (total)	42J	~~3000B~~	1470 U,Z	1000
Date Received Date Extracted Date Analyzed	 N/A 09/24/99	09/21/99 N/A 09/24/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1/10/99

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-48 (3-5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW11

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-14

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5795

Level: (low/med) LOW Date Received: 09/21/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 09/24/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	56000	U	
111-44-4	bis(2-Chloroethyl)ether	56000	U	
95-57-8	2-Chlorophenol	56000	U	
541-73-1	1,3-Dichlorobenzene	56000	U	
106-46-7	1,4-Dichlorobenzene	56000	U	
100-51-6	Benzyl alcohol	56000	U	
95-50-1	1,2-Dichlorobenzene	56000	U	
95-48-7	2-Methylphenol	56000	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	56000	U	
106-44-5	4-Methylphenol	56000	U	
621-64-7	N-Nitroso-di-n-propylamine	56000	U	
67-72-1	Hexachloroethane	56000	U	
98-95-3	Nitrobenzene	56000	U	
78-59-1	Isophorone	56000	U	
88-75-5	2-Nitrophenol	56000	U	
105-67-9	2,4-Dimethylphenol	56000	U	
65-85-0	Benzoic acid	270000	U	UJ11
111-91-1	bis(2-Chloroethoxy)methane	56000	U	
120-83-2	2,4-Dichlorophenol	56000	U	
120-82-1	1,2,4-Trichlorobenzene	56000	U	
91-20-3	Naphthalene	14000	J	
106-47-8	4-Chloroaniline	56000	U	
87-68-3	Hexachlorobutadiene	56000	U	
59-50-7	4-Chloro-3-methylphenol	56000	U	
91-57-6	2-Methylnaphthalene	130000		
77-47-4	Hexachlorocyclopentadiene	56000	U	UJ11
88-06-2	2,4,6-Trichlorophenol	56000	U	
95-95-4	2,4,5-Trichlorophenol	270000	U	
91-58-7	2-Chloronaphthalene	56000	U	
88-74-4	2-Nitroaniline	270000	U	
131-11-3	Dimethylphthalate	56000	U	
208-96-8	Acenaphthylene	95000		
606-20-2	2,6-Dinitrotoluene	56000	U	

JKJ

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-48 (3-5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW11

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-14

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5795

Level: (low/med) LOW Date Received: 09/21/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 09/24/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	270000	U
83-32-9	Acenaphthene	27000	J
51-28-5	2,4-Dinitrophenol	270000	U
100-02-7	4-Nitrophenol	270000	U
132-64-9	Dibenzofuran	33000	J
121-14-2	2,4-Dinitrotoluene	56000	U
84-66-2	Diethylphthalate	56000	U
7005-72-3	4-Chlorophenyl-phenylether	56000	U
86-73-7	Fluorene	83000	
100-01-6	4-Nitroaniline	270000	U
534-52-1	4,6-Dinitro-2-methylphenol	270000	U
86-30-6	N-Nitrosodiphenylamine (1)	56000	U
101-55-3	4-Bromophenyl-phenylether	56000	U
118-74-1	Hexachlorobenzene	56000	U
87-86-5	Pentachlorophenol	270000	U
85-01-8	Phenanthrene	330000	
120-12-7	Anthracene	89000	
86-74-8	Carbazole	11000	J
84-74-2	Di-n-butylphthalate	56000	U
206-44-0	Fluoranthene	260000	
129-00-0	Pyrene	240000	
85-68-7	Butylbenzylphthalate	56000	U
91-94-1	3,3'-Dichlorobenzidine	110000	U
56-55-3	Benzo(a)anthracene	190000	
218-01-9	Chrysene	180000	
117-81-7	bis(2-Ethylhexyl)phthalate	56000	U
117-84-0	Di-n-octylphthalate	56000	U
205-99-2	Benzo(b)fluoranthene	130000	
207-08-9	Benzo(k)fluoranthene	130000	J 10
50-32-8	Benzo(a)pyrene	130000	
193-39-5	Indeno(1,2,3-cd)pyrene	120000	
53-70-3	Dibenzo(a,h)anthracene	51000	J
191-24-2	Benzo(g,h,i)perylene	120000	

(1) - Cannot be separated from Diphenylamine

JKS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-48 (3-5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-14

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5795

Level: (low/med) LOW Date Received: 09/21/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 09/24/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 7.9

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN NAPHTHALENE, DIMETHY	15.50	180000	J	J33
02.	UNKNOWN NAPHTHALENE, DIMETHY	15.31	150000	J	J33
03.	UNKNOWN ALKANE	17.56	140000	J	J33
04. 90-12-0	NAPHTHALENE, 1-METHYL-	14.18	120000	JN	J33
[illegible].	UNKNOWN C17H12 PAH	22.97	120000	J	J33
[illegible].	ALDOL CONDENSATION PRODUCT	5.80	120000	JAB	AJ33
07.	UNKNOWN ALKANE	18.11	100000	J	J33
08.	UNKNOWN C20H12 PAH	27.37	100000	J	J33
09.	UNKNOWN NAPHTHALENE, TRIMETH	16.68	100000	J	J33
10.	UNKNOWN NAPHTHALENE, TRIMETH	16.74	100000	J	J33
11.	UNKNOWN NAPHTHALENE, DIMETHY	15.55	92000	J	J33
12.	UNKNOWN	20.60	90000	J	J33
13.	UNKNOWN C17H12 PAH	23.09	85000	J	J33
14.	UNKNOWN ALKANE	13.30	83000	J	J33
15.	UNKNOWN ALKANE	15.61	83000	J	J33
16.	UNKNOWN ALKANE	14.63	80000	J	J33
17.	UNKNOWN ALKANE	11.40	80000	J	J33
18.	UNKNOWN NAPHTHALENE, DIMETHY	15.74	80000	J	J33
19.	UNKNOWN ALKANE	12.48	78000	J	J33
20.	UNKNOWN C13H14 PAH	16.43	72000	J	J33
21.	UNKNOWN C19H14 PAH	25.52	70000	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

Soil

TABLE AS-1.4
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-4 8 (3-5)	CF-SB-48 (39-41)		
Lab Sample I.D.	992348A-14	992348A-15		
Arsenic	5.6	3.5		
Barium	45.3	63.6		
Cadmium	0.19UN	0.19UN		
Chromium	8.6	97.7		
Lead	21.4J	6.9J		
Mercury	0.073NJ	0.0076NJ		
Selenium	1.4NJ	0.94UNJ		
Silver	0.19U	0.19U		

See Appendix for qualifier definitions

11/16/95

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-48 (3-5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-14

% Solids: 69.2 Date Received: 09/21/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total.	0.700	U	R1 mg/Kg		L

Comments:

FORM I - WC

11/16/99

TABLE VO-1.11 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKV VBLKKV 1.00	CF-SB-48 (39-41) 992348A-15 VBLKKV 1.26		Quant. Limits with no Dilution
Benzene	U	U		5.0
Toluene	U	2J		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received Date Extracted Date Analyzed	 N/A 09/23/99	09/21/99 N/A 09/23/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-48 (39-41)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 CRW11

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-15

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5794

Level: (low/med) LOW Date Received: 09/21/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	380	U	
111-44-4	bis(2-Chloroethyl)ether	380	U	
95-57-8	2-Chlorophenol	380	U	
541-73-1	1,3-Dichlorobenzene	380	U	
106-46-7	1,4-Dichlorobenzene	380	U	
100-51-6	Benzyl alcohol	380	U	
95-50-1	1,2-Dichlorobenzene	380	U	
95-48-7	2-Methylphenol	380	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U	
106-44-5	4-Methylphenol	380	U	
621-64-7	N-Nitroso-di-n-propylamine	380	U	
67-72-1	Hexachloroethane	380	U	
98-95-3	Nitrobenzene	380	U	
78-59-1	Isophorone	380	U	
88-75-5	2-Nitrophenol	380	U	
105-67-9	2,4-Dimethylphenol	380	U	
65-85-0	Benzoic acid	1800	U	UJ11
111-91-1	bis(2-Chloroethoxy)methane	380	U	
120-83-2	2,4-Dichlorophenol	380	U	
120-82-1	1,2,4-Trichlorobenzene	380	U	
91-20-3	Naphthalene	380	U	
106-47-8	4-Chloroaniline	380	U	
87-68-3	Hexachlorobutadiene	380	U	
59-50-7	4-Chloro-3-methylphenol	380	U	
91-57-6	2-Methylnaphthalene	380	U	
77-47-4	Hexachlorocyclopentadiene	380	U	UJ11
88-06-2	2,4,6-Trichlorophenol	380	U	
95-95-4	2,4,5-Trichlorophenol	1800	U	
91-58-7	2-Chloronaphthalene	380	U	
88-74-4	2-Nitroaniline	1800	U	
131-11-3	Dimethylphthalate	380	U	
208-96-8	Acenaphthylene	380	U	
606-20-2	2,6-Dinitrotoluene	380	U	

JPS

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-48 (39-41)

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW11

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-15

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5794

Level: (low/med) LOW Date Received: 09/21/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	380	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	380	U	
121-14-2	2,4-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	380	U	
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	380	U	
120-12-7	Anthracene	380	U	
86-74-8	Carbazole	380	U	
84-74-2	Di-n-butylphthalate	20	JB	380U12
206-44-0	Fluoranthene	380	U	
129-00-0	Pyrene	380	U	
85-68-7	Butylbenzylphthalate	380	U	
91-94-1	3,3'-Dichlorobenzidine	750	U	
56-55-3	Benzo(a)anthracene	380	U	
218-01-9	Chrysene	380	U	
117-81-7	bis(2-Ethylhexyl)phthalate	17	JB	380U12
117-84-0	Di-n-octylphthalate	6	JB	380U12
205-99-2	Benzo(b)fluoranthene	380	U	
207-08-9	Benzo(k)fluoranthene	380	U	
50-32-8	Benzo(a)pyrene	380	U	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	
53-70-3	Dibenzo(a,h)anthracene	380	U	
191-24-2	Benzo(g,h,i)perylene	380	U	

(1) - Cannot be separated from Diphenylamine

JMD

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-48 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-15

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5794

Level: (low/med) LOW Date Received: 09/21/99

% Moisture: 12 decanted: (Y/N) N Date Extracted: 09/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

Number TICs Found: 11 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.15	34000	JAB	R33
02.	UNKNOWN	7.53	2700	JB	R33
03.	UNKNOWN	5.46	1300	JB	R33
04.	UNKNOWN	5.31	360	JB	R33
05.	UNKNOWN	6.78	290	JB	R33
06.	UNKNOWN ALKANE	8.84	190	JB	R33
07.	UNKNOWN	8.88	150	JB	R33
08.	UNKNOWN	4.77	110	JB	R33
09.	UNKNOWN	3.35	96	J	J33
10.	UNKNOWN	12.27	95	JB	R33
11.	UNKNOWN	9.19	89	J	J33
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
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29.					
30.					

TABLE AS-1.4
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-4 8 (3-5)	CF-SB-48 (39-41)		
Lab Sample I.D.	992348A-14	992348A-15		
Arsenic	5.6	3.5		
Barium	45.3	63.6		
Cadmium	0.19UN	0.19UN		
Chromium	8.6	97.7		
Lead	21.4J	6.9J		
Mercury	0.073NJ	0.0076NJ		
Selenium	1.4NJ	0.94UNJ		
Silver	0.19U	0.19U		

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-48 (39-41)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-15

% Solids: 88.3 Date Received: 09/21/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.540	U	RL mg/Kg		L

Comments:

FORM I - WC

TABLE VO-1.10 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB-4 9 (9-11)	CF-SB-49 (39-41)		Quant. Limits with no Dilution
Lab Sample I.D.	992348A-11	992348A-12		
Method Blank I.D.	VBLKKN	VBLKKN		
Quant. Factor	1.18	1.12		
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received	09/17/99	09/17/99		
Date Extracted	N/A	N/A		
Date Analyzed	09/22/99	09/22/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-49 (9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

@RW12

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-11

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5744

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	400	U	
111-44-4	bis(2-Chloroethyl)ether	400	U	
95-57-8	2-Chlorophenol	400	U	
541-73-1	1,3-Dichlorobenzene	400	U	
106-46-7	1,4-Dichlorobenzene	400	U	
100-51-6	Benzyl alcohol	400	U	
95-50-1	1,2-Dichlorobenzene	400	U	
95-48-7	2-Methylphenol	400	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U	
106-44-5	4-Methylphenol	400	U	
621-64-7	N-Nitroso-di-n-propylamine	400	U	
67-72-1	Hexachloroethane	400	U	
98-95-3	Nitrobenzene	400	U	
78-59-1	Isophorone	400	U	
88-75-5	2-Nitrophenol	400	U	
105-67-9	2,4-Dimethylphenol	400	U	
65-85-0	Benzoic acid	1900	U	
111-91-1	bis(2-Chloroethoxy)methane	400	U	
120-83-2	2,4-Dichlorophenol	400	U	
120-82-1	1,2,4-Trichlorobenzene	400	U	
91-20-3	Naphthalene	400	U	
106-47-8	4-Chloroaniline	400	U	
87-68-3	Hexachlorobutadiene	400	U	
59-50-7	4-Chloro-3-methylphenol	400	U	
91-57-6	2-Methylnaphthalene	400	U	
77-47-4	Hexachlorocyclopentadiene	400	U	UJ11
88-06-2	2,4,6-Trichlorophenol	400	U	
95-95-4	2,4,5-Trichlorophenol	1900	U	
91-58-7	2-Chloronaphthalene	400	U	
88-74-4	2-Nitroaniline	1900	U	
131-11-3	Dimethylphthalate	400	U	
208-96-8	Acenaphthylene	400	U	
606-20-2	2,6-Dinitrotoluene	400	U	

✓ KJ

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-49 (9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 CRW12

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-11

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5744

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1900	U	
83-32-9	Acenaphthene	400	U	
51-28-5	2,4-Dinitrophenol	1900	U	
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	400	U	
121-14-2	2,4-Dinitrotoluene	400	U	
84-66-2	Diethylphthalate	6	JB	400U12
7005-72-3	4-Chlorophenyl-phenylether	400	U	
86-73-7	Fluorene	400	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	400	U	
101-55-3	4-Bromophenyl-phenylether	400	U	
118-74-1	Hexachlorobenzene	400	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	400	U	
120-12-7	Anthracene	400	U	
86-74-8	Carbazole	400	U	
84-74-2	Di-n-butylphthalate	15	JB	400U12
206-44-0	Fluoranthene	400	U	
129-00-0	Pyrene	4	J	
85-68-7	Butylbenzylphthalate	400	U	
91-94-1	3,3'-Dichlorobenzidine	800	U	
56-55-3	Benzo(a)anthracene	400	U	
218-01-9	Chrysene	400	U	
117-81-7	bis(2-Ethylhexyl)phthalate	43	JB	400U12
117-84-0	Di-n-octylphthalate	7	JB	400U12
205-99-2	Benzo(b)fluoranthene	400	U	
207-08-9	Benzo(k)fluoranthene	400	U	
50-32-8	Benzo(a)pyrene	400	U	
193-39-5	Indeno(1,2,3-cd)pyrene	400	U	
53-70-3	Dibenzo(a,h)anthracene	400	U	
191-24-2	Benzo(g,h,i)perylene	400	U	

(1) - Cannot be separated from Diphenylamine

VKJ

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-49 (9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-11

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5744

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.1

Number TICs Found: 10 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.34	35000	JAB	R33
02.	UNKNOWN	7.74	3100	JB	R33
03.	UNKNOWN	5.60	970	J	J33
04.	UNKNOWN	5.64	820	JB	R33
05.	UNKNOWN	6.98	290	JB	R33
06.	UNKNOWN	9.06	220	JB	R33
07.	UNKNOWN	9.11	160	JB	R33
08.	UNKNOWN	5.00	120	JB	R33
09.	UNKNOWN ALKANE	26.88	94	J	J33
10.	UNKNOWN	12.48	87	JB	R33
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12.					
13.					
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Soil

TABLE AS-1.3
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-4 7 (5-7)	CF-SB-47 (39-41)	CF-SB-4 9 (9-11)	CF-SB-49 (39-41)
Lab Sample I.D.	992348A-09	992348A-10	992348A-11	992348A-12
Arsenic	8.8	2.0	4.0	1.7
Barium	105.	43.8	112.	65.7
Cadmium	0.19UN	0.18UN	0.20UN	0.13UN
Chromium	27.0	113.	62.6	13.5
Lead	1380 J	5.8 J	10.4 J	5.8 J
Mercury	0.090NJ	0.0037UN	0.0051UN	0.0040UN
Selenium	1.4N J	0.90UN UJ	0.98UN UJ	0.66UN UJ
Silver	0.19U	0.18U	0.20U	0.13U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-49 (9-11)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-11

% Solids: 83.3 Date Received: 09/17/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total.	0.570	U	RI mg/Kg		L

Comments:

FORM I - WC

TABLE VO-1.10 Soil
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SB-4 9 (9-11)	CF-SB-49 (39-41)		Quant. Limits with no Dilution
Lab Sample I.D.	992348A-11	992348A-12		
Method Blank I.D.	VBLKKN	VBLKKN		
Quant. Factor	1.18	1.12		
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received	09/17/99	09/17/99		
Date Extracted	N/A	N/A		
Date Analyzed	09/22/99	09/22/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-49 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 CRW12

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5745

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	370	U	
111-44-4	bis(2-Chloroethyl)ether	370	U	
95-57-8	2-Chlorophenol	370	U	
541-73-1	1,3-Dichlorobenzene	370	U	
106-46-7	1,4-Dichlorobenzene	370	U	
100-51-6	Benzyl alcohol	370	U	
95-50-1	1,2-Dichlorobenzene	370	U	
95-48-7	2-Methylphenol	370	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U	
106-44-5	4-Methylphenol	370	U	
621-64-7	N-Nitroso-di-n-propylamine	370	U	
67-72-1	Hexachloroethane	370	U	
98-95-3	Nitrobenzene	370	U	
78-59-1	Isophorone	370	U	
88-75-5	2-Nitrophenol	370	U	
105-67-9	2,4-Dimethylphenol	370	U	
65-85-0	Benzoic acid	1800	U	
111-91-1	bis(2-Chloroethoxy)methane	370	U	
120-83-2	2,4-Dichlorophenol	370	U	
120-82-1	1,2,4-Trichlorobenzene	370	U	
91-20-3	Naphthalene	370	U	
106-47-8	4-Chloroaniline	370	U	
87-68-3	Hexachlorobutadiene	370	U	
59-50-7	4-Chloro-3-methylphenol	370	U	
91-57-6	2-Methylnaphthalene	370	U	
77-47-4	Hexachlorocyclopentadiene	370	U	UJ11
88-06-2	2,4,6-Trichlorophenol	370	U	
95-95-4	2,4,5-Trichlorophenol	1800	U	
91-58-7	2-Chloronaphthalene	370	U	
88-74-4	2-Nitroaniline	1800	U	
131-11-3	Dimethylphthalate	370	U	
208-96-8	Acenaphthylene	370	U	
606-20-2	2,6-Dinitrotoluene	370	U	

JJS

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-49 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348 @RW12

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5745

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	370	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	370	U	
121-14-2	2,4-Dinitrotoluene	370	U	
84-66-2	Diethylphthalate	8	JB	370U12
7005-72-3	4-Chlorophenyl-phenylether	370	U	
86-73-7	Fluorene	370	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	370	U	
101-55-3	4-Bromophenyl-phenylether	370	U	
118-74-1	Hexachlorobenzene	370	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	370	U	
120-12-7	Anthracene	370	U	
86-74-8	Carbazole	370	U	
84-74-2	Di-n-butylphthalate	26	JB	370U12
206-44-0	Fluoranthene	370	U	
129-00-0	Pyrene	370	U	
85-68-7	Butylbenzylphthalate	370	U	
91-94-1	3,3'-Dichlorobenzidine	730	U	
56-55-3	Benzo(a)anthracene	370	U	
218-01-9	Chrysene	370	U	
117-81-7	bis(2-Ethylhexyl)phthalate	30	JB	370U12
117-84-0	Di-n-octylphthalate	6	JB	370U12
205-99-2	Benzo(b)fluoranthene	370	U	
207-08-9	Benzo(k)fluoranthene	370	U	
50-32-8	Benzo(a)pyrene	370	U	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	370	U	
191-24-2	Benzo(g,h,i)perylene	370	U	

(1) - Cannot be separated from Diphenylamine

JKS

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-49 (39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) SOIL Lab Sample ID: 992348A-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >Q5745

Level: (low/med) LOW Date Received: 09/17/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 09/21/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.4

Number TICs Found: 9 (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.		ALDOL CONDENSATION PRODUCT	6.35	33000	JAB	A33
02.		UNKNOWN	7.74	2900	JB	A33
03.		UNKNOWN	5.60	1700	J	J33
04.		UNKNOWN	9.06	200	JB	A33
05.		UNKNOWN	9.11	150	JB	A33
06.		UNKNOWN	5.00	100	JB	A33
07.		UNKNOWN	12.49	87	JB	A33
08.		UNKNOWN	17.39	77	JB	A33
09.		UNKNOWN	7.94	75	J	J33
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11.						
12.						
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TABLE AS-1.3
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-47 (5-7)	CF-SB-47 (39-41)	CF-SB-49 (9-11)	CF-SB-49 (39-41)
Lab Sample I.D.	992348A-09	992348A-10	992348A-11	992348A-12
Arsenic	8.8	2.0	4.0	1.7
Barium	105.	43.8	112.	65.7
Cadmium	0.19UN	0.18UN	0.20UN	0.13UN
Chromium	27.0	113.	62.6	13.5
Lead	1380 J	5.8 J	10.4 J	5.8 J
Mercury	0.090N J	0.0037UN R	0.0051UN R	0.0040UN R
Selenium	1.4N J	0.90UN UJ	0.98UN UJ	0.66UN UJ
Silver	0.19U	0.18U	0.20U	0.13U

See Appendix for qualifier definitions

11/16/95

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-49 (39-41)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): SOIL Lab Sample ID: 992348A-12

% Solids: 89.8 Date Received: 09/17/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.570	U	RI mg/Kg		L

Comments:

FORM I - WC

11/16/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-50(3-5)RE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811 @RW13

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-03RE

Sample wt/vol: 5 (g/mL) G Lab File ID: >M5361

Level: (low/med) MED Date Received: 08/03/99

% Moisture: not dec. 19 Date Analyzed: 08/09/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 20 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	1900	J
108-88-3	Toluene	640	J
100-41-4	Ethylbenzene	4800	J
1330-20-7	Xylene (total)	4500	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-50(9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-02

Sample wt/vol: 5 (g/mL) G Lab File ID: >L6318

Level: (low/med) MED Date Received: 08/03/99

% Moisture: not dec. 30 Date Analyzed: 08/04/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	940	J
108-88-3	Toluene	180	J
100-41-4	Ethylbenzene	24000	
1330-20-7	Xylene (total)	5500	

9/20

1B EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-50(9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5172

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 69 decanted: (Y/N) N Date Extracted: 08/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	27000	U	UJ23
111-44-4	bis(2-Chloroethyl)ether	27000	U	UJ23
95-57-8	2-Chlorophenol	27000	U	UJ23
541-73-1	1,3-Dichlorobenzene	27000	U	UJ23
106-46-7	1,4-Dichlorobenzene	27000	U	UJ23
100-51-6	Benzyl alcohol	27000	U	UJ23
95-50-1	1,2-Dichlorobenzene	27000	U	UJ23
95-48-7	2-Methylphenol	27000	U	UJ23
108-60-1	2,2'-oxybis(1-Chloropropane)	27000	U	UJ23
106-44-5	4-Methylphenol	27000	U	UJ23
621-64-7	N-Nitroso-di-n-propylamine	27000	U	UJ23
67-72-1	Hexachloroethane	27000	U	UJ23
98-95-3	Nitrobenzene	27000	U	UJ23
78-59-1	Isophorone	27000	U	UJ23
88-75-5	2-Nitrophenol	27000	U	UJ23
105-67-9	2,4-Dimethylphenol	27000	U	UJ23
65-85-0	Benzoic acid	130000	U	UJ23
111-91-1	bis(2-Chloroethoxy)methane	27000	U	UJ23
120-83-2	2,4-Dichlorophenol	27000	U	UJ23
120-82-1	1,2,4-Trichlorobenzene	27000	U	UJ23
91-20-3	Naphthalene	160000		J23
106-47-8	4-Chloroaniline	27000	U	UJ23, UJ11
87-68-3	Hexachlorobutadiene	27000	U	UJ23
59-50-7	4-Chloro-3-methylphenol	27000	U	UJ23
91-57-6	2-Methylnaphthalene	81000		J23
77-47-4	Hexachlorocyclopentadiene	27000	U	UJ23
88-06-2	2,4,6-Trichlorophenol	27000	U	UJ23
95-95-4	2,4,5-Trichlorophenol	130000	U	UJ23
91-58-7	2-Chloronaphthalene	27000	U	UJ23
88-74-4	2-Nitroaniline	130000	U	UJ23
131-11-3	Dimethylphthalate	27000	U	UJ23
208-96-8	Acenaphthylene	16000	J	J23
606-20-2	2,6-Dinitrotoluene	27000	U	UJ23

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-50(9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5172

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 69 decanted: (Y/N) N Date Extracted: 08/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	130000	U	UJ a3
83-32-9	Acenaphthene	49000		J a3
51-28-5	2,4-Dinitrophenol	130000	U	UJ a3
100-02-7	4-Nitrophenol	130000	U	UJ a3
132-64-9	Dibenzofuran	7700	J	J a3
121-14-2	2,4-Dinitrotoluene	27000	U	UJ a3
84-66-2	Diethylphthalate	27000	U	UJ a3
7005-72-3	4-Chlorophenyl-phenylether	27000	U	UJ a3
86-73-7	Fluorene	44000		J a3
100-01-6	4-Nitroaniline	130000	U	UJ a3
534-52-1	4,6-Dinitro-2-methylphenol	130000	U	UJ a3
86-30-6	N-Nitrosodiphenylamine (1)	27000	U	UJ a3
101-55-3	4-Bromophenyl-phenylether	27000	U	UJ a3
118-74-1	Hexachlorobenzene	27000	U	UJ a3
87-86-5	Pentachlorophenol	130000	U	UJ a3
85-01-8	Phenanthrene	130000		J a3
120-12-7	Anthracene	45000		J a3
86-74-8	Carbazole	1700	J	J a3
84-74-2	Di-n-butylphthalate	27000	U	UJ a3
206-44-0	Fluoranthene	61000		J a3
129-00-0	Pyrene	70000		J a3
85-68-7	Butylbenzylphthalate	27000	U	UJ a3
91-94-1	3,3'-Dichlorobenzidine	53000	U	UJ a3, UJ
56-55-3	Benzo(a)anthracene	37000		J a3
218-01-9	Chrysene	38000		J a3
117-81-7	bis(2-Ethylhexyl)phthalate	27000	U	UJ a3
117-84-0	Di-n-octylphthalate	27000	U	UJ a3
205-99-2	Benzo(b)fluoranthene	20000	J	J a3
207-08-9	Benzo(k)fluoranthene	20000	J	J a3
50-32-8	Benzo(a)pyrene	22000	J	J a3
193-39-5	Indeno(1,2,3-cd)pyrene	13000	J	J a3
53-70-3	Dibenzo(a,h)anthracene	4800	J	J a3
191-24-2	Benzo(g,h,i)perylene	15000	J	J a3

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-50(9-11)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-02

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5172

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 69 decanted: (Y/N) N Date Extracted: 08/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 25.0

GPC Cleanup: (Y/N) N pH: 9.3

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	4.16	180000	JAB	J35
02. 90-12-0	NAPHTHALENE, 1-METHYL-	12.62	100000	JN	J35
03.	UNKNOWN C9H10 ISOMER	8.21	64000	J	J33
04.	UNKNOWN C12H12 PAH	14.00	62000	J	J33
05.	UNKNOWN	26.62	54000	J	J33
06.	UNKNOWN C12H12 PAH	13.81	51000	J	J33
07.	UNKNOWN C12H12 PAH	14.25	50000	J	J33
08.	UNKNOWN ALKANE	16.78	47000	J	J33
09.	UNKNOWN C17H12 PAH	21.44	46000	J	J33
10.	UNKNOWN	24.70	44000	J	J33
11.	UNKNOWN C15H12 PAH	19.10	43000	J	J35
12.	UNKNOWN C14H12 PAH	17.22	41000	J	J36
13.	UNKNOWN C17H12 PAH	21.88	39000	J	J38
14.	UNKNOWN C17H10O ISOMER	23.49	35000	J	J35
15.	UNKNOWN	16.24	34000	J	J32
16.	UNKNOWN TRIMETHYL NAPHTHALEN	15.26	31000	J	J33
17.	UNKNOWN	24.28	31000	J	J33
18.	UNKNOWN	18.19	31000	J	J35
19.	UNKNOWN TRIMETHYL NAPHTHALEN	15.44	31000	J	J33
20.	UNKNOWN	27.00	31000	J	J33
21.	UNKNOWN C15H12 PAH	18.85	30000	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-50(9-11)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-02

Level (low/med): LOW Date Received: 08/03/99

% Solids: 62.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.0	U	UJ3	P
7440-39-3	Barium	98.8			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.50	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	12.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	13.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.051	B		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.2	U	UJ3,N UJ1	P
7440-22-4	Silver	0.25	U	UJ1,UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BLACK Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

from 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-50(9-11)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-02

% Solids: 62.8 Date Received: 08/03/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	26.9		mg/Kg		L

Comments:

FORM I - WC

tom 9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CF-SB-50(17-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-20

Sample wt/vol: 5 (g/mL) G Lab File ID: >K5726

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: not dec. 76 Date Analyzed: 08/04/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
71-43-2	Benzene	74	J19	Ja1, J-
108-88-3	Toluene	2	J	J-
100-41-4	Ethylbenzene	360	J19	Ja1 J
1330-20-7	Xylene (total)	310	J19	Ja1 J-

EMM 9/21/99

IKD

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-50(17-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-20

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4133

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 77 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	51	JB
111-44-4	bis(2-Chloroethyl)ether	2900	U
95-57-8	2-Chlorophenol	2900	U
541-73-1	1,3-Dichlorobenzene	2900	U
106-46-7	1,4-Dichlorobenzene	2900	U
100-51-6	Benzyl alcohol	2900	U
95-50-1	1,2-Dichlorobenzene	2900	U
95-48-7	2-Methylphenol	2900	U
108-60-1	2,2'-oxybis(1-Chloropropane)	2900	U
106-44-5	4-Methylphenol	2900	U
621-64-7	N-Nitroso-di-n-propylamine	2900	U
67-72-1	Hexachloroethane	2900	U
98-95-3	Nitrobenzene	2900	U
78-59-1	Isophorone	2900	U
88-75-5	2-Nitrophenol	2900	U
105-67-9	2,4-Dimethylphenol	2900	U
65-85-0	Benzoic acid	230	J
111-91-1	bis(2-Chloroethoxy)methane	2900	U
120-83-2	2,4-Dichlorophenol	2900	U
120-82-1	1,2,4-Trichlorobenzene	2900	U
91-20-3	Naphthalene	3800	
106-47-8	4-Chloroaniline	2900	U
87-68-3	Hexachlorobutadiene	2900	U
59-50-7	4-Chloro-3-methylphenol	2900	U
91-57-6	2-Methylnaphthalene	610	J
77-47-4	Hexachlorocyclopentadiene	2900	U
88-06-2	2,4,6-Trichlorophenol	2900	U
95-95-4	2,4,5-Trichlorophenol	14000	U
91-58-7	2-Chloronaphthalene	2900	U
88-74-4	2-Nitroaniline	14000	U
131-11-3	Dimethylphthalate	2900	U
208-96-8	Acenaphthylene	170	J
606-20-2	2,6-Dinitrotoluene	2900	U

FORM I SV-1

EMM 9/21/99

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-50(17-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-20

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4133

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 77 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	14000	U	UJ23
83-32-9	Acenaphthene	360	J	J23 J-
51-28-5	2,4-Dinitrophenol	14000	U	UJ23
100-02-7	4-Nitrophenol	14000	U	UJ23
132-64-9	Dibenzofuran	41	J	J23
121-14-2	2,4-Dinitrotoluene	2900	U	UJ23
84-66-2	Diethylphthalate	2900	U	UJ23
7005-72-3	4-Chlorophenyl-phenylether	2900	U	UJ23
86-73-7	Fluorene	320	J	J23
100-01-6	4-Nitroaniline	14000	U	UJ23
534-52-1	4,6-Dinitro-2-methylphenol	14000	U	UJ23
86-30-6	N-Nitrosodiphenylamine (1)	2900	U	UJ23
101-55-3	4-Bromophenyl-phenylether	2900	U	UJ23
118-74-1	Hexachlorobenzene	2900	U	UJ23
87-86-5	Pentachlorophenol	14000	U	UJ23 UJ
85-01-8	Phenanthrene	1000	J	J23
120-12-7	Anthracene	290	J	J23
86-74-8	Carbazole	2900	U	UJ23
84-74-2	Di-n-butylphthalate	2900 UJ12 150	JB	UJ23
206-44-0	Fluoranthene	450	J	J23
129-00-0	Pyrene	760	J J19	J23 J-
85-68-7	Butylbenzylphthalate	2900	U	UJ23
91-94-1	3,3'-Dichlorobenzidine	5700	U	UJ23
56-55-3	Benzo(a)anthracene	290	J	J23
218-01-9	Chrysene	310	J	J23
117-81-7	bis(2-Ethylhexyl)phthalate	2900 UJ12 1100	JB	UJ23
117-84-0	Di-n-octylphthalate	2900	U	UJ23
205-99-2	Benzo(b)fluoranthene	160	J	J23
207-08-9	Benzo(k)fluoranthene	150	J	J23
50-32-8	Benzo(a)pyrene	160	J	J23
193-39-5	Indeno(1,2,3-cd)pyrene	2900	U	UJ23
53-70-3	Dibenzo(a,h)anthracene	2900	U	UJ23
191-24-2	Benzo(g,h,i)perylene	2900	U	UJ23

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

EHM 9/21/99

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CF-SB-50(17-19)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-20

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4133

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 77 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.03	260000	JAB	R33
02.	UNKNOWN	6.99	13000	JB	J33
03.	UNKNOWN	25.87	8700	J	J35
04.	UNKNOWN	5.61	6900	JB	R33
05.	UNKNOWN	25.19	6700	J	J35
06.	UNKNOWN BRANCHED ALKANE	23.17	6300	J	J33
07.	UNKNOWN	17.40	5800	J	J35
08.	UNKNOWN STRAIGHT ALKANE	24.75	5400	J	J35
09.	UNKNOWN STRAIGHT ALKANE	26.22	4000	J	J35
10.	UNKNOWN	25.37	3900	J	J33
11.	UNKNOWN	24.93	3600	J	J33
12.	UNKNOWN	25.02	3300	J	J33
13.	UNKNOWN	25.67	3200	J	J35
14.	UNKNOWN	26.09	3000	J	J33
15.	UNKNOWN	7.93	2800	JB	R33
16.	UNKNOWN	27.13	2700	J	J35
17.	UNKNOWN	30.92	2500	J	J35
18.	UNKNOWN	27.97	2500	J	J33
19.	UNKNOWN	27.77	2400	J	J35
20.	UNKNOWN STRAIGHT ALKANE	27.60	2400	J	J35
21.	UNKNOWN	25.11	2300	J	J35
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

9/21/99

TABLE AS-1.4
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CFSB-57 (29'-31')	CFSB-57 (5'-7')	CF-SB-50 (39-41')	CF-SB-50 (17-19)
Lab Sample I.D.	991811A-15	991811A-16	991811A-19	991811A-20
Arsenic	4.0 J3	5.7 J3	3.2 J3	10.6 J23
Barium	66.6	67.0	82.4	168. J23
Cadmium	2.5 UJ2	3.5 J2	0.16U UJ1	0.61U UJ1
Chromium	21.0* J1, J2	41.7* J1, J2	15.8* J1, J2	32.6* J1, J23
Lead	9.1	79.3	10.1 J5	11.5 J23
Mercury	0.0072U	0.38	0.027U	0.20U UJ3
Selenium	0.92U UJ2	1.6 UJ2, J3	1.5 UJ2	5.0 UJ2
Silver	0.18U	0.19U	0.16U UJ9	0.61U UJ9

See Appendix for qualifier definitions

Chromium J1, 2, 5

All results J1, J23

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-50(17-19)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-20

% Solids: 23.4 Date Received: 08/03/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	2.12	U	UJ 23 mg/Kg UJL		L

Comments:

FORM I - WC

9/4

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-50 (39-41')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-19

Sample wt/vol: 5 (g/mL) G Lab File ID: >K5725

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: not dec. 11 Date Analyzed: 08/04/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

EMM 9/21/99

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-50 (39-41')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-19

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4097

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	370	U	
111-44-4	bis(2-Chloroethyl)ether	370	U	
95-57-8	2-Chlorophenol	370	U	
541-73-1	1,3-Dichlorobenzene	370	U	
106-46-7	1,4-Dichlorobenzene	370	U	
100-51-6	Benzyl alcohol	370	U	
95-50-1	1,2-Dichlorobenzene	370	U	
95-48-7	2-Methylphenol	370	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U	
106-44-5	4-Methylphenol	370	U	
621-64-7	N-Nitroso-di-n-propylamine	370	U	
67-72-1	Hexachloroethane	370	U	
98-95-3	Nitrobenzene	370	U	
78-59-1	Isophorone	370	U	
88-75-5	2-Nitrophenol	370	U	
105-67-9	2,4-Dimethylphenol	370	U	
65-85-0	Benzoic acid	1800	U	
111-91-1	bis(2-Chloroethoxy)methane	370	U	
120-83-2	2,4-Dichlorophenol	370	U	
120-82-1	1,2,4-Trichlorobenzene	370	U	
91-20-3	Naphthalene	40	J	370 U12
106-47-8	4-Chloroaniline	370	U	
87-68-3	Hexachlorobutadiene	370	U	
59-50-7	4-Chloro-3-methylphenol	370	U	
91-57-6	2-Methylnaphthalene	370	U	
77-47-4	Hexachlorocyclopentadiene	370	U	UJ11
88-06-2	2,4,6-Trichlorophenol	370	U	
95-95-4	2,4,5-Trichlorophenol	1800	U	
91-58-7	2-Chloronaphthalene	370	U	
88-74-4	2-Nitroaniline	1800	U	
131-11-3	Dimethylphthalate	370	U	
208-96-8	Acenaphthylene	370	U	
606-20-2	2,6-Dinitrotoluene	370	U	

FORM I SV-1

EHM 9/21/99

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-50 (39-41')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-19

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4097

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	370	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	370	U	
121-14-2	2,4-Dinitrotoluene	370	U	
84-66-2	Diethylphthalate	370	U	
7005-72-3	4-Chlorophenyl-phenylether	370	U	
86-73-7	Fluorene	370	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	370	U	
101-55-3	4-Bromophenyl-phenylether	370	U	
118-74-1	Hexachlorobenzene	370	U	
87-86-5	Pentachlorophenol	1800	U	UJ27
85-01-8	Phenanthrene	12	J	
120-12-7	Anthracene	370	U	
86-74-8	Carbazole	370	U	
84-74-2	Di-n-butylphthalate	13	JB	370U12
206-44-0	Fluoranthene	7	J	
129-00-0	Pyrene	13	J	
85-68-7	Butylbenzylphthalate	370	U	
91-94-1	3,3'-Dichlorobenzidine	730	U	UJ11
56-55-3	Benzo(a)anthracene	370	U	
218-01-9	Chrysene	370	U	
117-81-7	bis(2-Ethylhexyl)phthalate	16	JB	370U12
117-84-0	Di-n-octylphthalate	4	JB	370U12
205-99-2	Benzo(b)fluoranthene	370	U	
207-08-9	Benzo(k)fluoranthene	370	U	
50-32-8	Benzo(a)pyrene	370	U	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	370	U	
191-24-2	Benzo(g,h,i)perylene	370	U	

(1) - Cannot be separated from Diphenylamine

EMM 9/24/99

TABLE AS-1.4
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CFSB-57 (29'-31')	CFSB-57 (5'-7')	CF-SB-50 (39-41')	CF-SB-5 0(17-19)
Lab Sample I.D.	991811A-15	991811A-16	991811A-19	991811A-20
Arsenic	4.0 J3	5.7 J3	3.2 J3	10.6 J23
Barium	66.6	67.0	82.4	168. J23
Cadmium	2.5 U12	3.5 J12	0.16U U12	0.61U U23
Chromium	21.0* J1,J2	41.7* J1,J2	15.8* J1,J2	32.6* J1,J23
Lead	9.1	79.3	10.1 J5	11.5 J23
Mercury	0.0072U	0.38	0.027U	0.20U U23
Selenium	0.92U U3	1.6 U12,U3	1.4 U12	5.0 U12
Silver	0.18U	0.19U	0.16U U9	0.61U U9

See Appendix for qualifier definitions

Chromium J1,2,5

all results J/U23

9/9

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-50 (39-41')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-19

% Solids: 92.8 Date Received: 08/03/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.530	U	UTL, mg/Kg		L

Comments:

FORM I - WC

fm 9/9

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-1000

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-01

Sample wt/vol: 5 (g/mL) G Lab File ID: >N3935

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: not dec. 10 Date Analyzed: 08/09/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

tpm 9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-1000

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5169

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 9 decanted: (Y/N) N Date Extracted: 08/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	360	U
111-44-4	bis(2-Chloroethyl)ether	360	U
95-57-8	2-Chlorophenol	360	U
541-73-1	1,3-Dichlorobenzene	360	U
106-46-7	1,4-Dichlorobenzene	360	U
100-51-6	Benzyl alcohol	360	U
95-50-1	1,2-Dichlorobenzene	360	U
95-48-7	2-Methylphenol	360	U
108-60-1	2,2'-oxybis(1-Chloropropane)	360	U
106-44-5	4-Methylphenol	360	U
621-64-7	N-Nitroso-di-n-propylamine	360	U
67-72-1	Hexachloroethane	360	U
98-95-3	Nitrobenzene	360	U
78-59-1	Isophorone	360	U
88-75-5	2-Nitrophenol	360	U
105-67-9	2,4-Dimethylphenol	360	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	360	U
120-83-2	2,4-Dichlorophenol	360	U
120-82-1	1,2,4-Trichlorobenzene	360	U
91-20-3	Naphthalene	20	J
106-47-8	4-Chloroaniline	360	U
87-68-3	Hexachlorobutadiene	360	U
59-50-7	4-Chloro-3-methylphenol	360	U
91-57-6	2-Methylnaphthalene	360	U
77-47-4	Hexachlorocyclopentadiene	360	U
88-06-2	2,4,6-Trichlorophenol	360	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	360	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	360	U
208-96-8	Acenaphthylene	360	U
606-20-2	2,6-Dinitrotoluene	360	U

360 U J2
U J11

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-1000

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5169

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 9 decanted: (Y/N) N Date Extracted: 08/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	360	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	360	U	
121-14-2	2,4-Dinitrotoluene	360	U	
84-66-2	Diethylphthalate	360	U	
7005-72-3	4-Chlorophenyl-phenylether	360	U	
86-73-7	Fluorene	360	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	360	U	
101-55-3	4-Bromophenyl-phenylether	360	U	
118-74-1	Hexachlorobenzene	360	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	13	J	
120-12-7	Anthracene	4	J	
86-74-8	Carbazole	360	U	
84-74-2	Di-n-butylphthalate	27	JB	360 U12
206-44-0	Fluoranthene	8	J	
129-00-0	Pyrene	8	J	
85-68-7	Butylbenzylphthalate	360	U	
91-94-1	3,3'-Dichlorobenzidine	720	U	UJ11
56-55-3	Benzo(a)anthracene	5	J	
218-01-9	Chrysene	4	J	
117-81-7	bis(2-Ethylhexyl)phthalate	40	JB	360 U12
117-84-0	Di-n-octylphthalate	19	JB	360 U12
205-99-2	Benzo(b)fluoranthene	360	U	
207-08-9	Benzo(k)fluoranthene	360	U	
50-32-8	Benzo(a)pyrene	360	U	
193-39-5	Indeno(1,2,3-cd)pyrene	360	U	
53-70-3	Dibenzo(a,h)anthracene	360	U	
191-24-2	Benzo(g,h,i)perylene	360	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-1000

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5169

Level: (low/med) LOW Date Received: 08/03/99

% Moisture: 9 decanted: (Y/N) N Date Extracted: 08/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.8

Number TICs Found: 11 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	4.44	23000	JAB	R33
02.	UNKNOWN	5.91	1500	JB	R33
03.	UNKNOWN	3.70	1000	JB	R33
04.	UNKNOWN	7.33	200	JB	R33
05.	UNKNOWN ALKANE	26.51	150	J	J33
06.	UNKNOWN	18.15	140	J	J33
07.	UNKNOWN	5.12	140	JB	R33
08.	UNKNOWN	27.73	130	J	J33
09.	UNKNOWN	16.79	110	JB	R33
10.	UNKNOWN	7.28	100	JB	R33
11.	UNKNOWN	1.58	96	JB	R33
12.					
13.					
14.					
15.					
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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-1000

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-01

Level (low/med): LOW Date Received: 08/03/99

% Solids: 91.4

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2	U	J3	P
7440-39-3	Barium	26.8	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.23	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	5.1		J5	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.6		J5	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.028	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.76	U	J3 N, J1	P
7440-22-4	Silver	0.15	U	J1, J9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: RD Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN ILM03.0

fam 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-1000

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-01

% Solids: 91.4 Date Received: 08/03/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.520	U	mg/Kg		L

Comments:

FORM I - WC

9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-51(5-7)

139

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-09

Sample wt/vol: 5.22 (g/mL) G Lab File ID: >M5394

Level: (low/med) MED Date Received: 08/05/99

% Moisture: not dec. 14 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	150	J
108-88-3	Toluene	120	J
100-41-4	Ethylbenzene	210	J
1330-20-7	Xylene (total)	470	J

Jon 9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-51(5-7)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5291

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	8000	U
111-44-4	bis(2-Chloroethyl)ether	8000	U
95-57-8	2-Chlorophenol	8000	U
541-73-1	1,3-Dichlorobenzene	8000	U
106-46-7	1,4-Dichlorobenzene	8000	U
100-51-6	Benzyl alcohol	8000	U
95-50-1	1,2-Dichlorobenzene	8000	U
95-48-7	2-Methylphenol	8000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	8000	U
106-44-5	4-Methylphenol	8000	U
621-64-7	N-Nitroso-di-n-propylamine	8000	U
67-72-1	Hexachloroethane	8000	U
98-95-3	Nitrobenzene	8000	U
78-59-1	Isophorone	8000	U
88-75-5	2-Nitrophenol	8000	U
105-67-9	2,4-Dimethylphenol	8000	U
65-85-0	Benzoic acid	39000	U
111-91-1	bis(2-Chloroethoxy)methane	8000	U
120-83-2	2,4-Dichlorophenol	8000	U
120-82-1	1,2,4-Trichlorobenzene	8000	U
91-20-3	Naphthalene	9000	B
106-47-8	4-Chloroaniline	8000	U
87-68-3	Hexachlorobutadiene	8000	U
59-50-7	4-Chloro-3-methylphenol	8000	U
91-57-6	2-Methylnaphthalene	7700	J
77-47-4	Hexachlorocyclopentadiene	8000	U
88-06-2	2,4,6-Trichlorophenol	8000	U
95-95-4	2,4,5-Trichlorophenol	39000	U
91-58-7	2-Chloronaphthalene	8000	U
88-74-4	2-Nitroaniline	39000	U
131-11-3	Dimethylphthalate	8000	U
208-96-8	Acenaphthylene	5500	J
606-20-2	2,6-Dinitrotoluene	8000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-51(5-7)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5291

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 9.4

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	39000	U
83-32-9	Acenaphthene	13000	
51-28-5	2,4-Dinitrophenol	39000	U
100-02-7	4-Nitrophenol	39000	U
132-64-9	Dibenzofuran	4400	J
121-14-2	2,4-Dinitrotoluene	8000	U
84-66-2	Diethylphthalate	8000	U
7005-72-3	4-Chlorophenyl-phenylether	8000	U
86-73-7	Fluorene	13000	
100-01-6	4-Nitroaniline	39000	U
534-52-1	4,6-Dinitro-2-methylphenol	39000	U
86-30-6	N-Nitrosodiphenylamine (1)	8000	U
101-55-3	4-Bromophenyl-phenylether	8000	U
118-74-1	Hexachlorobenzene	8000	U
87-86-5	Pentachlorophenol	39000	U
85-01-8	Phenanthrene	41000	
120-12-7	Anthracene	14000	
86-74-8	Carbazole	2900	J
84-74-2	Di-n-butylphthalate	8000	U
206-44-0	Fluoranthene	22000	
129-00-0	Pyrene	30000	
85-68-7	Butylbenzylphthalate	8000	U
91-94-1	3,3'-Dichlorobenzidine	16000	U
56-55-3	Benzo(a)anthracene	11000	
218-01-9	Chrysene	14000	
117-81-7	bis(2-Ethylhexyl)phthalate	8000	U
117-84-0	Di-n-octylphthalate	8000	U
205-99-2	Benzo(b)fluoranthene	8500	
207-08-9	Benzo(k)fluoranthene	8500	
50-32-8	Benzo(a)pyrene	13000	
193-39-5	Indeno(1,2,3-cd)pyrene	9000	
53-70-3	Dibenzo(a,h)anthracene	4300	J
191-24-2	Benzo(g,h,i)perylene	11000	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CF-SB-51(5-7)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5291

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 9.4

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	3.92	76000	JAB	J33
02.	UNKNOWN ALKANE	13.06	42000	J	J33
03.	UNKNOWN ALKANE	16.61	34000	J	J33
04. 90-12-0	NAPHTHALENE, 1-METHYL-	12.41	28000	JN	J33
05.	UNKNOWN TRIMETHYL NAPHTHALEN	15.25	28000	J	J33
06.	UNKNOWN ALKANE	16.05	28000	J	J33
07.	UNKNOWN	11.39	25000	J	J33
08.	UNKNOWN C15H12 PAH	18.89	24000	J	J33
09.	UNKNOWN DIMETHYL NAPHTHALENE	13.80	23000	J	J33
10.	UNKNOWN TRIMETHYL NAPHTHALEN	15.43	23000	J	J33
11.	UNKNOWN ALKANE	11.66	17000	J	J33
12.	UNKNOWN ALKANE	17.57	16000	J	J33
13.	UNKNOWN ALKANE	10.80	16000	J	J33
14.	UNKNOWN ALKANE	14.08	16000	J	J33
15.	UNKNOWN DIMETHYL NAPHTHALENE	13.61	15000	J	J33
16.	UNKNOWN	12.70	14000	J	J33
17.	UNKNOWN	12.12	12000	J	J33
18.	UNKNOWN C10H10 PAH	10.02	11000	J	J33
19.	UNKNOWN	11.23	11000	J	J33
20.	UNKNOWN	11.02	10000	J	J33
21.	UNKNOWN TRIMETHYL NAPHTHALEN	15.07	9600	J	J33
22.					
23.					
24.					
25.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-51(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-09

Level (low/med): LOW Date Received: 08/05/99

% Solids: 76.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	7.1		J3	P
7440-39-3	Barium	105.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.65	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	31.8			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	103.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.79			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.88	U	UJ3N UJ1	P
7440-22-4	Silver	0.18	U	UJ1, UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

JDM 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-51(5-7)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-09

% Solids: 76.8 Date Received: 08/05/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	34.0		J13 mg/Kg		L

Comments:

FORM I - WC

from 9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-51(39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-10

Sample wt/vol: 5 (g/mL) G Lab File ID: >N3944

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: not dec. 10 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG

CAS NO.	COMPOUND		Q	
71-43-2	Benzene	11		JJS
108-88-3	Toluene	6		JJS
100-41-4	Ethylbenzene	2	J	JJS
1330-20-7	Xylene (total)	1	J	JJS

9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-51(39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-10

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5170

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	170	JB
106-47-8	4-Chloroaniline	370	U UJ1)
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	99	J
77-47-4	Hexachlorocyclopentadiene	370	U
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	6	J
606-20-2	2,6-Dinitrotoluene	370	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-51(39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-10

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5170

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	370	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	370	U	
121-14-2	2,4-Dinitrotoluene	370	U	
84-66-2	Diethylphthalate	370	U	
7005-72-3	4-Chlorophenyl-phenylether	370	U	
86-73-7	Fluorene	370	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	370	U	
101-55-3	4-Bromophenyl-phenylether	370	U	
118-74-1	Hexachlorobenzene	370	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	19	J	
120-12-7	Anthracene	3	J	
86-74-8	Carbazole	370	U	
84-74-2	Di-n-butylphthalate	20	JB	370 U
206-44-0	Fluoranthene	9	J	
129-00-0	Pyrene	11	J	
85-68-7	Butylbenzylphthalate	370	U	
91-94-1	3,3'-Dichlorobenzidine	730	U	UJ
56-55-3	Benzo(a)anthracene	6	J	
218-01-9	Chrysene	4	J	
117-81-7	bis(2-Ethylhexyl)phthalate	16	JB	370 U
117-84-0	Di-n-octylphthalate	4	JB	370 U
205-99-2	Benzo(b)fluoranthene	370	U	
207-08-9	Benzo(k)fluoranthene	370	U	
50-32-8	Benzo(a)pyrene	370	U	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	370	U	
191-24-2	Benzo(g,h,i)perylene	370	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-51(39-41)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-10

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5170

Level: (low/med) LOW Date Received: 08/05/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 9.0

Number TICs Found: 12 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	4.52	29000	JAB	R33
02.	UNKNOWN	5.91	1800	JB	R33
03.	UNKNOWN	3.65	1300	J	J33
04.	UNKNOWN C12H9F ISOMER	13.27	280	J	J33
05.	UNKNOWN	7.34	270	JB	R33
06.	UNKNOWN	1.64	240	J	J33
07.	UNKNOWN	16.39	160	J	J33
08.	UNKNOWN	16.78	140	JB	R33
09.	UNKNOWN C6H10O2 ISOMER	6.15	120	J	J33
10.	UNKNOWN C6H10O ISOMER	3.10	100	J	J33
11.	UNKNOWN	6.36	99	J	J33
12.	UNKNOWN	18.15	79	J	J33
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14.					
15.					
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-51(39-41)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-10

Level (low/med): LOW Date Received: 08/05/99

% Solids: 89.2

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	61.3			P
7440-39-3	Barium	282.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	63.7			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	44.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	92.2			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.035	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	59.6		J1 N	P
7440-22-4	Silver	58.1		J1, J9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: RD Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

Jam 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB-52(5'-7')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-12

% Solids: 56.5 Date Received: 07/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.980	J1,	mg/Kg		L

Comments:

FORM I - WC

fm 9/9

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

CFSB-52(11'-13')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-13

Sample wt/vol: 5 (g/mL) G Lab File ID: >K5724

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: not dec. 26 Date Analyzed: 08/04/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	7	U
108-88-3	Toluene	.4	J
100-41-4	Ethylbenzene	5	J
1330-20-7	Xylene (total)	7	

EMM 9/21/99

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-52(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4132

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	94	JB
111-44-4	bis(2-Chloroethyl)ether	1900	U
95-57-8	2-Chlorophenol	1900	U
541-73-1	1,3-Dichlorobenzene	1900	U
106-46-7	1,4-Dichlorobenzene	1900	U
100-51-6	Benzyl alcohol	1900	U UJ11
95-50-1	1,2-Dichlorobenzene	1900	U
95-48-7	2-Methylphenol	1900	U
108-60-1	2,2'-oxybis(1-Chloropropane)	1900	U
106-44-5	4-Methylphenol	42	J
621-64-7	N-Nitroso-di-n-propylamine	1900	U
67-72-1	Hexachloroethane	1900	U
98-95-3	Nitrobenzene	1900	U
78-59-1	Isophorone	1900	U
88-75-5	2-Nitrophenol	1900	U
105-67-9	2,4-Dimethylphenol	1900	U
65-85-0	Benzoic acid	9300	U
111-91-1	bis(2-Chloroethoxy)methane	1900	U
120-83-2	2,4-Dichlorophenol	1900	U
120-82-1	1,2,4-Trichlorobenzene	1900	U
91-20-3	Naphthalene	6200	
106-47-8	4-Chloroaniline	1900	U
87-68-3	Hexachlorobutadiene	1900	U
59-50-7	4-Chloro-3-methylphenol	1900	U
91-57-6	2-Methylnaphthalene	560	J
77-47-4	Hexachlorocyclopentadiene	1900	U
88-06-2	2,4,6-Trichlorophenol	1900	U
95-95-4	2,4,5-Trichlorophenol	9300	U
91-58-7	2-Chloronaphthalene	1900	U
88-74-4	2-Nitroaniline	9300	U
131-11-3	Dimethylphthalate	1900	U
208-96-8	Acenaphthylene	540	J
606-20-2	2,6-Dinitrotoluene	1900	U

EMM 9/21/99

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-52(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4132

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	9300	U
83-32-9	Acenaphthene	650	J
51-28-5	2,4-Dinitrophenol	9300	U
100-02-7	4-Nitrophenol	9300	U
132-64-9	Dibenzofuran	310	J
121-14-2	2,4-Dinitrotoluene	1900	U
84-66-2	Diethylphthalate	1900	U
7005-72-3	4-Chlorophenyl-phenylether	1900	U
86-73-7	Fluorene	590	J
100-01-6	4-Nitroaniline	9300	U
534-52-1	4,6-Dinitro-2-methylphenol	9300	U
86-30-6	N-Nitrosodiphenylamine (1)	1900	U
101-55-3	4-Bromophenyl-phenylether	1900	U
118-74-1	Hexachlorobenzene	1900	U
87-86-5	Pentachlorophenol	9300	U WJ 7
85-01-8	Phenanthrene	3000	
120-12-7	Anthracene	1000	J
86-74-8	Carbazole	910	J
84-74-2	Di-n-butylphthalate	1900	U
206-44-0	Fluoranthene	4900	
129-00-0	Pyrene	6700	
85-68-7	Butylbenzylphthalate	1900	U
91-94-1	3,3'-Dichlorobenzidine	3800	U
56-55-3	Benzo(a)anthracene	4100	
218-01-9	Chrysene	4400	
117-81-7	bis(2-Ethylhexyl)phthalate	73	JB 1900 U 12
117-84-0	Di-n-octylphthalate	1900	U
205-99-2	Benzo(b)fluoranthene	6200	
207-08-9	Benzo(k)fluoranthene	7700	
50-32-8	Benzo(a)pyrene	8400	
193-39-5	Indeno(1,2,3-cd)pyrene	8400	
53-70-3	Dibenzo(a,h)anthracene	3200	
191-24-2	Benzo(g,h,i)perylene	11000	

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

EMM 9/21/99

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFSB-52(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-12

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4132

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 31 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/27/99

Injection Volume: 2.0 (uL) Dilution Factor: 2.0

GPC Cleanup: (Y/N) N pH: 7.8

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.94	57000	JAB	R,J3
02.	UNKNOWN	8.69	11000	J	J
03.	UNKNOWN C15H12 PAH	18.90	5900	J	J
04.	UNKNOWN C20H12 PAH	27.06	5200	J	J
05.	UNKNOWN	19.31	5100	J	J
06.	UNKNOWN	19.07	4400	J	J
07.	UNKNOWN	19.39	4300	J	J
08.	UNKNOWN STRAIGHT ALKANE	19.57	4200	J	J
09.	UNKNOWN	25.70	3700	J	J
10.	UNKNOWN C20H12 PAH	26.67	3200	J	J
11.	UNKNOWN	19.17	3100	J	J
12.	UNKNOWN	19.25	3000	J	J
13.	UNKNOWN ISOMER C16H14 PAH	19.95	3000	J	J
14.	UNKNOWN	6.97	2900	J	J
15.	UNKNOWN C14H22O ISOMER	19.66	2600	J	J
16.	UNKNOWN C9H8 ISOMER	8.80	2400	J	J
17.	UNKNOWN C20H12 PAH	27.35	2400	J	J
18.	UNKNOWN	30.66	1900	J	J
19.	UNKNOWN C22H12 PAH	30.84	1800	J	J
20.	UNKNOWN C16H14 PAH	19.76	1800	J	J
21.	UNKNOWN BRANCHED ALKANE	27.59	1800	J	J
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EMT 9/2/99

Soil

TABLE AS-1.3
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-41 (28-30')	CFSB-52 (5'-7')	CFSB-52(11'-13')	CFSB-52(39'-41')
Lab Sample I.D.	991811A-11	991811A-12	991811A-13	991811A-14
Arsenic	2.5 J3	3.5 J3	7.3 J3	3.8 J3
Barium	81.4	112.	96.9	88.1
Cadmium	2.9 J3,J2	J1 5.5 J3,J2	J1 3.1 J3,J2	J1 3.5 J3,J2
Chromium	15.6* J1,	J2 89.0* J1,	J2 57.7*J1,	J2 35.5* J1,
Lead	10.8	62.5	15.4	14.1
Mercury	0.0057U	0.044	0.012B	0.0048U
Selenium	J2 1.0 UJ2,	UJ2 3.2 UJ2,	UJ2 1.6 UJ2,	UJ2 0.84U UJ2,
Silver	0.15U	0.33U	0.20U	0.17U

See Appendix for qualifier definitions

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFSB-52(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-12

Sample wt/vol: 5 (g/mL) G Lab File ID: >L6316

Level: (low/med) MED Date Received: 07/30/99

% Moisture: not dec. 31 Date Analyzed: 08/04/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	260	J
108-88-3	Toluene	250	J
100-41-4	Ethylbenzene	2900	
1330-20-7	Xylene (total)	4600	

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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFSB-52(11'-13')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-13

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4104

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	890	U
111-44-4	bis(2-Chloroethyl)ether	890	U
95-57-8	2-Chlorophenol	890	U
541-73-1	1,3-Dichlorobenzene	890	U
106-46-7	1,4-Dichlorobenzene	890	U
100-51-6	Benzyl alcohol	890	U
95-50-1	1,2-Dichlorobenzene	890	U
95-48-7	2-Methylphenol	890	U
108-60-1	2,2'-oxybis(1-Chloropropane)	890	U
106-44-5	4-Methylphenol	890	U
621-64-7	N-Nitroso-di-n-propylamine	890	U
67-72-1	Hexachloroethane	890	U
98-95-3	Nitrobenzene	890	U
78-59-1	Isophorone	890	U
88-75-5	2-Nitrophenol	890	U
105-67-9	2,4-Dimethylphenol	890	U
65-85-0	Benzoic acid	4300	U
111-91-1	bis(2-Chloroethoxy)methane	890	U
120-83-2	2,4-Dichlorophenol	890	U
120-82-1	1,2,4-Trichlorobenzene	890	U
91-20-3	Naphthalene	10	J
106-47-8	4-Chloroaniline	890	U
87-68-3	Hexachlorobutadiene	890	U
59-50-7	4-Chloro-3-methylphenol	890	U
91-57-6	2-Methylnaphthalene	890	U
77-47-4	Hexachlorocyclopentadiene	890	U
88-06-2	2,4,6-Trichlorophenol	890	U
95-95-4	2,4,5-Trichlorophenol	4300	U
91-58-7	2-Chloronaphthalene	890	U
88-74-4	2-Nitroaniline	4300	U
131-11-3	Dimethylphthalate	890	U
208-96-8	Acenaphthylene	890	U
606-20-2	2,6-Dinitrotoluene	890	U

890 U12

UJ11

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-52(11'-13')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-13

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4104

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 26 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.9

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	4300	U	
83-32-9	Acenaphthene	890	U	
51-28-5	2,4-Dinitrophenol	4300	U	
100-02-7	4-Nitrophenol	4300	U	
132-64-9	Dibenzofuran	890	U	
121-14-2	2,4-Dinitrotoluene	890	U	
84-66-2	Diethylphthalate	890	U	
7005-72-3	4-Chlorophenyl-phenylether	890	U	
86-73-7	Fluorene	890	U	
100-01-6	4-Nitroaniline	4300	U	
534-52-1	4,6-Dinitro-2-methylphenol	4300	U	
86-30-6	N-Nitrosodiphenylamine (1)	890	U	
101-55-3	4-Bromophenyl-phenylether	890	U	
118-74-1	Hexachlorobenzene	890	U	
87-86-5	Pentachlorophenol	4300	U	UJ27
85-01-8	Phenanthrene	890	U	
120-12-7	Anthracene	890	U	
86-74-8	Carbazole	890	U	
84-74-2	Di-n-butylphthalate	23	JB	890 U 12
206-44-0	Fluoranthene	890	U	
129-00-0	Pyrene	890	U	
85-68-7	Butylbenzylphthalate	890	U	
91-94-1	3,3'-Dichlorobenzidine	1800	U	UJ11
56-55-3	Benzo(a)anthracene	890	U	
218-01-9	Chrysene	890	U	
117-81-7	bis(2-Ethylhexyl)phthalate	20	JB	890 U 12
117-84-0	Di-n-octylphthalate	10	JB	890 U 12
205-99-2	Benzo(b)fluoranthene	890	U	
207-08-9	Benzo(k)fluoranthene	890	U	
50-32-8	Benzo(a)pyrene	890	U	
193-39-5	Indeno(1,2,3-cd)pyrene	890	U	
53-70-3	Dibenzo(a,h)anthracene	890	U	
191-24-2	Benzo(g,h,i)perylene	890	U	

(1) - Cannot be separated from Diphenylamine

EMM 9/21/99

Soil

TABLE AS-1.3
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-41 (28-30')	CFSB-52 (5'-7')	CFSB-52 (11'-13')	CFSB-52 (39'-41')
Lab Sample I.D.	991811A-11	991811A-12	991811A-13	991811A-14
Arsenic	2.5 J3	3.5 J3	7.3 J3	3.8 J3
Barium	81.4	112.	96.9	88.1
Cadmium	2.9 J32 J1	5.5 J32 J1	3.1 J32 J1	3.5 J32 J1
Chromium	15.6* J1, J2	89.0* J1, J2	57.7* J1, J2	35.5* J1, J2
Lead	10.8	62.5	15.4	14.1
Mercury	0.0057U	0.044	0.012B	0.0048U
Selenium	1.0 UJ2, UJ3	3.2 UJ2, UJ3	1.6 UJ2, UJ3	0.84U UJ3
Silver	0.15U	0.33U	0.20U	0.17U

See Appendix for qualifier definitions

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB-52(11'-13')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-13

% Solids: 72.9 Date Received: 07/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.710	U	mg/Kg		L

Comments:

FORM I - WC

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO. CFSB-52(39'-41')

[PLE NO.

L/CT Contract: _____

CT Case No.: 1811A SAS No.: _____ SDG No.: A1811

(soil/water) SOIL Lab Sample ID: 991811A-14 -17

:/vol: 5 (g/mL) G Lab File ID: >K5668

(low/med) LOW Date Received: 07/30/99 9

:e: not dec. 10 Date Analyzed: 07/30/99 9

1: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

:act Volume: _____(uL) Soil Aliquot Volume: ____(uL) ___(uL)

CONCENTRATION UNITS:

).	COMPOUND	(ug/L or ug/Kg) UG/KG	Q
2	Benzene	6	U
-3	Toluene	6	U
-4	Ethylbenzene	6	U
)-7	Xylene (total)	6	U

EMM 9/21/99

EMM 9/21/99

1F

IVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFSB-52(11'-13')

Contract: _____

se No.: 1811A SAS No.: _____ SDG No.: A1811

IL

(g/mL)G

W

ecanted: (Y/N)N

olume: 2000 (uL)

0 (uL)

pH:7.9

Lab Sample ID: 991811A-13

Lab File ID: >R4104

Date Received: 07/30/99

Date Extracted:08/04/99

Date Analyzed: 08/25/99

Dilution Factor: 1.0

(ug/L or ug/Kg)UG/KG

COMPOUND NAME	RT	EST. CONC.	Q	
CONDENSATION PRODUCT	6.05	76000	JA	R33
WN	7.02	2400	JB	J33
WN STRAIGHT ALKANE	26.28	2200	J	J33
L, 4,4'-BUTYLIDENEBIS[2	25.21	1900	JN	J33
WN	27.91	1500	J	J33
W TRAIGHT ALKANE	27.67	1500	J	J33
WN STRAIGHT ALKANE	24.81	1400	J	J33
WN	5.60	1400	JB	R33
WN	26.50	1300	J	J33
WN STRAIGHT ALKANE	23.23	930	J	J33
WN	7.98	860	JB	J33
WN	31.02	700	J	J33
WN	23.72	700	J	J33
WN STRAIGHT ALKANE	24.03	690	J	J33
WN	28.04	620	J	J33
WN STRAIGHT ALKANE	25.55	510	J	J33
WN	23.02	500	J	J33
WN	33.56	440	J	J33
WN	27.85	390	J	J33
WN STRAIGHT ALKANE	29.15	360	J	J33
WN STRAIGHT ALKANE	22.41	350	J	J33

FORM I SV-TIC

EMM 9/21/99

EPA SAMPLE NO.

A SHEET

CFSB-52(39'-41')

SDG No.: A1811

ple ID: 991811A-14

e ID: >R4088

ceived: 07/30/99

tracted:08/04/99

alyzed: 08/24/99

n Factor: 1.0

I UNITS:
g)UG/KG

	Q	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
1800	U	
370	U	
370	U	
370	U	
4	J	37DU12
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
370	U	
1800	U	
370	U	
1800	U	
370	U	
370	U	
370	U	

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1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-52(39'-41')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-14

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4088

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	UJ11
83-32-9	Acenaphthene	370	U	
51-28-5	2,4-Dinitrophenol	1800	U	UJ11
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	370	U	
121-14-2	2,4-Dinitrotoluene	370	U	
84-66-2	Diethylphthalate	370	U	
7005-72-3	4-Chlorophenyl-phenylether	370	U	
86-73-7	Fluorene	370	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	370	U	
101-55-3	4-Bromophenyl-phenylether	370	U	
118-74-1	Hexachlorobenzene	370	U	
87-86-5	Pentachlorophenol	1800	U	UJa7
85-01-8	Phenanthrene	370	U	
120-12-7	Anthracene	370	U	
86-74-8	Carbazole	370	U	UJ11
84-74-2	Di-n-butylphthalate	18	JB	370U12
206-44-0	Fluoranthene	370	U	
129-00-0	Pyrene	370	U	
85-68-7	Butylbenzylphthalate	370	U	
91-94-1	3,3'-Dichlorobenzidine	730	U	UJ11
56-55-3	Benzo(a)anthracene	370	U	
218-01-9	Chrysene	370	U	
117-81-7	bis(2-Ethylhexyl)phthalate	22	JB	370U12
117-84-0	Di-n-octylphthalate	3	JB	370U12
205-99-2	Benzo(b)fluoranthene	370	U	
207-08-9	Benzo(k)fluoranthene	370	U	
50-32-8	Benzo(a)pyrene	370	U	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	370	U	
191-24-2	Benzo(g,h,i)perylene	370	U	

(1) - Cannot be separated from Diphenylamine

EMM 9/21/99

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFSB-52(39'-41')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-14

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4088

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 10 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

Number TICs Found: 8 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.13	51000	JAB	R33
02.	UNKNOWN	7.04	2500	JB	J33
03.	UNKNOWN	5.72	1100	JB	R33
04.	UNKNOWN	5.61	370	J	J35
05.	UNKNOWN	7.98	360	JB	R33
06.	UNKNOWN	6.53	170	J	J33
07. 141-79-7	3-PENTEN-2-ONE, 4-METHYL-	5.24	140	JNB	R33
08.	UNKNOWN STRAIGHT ALKANE	26.27	78	J	J35
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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TABLE AS-1.3
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-41 (28-30')	CFSB-52 (5'-7')	CFSB-52(11'-13')	CFSB-52(39'-41')
Lab Sample I.D.	991811A-11	991811A-12	991811A-13	991811A-14
Arsenic	2.5 J3	3.5 J3	7.3 J3	3.8 J3
Barium	81.4	112.	96.9	88.1
Cadmium	2.9 J32 J1	5.5 J32 J1	3.1 J32 J1	3.5 J32 J1
Chromium	15.6* J1, J2	89.0* J1, J2	57.7* J1, J2	35.5* J1, J2
Lead	10.8	62.5	15.4	14.1
Mercury	0.0057U	0.044	0.012B	0.0048U
Selenium	1.0 UJ2, UJ3	3.2 UJ2, UJ3	1.6 UJ2, UJ3	0.84U UJ2, UJ3
Silver	0.15U	0.33U	0.20U	0.17U

See Appendix for qualifier definitions

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1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB-52(39'-41')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-14

% Solids: 82.8 Date Received: 07/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.580	U	mg/Kg		L

Comments:

FORM I - WC

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VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-53 (7-9 ~~8-10~~)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-08

Sample wt/vol: 5.04 (g/mL) G Lab File ID: >M5392

Level: (low/med) MED Date Received: 08/04/99

% Moisture: not dec. 20 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 50 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	15000	
108-88-3	Toluene	32000	
100-41-4	Ethylbenzene	6400	
1330-20-7	Xylene (total)	38000	

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-53(8-9/40)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5253

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 20 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	820000	U
111-44-4	bis(2-Chloroethyl)ether	820000	U
95-57-8	2-Chlorophenol	820000	U
541-73-1	1,3-Dichlorobenzene	820000	U
106-46-7	1,4-Dichlorobenzene	820000	U
100-51-6	Benzyl alcohol	820000	U
95-50-1	1,2-Dichlorobenzene	820000	U
95-48-7	2-Methylphenol	820000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	820000	U
106-44-5	4-Methylphenol	820000	U
621-64-7	N-Nitroso-di-n-propylamine	820000	U
67-72-1	Hexachloroethane	820000	U
98-95-3	Nitrobenzene	820000	U
78-59-1	Isophorone	820000	U
88-75-5	2-Nitrophenol	820000	U
105-67-9	2,4-Dimethylphenol	820000	U
65-85-0	Benzoic acid	4000000	U
111-91-1	bis(2-Chloroethoxy)methane	820000	U
120-83-2	2,4-Dichlorophenol	820000	U
120-82-1	1,2,4-Trichlorobenzene	820000	U
91-20-3	Naphthalene	3300000	B
106-47-8	4-Chloroaniline	820000	U
87-68-3	Hexachlorobutadiene	820000	U
59-50-7	4-Chloro-3-methylphenol	820000	U
91-57-6	2-Methylnaphthalene	3200000	
77-47-4	Hexachlorocyclopentadiene	820000	U
88-06-2	2,4,6-Trichlorophenol	820000	U
95-95-4	2,4,5-Trichlorophenol	4000000	U
91-58-7	2-Chloronaphthalene	820000	U
88-74-4	2-Nitroaniline	4000000	U
131-11-3	Dimethylphthalate	820000	U
208-96-8	Acenaphthylene	220000	J
606-20-2	2,6-Dinitrotoluene	820000	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-53(8-9)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5253

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 20 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.8

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	4000000	U	
83-32-9	Acenaphthene	120000	J	
51-28-5	2,4-Dinitrophenol	4000000	U	UJ|
100-02-7	4-Nitrophenol	4000000	U	UJ|
132-64-9	Dibenzofuran	140000	J	
121-14-2	2,4-Dinitrotoluene	820000	U	
84-66-2	Diethylphthalate	820000	U	
7005-72-3	4-Chlorophenyl-phenylether	820000	U	
86-73-7	Fluorene	790000	J	
100-01-6	4-Nitroaniline	4000000	U	UJ|
534-52-1	4,6-Dinitro-2-methylphenol	4000000	U	
86-30-6	N-Nitrosodiphenylamine (1)	820000	U	
101-55-3	4-Bromophenyl-phenylether	820000	U	
118-74-1	Hexachlorobenzene	820000	U	
87-86-5	Pentachlorophenol	4000000	U	
85-01-8	Phenanthrene	1800000		
120-12-7	Anthracene	290000	J	
86-74-8	Carbazole	31000	J	
84-74-2	Di-n-butylphthalate	820000	U	
206-44-0	Fluoranthene	570000	J	
129-00-0	Pyrene	780000	J	
85-68-7	Butylbenzylphthalate	820000	U	
91-94-1	3,3'-Dichlorobenzidine	1600000	U	
56-55-3	Benzo(a)anthracene	300000	J	
218-01-9	Chrysene	320000	J	
117-81-7	bis(2-Ethylhexyl)phthalate	820000	U	
117-84-0	Di-n-octylphthalate	820000	U	
205-99-2	Benzo(b)fluoranthene	130000	J	
207-08-9	Benzo(k)fluoranthene	160000	J	
50-32-8	Benzo(a)pyrene	270000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	85000	J	
53-70-3	Dibenzo(a,h)anthracene	42000	J	
191-24-2	Benzo(g,h,i)perylene	130000	J	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-53(8:40)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5253

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 20 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 5000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.8

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.90-12-0	NAPHTHALENE, 1-METHYL-	12.47	1400000	JN	J33
02.	UNKNOWN DIMETHYL NAPHTHALENE	13.85	960000	J	J33
03.	UNKNOWN DIMETHYL NAPHTHALENE	13.65	940000	J	J33
04.	UNKNOWN C9H8 ISOMER	8.21	560000	J	J33
05.	UNKNOWN C15H12 PAH	18.75	560000	J	J33
06.	UNKNOWN	26.45	550000	J	J33
07.	UNKNOWN C15H12 PAH	18.70	540000	J	J33
08.	UNKNOWN C15H12 PAH	18.93	510000	J	J33
09.	UNKNOWN DIMETHYL NAPHTHALENE	14.09	390000	J	J33
10.	UNKNOWN DIMETHYL NAPHTHALENE	13.89	390000	J	J33
11.	UNKNOWN C17H12 PAH	21.27	370000	J	J33
12.	UNKNOWN METHYL 9H-FLUORENE	16.88	330000	J	J33
13.	UNKNOWN C15H12 PAH	18.97	320000	J	J33
14.	UNKNOWN DIMETHYL PHENANTHREN	19.86	300000	J	J33
15.92-52-4	BIPHENYL	13.32	260000	JN	J33
16.	UNKNOWN TRIMETHYL NAPHTHALEN	15.29	230000	J	J33
17.	UNKNOWN	24.83	220000	J	J33
18.	UNKNOWN C10H10 ISOMER	9.99	220000	J	J33
19.	UNKNOWN C17H12 PAH	21.48	220000	J	J33
20.	UNKNOWN TRIMETHYL NAPHTHALEN	15.05	220000	J	J33
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-53 (8-9.40)

Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-08

Level (low/med): LOW Date Received: 08/04/99

% Solids: 79.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.3		J3	P
7440-39-3	Barium	26.3	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.37	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.9			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	71.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.031	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.0	U	UJ3,N,UJ1	P
7440-22-4	Silver	0.20	U	UJ1,UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

Tom 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-53(8:40)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-08

% Solids: 79.3 Date Received: 08/04/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	3.58		mg/Kg		L

Comments:

FORM I - WC

tom 9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-53(13.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-07

Sample wt/vol: 5.17 (g/mL) G Lab File ID: >M5360

Level: (low/med) MED Date Received: 08/04/99

% Moisture: not dec. 42 Date Analyzed: 08/09/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 2 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	230000	
108-88-3	Toluene	390000	
100-41-4	Ethylbenzene	51000	J
1330-20-7	Xylene (total)	440000	

for 9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-53(13.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5252

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 16000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	80000	J
111-44-4	bis(2-Chloroethyl)ether	2700000	U
95-57-8	2-Chlorophenol	2700000	U
541-73-1	1,3-Dichlorobenzene	2700000	U
106-46-7	1,4-Dichlorobenzene	2700000	U
100-51-6	Benzyl alcohol	2700000	U
95-50-1	1,2-Dichlorobenzene	2700000	U
95-48-7	2-Methylphenol	2700000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	2700000	U
106-44-5	4-Methylphenol	100000	J
621-64-7	N-Nitroso-di-n-propylamine	2700000	U
67-72-1	Hexachloroethane	2700000	U
98-95-3	Nitrobenzene	2700000	U
78-59-1	Isophorone	2700000	U
88-75-5	2-Nitrophenol	2700000	U
105-67-9	2,4-Dimethylphenol	2700000	U
65-85-0	Benzoic acid	13000000	U
111-91-1	bis(2-Chloroethoxy)methane	2700000	U
120-83-2	2,4-Dichlorophenol	2700000	U
120-82-1	1,2,4-Trichlorobenzene	2700000	U
91-20-3	Naphthalene	12000000	B
106-47-8	4-Chloroaniline	2700000	U
87-68-3	Hexachlorobutadiene	2700000	U
59-50-7	4-Chloro-3-methylphenol	2700000	U
91-57-6	2-Methylnaphthalene	10000000	
77-47-4	Hexachlorocyclopentadiene	2700000	U
88-06-2	2,4,6-Trichlorophenol	2700000	U
95-95-4	2,4,5-Trichlorophenol	13000000	U
91-58-7	2-Chloronaphthalene	2700000	U
88-74-4	2-Nitroaniline	13000000	U
131-11-3	Dimethylphthalate	2700000	U
208-96-8	Acenaphthylene	390000	J
606-20-2	2,6-Dinitrotoluene	2700000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-53(13.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5252

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 16000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	13000000	U	
83-32-9	Acenaphthene	480000	J	
51-28-5	2,4-Dinitrophenol	13000000	U	UJ11
100-02-7	4-Nitrophenol	13000000	U	UJ11
132-64-9	Dibenzofuran	360000	J	
121-14-2	2,4-Dinitrotoluene	2700000	U	
84-66-2	Diethylphthalate	2700000	U	
7005-72-3	4-Chlorophenyl-phenylether	2700000	U	
86-73-7	Fluorene	2500000	J	
100-01-6	4-Nitroaniline	13000000	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	13000000	U	
86-30-6	N-Nitrosodiphenylamine (1)	2700000	U	
101-55-3	4-Bromophenyl-phenylether	2700000	U	
118-74-1	Hexachlorobenzene	2700000	U	
87-86-5	Pentachlorophenol	13000000	U	
85-01-8	Phenanthrene	5000000		
120-12-7	Anthracene	460000	J	
86-74-8	Carbazole	160000	J	
84-74-2	Di-n-butylphthalate	2700000	U	
206-44-0	Fluoranthene	1600000	J	
129-00-0	Pyrene	2000000	J	
85-68-7	Butylbenzylphthalate	2700000	U	
91-94-1	3,3'-Dichlorobenzidine	5300000	U	
56-55-3	Benzo(a)anthracene	790000	J	
218-01-9	Chrysene	940000	J	
117-81-7	bis(2-Ethylhexyl)phthalate	2700000	U	
117-84-0	Di-n-octylphthalate	2700000	U	
205-99-2	Benzo(b)fluoranthene	320000	J	
207-08-9	Benzo(k)fluoranthene	540000	J	
50-32-8	Benzo(a)pyrene	710000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	250000	J	
53-70-3	Dibenzo(a,h)anthracene	130000	J	
191-24-2	Benzo(g,h,i)perylene	310000	J	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-53(13.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5252

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 16000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: 9.3

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01. 90-12-0	NAPHTHALENE, 1-METHYL-	12.47	4300000	JN	J33
02.	UNKNOWN C9H8 ISOMER	8.22	2900000	J	J33
03.	UNKNOWN DIMETHYL NAPHTHALENE	13.84	2500000	J	J33
04.	UNKNOWN DIMETHYL NAPHTHALENE	13.65	2300000	J	J33
05.	UNKNOWN C15H12 PAH	18.93	1400000	J	J33
06.	UNKNOWN DIMETHYL NAPHTHALENE	13.88	1200000	J	J33
07.	UNKNOWN C15H12 PAH	18.70	1200000	J	J33
08.	UNKNOWN C15H12 PAH	18.75	1200000	J	J33
09.	UNKNOWN	26.45	1100000	J	J33
10.	UNKNOWN C17H12 PAH	21.27	1100000	J	J33
11.	UNKNOWN DIMETHYL NAPHTHALENE	14.08	1100000	J	J33
12.	UNKNOWN C10H10 ISOMER	9.99	990000	J	J33
13.	UNKNOWN TRIMETHYL NAPTHALENE	15.28	890000	J	J33
14.	UNKNOWN C3 ALKYL BENZENE	7.24	870000	J	J33
15. 92-52-4	BIPHENYL	13.33	860000	JN	J33
16.	UNKNOWN C15H12 PAH	18.97	860000	J	J33
17.	UNKNOWN C10H10 ISOMER	10.09	820000	J	J33
18.	UNKNOWN METHYL 9H-FLUORENE	16.88	750000	J	J33
19. 132-65-0	DIBENZOTHIOPHENE	17.43	660000	JN	J33
20. 35465-71-5	2-PHENYLNAPHTHALENE	19.32	660000	JN	J33
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22.					
23.					
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-53(13.5)

Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-07

Level (low/med): LOW Date Received: 08/04/99

% Solids: 81.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	15.2			P
7440-39-3	Barium	161.			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.83	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	4.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	86.1			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.84			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.1	U	UJ3, N, UJ1	P
7440-22-4	Silver	0.21	U	UJ1, UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

jam 9/20

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-53(13.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-07

% Solids: 81.6 Date Received: 08/04/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	59.5		mg/Kg		L

Comments:

FORM I - WC

9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-54(4-6')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-06

Sample wt/vol: 5 (g/mL) G Lab File ID: >M5393

Level: (low/med) MED Date Received: 08/04/99

% Moisture: not dec. 21 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 4 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	54000	
108-88-3	Toluene	1900	J
100-41-4	Ethylbenzene	520000	
1330-20-7	Xylene (total)	300000	

9/20

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-54(4-6')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5251

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	330000	U
111-44-4	bis(2-Chloroethyl)ether	330000	U
95-57-8	2-Chlorophenol	330000	U
541-73-1	1,3-Dichlorobenzene	330000	U
106-46-7	1,4-Dichlorobenzene	330000	U
100-51-6	Benzyl alcohol	330000	U
95-50-1	1,2-Dichlorobenzene	330000	U
95-48-7	2-Methylphenol	330000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	330000	U
106-44-5	4-Methylphenol	330000	U
621-64-7	N-Nitroso-di-n-propylamine	330000	U
67-72-1	Hexachloroethane	330000	U
98-95-3	Nitrobenzene	330000	U
78-59-1	Isophorone	330000	U
88-75-5	2-Nitrophenol	330000	U
105-67-9	2,4-Dimethylphenol	330000	U
65-85-0	Benzoic acid	1600000	U
111-91-1	bis(2-Chloroethoxy)methane	330000	U
120-83-2	2,4-Dichlorophenol	330000	U
120-82-1	1,2,4-Trichlorobenzene	330000	U
91-20-3	Naphthalene	1800000	B
106-47-8	4-Chloroaniline	330000	U
87-68-3	Hexachlorobutadiene	330000	U
59-50-7	4-Chloro-3-methylphenol	330000	U
91-57-6	2-Methylnaphthalene	1000000	
77-47-4	Hexachlorocyclopentadiene	330000	U
88-06-2	2,4,6-Trichlorophenol	330000	U
95-95-4	2,4,5-Trichlorophenol	1600000	U
91-58-7	2-Chloronaphthalene	330000	U
88-74-4	2-Nitroaniline	1600000	U
131-11-3	Dimethylphthalate	330000	U
208-96-8	Acenaphthylene	43000	J
606-20-2	2,6-Dinitrotoluene	330000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-54(4-6')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5251

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1600000	U	
83-32-9	Acenaphthene	97000	J	
51-28-5	2,4-Dinitrophenol	1600000	U	UJ11
100-02-7	4-Nitrophenol	1600000	U	UJ11
132-64-9	Dibenzofuran	30000	J	
121-14-2	2,4-Dinitrotoluene	330000	U	
84-66-2	Diethylphthalate	330000	U	
7005-72-3	4-Chlorophenyl-phenylether	330000	U	
86-73-7	Fluorene	260000	J	
100-01-6	4-Nitroaniline	1600000	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	1600000	U	
86-30-6	N-Nitrosodiphenylamine (1)	330000	U	
101-55-3	4-Bromophenyl-phenylether	330000	U	
118-74-1	Hexachlorobenzene	330000	U	
87-86-5	Pentachlorophenol	1600000	U	
85-01-8	Phenanthrene	530000		
120-12-7	Anthracene	180000	J	
86-74-8	Carbazole	10000	J	
84-74-2	Di-n-butylphthalate	330000	U	
206-44-0	Fluoranthene	200000	J	
129-00-0	Pyrene	200000	J	
85-68-7	Butylbenzylphthalate	330000	U	
91-94-1	3,3'-Dichlorobenzidine	670000	U	
56-55-3	Benzo(a)anthracene	98000	J	
218-01-9	Chrysene	100000	J	
117-81-7	bis(2-Ethylhexyl)phthalate	330000	U	
117-84-0	Di-n-octylphthalate	330000	U	
205-99-2	Benzo(b)fluoranthene	43000	J	
207-08-9	Benzo(k)fluoranthene	51000	J	
50-32-8	Benzo(a)pyrene	62000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	27000	J	
53-70-3	Dibenzo(a,h)anthracene	13000	J	
191-24-2	Benzo(g,h,i)perylene	31000	J	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-54(4-6')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-06

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5251

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 21 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 4000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.7

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN C9H10 ISOMER	8.06	1400000	J	J33
02.	UNKNOWN TRIMETHYL BENZENE	7.25	610000	J	J33
03.	UNKNOWN C3 ALKYL BENZENE	6.62	510000	J	J33
04.	UNKNOWN DIMETHYL NAPHTHALENE	13.84	360000	J	J33
05.	UNKNOWN DIMETHYL NAPHTHALENE	13.65	270000	J	J33
06.	UNKNOWN C3 ALKYL BENZENE	7.79	270000	J	J33
07.	UNKNOWN C15H12 PAH	18.93	210000	J	J33
08.	UNKNOWN C3 ALKYL BENZENE	6.75	200000	J	J33
09.	UNKNOWN METHYL NAPHTHALENE	12.47	190000	J	J33
10.	ALDOL CONDENSATION PRODUCT	4.03	180000	JAB	R33
11.	UNKNOWN C4 ALKYL BENZENE	18.86	170000	J	J33
12. 103-65-1	BENZENE, PROPYL-	6.46	160000	JN	J33
13.	UNKNOWN C3 ALKYL BENZENE	6.98	140000	J	J33
14.	UNKNOWN DIMETHYL NAPHTHALENE	14.08	140000	J	J33
15.	UNKNOWN	19.97	140000	J	J33
16.	UNKNOWN C17H12 PAH	21.27	140000	J	J33
17.	UNKNOWN	18.05	130000	J	J33
18.	UNKNOWN DIMETHYL NAPHTHALENE	13.88	120000	J	J33
19.	UNKNOWN C4 ALKYL BENZENE	18.66	120000	J	J33
20.	UNKNOWN C15H12 PAH	18.75	110000	J	J33
21.	UNKNOWN TRIMETHYL NAPHTHALEN	15.29	100000	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-54(4-6')

Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-06

Level (low/med): LOW Date Received: 08/04/99

% Solids: 69.3

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	10.4			P
7440-39-3	Barium	48.3			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.58	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	41.4			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	100.			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	1.6			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	4.9	U12	UJ1N	P
7440-22-4	Silver	0.18	U	UJ1, UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

JDM 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-54(4-6')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-06

% Solids: 69.3 Date Received: 08/04/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	139.		mg/Kg		L

Comments:

FORM I - WC

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-54(9-11')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-05

Sample wt/vol: 5 (g/mL) G Lab File ID: >M5391

Level: (low/med) MED Date Received: 08/04/99

% Moisture: not dec. 18 Date Analyzed: 08/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 5 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	230000	
108-88-3	Toluene	390000	
100-41-4	Ethylbenzene	340000	
1330-20-7	Xylene (total)	570000	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-54(9-11')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5290

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	160000	U
111-44-4	bis(2-Chloroethyl)ether	160000	U
95-57-8	2-Chlorophenol	160000	U
541-73-1	1,3-Dichlorobenzene	160000	U
106-46-7	1,4-Dichlorobenzene	160000	U
100-51-6	Benzyl alcohol	160000	U
95-50-1	1,2-Dichlorobenzene	160000	U
95-48-7	2-Methylphenol	160000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	160000	U
106-44-5	4-Methylphenol	160000	U
621-64-7	N-Nitroso-di-n-propylamine	160000	U
67-72-1	Hexachloroethane	160000	U
98-95-3	Nitrobenzene	160000	U
78-59-1	Isophorone	160000	U
88-75-5	2-Nitrophenol	160000	U
105-67-9	2,4-Dimethylphenol	160000	U
65-85-0	Benzoic acid	780000	U
111-91-1	bis(2-Chloroethoxy)methane	160000	U
120-83-2	2,4-Dichlorophenol	160000	U
120-82-1	1,2,4-Trichlorobenzene	160000	U
91-20-3	Naphthalene	1000000	B
106-47-8	4-Chloroaniline	160000	U
87-68-3	Hexachlorobutadiene	160000	U
59-50-7	4-Chloro-3-methylphenol	160000	U
91-57-6	2-Methylnaphthalene	630000	
77-47-4	Hexachlorocyclopentadiene	160000	U
88-06-2	2,4,6-Trichlorophenol	160000	U
95-95-4	2,4,5-Trichlorophenol	780000	U
91-58-7	2-Chloronaphthalene	160000	U
88-74-4	2-Nitroaniline	780000	U
131-11-3	Dimethylphthalate	160000	U
208-96-8	Acenaphthylene	54000	J
606-20-2	2,6-Dinitrotoluene	160000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-54(9-11')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5290

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	780000	U
83-32-9	Acenaphthene	190000	
51-28-5	2,4-Dinitrophenol	780000	U
100-02-7	4-Nitrophenol	780000	U
132-64-9	Dibenzofuran	20000	J
121-14-2	2,4-Dinitrotoluene	160000	U
84-66-2	Diethylphthalate	160000	U
7005-72-3	4-Chlorophenyl-phenylether	160000	U
86-73-7	Fluorene	190000	
100-01-6	4-Nitroaniline	780000	U
534-52-1	4,6-Dinitro-2-methylphenol	780000	U
86-30-6	N-Nitrosodiphenylamine (1)	160000	U
101-55-3	4-Bromophenyl-phenylether	160000	U
118-74-1	Hexachlorobenzene	160000	U
87-86-5	Pentachlorophenol	780000	U
85-01-8	Phenanthrene	340000	
120-12-7	Anthracene	110000	J
86-74-8	Carbazole	7400	J
84-74-2	Di-n-butylphthalate	160000	U
206-44-0	Fluoranthene	88000	J
129-00-0	Pyrene	150000	J
85-68-7	Butylbenzylphthalate	160000	U
91-94-1	3,3'-Dichlorobenzidine	320000	U
56-55-3	Benzo(a)anthracene	48000	J
218-01-9	Chrysene	53000	J
117-81-7	bis(2-Ethylhexyl)phthalate	160000	U
117-84-0	Di-n-octylphthalate	160000	U
205-99-2	Benzo(b)fluoranthene	14000	J
207-08-9	Benzo(k)fluoranthene	35000	J
50-32-8	Benzo(a)pyrene	37000	J
193-39-5	Indeno(1,2,3-cd)pyrene	11000	J
53-70-3	Dibenzo(a,h)anthracene	8000	J
191-24-2	Benzo(g,h,i)perylene	13000	J

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-54(9-11')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5290

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 8.0

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.		UNKNOWN C9H10 ISOMER	8.00	510000	J	J33
02.		UNKNOWN DIMETHYL NAPHTHALENE	13.79	200000	J	J33
03.		UNKNOWN C3 ALKYL BENZENE	6.56	200000	J	J33
04.		UNKNOWN C3 ALKYL BENZENE	7.19	170000	J	J33
05.		UNKNOWN DIMETHYL NAPHTHALENE	13.60	160000	J	J33
06.		ALDOL CONDENSATION PRODUCT	3.88	130000	JAB	K33
07.		UNKNOWN	18.87	110000	J	J33
08.		UNKNOWN DIMETHYL NAPHTHALENE	14.03	110000	J	J33
09.		UNKNOWN METHYL NAPHTHALENE	12.42	110000	J	J33
10.		UNKNOWN C17H12 PAH	21.23	78000	J	J33
11.		UNKNOWN C3 ALKYL BENZENE	7.74	74000	J	J33
12.		UNKNOWN DIMETHYL NAPHTHALENE	13.83	62000	J	J33
13.		UNKNOWN ETHYL NAPHTHALENE	13.46	60000	J	J33
14.	92-52-4	BIPHENYL	13.27	59000	JN	J32
15.		UNKNOWN TRIMETHYL NAPHTHALEN	15.24	58000	J	J33
16.		UNKNOWN C15H12 PAH	18.69	57000	J	J33
17.		UNKNOWN C15H12 PAH	18.64	54000	J	J33
18.		UNKNOWN C15H12 PAH	18.77	54000	J	J33
19.		UNKNOWN C3 ALKYL BENZENE	6.69	51000	J	J33
20.		UNKNOWN C19H14 PAH	24.03	50000	J	J33
21.	132-65-0	DIBENZOTHIOPHENE	17.38	50000	JN	J33
22.						
23.						
24.						
25.						
26.						
27.						
28.						
29.						
30.						

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-54(9-11')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-05

Level (low/med): LOW Date Received: 08/04/99

% Solids: 85

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.0		J3	P
7440-39-3	Barium	86.3			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.59	B	J32	P
7440-70-2	Calcium				NR
7440-47-3	Chromium	64.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	23.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.17			CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	7.0		J1 N	P
7440-22-4	Silver	0.20	U	UJ1, UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

dam 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-54(9-11')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-05

% Solids: 85 Date Received: 08/04/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	5.88		mg/Kg		L

Comments:

FORM I - WC

fm 9/20

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-54(23-25')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-04

Sample wt/vol: 4.95 (g/mL) G Lab File ID: >M5345

Level: (low/med) MED Date Received: 08/04/99

% Moisture: not dec. 16 Date Analyzed: 08/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 10 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	80000	
108-88-3	Toluene	120000	
100-41-4	Ethylbenzene	100000	
1330-20-7	Xylene (total)	160000	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-54(23-25')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5249

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	400000	U
111-44-4	bis(2-Chloroethyl)ether	400000	U
95-57-8	2-Chlorophenol	400000	U
541-73-1	1,3-Dichlorobenzene	400000	U
106-46-7	1,4-Dichlorobenzene	400000	U
100-51-6	Benzyl alcohol	400000	U
95-50-1	1,2-Dichlorobenzene	400000	U
95-48-7	2-Methylphenol	400000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400000	U
106-44-5	4-Methylphenol	400000	U
621-64-7	N-Nitroso-di-n-propylamine	400000	U
67-72-1	Hexachloroethane	400000	U
98-95-3	Nitrobenzene	400000	U
78-59-1	Isophorone	400000	U
88-75-5	2-Nitrophenol	400000	U
105-67-9	2,4-Dimethylphenol	400000	U
65-85-0	Benzoic acid	1900000	U
111-91-1	bis(2-Chloroethoxy)methane	400000	U
120-83-2	2,4-Dichlorophenol	400000	U
120-82-1	1,2,4-Trichlorobenzene	400000	U
91-20-3	Naphthalene	3000000	B
106-47-8	4-Chloroaniline	400000	U
87-68-3	Hexachlorobutadiene	400000	U
59-50-7	4-Chloro-3-methylphenol	400000	U
91-57-6	2-Methylnaphthalene	2300000	
77-47-4	Hexachlorocyclopentadiene	400000	U
88-06-2	2,4,6-Trichlorophenol	400000	U
95-95-4	2,4,5-Trichlorophenol	1900000	U
91-58-7	2-Chloronaphthalene	400000	U
88-74-4	2-Nitroaniline	1900000	U
131-11-3	Dimethylphthalate	400000	U
208-96-8	Acenaphthylene	520000	
606-20-2	2,6-Dinitrotoluene	400000	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-54(23-25')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5249

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 8.2

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1900000	U	
83-32-9	Acenaphthene	480000		
51-28-5	2,4-Dinitrophenol	1900000	U	UJ11
100-02-7	4-Nitrophenol	1900000	U	UJ11
132-64-9	Dibenzofuran	58000	J	
121-14-2	2,4-Dinitrotoluene	400000	U	
84-66-2	Diethylphthalate	400000	U	
7005-72-3	4-Chlorophenyl-phenylether	400000	U	
86-73-7	Fluorene	520000		
100-01-6	4-Nitroaniline	1900000	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	1900000	U	
86-30-6	N-Nitrosodiphenylamine (1)	400000	U	
101-55-3	4-Bromophenyl-phenylether	400000	U	
118-74-1	Hexachlorobenzene	400000	U	
87-86-5	Pentachlorophenol	1900000	U	
85-01-8	Phenanthrene	1200000		
120-12-7	Anthracene	360000	J	
86-74-8	Carbazole	16000	J	
84-74-2	Di-n-butylphthalate	400000	U	
206-44-0	Fluoranthene	320000	J	
129-00-0	Pyrene	360000	J	
85-68-7	Butylbenzylphthalate	400000	U	
91-94-1	3,3'-Dichlorobenzidine	800000	U	
56-55-3	Benzo(a)anthracene	150000	J	
218-01-9	Chrysene	170000	J	
117-81-7	bis(2-Ethylhexyl)phthalate	400000	U	
117-84-0	Di-n-octylphthalate	400000	U	
205-99-2	Benzo(b)fluoranthene	50000	J	
207-08-9	Benzo(k)fluoranthene	77000	J	
50-32-8	Benzo(a)pyrene	100000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	26000	J	
53-70-3	Dibenzo(a,h)anthracene	12000	J	
191-24-2	Benzo(g,h,i)perylene	28000	J	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CF-SB-54(23-25')

Lab Name: STL/CT Contract:

Lab Code: IEACT Case No.: 1811B SAS No.: SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5249

Level: (low/med) LOW Date Received: 08/04/99

% Moisture: 17 decanted: (Y/N) N Date Extracted: 08/08/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 08/20/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 8.2

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN C9H8 ISOMER	8.21	910000	J	J33
02.	UNKNOWN DIMETHYL NAPHTHALENE	13.84	620000	J	J33
03.	UNKNOWN DIMETHYL NAPHTHALENE	13.65	480000	J	J33
04.	UNKNOWN	18.92	370000	J	J33
05. 90-12-0	NAPHTHALENE, 1-METHYL-	12.48	330000	JN	J33
06.	UNKNOWN C3 ALKYL BENZENE	6.62	280000	J	J33
07.	UNKNOWN C15H12 PAH	18.69	250000	J	J33
08.	UNKNOWN C3 ALKYL BENZENE	7.24	250000	J	J33
09.	UNKNOWN DIMETHYL NAPHTHALENE	14.08	240000	J	J33
10.	UNKNOWN C15H12 PAH	18.75	230000	J	J33
11.	UNKNOWN DIMETHYL NAPHTHALENE	13.88	220000	J	J33
12.	ALDOL CONDENSATION PRODUCT	4.01	200000	JAB	R33
13.	UNKNOWN C17H12 PAH	21.28	200000	J	J33
14.	UNKNOWN TRIMETHYL NAPHTHALEN	15.29	190000	J	J33
15.	UNKNOWN METHYL 9H-FLUORENE	16.88	190000	J	J33
16.	UNKNOWN	26.45	180000	J	J33
17.	UNKNOWN C16H14 PAH	19.85	170000	J	J33
18. 92-52-4	BIPHENYL	13.32	170000	JN	J33
19.	UNKNOWN ETHYL NAPHTHALENE	13.51	170000	J	J33
20.	UNKNOWN	15.67	160000	J	J33
21.	UNKNOWN C15H12 PAH	18.97	160000	J	J33
22.					
23.					
24.					
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-54(23-25')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-04

Level (low/med): LOW Date Received: 08/04/99

% Solids: 83.2

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.2		J3	P
7440-39-3	Barium	25.4	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.22	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	31.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.5			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.036	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.4	U2	UJ3 N UJ1	P
7440-22-4	Silver	0.19	U	UJ1, UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

tam 9/20

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-54(23-25')

Lab Name: STL Contract:

Lab Code: STL Case No.: 1811B SAS No.: SDG No.: B1811

Matrix (soil/water): SOIL Lab Sample ID: 991811B-04

% Solids: 83.2 Date Received: 08/04/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.580	U	mg/Kg		L

Comments:

FORM I - WC

9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CFSB55 18'-20'

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-16

Sample wt/vol: 5 (g/mL) G Lab File ID: >M5564

Level: (low/med) MED Date Received: 08/11/99

% Moisture: not dec. 11 Date Analyzed: 08/17/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 1 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	41000	J
108-88-3	Toluene	120000	J
100-41-4	Ethylbenzene	23000	J
1330-20-7	Xylene (total)	170000	J

fm 9/20

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB55 18'-20'

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811B-16

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5297

Level: (low/med) LOW Date Received: 08/11/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 08/16/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/24/99

Injection Volume: 2.0 (uL) Dilution Factor: 400.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	130000	U
111-44-4	bis(2-Chloroethyl)ether	130000	U
95-57-8	2-Chlorophenol	130000	U
541-73-1	1,3-Dichlorobenzene	130000	U
106-46-7	1,4-Dichlorobenzene	130000	U
100-51-6	Benzyl alcohol	130000	U
95-50-1	1,2-Dichlorobenzene	130000	U
95-48-7	2-Methylphenol	130000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	130000	U
106-44-5	4-Methylphenol	130000	U
621-64-7	N-Nitroso-di-n-propylamine	130000	U
67-72-1	Hexachloroethane	130000	U
98-95-3	Nitrobenzene	130000	U
78-59-1	Isophorone	130000	U
88-75-5	2-Nitrophenol	130000	U
105-67-9	2,4-Dimethylphenol	130000	U
65-85-0	Benzoic acid	640000	U
111-91-1	bis(2-Chloroethoxy)methane	130000	U
120-83-2	2,4-Dichlorophenol	130000	U
120-82-1	1,2,4-Trichlorobenzene	130000	U
91-20-3	Naphthalene	700000	B
106-47-8	4-Chloroaniline	130000	U
87-68-3	Hexachlorobutadiene	130000	U
59-50-7	4-Chloro-3-methylphenol	130000	U
91-57-6	2-Methylnaphthalene	360000	
77-47-4	Hexachlorocyclopentadiene	130000	U
88-06-2	2,4,6-Trichlorophenol	130000	U
95-95-4	2,4,5-Trichlorophenol	640000	U
91-58-7	2-Chloronaphthalene	130000	U
88-74-4	2-Nitroaniline	640000	U
131-11-3	Dimethylphthalate	130000	U
208-96-8	Acenaphthylene	140000	
606-20-2	2,6-Dinitrotoluene	130000	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CFSB55A 123'-125'

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-01

Sample wt/vol: 5 (g/mL) G Lab File ID: >K5975

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: not dec. 13 Date Analyzed: 08/19/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB55A 123'-125'

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4316

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 08/20/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	380	U
111-44-4	bis(2-Chloroethyl)ether	380	U
95-57-8	2-Chlorophenol	380	U
541-73-1	1,3-Dichlorobenzene	380	U
106-46-7	1,4-Dichlorobenzene	380	U
100-51-6	Benzyl alcohol	380	U
95-50-1	1,2-Dichlorobenzene	380	U
95-48-7	2-Methylphenol	380	U
108-60-1	2,2'-oxybis(1-Chloropropane)	380	U
106-44-5	4-Methylphenol	380	U
621-64-7	N-Nitroso-di-n-propylamine	380	U
67-72-1	Hexachloroethane	380	U
98-95-3	Nitrobenzene	380	U
78-59-1	Isophorone	380	U
88-75-5	2-Nitrophenol	380	U
105-67-9	2,4-Dimethylphenol	380	U
65-85-0	Benzoic acid	1900	U
111-91-1	bis(2-Chloroethoxy)methane	380	U
120-83-2	2,4-Dichlorophenol	380	U
120-82-1	1,2,4-Trichlorobenzene	380	U
91-20-3	Naphthalene	380	U
106-47-8	4-Chloroaniline	380	U
87-68-3	Hexachlorobutadiene	380	U
59-50-7	4-Chloro-3-methylphenol	380	U
91-57-6	2-Methylnaphthalene	380	U
77-47-4	Hexachlorocyclopentadiene	380	U
88-06-2	2,4,6-Trichlorophenol	380	U
95-95-4	2,4,5-Trichlorophenol	1900	U
91-58-7	2-Chloronaphthalene	380	U
88-74-4	2-Nitroaniline	1900	U
131-11-3	Dimethylphthalate	380	U
208-96-8	Acenaphthylene	380	U
606-20-2	2,6-Dinitrotoluene	380	U

UJ11

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB55A 123'-125'

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4316

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 08/20/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1900	U	UJ11
83-32-9	Acenaphthene	380	U	
51-28-5	2,4-Dinitrophenol	1900	U	UJ11
100-02-7	4-Nitrophenol	1900	U	
132-64-9	Dibenzofuran	380	U	
121-14-2	2,4-Dinitrotoluene	380	U	
84-66-2	Diethylphthalate	380	U	
7005-72-3	4-Chlorophenyl-phenylether	380	U	
86-73-7	Fluorene	380	U	
100-01-6	4-Nitroaniline	1900	U	
534-52-1	4,6-Dinitro-2-methylphenol	1900	U	
86-30-6	N-Nitrosodiphenylamine (1)	380	U	
101-55-3	4-Bromophenyl-phenylether	380	U	
118-74-1	Hexachlorobenzene	380	U	
87-86-5	Pentachlorophenol	1900	U	
85-01-8	Phenanthrene	380	U	
120-12-7	Anthracene	380	U	
86-74-8	Carbazole	380	U	
84-74-2	Di-n-butylphthalate	380	U	
206-44-0	Fluoranthene	380	U	
129-00-0	Pyrene	380	U	
85-68-7	Butylbenzylphthalate	380	U	
91-94-1	3,3'-Dichlorobenzidine	770	U	
56-55-3	Benzo(a)anthracene	380	U	
218-01-9	Chrysene	380	U	
117-81-7	bis(2-Ethylhexyl)phthalate	24	JB	380U12
117-84-0	Di-n-octylphthalate	6	JB	380U12
205-99-2	Benzo(b)fluoranthene	380	U	
207-08-9	Benzo(k)fluoranthene	380	U	
50-32-8	Benzo(a)pyrene	380	U	
193-39-5	Indeno(1,2,3-cd)pyrene	380	U	
53-70-3	Dibenzo(a,h)anthracene	380	U	
191-24-2	Benzo(g,h,i)perylene	380	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

CFSB55A 123'-125'

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-01

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4316

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 08/20/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 6.6

Number TICs Found: 16 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.83	48000	JAB	R33
02.	UNKNOWN	5.46	3900	JB	J33
03.	UNKNOWN	6.77	3400	J	J33
04.	UNKNOWN	7.96	650	JB	R33
05.	UNKNOWN	7.70	290	JB.	R33
06.	UNKNOWN	6.25	200	JB	J33
07.141-79-7	3-PENTEN-2-ONE, 4-METHYL-	4.92	130	JBN	R33
08.	UNKNOWN ALKANE	24.33	120	J	J33
09.	UNKNOWN	7.36	110	J	J33
10.	UNKNOWN ALKANE	25.07	110	J	J33
11.	UNKNOWN ALKANE	25.79	100	J	J33
12.	UNKNOWN	17.47	100	JB	R33
13.	UNKNOWN	5.24	96	J	J33
14.	UNKNOWN ALKANE	23.56	89	J	J33
15.	UNKNOWN ALKANE	26.49	84	J	J33
16.110-13-4	2,5-HEXANEDIONE	6.89	84	JN	J33
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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CFSB55A 123'-125'

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-01

Level (low/med): LOW Date Received: 08/17/99

% Solids: 86.5

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.5	U	VJ1	P
7440-39-3	Barium	15.2	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.19	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	8.3		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	11.1		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.020	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	2.3	VJ2, VJ3N, VJ1		P
7440-22-4	Silver	0.19	U	VJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN ILM03.0

10/07

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB55A 123'-12

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-01

% Solids: 86.5 Date Received: 08/17/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.580	U	mg/Kg		L

Comments:

FORM I - WC

Dan 10/05/99

1A

OLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: FB 081699

Contract: _____

se No.: 1983A SAS No.: _____ SDG No.: A1983

ER

(g/mL) ML

_____

: 0.53 (mm)

_____(uL)

Lab Sample ID: 991983A-02

Lab File ID: >O4441

Date Received: 08/17/99

Date Analyzed: 08/23/99

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

		Q
	5	U
	5	U
ene	5	U
otal)	5	U

CLIENT ID

SHEET

CF-SB-56(12.5-13.

SDG No.: A1983

mple ID: 991983A-03

le ID: >O4438

eceived: 08/19/99

nalyzed: 08/20/99

on Factor: 1.0

Liquot Volume: 100 (uL)

N UNITS:
Kg) UG/KG

	Q
7300	
1400	U
2500	
480	J

1400 U2

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-56(12.5-13.

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4343

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	77000	U	
111-44-4	bis(2-Chloroethyl)ether	77000	U	
95-57-8	2-Chlorophenol	77000	U	
541-73-1	1,3-Dichlorobenzene	77000	U	
106-46-7	1,4-Dichlorobenzene	77000	U	
100-51-6	Benzyl alcohol	77000	U	
95-50-1	1,2-Dichlorobenzene	77000	U	
95-48-7	2-Methylphenol	77000	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	77000	U	
106-44-5	4-Methylphenol	77000	U	
621-64-7	N-Nitroso-di-n-propylamine	77000	U	
67-72-1	Hexachloroethane	77000	U	
98-95-3	Nitrobenzene	77000	U	
78-59-1	Isophorone	77000	U	
88-75-5	2-Nitrophenol	77000	U	
105-67-9	2,4-Dimethylphenol	77000	U	
65-85-0	Benzoic acid	370000	U	
111-91-1	bis(2-Chloroethoxy)methane	77000	U	
120-83-2	2,4-Dichlorophenol	77000	U	
120-82-1	1,2,4-Trichlorobenzene	77000	U	
91-20-3	Naphthalene	280000		
106-47-8	4-Chloroaniline	77000	U	UJ11
87-68-3	Hexachlorobutadiene	77000	U	
59-50-7	4-Chloro-3-methylphenol	77000	U	
91-57-6	2-Methylnaphthalene	25000	J	
77-47-4	Hexachlorocyclopentadiene	77000	U	UJ11
88-06-2	2,4,6-Trichlorophenol	77000	U	
95-95-4	2,4,5-Trichlorophenol	370000	U	
91-58-7	2-Chloronaphthalene	77000	U	
88-74-4	2-Nitroaniline	370000	U	
131-11-3	Dimethylphthalate	77000	U	
208-96-8	Acenaphthylene	34000	J	
606-20-2	2,6-Dinitrotoluene	77000	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-56(12.5-13.

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4343

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	370000	U	
83-32-9	Acenaphthene	190000		
51-28-5	2,4-Dinitrophenol	370000	U	→UJ11
100-02-7	4-Nitrophenol	370000	U	
132-64-9	Dibenzofuran	15000	J	
121-14-2	2,4-Dinitrotoluene	77000	U	
84-66-2	Diethylphthalate	77000	U	
7005-72-3	4-Chlorophenyl-phenylether	77000	U	
86-73-7	Fluorene	150000		
100-01-6	4-Nitroaniline	370000	U	
534-52-1	4,6-Dinitro-2-methylphenol	370000	U	
86-30-6	N-Nitrosodiphenylamine (1)	77000	U	
101-55-3	4-Bromophenyl-phenylether	77000	U	
118-74-1	Hexachlorobenzene	77000	U	
87-86-5	Pentachlorophenol	370000	U	
85-01-8	Phenanthrene	370000		
120-12-7	Anthracene	89000		
86-74-8	Carbazole	6200	J	
84-74-2	Di-n-butylphthalate	77000	U	
206-44-0	Fluoranthene	100000		
129-00-0	Pyrene	140000		
85-68-7	Butylbenzylphthalate	77000	U	
91-94-1	3,3'-Dichlorobenzidine	150000	U	
56-55-3	Benzo(a)anthracene	52000	J	
218-01-9	Chrysene	52000	J	→J11
117-81-7	bis(2-Ethylhexyl)phthalate	77000	U	
117-84-0	Di-n-octylphthalate	77000	U	
205-99-2	Benzo(b)fluoranthene	14000	J	
207-08-9	Benzo(k)fluoranthene	21000	J	→J11
50-32-8	Benzo(a)pyrene	33000	J	
193-39-5	Indeno(1,2,3-cd)pyrene	9800	J	→J10
53-70-3	Dibenzo(a,h)anthracene	6500	J	→J10
191-24-2	Benzo(g,h,i)perylene	9400	J	→J10

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-56(12.5-13.

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-03

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4343

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 14 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: 7.6

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.90-12-0	NAPHTHALENE, 1-METHYL-	11.32	250000	JN	J33
02.	UNKNOWN DIMETHYL NAPHTHALENE	12.50	150000	J	J33
03.	UNKNOWN	17.99	120000	J	J33
04.	ALDOL CONDENSATION PRODUCT	5.29	98000	JAB	R33
05.	UNKNOWN DIMETHYL NAPHTHALENE	12.30	86000	J	J33
06.	UNKNOWN C15H12 PAH	17.71	76000	J	J33
07.	UNKNOWN C15H12 PAH	17.78	74000	J	J33
08.	UNKNOWN	14.92	68000	J	J33
09.	UNKNOWN DIMETHYL NAPHTHALENE	12.76	66000	J	J33
10.	UNKNOWN C3 ALKYL BENZENE	8.08	65000	J	J33
11.	UNKNOWN METHYL 9H-FLUORENE	15.88	57000	J	J33
12.132-65-0	DIBENZOTHIOPHENE	16.43	57000	JN	J33
13.	UNKNOWN	14.98	55000	J	J33
14.	UNKNOWN C16H14 PAH	19.08	51000	J	J33
15.	UNKNOWN C16H14 PAH	19.01	45000	J	J33
16.	UNKNOWN C17H12 PAH	20.72	44000	J	J33
17.	UNKNOWN METHYL 9H-FLUORENE	16.07	42000	J	J33
18.	UNKNOWN C15H12 PAH	18.03	42000	J	J33
19.	UNKNOWN C16H12 PAH	18.38	38000	J	J33
20.	UNKNOWN METHYL 9H-FLUORENE	15.95	37000	J	J33
21.	UNKNOWN	14.64	35000	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-56(12.5-13.

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-03

Level (low/med): LOW Date Received: 08/19/99

% Solids: 84.6

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.7		J3, J1	P
7440-39-3	Barium	40.2			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.3			P
7440-70-2	Calcium				NR
7440-47-3	Chromium	27.3		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.0		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.020	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.5	U12	UJ3N UJ1	P
7440-22-4	Silver	0.16	U	UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

10/05/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-56(12.5-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-03

% Solids: 84.6 Date Received: 08/19/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.570	U	mg/Kg		L

Comments:

FORM I - WC

Dam 10/05/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-081899

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-05

Sample wt/vol: 5 (g/mL) G Lab File ID: >O4437

Level: (low/med) MED Date Received: 08/19/99

% Moisture: not dec. 21 Date Analyzed: 08/20/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 100 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6300	
108-88-3	Toluene	87	J
100-41-4	Ethylbenzene	2300	
1330-20-7	Xylene (total)	460	J

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-081899

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5695

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 24 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	43000	U
111-44-4	bis(2-Chloroethyl)ether	43000	U
95-57-8	2-Chlorophenol	43000	U
541-73-1	1,3-Dichlorobenzene	43000	U
106-46-7	1,4-Dichlorobenzene	43000	U
100-51-6	Benzyl alcohol	43000	U
95-50-1	1,2-Dichlorobenzene	43000	U
95-48-7	2-Methylphenol	43000	U
108-60-1	2,2'-oxybis(1-Chloropropane)	43000	U
106-44-5	4-Methylphenol	43000	U
621-64-7	N-Nitroso-di-n-propylamine	43000	U
67-72-1	Hexachloroethane	43000	U
98-95-3	Nitrobenzene	43000	U
78-59-1	Isophorone	43000	U
88-75-5	2-Nitrophenol	43000	U
105-67-9	2,4-Dimethylphenol	43000	U
65-85-0	Benzoic acid	210000	U
111-91-1	bis(2-Chloroethoxy)methane	43000	U
120-83-2	2,4-Dichlorophenol	43000	U
120-82-1	1,2,4-Trichlorobenzene	43000	U
91-20-3	Naphthalene	120000	
106-47-8	4-Chloroaniline	43000	U
87-68-3	Hexachlorobutadiene	43000	U
59-50-7	4-Chloro-3-methylphenol	43000	U
91-57-6	2-Methylnaphthalene	12000	J
77-47-4	Hexachlorocyclopentadiene	43000	U — UJ11
88-06-2	2,4,6-Trichlorophenol	43000	U
95-95-4	2,4,5-Trichlorophenol	210000	U
91-58-7	2-Chloronaphthalene	43000	U
88-74-4	2-Nitroaniline	210000	U
131-11-3	Dimethylphthalate	43000	U
208-96-8	Acenaphthylene	8300	J
606-20-2	2,6-Dinitrotoluene	43000	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-081899

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5695

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 24 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 7.6

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	210000	U
83-32-9	Acenaphthene	92000	
51-28-5	2,4-Dinitrophenol	210000	U
100-02-7	4-Nitrophenol	210000	U
132-64-9	Dibenzofuran	8100	J
121-14-2	2,4-Dinitrotoluene	43000	U
84-66-2	Diethylphthalate	43000	U
7005-72-3	4-Chlorophenyl-phenylether	43000	U
86-73-7	Fluorene	84000	
100-01-6	4-Nitroaniline	210000	U
534-52-1	4,6-Dinitro-2-methylphenol	210000	U
86-30-6	N-Nitrosodiphenylamine (1)	43000	U
101-55-3	4-Bromophenyl-phenylether	43000	U
118-74-1	Hexachlorobenzene	43000	U
87-86-5	Pentachlorophenol	210000	U
85-01-8	Phenanthrene	180000	
120-12-7	Anthracene	41000	J
86-74-8	Carbazole	2900	J
84-74-2	Di-n-butylphthalate	43000	U
206-44-0	Fluoranthene	44000	
129-00-0	Pyrene	67000	
85-68-7	Butylbenzylphthalate	43000	U
91-94-1	3,3'-Dichlorobenzidine	87000	U
56-55-3	Benzo(a)anthracene	24000	J
218-01-9	Chrysene	23000	J
117-81-7	bis(2-Ethylhexyl)phthalate	43000	U
117-84-0	Di-n-octylphthalate	43000	U
205-99-2	Benzo(b)fluoranthene	6300	J
207-08-9	Benzo(k)fluoranthene	11000	J
50-32-8	Benzo(a)pyrene	15000	J
193-39-5	Indeno(1,2,3-cd)pyrene	3700	J
53-70-3	Dibenzo(a,h)anthracene	1400	J
191-24-2	Benzo(g,h,i)perylene	3900	J

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

CF-SB-081899

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-05

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5695

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 24 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 100.0

GPC Cleanup: (Y/N) N pH: 7.6

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.77	130000	JAB	R
02. 90-12-0	NAPHTHALENE, 1-METHYL-	14.18	120000	JN	J
03.	UNKNOWN DIMETHYL NAPHTHALENE	15.52	84000	J	J
04.	UNKNOWN C15H12 PAH	20.66	61000	J	J
05.	UNKNOWN DIMETHYL NAPHTHALENE	15.32	46000	J	J
06.	UNKNOWN C15H12 PAH	20.41	38000	J	J
07.	UNKNOWN DIMETHYL NAPHTHALENE	15.76	38000	J	J
08.	UNKNOWN C15H12 PAH	20.47	34000	J	J
09.	UNKNOWN C17H12 PAH	23.03	33000	J	J
10.	UNKNOWN C13H12 ISOMER	17.60	32000	J	J
11.	UNKNOWN C13H12 ISOMER	17.67	31000	J	J
12. 132-65-0	DIBENZOTHIOPHENE	19.15	30000	JN	J
13.	UNKNOWN METHYL 9H-FLUORENE	18.75	29000	J	J
14.	UNKNOWN TRIMETHYL NAPHTHALEN	16.69	27000	J	J
15.	UNKNOWN C9H10 ISOMER	9.79	25000	J	J
16.	UNKNOWN TRIMETHYL NAPHTHALEN	16.94	24000	J	J
17.	UNKNOWN C16H14 PAH	21.63	23000	J	J
18.	UNKNOWN C20H14 PAH	26.03	23000	J	J
19. 35465-71-5	2-PHENYLNAPHTHALENE	21.02	22000	JN	J
20.	UNKNOWN 11H-BENZO FLUORENE	23.17	21000	J	J
21.	UNKNOWN 11H-BENZO FLUORENE	22.80	20000	J	J
22.					
23.					
24.					
25.					
26.					
27.					
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29.					
30.					

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-081899

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-05

Level (low/med): LOW Date Received: 08/19/99

% Solids: 80

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.3	J3	J1	P
7440-39-3	Barium	44.2	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.22	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	44.8		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	12.9		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.0093	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.1	U	UJ3 N UJ1	P
7440-22-4	Silver	0.22	U	UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

Jm 10/05/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-081899

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-05

% Solids: 80 Date Received: 08/19/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.600	U	mg/Kg		L

Comments:

FORM I - WC

10/05/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB-56(28-30)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-07

Sample wt/vol: 1 (g/mL) G Lab File ID: >N4014

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: not dec. 12 Date Analyzed: 08/23/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	660	J19, Ja1
108-88-3	Toluene	45	
100-41-4	Ethylbenzene	370	J19, Ja1
1330-20-7	Xylene (total)	320	

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-56(28-30)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4320

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	82	J
111-44-4	bis(2-Chloroethyl)ether	400	U
95-57-8	2-Chlorophenol	400	U
541-73-1	1,3-Dichlorobenzene	400	U
106-46-7	1,4-Dichlorobenzene	400	U
100-51-6	Benzyl alcohol	400	U
95-50-1	1,2-Dichlorobenzene	400	U
95-48-7	2-Methylphenol	400	U
108-60-1	2,2'-oxybis(1-Chloropropane)	400	U
106-44-5	4-Methylphenol	400	U
621-64-7	N-Nitroso-di-n-propylamine	400	U
67-72-1	Hexachloroethane	400	U
98-95-3	Nitrobenzene	400	U
78-59-1	Isophorone	400	U
88-75-5	2-Nitrophenol	400	U
105-67-9	2,4-Dimethylphenol	400	U
65-85-0	Benzoic acid	2000	U
111-91-1	bis(2-Chloroethoxy)methane	400	U
120-83-2	2,4-Dichlorophenol	400	U
120-82-1	1,2,4-Trichlorobenzene	400	U
91-20-3	Naphthalene	1900	
106-47-8	4-Chloroaniline	400	U
87-68-3	Hexachlorobutadiene	400	U
59-50-7	4-Chloro-3-methylphenol	400	U
91-57-6	2-Methylnaphthalene	1400	
77-47-4	Hexachlorocyclopentadiene	400	U
88-06-2	2,4,6-Trichlorophenol	400	U
95-95-4	2,4,5-Trichlorophenol	2000	U
91-58-7	2-Chloronaphthalene	400	U
88-74-4	2-Nitroaniline	2000	U
131-11-3	Dimethylphthalate	400	U
208-96-8	Acenaphthylene	240	J
606-20-2	2,6-Dinitrotoluene	400	U

UJ11

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-56(28-30)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4320

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.7

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	2000	U	UJ 11
83-32-9	Acenaphthene	320	J	
51-28-5	2,4-Dinitrophenol	2000	U	UJ 11
100-02-7	4-Nitrophenol	2000	U	
132-64-9	Dibenzofuran	47	J	
121-14-2	2,4-Dinitrotoluene	400	U	
84-66-2	Diethylphthalate	400	U	
7005-72-3	4-Chlorophenyl-phenylether	400	U	
86-73-7	Fluorene	350	J	
100-01-6	4-Nitroaniline	2000	U	
534-52-1	4,6-Dinitro-2-methylphenol	2000	U	
86-30-6	N-Nitrosodiphenylamine (1)	400	U	
101-55-3	4-Bromophenyl-phenylether	400	U	
118-74-1	Hexachlorobenzene	400	U	
87-86-5	Pentachlorophenol	2000	U	
85-01-8	Phenanthrene	610		
120-12-7	Anthracene	140	J	
86-74-8	Carbazole	77	J	
84-74-2	Di-n-butylphthalate	14	JB	400 U 12
206-44-0	Fluoranthene	160	J	
129-00-0	Pyrene	230	J	
85-68-7	Butylbenzylphthalate	400	U	
91-94-1	3,3'-Dichlorobenzidine	800	U	
56-55-3	Benzo(a)anthracene	86	J	
218-01-9	Chrysene	90	J	~~400 U 12~~
117-81-7	bis(2-Ethylhexyl)phthalate	15	J	400 U 12
117-84-0	Di-n-octylphthalate	8	JB	400 U 12
205-99-2	Benzo(b)fluoranthene	27	J	
207-08-9	Benzo(k)fluoranthene	50	J	
50-32-8	Benzo(a)pyrene	64	J	
193-39-5	Indeno(1,2,3-cd)pyrene	12	J	J 10
53-70-3	Dibenzo(a,h)anthracene	400	U	
191-24-2	Benzo(g,h,i)perylene	400	U	UJ 11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-56(28-30)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-07

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4320

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 18 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.7

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.78	41000	JAB	R33
02.	UNKNOWN	6.71	2700	JB	R33
03.	UNKNOWN	5.35	1300	JB	R33
04. 90-12-0	NAPHTHALENE, 1-METHYL-	11.67	710	JN	J33
05.	UNKNOWN ALKANE	25.80	330	J	J33
06.	UNKNOWN DIMETHYL NAPHTHALENE	12.94	280	J	J33
07.	UNKNOWN ALKANE	27.18	280	J	J33
08.	UNKNOWN	18.44	250	J	J33
09.	UNKNOWN C9H10 ISOMER	8.39	230	J	J33
10.	UNKNOWN DIMETHYL NAPHTHALENE	12.73	220	J	J33
11.	UNKNOWN	7.68	200	JB	R33
12.	UNKNOWN	6.20	200	JB	R33
13.	UNKNOWN DIMETHYL NAPHTHALENE	12.99	150	J	J33
14.	UNKNOWN	7.93	150	J	J33
15.	UNKNOWN C15H12 PAH	18.16	140	J	J33
16. 141-79-7	3-PENTEN-2-ONE, 4-METHYL-	4.93	140	JBN	R33
17.	UNKNOWN C15H12 PAH	18.23	130	J	J33
18. 92-52-4	BIPHENYL	12.37	120	JN	J33
19.	UNKNOWN ETHYL NAPHTHALENE	12.59	120	J	J33
20.	UNKNOWN DIMETHYL NAPHTHALENE	13.23	110	J	J33
21.	UNKNOWN C16H14 PAH	19.54	100	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-56(28-30)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-07

Level (low/med): LOW Date Received: 08/19/99

% Solids: 88.8

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	5.4	J3	J1	P
7440-39-3	Barium	45.6			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.17	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	61.0		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.9		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.014	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.85	U	J3 N J1	P
7440-22-4	Silver	0.17	U	J9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

10/05/14

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-56(28-30)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-07

% Solids: 88.8 Date Received: 08/19/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.540	U	mg/Kg		L

Comments:

FORM I - WC

10/25/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-56(43-44')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-04

Sample wt/vol: 5 (g/mL) G Lab File ID: >O4436

Level: (low/med) MED Date Received: 08/19/99

% Moisture: not dec. 15 Date Analyzed: 08/20/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: 10000 (uL) Soil Aliquot Volume: 2 (uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	84000	
108-88-3	Toluene	130000	
100-41-4	Ethylbenzene	380000	
1330-20-7	Xylene (total)	540000	

11

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-56(43-44')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5696

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 09/01/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	740000	U	
111-44-4	bis(2-Chloroethyl)ether	740000	U	
95-57-8	2-Chlorophenol	740000	U	
541-73-1	1,3-Dichlorobenzene	740000	U	
106-46-7	1,4-Dichlorobenzene	740000	U	
100-51-6	Benzyl alcohol	740000	U	
95-50-1	1,2-Dichlorobenzene	740000	U	
95-48-7	2-Methylphenol	740000	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	740000	U	
106-44-5	4-Methylphenol	740000	U	
621-64-7	N-Nitroso-di-n-propylamine	740000	U	
67-72-1	Hexachloroethane	740000	U	
98-95-3	Nitrobenzene	740000	U	
78-59-1	Isophorone	740000	U	
88-75-5	2-Nitrophenol	740000	U	
105-67-9	2,4-Dimethylphenol	740000	U	
65-85-0	Benzoic acid	3600000	U	
111-91-1	bis(2-Chloroethoxy)methane	740000	U	
120-83-2	2,4-Dichlorophenol	740000	U	
120-82-1	1,2,4-Trichlorobenzene	740000	U	
91-20-3	Naphthalene	3700000		
106-47-8	4-Chloroaniline	740000	U	
87-68-3	Hexachlorobutadiene	740000	U	
59-50-7	4-Chloro-3-methylphenol	740000	U	
91-57-6	2-Methylnaphthalene	2000000		
77-47-4	Hexachlorocyclopentadiene	740000	U	UJ11
88-06-2	2,4,6-Trichlorophenol	740000	U	
95-95-4	2,4,5-Trichlorophenol	3600000	U	
91-58-7	2-Chloronaphthalene	740000	U	
88-74-4	2-Nitroaniline	3600000	U	
131-11-3	Dimethylphthalate	740000	U	
208-96-8	Acenaphthylene	100000	J	
606-20-2	2,6-Dinitrotoluene	740000	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-56(43-44')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5696

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 09/01/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3600000	U
83-32-9	Acenaphthene	650000	J
51-28-5	2,4-Dinitrophenol	3600000	U
100-02-7	4-Nitrophenol	3600000	U
132-64-9	Dibenzofuran	65000	J
121-14-2	2,4-Dinitrotoluene	740000	U
84-66-2	Diethylphthalate	740000	U
7005-72-3	4-Chlorophenyl-phenylether	740000	U
86-73-7	Fluorene	450000	J
100-01-6	4-Nitroaniline	3600000	U
534-52-1	4,6-Dinitro-2-methylphenol	3600000	U
86-30-6	N-Nitrosodiphenylamine (1)	740000	U
101-55-3	4-Bromophenyl-phenylether	740000	U
118-74-1	Hexachlorobenzene	740000	U
87-86-5	Pentachlorophenol	3600000	U
85-01-8	Phenanthrene	1200000	
120-12-7	Anthracene	280000	J
86-74-8	Carbazole	16000	J
84-74-2	Di-n-butylphthalate	740000	U
206-44-0	Fluoranthene	350000	J
129-00-0	Pyrene	470000	J
85-68-7	Butylbenzylphthalate	740000	U
91-94-1	3,3'-Dichlorobenzidine	1500000	U
56-55-3	Benzo(a)anthracene	170000	J
218-01-9	Chrysene	160000	J
117-81-7	bis(2-Ethylhexyl)phthalate	740000	U
117-84-0	Di-n-octylphthalate	740000	U
205-99-2	Benzo(b)fluoranthene	50000	J
207-08-9	Benzo(k)fluoranthene	88000	J
50-32-8	Benzo(a)pyrene	120000	J
193-39-5	Indeno(1,2,3-cd)pyrene	33000	J
53-70-3	Dibenzo(a,h)anthracene	740000	U
191-24-2	Benzo(g,h,i)perylene	37000	J

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CF-SB-56(43-44')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-04

Sample wt/vol: 30 (g/mL) G Lab File ID: >P5696

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 09/01/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 09/18/99

Injection Volume: 2.0 (uL) Dilution Factor: 1000.0

GPC Cleanup: (Y/N) N pH: 8.0

Number TICs Found: 20 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01. 90-12-0	NAPHTHALENE, 1-METHYL-	14.18	1400000	JN	J33
02.	UNKNOWN C9H10 ISOMER	9.80	1200000	J	J33
03.	UNKNOWN DIMETHYL NAPHTHALENE	15.51	630000	J	J35
04.	UNKNOWN DIMETHYL NAPHTHALENE	15.32	550000	J	J33
05.	UNKNOWN C19H14 PAH	25.89	410000	J	J33
06.	UNKNOWN C10H10 ISOMER	11.85	380000	J	J33
07.	UNKNOWN C3 ALKYL BENZENE	8.34	350000	J	J33
08.	UNKNOWN	20.66	350000	J	J33
09.	UNKNOWN C3 ALKYL BENZENE	8.96	320000	J	J33
10.	UNKNOWN C10H10 ISOMER	11.73	300000	J	J33
11.	UNKNOWN ETHYL NAPHTHALENE	15.19	290000	J	J33
12.	UNKNOWN DIMETHYL NAPHTHALENE	15.56	290000	J	J33
13.	UNKNOWN DIMETHYL NAPHTHALENE	15.75	280000	J	J33
14. 92-52-4	BIPHENYL	14.99	270000	JN	J33
15.	UNKNOWN C15H12 PAH	20.47	260000	J	J33
16.	UNKNOWN C15H12 PAH	20.41	240000	J	J33
17.	UNKNOWN 11H-BENZO FLUORENE	23.03	220000	J	J33
18.	UNKNOWN TRIMETHYL NAPHTHALEN	16.94	210000	J	J33
19.	UNKNOWN C16H14 PAH	21.63	190000	J	J33
20.	UNKNOWN C18H12 PAH	25.05	170000	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-56(43-44')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-04

Level (low/med): LOW Date Received: 08/19/99

% Solids: 90.2

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	3.6		J1,J3	P
7440-39-3	Barium	74.9			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.12	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	39.5		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	10.3		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.015	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	1.3	U12	UJN UJ3	P
7440-22-4	Silver	0.12	U	UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

JAM 10/05/14

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-56(43-44'

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-04

% Solids: 90.2 Date Received: 08/19/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.560	U	mg/Kg		L

Comments:

FORM I - WC

JAM 10/05/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-56(63-63.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-08

Sample wt/vol: 5 (g/mL) G Lab File ID: >N4019

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: not dec. 9 Date Analyzed: 08/23/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Report these results.

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
71-43-2	Benzene	5	U	
108-88-3	Toluene	5	U	
100-41-4	Ethylbenzene	5	U	UJ7
1330-20-7	Xylene (total)	5	U	UJ7

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-SB-56(63-63.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-08RE

Sample wt/vol: 5 (g/mL) G Lab File ID: >N4038

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: not dec. 9 Date Analyzed: 08/24/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
71-43-2	Benzene	5	U	
108-88-3	Toluene	5	U	
100-41-4	Ethylbenzene	5	U	UJ7
1330-20-7	Xylene (total)	5	U	UJ7

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-SB-56(63-63.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4342

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
108-95-2	Phenol	370	U	
111-44-4	bis(2-Chloroethyl)ether	370	U	
95-57-8	2-Chlorophenol	370	U	
541-73-1	1,3-Dichlorobenzene	370	U	
106-46-7	1,4-Dichlorobenzene	370	U	
100-51-6	Benzyl alcohol	370	U	
95-50-1	1,2-Dichlorobenzene	370	U	
95-48-7	2-Methylphenol	370	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U	
106-44-5	4-Methylphenol	370	U	
621-64-7	N-Nitroso-di-n-propylamine	370	U	
67-72-1	Hexachloroethane	370	U	
98-95-3	Nitrobenzene	370	U	
78-59-1	Isophorone	370	U	
88-75-5	2-Nitrophenol	370	U	
105-67-9	2,4-Dimethylphenol	370	U	
65-85-0	Benzoic acid	1800	U	
111-91-1	bis(2-Chloroethoxy)methane	370	U	
120-83-2	2,4-Dichlorophenol	370	U	
120-82-1	1,2,4-Trichlorobenzene	370	U	
91-20-3	Naphthalene	14	J	
106-47-8	4-Chloroaniline	370	U	→ UJ11
87-68-3	Hexachlorobutadiene	370	U	
59-50-7	4-Chloro-3-methylphenol	370	U	
91-57-6	2-Methylnaphthalene	370	U	
77-47-4	Hexachlorocyclopentadiene	370	U	→ UJ11
88-06-2	2,4,6-Trichlorophenol	370	U	
95-95-4	2,4,5-Trichlorophenol	1800	U	
91-58-7	2-Chloronaphthalene	370	U	
88-74-4	2-Nitroaniline	1800	U	
131-11-3	Dimethylphthalate	370	U	
208-96-8	Acenaphthylene	370	U	
606-20-2	2,6-Dinitrotoluene	370	U	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB-56(63-63.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4342

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	370	U	
51-28-5	2,4-Dinitrophenol	1800	U	UJ11
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	370	U	
121-14-2	2,4-Dinitrotoluene	370	U	
84-66-2	Diethylphthalate	370	U	
7005-72-3	4-Chlorophenyl-phenylether	370	U	
86-73-7	Fluorene	370	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	370	U	
101-55-3	4-Bromophenyl-phenylether	370	U	
118-74-1	Hexachlorobenzene	370	U	
87-86-5	Pentachlorophenol	1800	U	
85-01-8	Phenanthrene	370	U	
120-12-7	Anthracene	370	U	
86-74-8	Carbazole	370	U	
84-74-2	Di-n-butylphthalate	18	JB	370UL
206-44-0	Fluoranthene	370	U	
129-00-0	Pyrene	370	U	
85-68-7	Butylbenzylphthalate	370	U	
91-94-1	3,3'-Dichlorobenzidine	740	U	
56-55-3	Benzo(a)anthracene	370	U	
218-01-9	Chrysene	370	U	UJ11
117-81-7	bis(2-Ethylhexyl)phthalate	370	U	
117-84-0	Di-n-octylphthalate	7	JB	370UL
205-99-2	Benzo(b)fluoranthene	370	U	
207-08-9	Benzo(k)fluoranthene	370	U	UJ11
50-32-8	Benzo(a)pyrene	370	U	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	370	U	
191-24-2	Benzo(g,h,i)perylene	370	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB-56(63-63.5)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-08

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4342

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.0

Number TICs Found: 8 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.55	43000	JAB	R35
02.	UNKNOWN	6.44	3400	JB	R33
03.	UNKNOWN	5.13	1400	JB	J33
04.	UNKNOWN ALKANE	4.98	580	JB	J33
05.	UNKNOWN	7.38	490	JB	R33
06.	UNKNOWN	5.93	230	JB	J33
07.	UNKNOWN	7.63	170	J	J35
08. 141-79-7	3-PENTEN-2-ONE, 4-METHYL-	4.67	150	JBN	J33
09.					
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U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB-56(63-63.5

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-08

Level (low/med): LOW Date Received: 08/19/99

% Solids: 89.7

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	2.1	J3,	J1	P
7440-39-3	Barium	41.6			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.15	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	27.5		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	5.3		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.017	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.76	U	UJ3 N UJ1	P
7440-22-4	Silver	0.15	U	UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

10/05/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB-56(63-63.5)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-08

% Solids: 89.7 Date Received: 08/19/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.540	U	mg/Kg		L

Comments:

FORM I - WC

DAM 10/05/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SB56(122-123)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-09

Sample wt/vol: 5 (g/mL) G Lab File ID: >N4020

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: not dec. 14 Date Analyzed: 08/23/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	6	U
108-88-3	Toluene	6	U
100-41-4	Ethylbenzene	6	U
1330-20-7	Xylene (total)	6	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB56(122-123)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4317

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 08/25/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	350	U
111-44-4	bis(2-Chloroethyl)ether	350	U
95-57-8	2-Chlorophenol	350	U
541-73-1	1,3-Dichlorobenzene	350	U
106-46-7	1,4-Dichlorobenzene	350	U
100-51-6	Benzyl alcohol	350	U
95-50-1	1,2-Dichlorobenzene	350	U
95-48-7	2-Methylphenol	350	U
108-60-1	2,2'-oxybis(1-Chloropropane)	350	U
106-44-5	4-Methylphenol	350	U
621-64-7	N-Nitroso-di-n-propylamine	350	U
67-72-1	Hexachloroethane	350	U
98-95-3	Nitrobenzene	350	U
78-59-1	Isophorone	350	U
88-75-5	2-Nitrophenol	350	U
105-67-9	2,4-Dimethylphenol	350	U
65-85-0	Benzoic acid	1700	U
111-91-1	bis(2-Chloroethoxy)methane	350	U
120-83-2	2,4-Dichlorophenol	350	U
120-82-1	1,2,4-Trichlorobenzene	350	U
91-20-3	Naphthalene	350	U
106-47-8	4-Chloroaniline	350	U
87-68-3	Hexachlorobutadiene	350	U
59-50-7	4-Chloro-3-methylphenol	350	U
91-57-6	2-Methylnaphthalene	350	U
77-47-4	Hexachlorocyclopentadiene	350	U
88-06-2	2,4,6-Trichlorophenol	350	U
95-95-4	2,4,5-Trichlorophenol	1700	U
91-58-7	2-Chloronaphthalene	350	U
88-74-4	2-Nitroaniline	1700	U
131-11-3	Dimethylphthalate	350	U
208-96-8	Acenaphthylene	350	U
606-20-2	2,6-Dinitrotoluene	350	U

UJ11

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-SB56(122-123)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4317

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 08/25/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1700	U	UJ11
83-32-9	Acenaphthene	350	U	
51-28-5	2,4-Dinitrophenol	1700	U	UJ11
100-02-7	4-Nitrophenol	1700	U	
132-64-9	Dibenzofuran	350	U	
121-14-2	2,4-Dinitrotoluene	350	U	
84-66-2	Diethylphthalate	350	U	
7005-72-3	4-Chlorophenyl-phenylether	350	U	
86-73-7	Fluorene	350	U	
100-01-6	4-Nitroaniline	1700	U	
534-52-1	4,6-Dinitro-2-methylphenol	1700	U	
86-30-6	N-Nitrosodiphenylamine (1)	350	U	
101-55-3	4-Bromophenyl-phenylether	350	U	
118-74-1	Hexachlorobenzene	350	U	
87-86-5	Pentachlorophenol	1700	U	
85-01-8	Phenanthrene	350	U	
120-12-7	Anthracene	350	U	
86-74-8	Carbazole	350	U	
84-74-2	Di-n-butylphthalate	24	JB	350 UJ2
206-44-0	Fluoranthene	350	U	
129-00-0	Pyrene	350	U	
85-68-7	Butylbenzylphthalate	350	U	
91-94-1	3,3'-Dichlorobenzidine	700	U	
56-55-3	Benzo(a)anthracene	350	U	
218-01-9	Chrysene	350	U	
117-81-7	bis(2-Ethylhexyl)phthalate	64	JB	350 UJ2
117-84-0	Di-n-octylphthalate	9	JB	350 UJ2
205-99-2	Benzo(b)fluoranthene	350	U	
207-08-9	Benzo(k)fluoranthene	350	U	
50-32-8	Benzo(a)pyrene	350	U	
193-39-5	Indeno(1,2,3-cd)pyrene	350	U	
53-70-3	Dibenzo(a,h)anthracene	350	U	
191-24-2	Benzo(g,h,i)perylene	350	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-SB56(122-123)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) SOIL Lab Sample ID: 991983A-09

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4317

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: 6 decanted: (Y/N) N Date Extracted: 08/25/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.3

Number TICs Found: 13 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.87	50000	JAB	R33
02.	UNKNOWN	6.76	4600	JB	R33
03.	UNKNOWN	5.50	3000	JB	R33
04.	UNKNOWN	5.31	1200	JB	R33
05.	UNKNOWN	5.34	480	JB	R33
06.	UNKNOWN	7.68	480	JB	R33
07.	UNKNOWN	7.94	360	JB	R33
08.	UNKNOWN	6.23	270	JB	R33
09.	,UNKNOWN C22H44O2 ISOMER	21.88	160	J	J33
10.	UNKNOWN	20.16	130	J	J33
11.	UNKNOWN C6H10O2 ISOMER	6.85	120	J	J33
12.	UNKNOWN	5.06	84	JB	R33
13.141-79-7	3-PENTEN-2-ONE, 4-METHYL-	4.94	76	JBN	R33
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U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-SB56(122-123)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-09

Level (low/med): LOW Date Received: 08/20/99

% Solids: 82.1

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	1.2	U	UJ1	P
7440-39-3	Barium	43.9			P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	0.24	B		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	21.9		J1	P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.8		J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.012	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	0.75	U	UJ3N UJ1	P
7440-22-4	Silver	0.15	U	UJ9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

10/05/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SB56(122-123)

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): SOIL Lab Sample ID: 991983A-09

% Solids: 82.1 Date Received: 08/20/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	2.21		mg/Kg		L

Comments:

FORM I - WC

10/05/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFSB-57(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-16

Sample wt/vol: 1 (g/mL) G Lab File ID: >K5677

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: not dec. 22 Date Analyzed: 07/31/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	140	
108-88-3	Toluene	110	
100-41-4	Ethylbenzene	780	
1330-20-7	Xylene (total)	570	

EMM 9/2/99

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-57(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab. Sample ID: 991811A-16

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4103

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 10.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	8500	U
111-44-4	bis(2-Chloroethyl)ether	8500	U
95-57-8	2-Chlorophenol	8500	U
541-73-1	1,3-Dichlorobenzene	8500	U
106-46-7	1,4-Dichlorobenzene	8500	U
100-51-6	Benzyl alcohol	8500	U
95-50-1	1,2-Dichlorobenzene	8500	U
95-48-7	2-Methylphenol	8500	U
108-60-1	2,2'-oxybis(1-Chloropropane)	8500	U
106-44-5	4-Methylphenol	8500	U
621-64-7	N-Nitroso-di-n-propylamine	8500	U
67-72-1	Hexachloroethane	8500	U
98-95-3	Nitrobenzene	8500	U
78-59-1	Isophorone	8500	U
88-75-5	2-Nitrophenol	8500	U
105-67-9	2,4-Dimethylphenol	8500	U
65-85-0	Benzoic acid	41000	U
111-91-1	bis(2-Chloroethoxy)methane	8500	U
120-83-2	2,4-Dichlorophenol	8500	U
120-82-1	1,2,4-Trichlorobenzene	8500	U
91-20-3	Naphthalene	18000	
106-47-8	4-Chloroaniline	8500	U
87-68-3	Hexachlorobutadiene	8500	U
59-50-7	4-Chloro-3-methylphenol	8500	U
91-57-6	2-Methylnaphthalene	1000	J
77-47-4	Hexachlorocyclopentadiene	8500	U
88-06-2	2,4,6-Trichlorophenol	8500	U
95-95-4	2,4,5-Trichlorophenol	41000	U
91-58-7	2-Chloronaphthalene	8500	U
88-74-4	2-Nitroaniline	41000	U
131-11-3	Dimethylphthalate	8500	U
208-96-8	Acenaphthylene	1800	J
606-20-2	2,6-Dinitrotoluene	8500	U

UJ11

EM 9/21/99

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-57(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-16

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4103

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 10.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	41000	U	
83-32-9	Acenaphthene	1900	J	
51-28-5	2,4-Dinitrophenol	41000	U	
100-02-7	4-Nitrophenol	41000	U	
132-64-9	Dibenzofuran	650	J	
121-14-2	2,4-Dinitrotoluene	8500	U	
84-66-2	Diethylphthalate	8500	U	
7005-72-3	4-Chlorophenyl-phenylether	8500	U	
86-73-7	Fluorene	1800	J	
100-01-6	4-Nitroaniline	41000	U	
534-52-1	4,6-Dinitro-2-methylphenol	41000	U	
86-30-6	N-Nitrosodiphenylamine (1)	470	J	
101-55-3	4-Bromophenyl-phenylether	8500	U	
118-74-1	Hexachlorobenzene	8500	U	
87-86-5	Pentachlorophenol	41000	U	UJ27
85-01-8	Phenanthrene	10000		
120-12-7	Anthracene	5000	J	
86-74-8	Carbazole	2000	J	J10
84-74-2	Di-n-butylphthalate	8500	U	
206-44-0	Fluoranthene	39000		
129-00-0	Pyrene	41000		
85-68-7	Butylbenzylphthalate	8500	U	
91-94-1	3,3'-Dichlorobenzidine	17000	U	UJ11
56-55-3	Benzo(a)anthracene	20000		
218-01-9	Chrysene	21000		
117-81-7	bis(2-Ethylhexyl)phthalate	180	JB	8500 U-
117-84-0	Di-n-octylphthalate	8500	U	
205-99-2	Benzo(b)fluoranthene	17000		
207-08-9	Benzo(k)fluoranthene	29000		
50-32-8	Benzo(a)pyrene	26000		
193-39-5	Indeno(1,2,3-cd)pyrene	16000		J10
53-70-3	Dibenzo(a,h)anthracene	6300	J	J10
191-24-2	Benzo(g,h,i)perylene	18000		J10

(1) - Cannot be separated from Diphenylamine

EKM 9/21/99

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFSB-57(5'-7')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-16

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4103

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 22 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 2000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 10.0

GPC Cleanup: (Y/N) N pH: 10.5

Number TICs Found: 21 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	5.94	120000	JAB	J33
02.	UNKNOWN C20H12 PAH	27.13	19000	J	J33
03.	UNKNOWN	8.73	16000	J	J33
04.	UNKNOWN C17H12 PAH	21.73	16000	J	J33
05.	UNKNOWN	18.95	9900	J	J33
06.	UNKNOWN C17H12 PAH	21.88	8400	J	J33
07.	UNKNOWN C20H12 PAH	27.42	7900	J	J33
08.	UNKNOWN C20H12 PAH	26.74	7600	J	J33
09.	UNKNOWN	25.77	7300	J	J33
10.	UNKNOWN BRANCHED ALKANE	17.16	6400	J	J33
11.	UNKNOWN BRANCHED ALKANE	13.49	6000	J	J33
12.	UNKNOWN ISOMER OF METHYL PYR	21.98	6000	J	J33
13.	UNKNOWN	24.22	5500	J	J33
14.	UNKNOWN BRANCHED ALKANE	15.66	5000	J	J33
15.	UNKNOWN C20H14 PAH	26.16	4800	J	J33
16.	UNKNOWN C19H14 PAH	24.91	4700	J	J33
17.	UNKNOWN C16H14 PAH	19.99	4700	J	J33
18.	UNKNOWN BRANCHED ALKANE	12.38	4500	J	J33
19.	UNKNOWN	27.04	4400	J	J33
20.	UNKNOWN C17H12 PAH	22.28	4300	J	J33
21.	UNKNOWN C17H12 PAH	21.45	4200	J	J33
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EMM 9/21/99

Soil

TABLE AS-1.4
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CFSB-57 (29'-31')	CFSB-57 (5'-7')	CF-SB-50 (39-41')	CF-SB-5 0(17-19)
Lab Sample I.D.	991811A-15	991811A-16	991811A-19	991811A-20
Arsenic	4.0 J3	5.7 J3	3.4 J3	10.6 J23
Barium	66.6	67.0	82.4	168. J23
Cadmium	2.5 U J2	3.5 J2	0.16U	0.61U J23
Chromium	21.0* J1, J2	41.7* J1, J2	15.8* J1, J2	2.6* J1, J23
Lead	9.1	79.3	10. J5	5.3 J23
Mercury	0.0072U	0.38	0.027U	0.20U J3
Selenium	0.92U J3	1.6 U J3	1.6 U J3	5.0 U J3
Silver	0.18U	0.19U	0.16U J3	0.61U J3

See Appendix for qualifier definitions

Chromium J1, J2, J5

All results J1, J23

tm 9/9

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB-57(5'-7')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-16

% Solids: 74.4 Date Received: 07/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	30.5		J, mg/Kg		L

Comments:

FORM I - WC

9/5

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFSB-57(29'-31')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab. Sample ID: 991811A-15

Sample wt/vol: 5 (g/mL) G Lab File ID: >K5670

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: not dec. 11 Date Analyzed: 07/31/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
71-43-2	Benzene	4	J
108-88-3	Toluene	3	J
100-41-4	Ethylbenzene	2	J
1330-20-7	Xylene (total)	4	J

EHM 9/21

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-57(29'-31')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-15

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4096

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	370	U
111-44-4	bis(2-Chloroethyl)ether	370	U
95-57-8	2-Chlorophenol	370	U
541-73-1	1,3-Dichlorobenzene	370	U
106-46-7	1,4-Dichlorobenzene	370	U
100-51-6	Benzyl alcohol	370	U
95-50-1	1,2-Dichlorobenzene	370	U
95-48-7	2-Methylphenol	370	U
108-60-1	2,2'-oxybis(1-Chloropropane)	370	U
106-44-5	4-Methylphenol	370	U
621-64-7	N-Nitroso-di-n-propylamine	370	U
67-72-1	Hexachloroethane	370	U
98-95-3	Nitrobenzene	370	U
78-59-1	Isophorone	370	U
88-75-5	2-Nitrophenol	370	U
105-67-9	2,4-Dimethylphenol	370	U
65-85-0	Benzoic acid	1800	U
111-91-1	bis(2-Chloroethoxy)methane	370	U
120-83-2	2,4-Dichlorophenol	370	U
120-82-1	1,2,4-Trichlorobenzene	370	U
91-20-3	Naphthalene	240	J
106-47-8	4-Chloroaniline	370	U
87-68-3	Hexachlorobutadiene	370	U
59-50-7	4-Chloro-3-methylphenol	370	U
91-57-6	2-Methylnaphthalene	68	J
77-47-4	Hexachlorocyclopentadiene	370	U UJ11
88-06-2	2,4,6-Trichlorophenol	370	U
95-95-4	2,4,5-Trichlorophenol	1800	U
91-58-7	2-Chloronaphthalene	370	U
88-74-4	2-Nitroaniline	1800	U
131-11-3	Dimethylphthalate	370	U
208-96-8	Acenaphthylene	16	J
606-20-2	2,6-Dinitrotoluene	370	U

EMM 9/21/99

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFSB-57(29'-31')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-15

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4096

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q	
99-09-2	3-Nitroaniline	1800	U	
83-32-9	Acenaphthene	370	U	
51-28-5	2,4-Dinitrophenol	1800	U	
100-02-7	4-Nitrophenol	1800	U	
132-64-9	Dibenzofuran	370	U	
121-14-2	2,4-Dinitrotoluene	370	U	
84-66-2	Diethylphthalate	370	U	
7005-72-3	4-Chlorophenyl-phenylether	370	U	
86-73-7	Fluorene	370	U	
100-01-6	4-Nitroaniline	1800	U	
534-52-1	4,6-Dinitro-2-methylphenol	1800	U	
86-30-6	N-Nitrosodiphenylamine (1)	370	U	
101-55-3	4-Bromophenyl-phenylether	370	U	
118-74-1	Hexachlorobenzene	370	U	
87-86-5	Pentachlorophenol	1800	U	UJ27
85-01-8	Phenanthrene	370	U	
120-12-7	Anthracene	370	U	
86-74-8	Carbazole	370	U	
84-74-2	Di-n-butylphthalate	14	JB	370U12
206-44-0	Fluoranthene	370	U	
129-00-0	Pyrene	370	U	
85-68-7	Butylbenzylphthalate	370	U	
91-94-1	3,3'-Dichlorobenzidine	740	U	UJ11
56-55-3	Benzo(a)anthracene	370	U	
218-01-9	Chrysene	370	U	
117-81-7	bis(2-Ethylhexyl)phthalate	25	JB	370U12
117-84-0	Di-n-octylphthalate	3	JB	370U12
205-99-2	Benzo(b)fluoranthene	370	U	
207-08-9	Benzo(k)fluoranthene	370	U	
50-32-8	Benzo(a)pyrene	370	U	
193-39-5	Indeno(1,2,3-cd)pyrene	370	U	
53-70-3	Dibenzo(a,h)anthracene	370	U	
191-24-2	Benzo(g,h,i)perylene	370	U	

(1) - Cannot be separated from Diphenylamine

EMM 9/21/99

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFSB-57(29'-31')

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) SOIL Lab Sample ID: 991811A-15

Sample wt/vol: 30 (g/mL) G Lab File ID: >R4096

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: 11 decanted: (Y/N) N Date Extracted: 08/04/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 08/25/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 8.5

Number TICs Found: 7 (ug/L or ug/Kg) UG/KG

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	ALDOL CONDENSATION PRODUCT	6.11	48000	JAB	R35
02.	UNKNOWN	7.04	2400	JB	J35
03.	UNKNOWN	5.70	1200	J	J35
04.	UNKNOWN	7.98	330	JB	R35
05.	UNKNOWN	5.58	220	J	J35
06.	UNKNOWN	6.52	160	J	J35
07. 141-79-7	3-PENTEN-2-ONE, 4-METHYL-	5.23	120	JNB	J35
08.					
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EMM 9/21/99

Soil

TABLE AS-1.4
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CFSB-57 (29'-31')	CFSB-57 (5'-7')	CF-SB-50 (39-41')	CF-SB-5 0(17-19)
Lab Sample I.D.	991811A-15	991811A-16	991811A-19	991811A-20
Arsenic	4.0 J3	5.7 J3	3.2 J3	10.6 J23
Barium	66.6	67.0	82.4	168. J23
Cadmium	2.5 UJ2 UJ1	3.5 J3 J2	J1 0.16U UJ1	0.61U UJ1
Chromium	21.0* J1, J2	41.7* J1, J2	J1 15.8* J1, J2	J123 2.6* J1, J2
Lead	9.1	79.3	10.1 J5	11.5 J23
Mercury	0.0072U	0.38	0.027U	0.20U UJ3
Selenium	0.92U UJ3	1.6 UJ2, J3	1.4 UJ2	5.0 UJ2, J3
Silver	0.18U	0.19U	0.16U UJ9	0.61U UJ9

See Appendix for qualifier definitions

Chromium J1, 2, 5

all results J1 UJ23

tm 9/9

TABLE VO-1.1 Aqueous
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKO1 VBLKO1 1.00	CF-TB-0 9/20/99 992348A-16 VBLKO1 1.00		Quant. Limits with no Dilution
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received Date Extracted Date Analyzed	 N/A 09/23/99	09/21/99 N/A 09/23/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/14/95

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFSB-57(29'-31')

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): SOIL Lab Sample ID: 991811A-15

% Solids: 84.6 Date Received: 07/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.580	U	mg/Kg		L

Comments:

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TABLE VO-1.2 Aqueous
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB-0 9/15/99		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMN	992348A-13		
Method Blank I.D.	VBLKMN	VBLKMN		
Quant. Factor	1.00	1.00		
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		09/17/99		
Date Extracted	N/A	N/A		
Date Analyzed	09/20/99	09/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/16/99

TABLE VO-1.0 Aqueous
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB-0 9/14/99	CF-FB-0 9/14/99	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMJ	992348A-01	992348A-02	
Method Blank I.D.	VBLKMJ	VBLKMJ	VBLKMJ	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		09/15/99	09/15/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/18/99	09/18/99	09/18/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.2 Soil
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-33		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKV	993194C-05		
Method Blank I.D.	VBLKKV	VBLKKV		
Quant. Factor	1.00	1.14		
Benzene	U	U		5.0
Toluene	U	.2J		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		12/01/99		
Date Extracted	N/A	N/A		
Date Analyzed	12/07/99	12/07/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00 /KS

TABLE SV-1.1
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-33		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKYQ	993194C-05		
Method Blank I.D.	SBLKYQ	SBLKYQ		
Quant. Factor	1.00	1.15		
Phenol	U	U		330
bis(2-Chloroethyl)ether	U	U		330
2-Chlorophenol	U	U		330
1,3-Dichlorobenzene	U	U		330
1,4-Dichlorobenzene	U	U		330
Benzyl alcohol	U	U		330
1,2-Dichlorobenzene	U	U		330
2-Methylphenol	U	U		330
2,2'-oxybis(1-Chloropropane)	U	U UJ11		330
4-Methylphenol	U	U UJ11		330
N-Nitroso-di-n-propylamine	U	U		330
Hexachloroethane	U	U		330
Nitrobenzene	U	U		330
Isophorone	U	U		330
2-Nitrophenol	U	U		330
2,4-Dimethylphenol	U	U		330
Benzoic acid	U	37J		1600
bis(2-Chloroethoxy)methane	U	U		330
2,4-Dichlorophenol	U	U		330
1,2,4-Trichlorobenzene	U	U		330
Naphthalene	U	17J		330
4-Chloroaniline	U	U		330
Hexachlorobutadiene	U	U		330
4-Chloro-3-methylphenol	U	U		330
2-Methylnaphthalene	U	19J		330
Hexachlorocyclopentadiene	U	U		330
2,4,6-Trichlorophenol	U	U		330
2,4,5-Trichlorophenol	U	U		1600
2-Chloronaphthalene	U	U		330
2-Nitroaniline	U	U		1600
Dimethylphthalate	U	U		330
Acenaphthylene	U	61J		330
2,6-Dinitrotoluene	U	U		330
3-Nitroaniline	U	U		1600
Acenaphthene	U	46J		330
Date Received		12/01/99		
Date Extracted	12/04/99	12/04/99		
Date Analyzed	12/15/99	12/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-33		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKYQ	993194C-05		
Method Blank I.D.	SBLKYQ	SBLKYQ		
Quant. Factor	1.00	1.15		
2,4-Dinitrophenol	U	U UJ10, UJ11		1600
4-Nitrophenol	U	U		1600
Dibenzofuran	U	29J		330
2,4-Dinitrotoluene	U	U		330
Diethylphthalate	U	U		330
4-Chlorophenyl-phenylether	U	U		330
Fluorene	U	60J		330
4-Nitroaniline	U	U		1600
4,6-Dinitro-2-methylphenol	U	U		1600
N-Nitrosodiphenylamine (1)	U	U		330
4-Bromophenyl-phenylether	U	U		330
Hexachlorobenzene	U	U		330
Pentachlorophenol	U	U		1600
Phenanthrene	U	520		330
Anthracene	U	160J		330
Carbazole	U	69J		330
Di-n-butylphthalate	19J	42JB 380U U12		330
Fluoranthene	U	640		330
Pyrene	U	870		330
Butylbenzylphthalate	U	1300		330
3,3'-Dichlorobenzidine	U	U		660
Benzo(a)anthracene	U	540		330
Chrysene	U	590		330
bis(2-Ethylhexyl)phthalate	31J	79JB 380U U12		330
Di-n-octylphthalate	8J	12JB 380 U12		330
Benzo(b)fluoranthene	U	520		330
Benzo(k)fluoranthene	U	850 J10		330
Benzo(a)pyrene	U	530		330
Indeno(1,2,3-cd)pyrene	U	140J		330
Dibenzo(a,h)anthracene	U	46J		330
Benzo(g,h,i)perylene	U	110J		330
Date Received		12/01/99		
Date Extracted	12/04/99	12/04/99		
Date Analyzed	12/15/99	12/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00
KB

Soil

TABLE SV-2.2
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKYQ

Lab Sample Id: SBLKYQ Client Sample Id: Method Blank

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.91	32000JA
	UNKNOWN	8.30	3800J
	UNKNOWN	6.22	1500J
	UNKNOWN	9.63	440J
	UNKNOWN	6.09	400J
	UNKNOWN	7.52	380J

Lab Sample Id: 993194C-05 Client Sample Id: CF-SS-33

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.78	26000JAB R33
	UNKNOWN	7.99	3200J J33
	UNKNOWN C20H12 PAH	27.90	470J J33
	UNKNOWN	7.26	400J J33
	UNKNOWN	9.27	290J J33
	UNKNOWN ALKANE	28.61	280J J33
	UNKNOWN BENZO[B]NAPHTHO THIO	24.65	250J J33
	UNKNOWN C17H12 PAH	23.36	240J J33
	UNKNOWN	5.77	210J J33
	UNKNOWN	23.58	180J J33
	UNKNOWN	12.62	170J J33
	UNKNOWN METHYL ANTHRACENE	20.73	160J J33
	UNKNOWN METHYL PYRENE	23.12	160J J33
	UNKNOWN	4.07	130J J33
	UNKNOWN C15H10 PAH	20.99	130J J33
	UNKNOWN	9.22	120J J33
	UNKNOWN .	21.94	100J J33
	UNKNOWN C6H10O ISOMER	5.29	100J J33
	UNKNOWN	19.21	95J J33
	UNKNOWN C15H12 PAH	20.79	82J J33
	UNKNOWN	14.39	77J J33

See Appendix for qualifier definitions

EMM 1/15/10

Soil

TABLE AS-1.1
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SS-52	CF-SS-33		
Lab Sample I.D.	993194B-20	993194C-05		
Arsenic	NR	6.7		
Barium	NR	106.		
Cadmium	NR	0.21UN		
Chromium	NR	36.0		
Lead	NR	169.* J1, J2		
Mercury	0.40	0.23		
Selenium	NR	1.6N J1		
Silver	NR	0.21U		

See Appendix for qualifier definitions

JKD

1/12/06

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-33

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194C SAS No.: _____ SDG No.: C3194

Matrix (soil/water): SOIL Lab Sample ID: 993194C-05

% Solids: 87.5 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.570	U	mg/Kg		L
	TOC	15000		mg/Kg		D

Comments:

FORM I - WC

Particle Size of Soils by ASTM D422

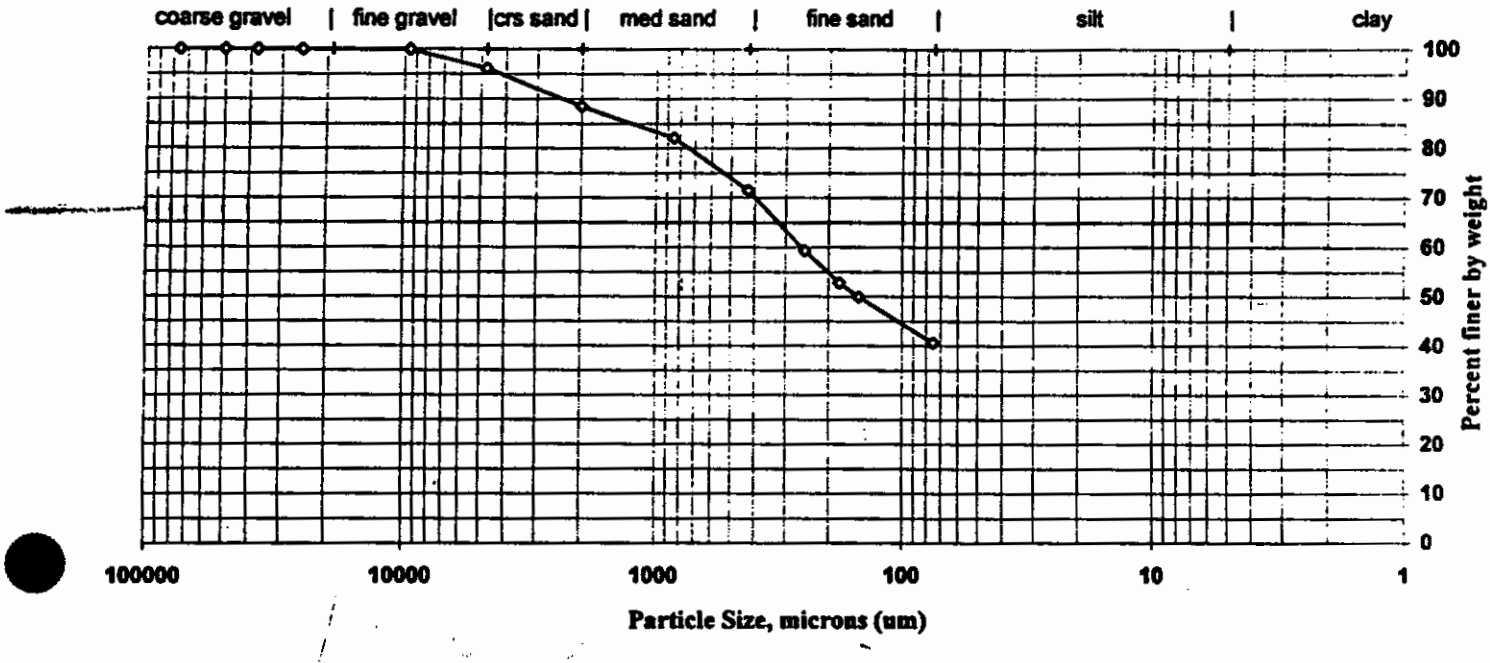
Sample preparation by: D2217

Client:	STL - Monroe	**Project No.:**	99000	**ETR(s) #:**	76190
Client Code:	STLCT	**Job No.:**	99000	**SDG(s):**	76190
Date Received:	03-Dec-99	**Start Date:**	03-Dec-99	**End Date:**	15-Dec-99

Lab ID: 404207 **Sample ID:** CF-SS-33

Percent Solids: 86.3%
Specific Gravity: 2.65

Maximum Particle Size: 9.5 mm
Shape (> #10): Subrounded
Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	96.1	3.9
#10	2000	88.5	7.6
#20A	850	82.1	6.4
#40A	425	71.6	10.6
#60A	250	59.4	12.2
#80A	180	52.8	6.5
#100A	150	50.0	2.8
#200A	75	40.6	9.4
Hydrometer	0.0	0.0	40.6
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: _____ **Date:** 12/16/99

Soil

TABLE VO-1.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-35	CF-SS-34	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-08	993194A-09	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.23	1.26	1.23	
Benzene	.5J	U	.2J	5.0
Toluene	U	.8J	.4J	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	.6J	U	U	5.0
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-34	CF-SS-42	CF-SS-42 MS	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-09	993194A-10	993194A-10MS	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	10.0	1.23	1.23	
Phenol	U	U	2200X	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	3100X	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	1400X	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	29J	330
N-Nitroso-di-n-propylamine	U	U	1500X	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	160J J27	200J	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	1700X	330
Naphthalene	210J	60J	73J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	3100X	330
2-Methylnaphthalene	160J	47J	65J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	1800J	340J	360J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	250J	62J	1600X	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMH 1/15/00

TABLE SV-1.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-34	CF-SS-42	CF-SS-42 MS	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-09	993194A-10	993194A-10MS	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	10.0	1.23	1.23	
2,4-Dinitrophenol	U UJ10	UJ11 U UJ10	UJ11 U	1600
4-Nitrophenol	U	U	3300X	1600
Dibenzofuran	140J	40J	47J	330
2,4-Dinitrotoluene	U	U	1700X	330
Diethylphthalate	U	U	18JB	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	320J	70J	82J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	2800X	1600
Phenanthrene	5200	680	770	330
Anthracene	1900J	420	480	330
Carbazole	710J	140J	160J	330
Di-n-butylphthalate	110JB 330 UJ12	38JB 410 UJ12	80JB	330
Fluoranthene	12000	1100	1300	330
Pyrene	13000	1100	2500X	330
Butylbenzylphthalate	210J	100J	130J	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	9400	800	890	330
Chrysene	12000	1100	1200	330
bis(2-Ethylhexyl)phthalate	2100JB 3300 UJ12	370JB 410 UJ12	460B	330
Di-n-octylphthalate	U	U UJ15	370JB	330
Benzo(b)fluoranthene	8200	1100 J15	1400	330
Benzo(k)fluoranthene	10000 J10	1800 J15, J10	1900	330
Benzo(a)pyrene	8800	840 J15	970	330
Indeno(1,2,3-cd)pyrene	4000	130J J15	150J	330
Dibenzo(a,h)anthracene	1600J	56J J15	66J	330
Benzo(g,h,i)perylene	3100J	89J J15	100J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00 JRD

TABLE SV-2.4 Soil
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-08 Client Sample Id: CF-SS-35 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	UNKNOWN ALKANE	29.14	430J J33
	UNKNOWN C17H12 PAH	23.75	380J J33
	UNKNOWN C20H12 PAH	27.99	370J J33

Lab Sample Id: 993194A-09 Client Sample Id: CF-SS-34

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.79	100000JAB R33
	UNKNOWN	8.30	10000JB R33
	UNKNOWN C20H12 PAH	28.53	7600J J33
	UNKNOWN C17H12 PAH	23.82	5900J J33
	UNKNOWN	6.11	4400J J33
	UNKNOWN C16H11N ISOMER	25.97	3600J J33
	UNKNOWN C17H12 PAH	23.94	3600J J33
	UNKNOWN C20H12 PAH	28.87	3300J J33
	UNKNOWN C15H10 PAH	21.45	3100J J33
	UNKNOWN BENZO[B]NAPHTHOTHIOP	25.10	3000J J33
	UNKNOWN C19H14PAH	26.38	3000J J33
	UNKNOWN C17H10O ISOMER	25.28	2900J J33
	UNKNOWN METHYL-PYRENE	24.03	2800J J33
	UNKNOWN METHYL-PYRENE	23.58	2700J J33
	UNKNOWN C18H10 PAH	25.21	2500J J33
	UNKNOWN 4-METHYL CHRYSENE	26.68	2300J J33
	UNKNOWN C16H11N ISOMER	26.07	2200J J33
	UNKNOWN C17H10O ISOMER	24.87	2200J J33
	UNKNOWN	25.84	2000J J33
	UNKNOWN METHYL-PYRENE	24.29	2000J J33
	UNKNOWN C20H12 PAH	28.08	1800J J33

Lab Sample Id: 993194A-10 Client Sample Id: CF-SS-42

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.95	36000JAB R33
	UNKNOWN	8.39	6000JB R33
	UNKNOWN	6.41	1900JB R33
	UNKNOWN	6.12	950J J33
	UNKNOWN	9.71	810JB R33
	UNKNOWN C6H10O ISOMER	5.65	710J J33
	UNKNOWN	7.62	620JB R33
	UNKNOWN ACID	21.16	470J J33

See Appendix for qualifier definitions

Soil

TABLE AS-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D. / Lab Sample I.D.	CF-SS-34 / 993194A-09	CF-SS-42 / 993194A-10	CF-SS-42 D / 993194A-10D	CF-SS-42 S / 993194A-10S
Arsenic	7.9	8.5	6.0	15.1
Barium	94.8	126.	102.	523.
Cadmium	0.63B	0.35B	0.20B	1.3
Chromium	31.3	66.1	63.8	103.
Lead	225. J	226. J	191.	243.
Mercury	0.29NJ	0.20NJ	0.17	0.22N
Selenium	2.0	1.8	1.5	3.2
Silver	0.22U	0.19U	0.19U	10.8

See Appendix for qualifier definitions

1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-34

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-09

% Solids: 79.8 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.600	U	UJ mg/Kg		L
	TOC	37800		J mg/Kg		D

Comments:

FORM I - WC

1/12/00

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

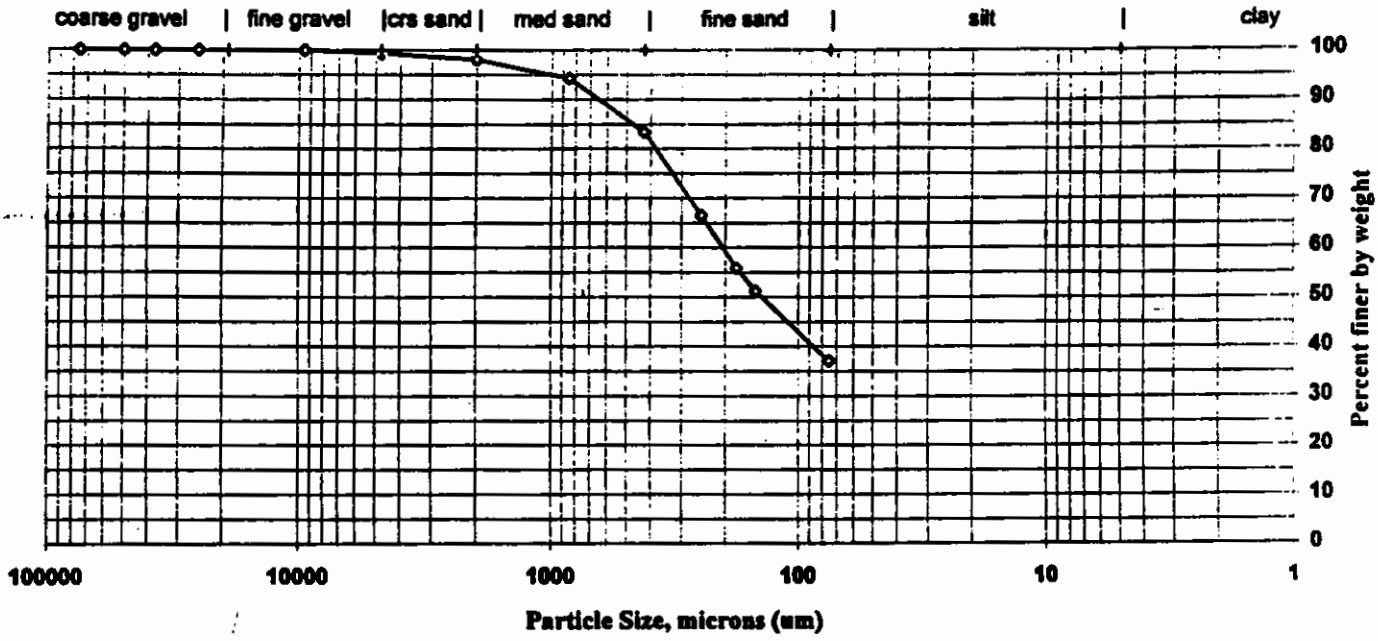
Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404204 | Sample ID: CF-SS-34

Percent Solids: 79.5% | Maximum Particle Size: 9.5 mm

Specific Gravity: 2.65 | Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.4	0.6
#10	2000	98.2	1.2
#20A	850	94.4	3.8
#40A	425	83.5	10.8
#60A	250	66.6	16.9
#80A	180	55.9	10.7
#100A	150	51.3	4.7
#200A	75	37.1	14.2
Hydrometer	0.0	0.0	37.1
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: _____ Date: 12/16/99

TABLE VO-1.4 Soil
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-35	CF-SS-34	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-08	993194A-09	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.23	1.26	1.23	
Benzene	.5J	U	.2J	5.0
Toluene	U	.8J	.4J	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	.6J	U	U	5.0
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-36	CF-SS-35	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-07	993194A-08	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	24.7	1.28	1.25	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	310J Ja]	120J Ja]	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	94J	65J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	64J	53J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	730J	540	470	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	260J	1600
Acenaphthene	U	60J	110J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/10

TABLE SV-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-36	CF-SS-35	
Lab Sample I.D.	993194A-06	993194A-07	993194A-08	Quant. Limits with no Dilution
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	24.7	1.28	1.25	
2,4-Dinitrophenol	U UJ10	U UJ10	UJ11 U UJ10	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	37J	56J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	25JB 410 U12	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	74J	130J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	1400J	900	1200	330
Anthracene	610J	440	590	330
Carbazole	220J	120J	160J	330
Di-n-butylphthalate	210JB 820 U12	38JB 420 U12	140JB 410 U12	330
Fluoranthene	2500J	1400	1900	330
Pyrene	2600J JS	1400	2100	330
Butylbenzylphthalate	510J	65J	61J	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	1100J	1000	1600	330
Chrysene	1700J	1200	1700	330
bis(2-Ethylhexyl)phthalate	29000BJS	250JB 420 U12	230JB 410 U12	330
Di-n-octylphthalate	U	20JB 420 U12	18JB 410 U12	330
Benzo(b)fluoranthene	1300J	1000	1200	330
Benzo(k)fluoranthene	2100J JJ10	1400 JJ10	1700 JJ10	330
Benzo(a)pyrene	1400J	1000	1300	330
Indeno(1,2,3-cd)pyrene	1200J	240J	360J	330
Dibenzo(a,h)anthracene	490J	80J	140J	330
Benzo(g,h,i)perylene	1200J	160J	240J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/5/00

TABLE SV-2.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-07 Client Sample Id: CF-SS-36

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.94	40000JAB R33
	UNKNOWN	8.38	6300JB R33
	UNKNOWN	6.38	1900JB R33
	UNKNOWN	27.72	1600J J33
	UNKNOWN	14.88	1400J J33
	UNKNOWN	27.27	1100J J33
	UNKNOWN	19.67	1100J J33
	UNKNOWN	9.71	1000J J33
	UNKNOWN ALKANE	29.26	970J J33
	UNKNOWN	6.12	930J J33
	UNKNOWN C20H12 PAH	28.54	830J J33
	UNKNOWN ACID	21.17	720J J33
	UNKNOWN	9.97	640J J33
	UNKNOWN ALKANE	27.62	600J J33
	UNKNOWN C3 ALKYLBENZENE	9.90	600J J33
	UNKNOWN	7.60	590J J33
	UNKNOWN C6H10O ISOMER	5.65	590J J33
	UNKNOWN C8H8 ISOMER	7.86	560J J33
	UNKNOWN	16.72	510J J33
	UNKNOWN C17H12 PAH	23.83	480J J33
	UNKNOWN C3 ALKYLBENZENE	10.88	460J J33

Lab Sample Id: 993194A-08 Client Sample Id: CF-SS-35

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.88	37000JAB R33
	UNKNOWN	8.32	5300JB R33
	UNKNOWN	6.28	1900JB R33
	UNKNOWN C20H12 PAH	28.43	1000J J33
	UNKNOWN	27.63	900J J33
	UNKNOWN C3 ALKYLBENZENE	9.90	870J J33
	UNKNOWN C3 ALKYLBENZENE	9.84	820J J33
	UNKNOWN C8H8 ISOMER	7.79	790J J33
	UNKNOWN PAH	21.38	610J J33
	UNKNOWN	7.55	550JB R33
	UNKNOWN	9.61	540JB R33
	UNKNOWN ACID	21.10	540J J33
	UNKNOWN	17.92	520J J33
	UNKNOWN C9H8 ISOMER	10.82	520J J33
	UNKNOWN ALKANE	27.52	510J J33
	UNKNOWN	12.17	500J J33
	UNKNOWN C10H10 ISOMER	12.70	490J J33
	UNKNOWN C4 ALKYLBENZENE	13.65	440J J33

See Appendix for qualifier definitions

TABLE SV-2.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-08 Client Sample Id: CF-SS-35 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	UNKNOWN ALKANE	29.14	430J J33
	UNKNOWN C17H12 PAH	23.75	380J J33
	UNKNOWN C20H12 PAH	27.99	370J J33

Lab Sample Id: 993194A-09 Client Sample Id: CF-SS-34

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.79	100000JAB R33
	UNKNOWN	8.30	10000JB R33
	UNKNOWN C20H12 PAH	28.53	7600J J33
	UNKNOWN C17H12 PAH	23.82	5900J J33
	UNKNOWN	6.11	4400J J33
	UNKNOWN C16H11N ISOMER	25.97	3600J J33
	UNKNOWN C17H12 PAH	23.94	3600J J33
	UNKNOWN C20H12 PAH	28.87	3300J J33
	UNKNOWN C15H10 PAH	21.45	3100J J33
	UNKNOWN BENZO[B]NAPHTHOTHIOP	25.10	3000J J33
	UNKNOWN C19H14PAH	26.38	3000J J33
	UNKNOWN C17H10O ISOMER	25.28	2900J J33
	UNKNOWN METHYL-PYRENE	24.03	2800J J33
	UNKNOWN METHYL-PYRENE	23.58	2700J J33
	UNKNOWN C18H10 PAH	25.21	2500J J33
	UNKNOWN 4-METHYL CHRYSENE	26.68	2300J J33
	UNKNOWN C16H11N ISOMER	26.07	2200J J33
	UNKNOWN C17H10O ISOMER	24.87	2200J J33
	UNKNOWN	25.84	2000J J33
	UNKNOWN METHYL-PYRENE	24.29	2000J J33
	UNKNOWN C20H12 PAH	28.08	1800J J33

Lab Sample Id: 993194A-10 Client Sample Id: CF-SS-42

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.95	36000JAB R33
	UNKNOWN	8.39	6000JB R33
	UNKNOWN	6.41	1900JB R33
	UNKNOWN	6.12	950J J33
	UNKNOWN	9.71	810JB R33
	UNKNOWN C6H10O ISOMER	5.65	710J J33
	UNKNOWN	7.62	620JB R33
	UNKNOWN ACID	21.16	470J J33

See Appendix for qualifier definitions

TABLE AS-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SS-40	CF-SS-39	CF-SS-36	CF-SS-35
Lab Sample I.D.	993194A-05	993194A-06	993194A-07	993194A-08
Arsenic	26.4	5.6	8.4	9.3
Barium	59.9	76.0	124.	110.
Cadmium	0.23B	1.4	0.53B	0.32B
Chromium	19.6	45.4	19.9	19.3
Lead	352. J13	283. J13	382. J12	251. J13
Mercury	0.82N J1	0.20N J1	0.62N J1	0.64N J1
Selenium	1.1	1.6	1.5	2.2
Silver	0.20U	0.47B J28	0.20B J28	0.21U

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-35

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-08

% Solids: 79.9 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.610	U	UJ mg/Kg		L
	TOC	37700		J mg/Kg		D

Comments:

FORM I - WC

1/6/99

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404203 | Sample ID: CF-95-95-#

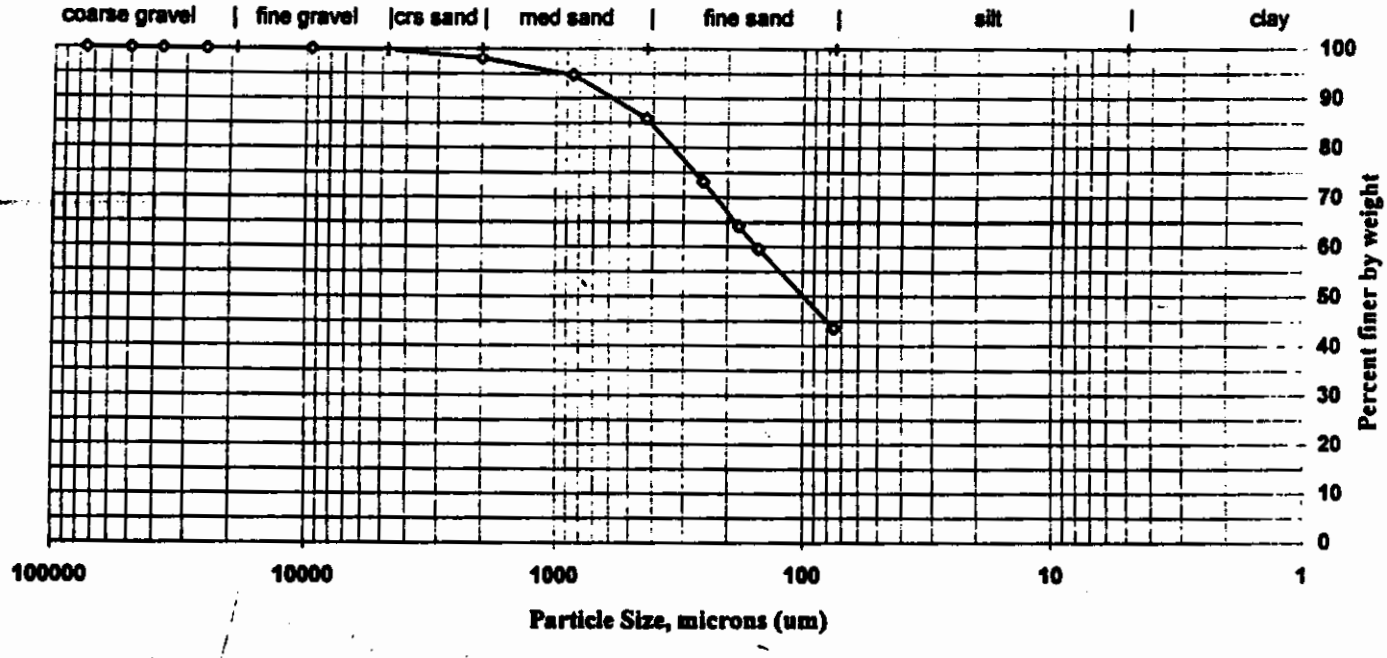
Percent Solids: 80.5%

Specific Gravity: 2.65

Maximum Particle Size: 9.5 mm

Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	100.0	0.0
#4	4750	99.7	0.3
#10	2000	98.1	1.6
#20A	850	94.8	3.3
#40A	425	85.9	8.9
#60A	250	73.2	12.7
#80A	180	64.2	9.0
#100A	150	59.6	4.6
#200A	75	43.6	16.0
Hydrometer	0.0	0.0	43.6
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: [signature] Date: 12/16/99

Soil

TABLE VO-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-36			Quant. Limits with no Dilution
Lab Sample I.D.	993194A-07			
Method Blank I.D.	VBLKLN			
Quant. Factor	1.29			
Benzene	U			5.0
Toluene	U			5.0
Ethylbenzene	U			5.0
Xylene (total)	U			5.0
Date Received	12/01/99			
Date Extracted	N/A			
Date Analyzed	12/03/99			

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1/10/00

TABLE SV-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-36	CF-SS-35	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-07	993194A-08	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	24.7	1.28	1.25	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	310J Ja7	120J Ja7	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	94J	65J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	64J	53J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	730J	540	470	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	260J	1600
Acenaphthene	U	60J	110J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00 JKL

TABLE SV-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-36	CF-SS-35	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-07	993194A-08	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	24.7	1.28	1.25	
2,4-Dinitrophenol	U UJ10	U UJ10	UJ11 U UJ10	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	37J	56J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	25JB 410 U12	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	74J	130J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	1400J	900	1200	330
Anthracene	610J	440	590	330
Carbazole	220J	120J	160J	330
Di-n-butylphthalate	210JB 820U U12	38JB 420U U12	140JB 410 U12	330
Fluoranthene	2500J	1400	1900	330
Pyrene	2600J J5	1400	2100	330
Butylbenzylphthalate	510J	65J	61J	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	1100J	1000	1600	330
Chrysene	1700J	1200	1700	330
bis(2-Ethylhexyl)phthalate	29000BJ5	250JB 420 U12	230JB 410 U12	330
Di-n-octylphthalate	U	20JB 420U U12	18JB 410 U12	330
Benzo(b)fluoranthene	1300J	1000	1200	330
Benzo(k)fluoranthene	2100J J10	1400 J10	1700 J10	330
Benzo(a)pyrene	1400J	1000	1300	330
Indeno(1,2,3-cd)pyrene	1200J	240J	360J	330
Dibenzo(a,h)anthracene	490J	80J	140J	330
Benzo(g,h,i)perylene	1200J	160J	240J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/5/00

TABLE SV-2.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-07 Client Sample Id: CF-SS-36

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.94	40000JAB R33
	UNKNOWN	8.38	6300JB R33
	UNKNOWN	6.38	1900JB R33
	UNKNOWN	27.72	1600J J33
	UNKNOWN	14.88	1400J J33
	UNKNOWN	27.27	1100J J33
	UNKNOWN	19.67	1100J J33
	UNKNOWN	9.71	1000J J33
	UNKNOWN ALKANE	29.26	970J J33
	UNKNOWN	6.12	930J J33
	UNKNOWN C20H12 PAH	28.54	830J J33
	UNKNOWN ACID	21.17	720J J33
	UNKNOWN	9.97	640J J33
	UNKNOWN ALKANE	27.62	600J J33
	UNKNOWN C3 ALKYLBENZENE	9.90	600J J33
	UNKNOWN	7.60	590J J33
	UNKNOWN C6H10O ISOMER	5.65	590J J33
	UNKNOWN C8H8 ISOMER	7.86	560J J33
	UNKNOWN	16.72	510J J33
	UNKNOWN C17H12 PAH	23.83	480J J33
	UNKNOWN C3 ALKYLBENZENE	10.88	460J J33

Lab Sample Id: 993194A-08 Client Sample Id: CF-SS-35

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.88	37000JAB R33
	UNKNOWN	8.32	5300JB R33
	UNKNOWN	6.28	1900JB R33
	UNKNOWN C20H12 PAH	28.43	1000J J33
	UNKNOWN	27.63	900J J33
	UNKNOWN C3 ALKYLBENZENE	9.90	870J J33
	UNKNOWN C3 ALKYLBENZENE	9.84	820J J33
	UNKNOWN C8H8 ISOMER	7.79	790J J33
	UNKNOWN PAH	21.38	610J J33
	UNKNOWN	7.55	550JB R33
	UNKNOWN	9.61	540JB R33
	UNKNOWN ACID	21.10	540J J33
	UNKNOWN	17.92	520J J33
	UNKNOWN C9H8 ISOMER	10.82	520J J33
	UNKNOWN ALKANE	27.52	510J J33
	UNKNOWN	12.17	500J J33
	UNKNOWN C10H10 ISOMER	12.70	490J J33
	UNKNOWN C4 ALKYLBENZENE	13.65	440J J33

See Appendix for qualifier definitions

TABLE AS-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SS-40	CF-SS-39	CF-SS-36	CF-SS-35
Lab Sample I.D.	993194A-05	993194A-06	993194A-07	993194A-08
Arsenic	26.4	5.6	8.4	9.3
Barium	59.9	76.0	124.	110.
Cadmium	0.23B	1.4	0.53B	0.32B
Chromium	19.6	45.4	19.9	19.3
Lead	352. J13	283. J13	382. J13	251. J13
Mercury	0.82N J1	0.20N J1	0.62N J1	0.64N J1
Selenium	1.1	1.6	1.5	2.2
Silver	0.20U	0.47B J28	0.20B J28	0.21U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-36

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-07

% Solids: 78.6 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.640	U	UT1 mg/Kg		L
	TOC	48400		J1 mg/Kg		D

Comments:

FORM I - WC

Signed JPM 11/10/00

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404202 | Sample ID: CF-SS-36

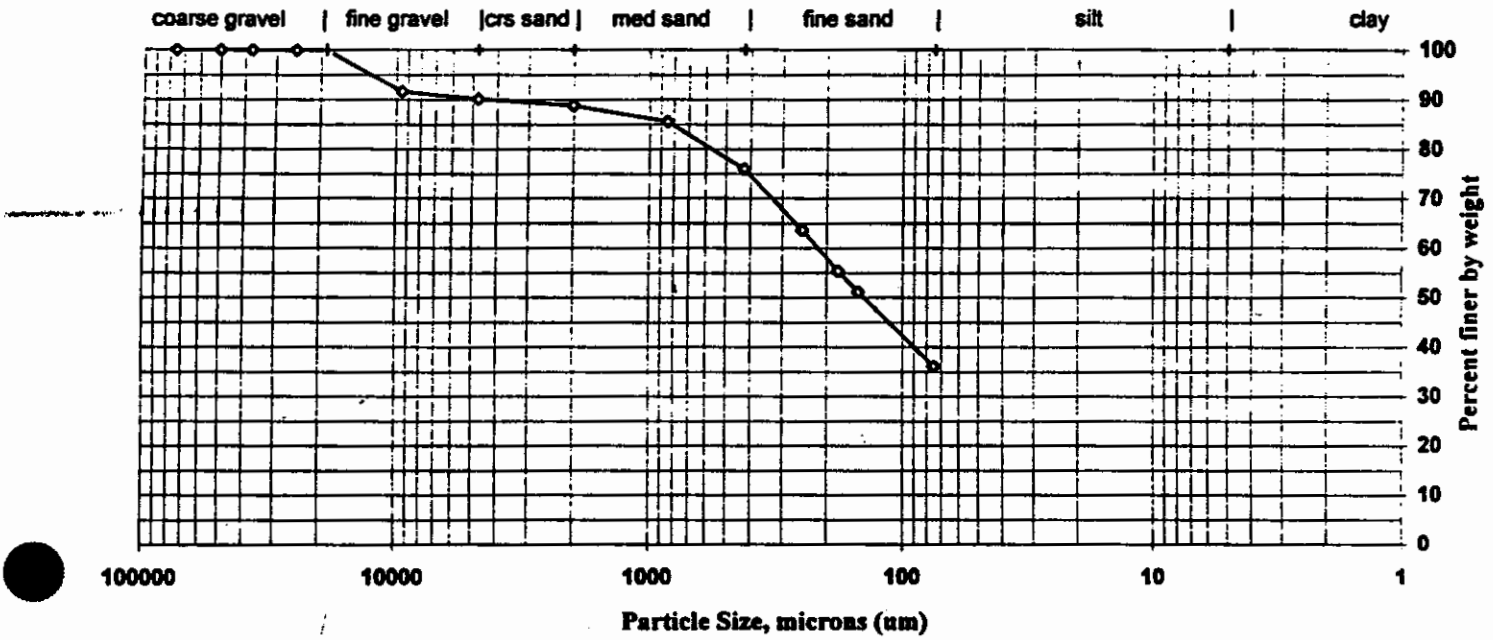
Percent Solids: 78.1%

Specific Gravity: 2.65

Maximum Particle Size: 19 mm

Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	91.7	8.3
#4	4750	90.2	1.5
#10	2000	88.9	1.3
#20A	850	85.6	3.3
#40A	425	76.0	9.5
#60A	250	63.7	12.4
#80A	180	55.4	8.2
#100A	150	51.1	4.3
#200A	75	36.2	14.9
Hydrometer	0.0	0.0	36.2
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

11/10/00

Submitted By: /s/

Date: 12/16/99

Soil

TABLE VO-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKU VBLKKU 1.00	CF-SS-38 993194A-03 VBLKKU 1.25	CF-SS-37 993194A-04 VBLKKU 1.23	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U UJ 15	5.0
Ethylbenzene	U	U	U UJ 15	5.0
Xylene (total)	.4J	U	U UJ 15	5.0
Date Received		12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/06/99	12/06/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1/10/00

TABLE VO-1.3 Soil
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-37 RE	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKV	993194A-04RE	993194A-05	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.00	1.23	1.11	
Benzene	U	.4J UJ	.5J	5.0
Toluene	U	.7J UJ, J6	.5J	5.0
Ethylbenzene	U	U UJ16	U	5.0
Xylene (total)	U	U UJ15	U	5.0
Date Received		12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-38	CF-SS-37	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-03	993194A-04	993194A-05	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	2.53	2.44	4.54	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	4200	130J	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	33J	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	1400J J,a7	310J J,a7	180J J,a7	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	78J	94J	220J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	83J	93J	190J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	640J	1000	3900	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	43J	120J	280J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-38	CF-SS-37	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-03	993194A-04	993194A-05	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	2.53	2.44	4.54	
2,4-Dinitrophenol	U UJ10	UJ11 U UJ10	UJ11 U UJ10	UJ11 1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	52J	68J	280J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	34JB 810U 12	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	42J	170J	380J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	460J	1700	5000	330
Anthracene	460J	1200	2800	330
Carbazole	87J	170J	660J	330
Di-n-butylphthalate	49JB 830U 12	85JB 810U 12	U	330
Fluoranthene	1100	3800	6300	330
Pyrene	1300	4300	6700	330
Butylbenzylphthalate	62J	150J	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	780J	3000	5400	330
Chrysene	990	3200	6000	330
bis(2-Ethylhexyl)phthalate	380JB 830U 12	470JB 810U 12	77JB 1500 U 12	330
Di-n-octylphthalate	31JB 830U 12	U	U	330
Benzo(b)fluoranthene	710J	2500	4800	330
Benzo(k)fluoranthene	1300 J10	4000 J10	6600 J10	330
Benzo(a)pyrene	740J	2800	5200	330
Indeno(1,2,3-cd)pyrene	260J	490J	1200J	330
Dibenzo(a,h)anthracene	95J	170J	500J	330
Benzo(g,h,i)perylene	200J	320J	840J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00 JKL

TABLE SV-2.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-03 Client Sample Id: CF-SS-38 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	UNKNOWN ALKANE	29.26	940J J33
	UNKNOWN C20H12 PAH	28.52	680J J33
	UNKNOWN ALKANE	27.61	600J J33
	UNKNOWN ACID	21.15	540J J33
	UNKNOWN	19.49	440J J33
	UNKNOWN C15H12 PAH	21.44	430J J33

Lab Sample Id: 993194A-04 Client Sample Id: CF-SS-37

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.94	70000JAB R33
	UNKNOWN	8.35	7600JB R33
	UNKNOWN	27.72	4500J J33
	UNKNOWN C20H12 PAH	28.56	3200J J33
	UNKNOWN ALKANE	27.63	2300J J33
	UNKNOWN	6.26	2000JB R33
	UNKNOWN	6.12	1600J J33
	UNKNOWN C20H12 PAH	28.11	1300J J33
	UNKNOWN C15H12 PAH	21.45	1200J J33
	UNKNOWN	9.68	920JB R33
	UNKNOWN ACID	21.16	800J J33
	UNKNOWN C17H12 PAH	23.83	780J J33
	UNKNOWN	14.82	570J J33
	UNKNOWN	22.56	520J J33
	UNKNOWN METHYL-PYRENE	24.05	490J J33
	UNKNOWN C15H12 PAH	21.26	470J J33
	UNKNOWN ALKANE	26.31	460J J33
	UNKNOWN C17H100 ISOMER	25.30	410J J33
	UNKNOWN METHYL-PYRENE	23.60	410J J33
	UNKNOWN C16H14 PAH	22.35	380J J33
	UNKNOWN C19H14 PAH	26.41	380J J33

See Appendix for qualifier definitions

TABLE AS-1.0
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-6 7 (0-4)	CF-SB-6 7 (4-6)	CF-SS-38	CF-SS-37
Lab Sample I.D.	993194A-01	993194A-02	993194A-03	993194A-04
Arsenic	7.8	4.2	10.1	10.3
Barium	103.	38.5B	160.	140.
Cadmium	0.23U	0.22U	1.4	1.7
Chromium	29.1	31.1	31.9	31.8
Lead	406. J13	6.8 J13	350. J13	744. J13
Mercury	1.2N J1	0.016N J1	0.22N J1	0.63N J1
Selenium	1.9	1.1U	2.2	1.3
Silver	0.23U	0.22U	0.24B J28	0.31B J28

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-37

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-04

% Solids: 80.8 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.610	U	UJ mg/Kg		L
	TOC	65500		J mg/Kg		D

Comments:

FORM I - WC

JKS 1/10/00

Particle Size of Soils by ASTM D422

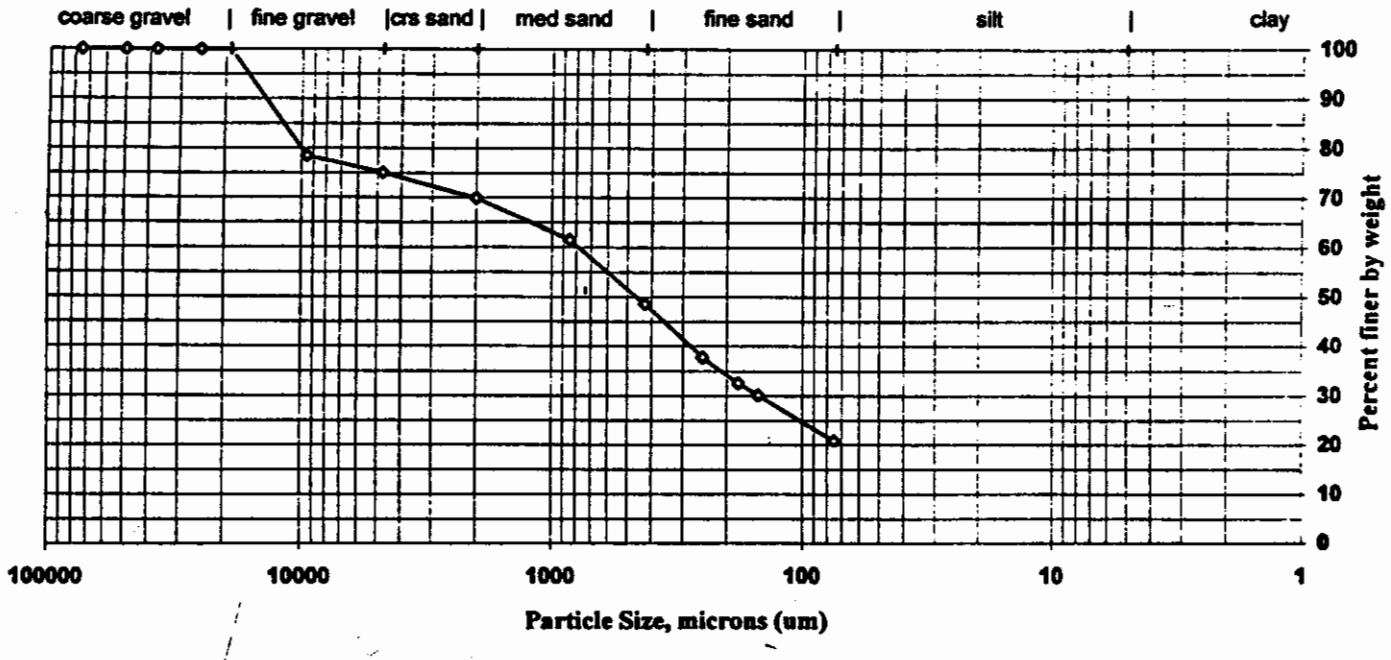
Sample preparation by: D2217

Client:	STL - Monroe	Project No.:	99000	ETR(s) #:	76190
Client Code:	STLCT	Job No.:	99000	SDG(s):	76190
Date Received:	03-Dec-99	Start Date:	03-Dec-99	End Date:	15-Dec-99

Lab ID: 404199 Sample ID: CF-SS-37

Percent Solids: 82.3%
Specific Gravity: 2.65

Maximum Particle Size: 19 mm
Shape (> #10): Subrounded
Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	78.5	21.5
#4	4750	75.1	3.4
#10	2000	69.9	5.1
#20A	850	61.5	8.4
#40A	425	48.7	12.9
#60A	250	37.8	10.8
#80A	180	32.6	5.2
#100A	150	30.2	2.4
#200A	75	20.9	9.3
Hydrometer	0.0	0.0	20.9
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/13/00

Submitted By: _____ Date: 12/16/99

Soil

TABLE VO-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-38	CF-SS-37	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKU	993194A-03	993194A-04	
Method Blank I.D.	VBLKKU	VBLKKU	VBLKKU	
Quant. Factor	1.00	1.25	1.23	
Benzene	U	U	U	5.0
Toluene	U	U	U UJ15	5.0
Ethylbenzene	U	U	U UJ15	5.0
Xylene (total)	.4J	U	U UJ15	5.0
Date Received		12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/06/99	12/06/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-38	CF-SS-37	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-03	993194A-04	993194A-05	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	2.53	2.44	4.54	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	4200	130J	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	33J	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	1400J J,a7	310J J,a7	180J J,a7	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	78J	94J	220J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	83J	93J	190J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	640J	1000	3900	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	43J	120J	280J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00 MS

TABLE SV-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-38	CF-SS-37	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-03	993194A-04	993194A-05	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	2.53	2.44	4.54	
2,4-Dinitrophenol	U UJ10	UJ11 U UJ10	UJ11 U UJ10	UJ11 1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	52J	68J	280J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	34JB 810U12	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	42J	170J	380J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	460J	1700	5000	330
Anthracene	460J	1200	2800	330
Carbazole	87J	170J	660J	330
Di-n-butylphthalate	49JB 830U12	85JB 810U12	U	330
Fluoranthene	1100	3800	6300	330
Pyrene	1300	4300	6700	330
Butylbenzylphthalate	62J	150J	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	780J	3000	5400	330
Chrysene	990	3200	6000	330
bis(2-Ethylhexyl)phthalate	380JB 830U12	470JB 810U12	77JB 1500 U12	330
Di-n-octylphthalate	31JB 830U12	U	U	330
Benzo(b)fluoranthene	710J	2500	4800	330
Benzo(k)fluoranthene	1300 J10	4000 J10	6600 J10	330
Benzo(a)pyrene	740J	2800	5200	330
Indeno(1,2,3-cd)pyrene	260J	490J	1200J	330
Dibenzo(a,h)anthracene	95J	170J	500J	330
Benzo(g,h,i)perylene	200J	320J	840J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00

TABLE SV-2.0
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: SBLKSQ Client Sample Id: Method Blank

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	7.06	42000JA
	UNKNOWN	8.42	5000J
	UNKNOWN	6.40	1900J
	UNKNOWN	9.75	610J
	UNKNOWN	7.66	520J

Lab Sample Id: 993194A-01 Client Sample Id: CF-SB-67 (0-4)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	7.05	50000JAB R33
	UNKNOWN	8.42	5800JB R33
	ALDOL CONDENSATION PRODUCT	6.39	2200JBA R33
	UNKNOWN	9.75	740JB R33
	UNKNOWN	7.65	620JB R33
	UNKNOWN	32.84	550J J33
	UNKNOWN	30.29	380J J33

Lab Sample Id: 993194A-02 Client Sample Id: CF-SB-67 (4-6)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	7.05	49000JAB R33
	UNKNOWN	8.44	7300JB R33
	UNKNOWN	6.47	2900JB R33
	UNKNOWN	9.75	960JB R33
	UNKNOWN	7.67	770JB R33

Lab Sample Id: 993194A-03 Client Sample Id: CF-SS-38

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.93	70000JAB R33
	UNKNOWN	8.35	7400JB R33
80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	23.22	2300JN J33
	UNKNOWN	6.26	2200JB R33
	UNKNOWN	6.11	1500J J33
	UNKNOWN	22.57	1500J J33
100-52-7	BENZALDEHYDE	9.28	1300JN J33
	UNKNOWN	9.68	960JB R33

See Appendix for qualifier definitions

TABLE SV-2.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-03 Client Sample Id: CF-SS-38 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	UNKNOWN ALKANE	29.26	940J J35
	UNKNOWN C20H12 PAH	28.52	680J J33
	UNKNOWN ALKANE	27.61	600J J33
	UNKNOWN ACID	21.15	540J J33
	UNKNOWN	19.49	440J J33
	UNKNOWN C15H12 PAH	21.44	430J J33

Lab Sample Id: 993194A-04 Client Sample Id: CF-SS-37

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.94	70000JAB R33
	UNKNOWN	8.35	7600JB R33
	UNKNOWN	27.72	4500J J33
	UNKNOWN C20H12 PAH	28.56	3200J J33
	UNKNOWN ALKANE	27.63	2300J J33
	UNKNOWN	6.26	2000JB R33
	UNKNOWN	6.12	1600J J33
	UNKNOWN C20H12 PAH	28.11	1300J J33
	UNKNOWN C15H12 PAH	21.45	1200J J33
	UNKNOWN	9.68	920JB R33
	UNKNOWN ACID	21.16	800J J33
	UNKNOWN C17H12 PAH	23.83	780J J33
	UNKNOWN	14.82	570J J33
	UNKNOWN	22.56	520J J33
	UNKNOWN METHYL-PYRENE	24.05	490J J33
	UNKNOWN C15H12 PAH	21.26	470J J33
	UNKNOWN ALKANE	26.31	460J J33
	UNKNOWN C17H100 ISOMER	25.30	410J J33
	UNKNOWN METHYL-PYRENE	23.60	410J J33
	UNKNOWN C16H14 PAH	22.35	380J J33
	UNKNOWN C19H14 PAH	26.41	380J J33

See Appendix for qualifier definitions

TABLE AS-1.0 Soil
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SB-6 7 (0-4)	CF-SB-6 7 (4-6)	CF-SS-38	CF-SS-37
Lab Sample I.D.	993194A-01	993194A-02	993194A-03	993194A-04
Arsenic	7.8	4.2	10.1	10.3
Barium	103.	38.5B	160.	140.
Cadmium	0.23U	0.22U	1.4	1.7
Chromium	29.1	31.1	31.9	31.8
Lead	406. J13	6.8 J13	350. J13	744. J13
Mercury	1.2N J1	0.016N J1	0.22N J1	0.63N J1
Selenium	1.9	1.1U	2.2	1.3
Silver	0.23U	0.22U	0.24B J28	0.31B J28

See Appendix for qualifier definitions

1/10/00

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-38

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-03

% Solids: 79.6 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.630	UN	UJ mg/Kg		L
	TOC	105000		J mg/Kg		D

Comments:

FORM I - WC

1/10/00

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404198 | Sample ID: CF-SS-38 [illegible]

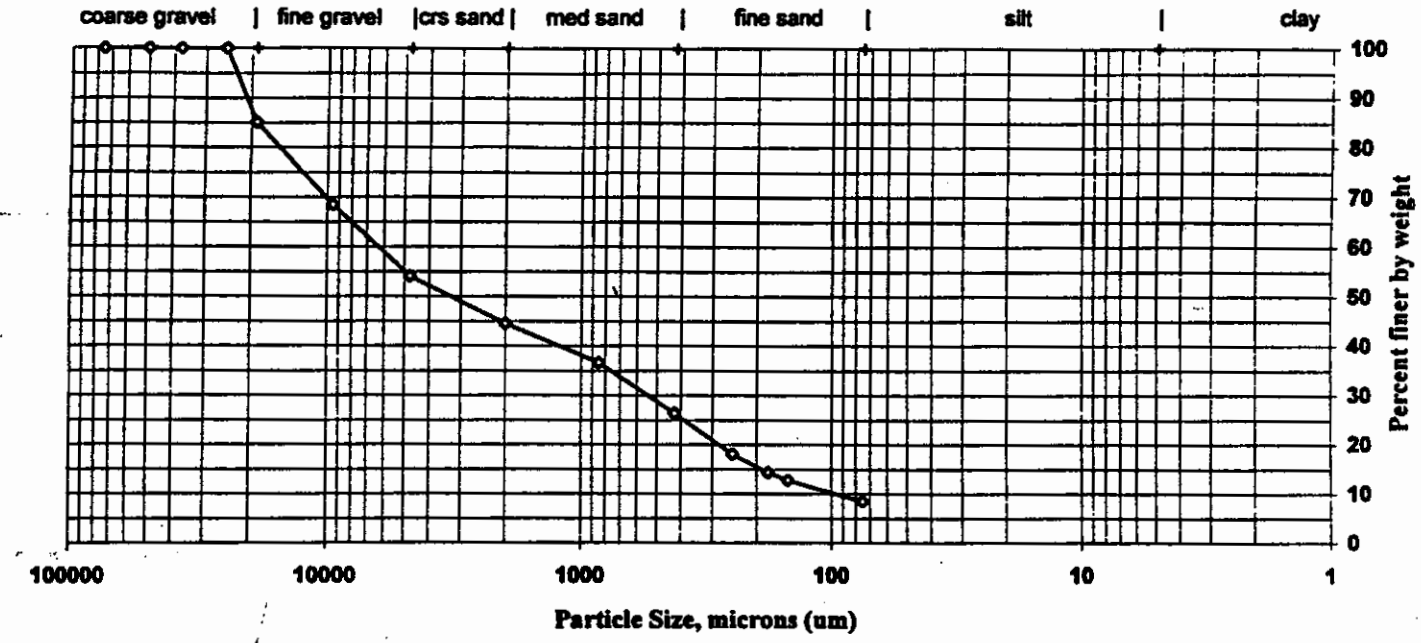
Percent Solids: 81.1%

Specific Gravity: 2.65

Maximum Particle Size: 25 mm

Shape (> #10): Subangular

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	85.1	14.9
3/8 inch	9500	68.5	16.7
#4	4750	54.1	14.4
#10	2000	44.6	9.5
#20A	850	36.7	7.9
#40A	425	26.5	10.2
#60A	250	18.1	8.4
#80A	180	14.4	3.7
#100A	150	12.9	1.5
#200A	75	8.5	4.3
Hydrometer	0.0	0.0	8.5
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: [signature] Date: 12/16/99

Soil

TABLE VO-1.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-35	CF-SS-34	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-08	993194A-09	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.23	1.26	1.23	
Benzene	.5J	U	.2J	5.0
Toluene	U	.8J	.4J	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	.6J	U	U	5.0
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-36	CF-SS-35	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-07	993194A-08	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	24.7	1.28	1.25	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	310J Ja7	120J Ja7	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	94J	65J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	64J	53J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	730J	540	470	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	260J	1600
Acenaphthene	U	60J	110J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00, RD

TABLE SV-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-39	CF-SS-36	CF-SS-35	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-06	993194A-07	993194A-08	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	24.7	1.28	1.25	
2,4-Dinitrophenol	U UJ10	U UJ10	UJ11 U UJ10	1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	U	37J	56J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	U	25JB 410 U12	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	U	74J	130J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	1400J	900	1200	330
Anthracene	610J	440	590	330
Carbazole	220J	120J	160J	330
Di-n-butylphthalate	210JB 820 U12	38JB 420 U12	140JB 410 U12	330
Fluoranthene	2500J	1400	1900	330
Pyrene	2600J J5	1400	2100	330
Butylbenzylphthalate	510J	65J	61J	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	1100J	1000	1600	330
Chrysene	1700J	1200	1700	330
bis(2-Ethylhexyl)phthalate	29000BJ5	250JB 420 U12	230JB 410 U12	330
Di-n-octylphthalate	U	20JB 420 U12	18JB 410 U12	330
Benzo(b)fluoranthene	1300J	1000	1200	330
Benzo(k)fluoranthene	2100J J10	1400 J10	1700 J10	330
Benzo(a)pyrene	1400J	1000	1300	330
Indeno(1,2,3-cd)pyrene	1200J	240J	360J	330
Dibenzo(a,h)anthracene	490J	80J	140J	330
Benzo(g,h,i)perylene	1200J	160J	240J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-2.2 Soil
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-05 Client Sample Id: CF-SS-40

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.83	65000JAB R33
	UNKNOWN	8.31	6600JB R33
	UNKNOWN C20H12 PAH	28.55	4600J J33
	ALDOL CONDENSATION PRODUCT	6.12	2900JA J33
	UNKNOWN C20H12 PAH	28.90	2300J J33
	UNKNOWN C15H12 PAH	21.45	2200J J33
	UNKNOWN C20H12 PAH	28.11	2000J J33
	UNKNOWN C17H12 PAH	23.82	1600J J33
	UNKNOWN	29.24	1400J J33
	UNKNOWN C19H14 PAH	26.41	1300J J33
92-52-4	BIPHENYL	16.44	1200JN J33
	UNKNOWN C15H80 ISOMER	22.56	1200J J33
	UNKNOWN C15H12 PAH	21.26	1000J J33
	UNKNOWN C17H10O ISOMER	25.30	1000J J33
	UNKNOWN C17H10O ISOMER	24.88	990J J33
	UNKNOWN C16H12 PAH	21.80	960J J33
	UNKNOWN C3 ALKYLBENZENE	9.89	950J J33
	UNKNOWN	18.01	940J J33
	UNKNOWN C17H12 PAH	24.05	930J J33
	UNKNOWN C16H10 PAH	22.87	880J J33
	UNKNOWN C8H8 ISOMER	7.84	880J J33

Lab Sample Id: 993194A-06 Client Sample Id: CF-SS-39

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.76	140000JAB R33
	UNKNOWN	8.33	12000J J33
	UNKNOWN	6.15	4700J J33
503-74-2	BUTANOIC ACID, 3-METHYL-	6.63	4200JN J33
	UNKNOWN	33.31	3600J J33
	UNKNOWN	35.75	2600J J33
	UNKNOWN ACID	21.18	2500J J33
	UNKNOWN	16.35	2400J J33
	UNKNOWN	22.60	2400J J33

See Appendix for qualifier definitions

Soil

TABLE AS-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D.	CF-SS-40 993194A-05	CF-SS-39 993194A-06	CF-SS-36 993194A-07	CF-SS-35 993194A-08
Arsenic	26.4	5.6	8.4	9.3
Barium	59.9	76.0	124.	110.
Cadmium	0.23B	1.4	0.53B	0.32B
Chromium	19.6	45.4	19.9	19.3
Lead	352. J13	283. J13	382. J13	251. J13
Mercury	0.82N J1	0.20N J1	0.62N J1	0.64N J1
Selenium	1.1	1.6	1.5	2.2
Silver	0.20U	0.47B J28	0.20B J28	0.21U

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-39

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-06

% Solids: 81 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	1.18		J mg/Kg		L
	TOC	60000		J mg/Kg		D

Comments:

FORM I - WC

1/10/00

Particle Size of Soils by ASTM D422

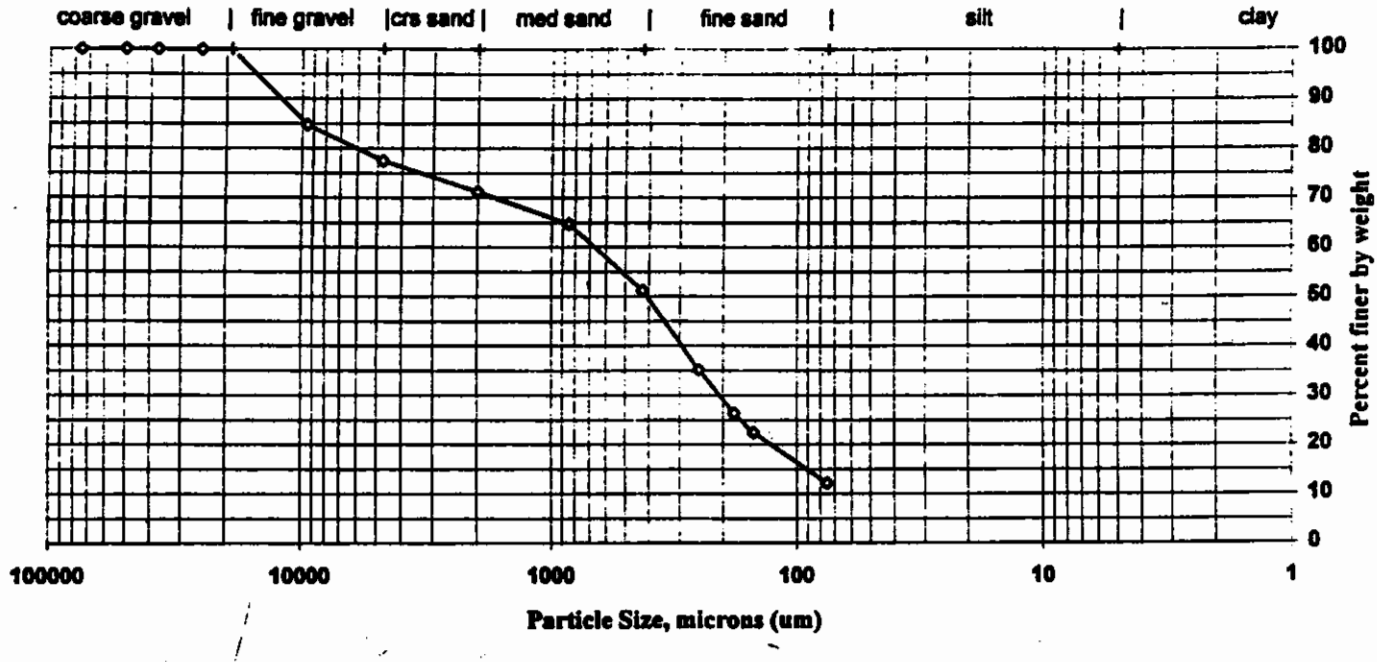
Sample preparation by: D2217

Client:	STL - Monroe	Project No.:	99000	ETR(s) #:	76190
Client Code:	STLCT	Job No.:	99000	SDG(s):	76190
Date Received:	03-Dec-99	Start Date:	03-Dec-99	End Date:	15-Dec-99

Lab ID: 404201 [redacted]

Percent Solids: 79.7%
Specific Gravity: 2.65

Maximum Particle Size: 19 mm
Shape (> #10): Subangular
Hardness (> #10): Brittle



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	84.8	15.2
#4	4750	77.5	7.3
#10	2000	71.2	6.3
#20A	850	64.8	6.5
#40A	425	51.2	13.5
#60A	250	35.2	16.0
#80A	180	26.4	8.8
#100A	150	22.5	3.9
#200A	75	12.2	10.3
Hydrometer	0.0	0.0	12.2
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: [signature] Date: 12/16/99

TABLE VO-1.10 Soil
7099-3194B
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-69 duplicate of SS-39		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKV	993194B-19		
Method Blank I.D.	VBLKKV	VBLKKV		
Quant. Factor	1.00	1.26		
Benzene	U	U		5.0
Toluene	U	.4J		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		12/01/99		
Date Extracted	N/A	N/A		
Date Analyzed	12/07/99	12/07/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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1/15/00
KO

TABLE SV-1.10
7099-3194B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-28	CF-SS-28 RE	duplicate of SS-39 CF-SS-69	Quant. Limits with no Dilution
Lab Sample I.D.	993194B-18	993194B-18RE	993194B-19	
Method Blank I.D.	SBLKUP	SBLKUP	SBLKUP	
Quant. Factor	1.14	1.14	2.47	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	81J	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	U	150J	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	U	7J	51J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	U	U	42J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	30J	20J	360J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	U	U	U	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/03/99	12/03/99	12/03/99	
Date Analyzed	12/20/99	12/21/99	12/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/

Soil

TABLE VO-1.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-37 RE	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKV	993194A-04RE	993194A-05	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.00	1.23	1.11	
Benzene	U	.4J J7	.5J	5.0
Toluene	U	.7J J7, J15	.5J	5.0
Ethylbenzene	U	U UJ15	U	5.0
Xylene (total)	U	U UJ15	U	5.0
Date Received		12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-38	CF-SS-37	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-03	993194A-04	993194A-05	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	2.53	2.44	4.54	
Phenol	U	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	U	330
Benzyl alcohol	4200	130J	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	U	330
N-Nitroso-di-n-propylamine	U	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	33J	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	1400J J,a7	310J J,a7	180J J,a7	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	U	330
Naphthalene	78J	94J	220J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	U	330
2-Methylnaphthalene	83J	93J	190J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	640J	1000	3900	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	43J	120J	280J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00

TABLE SV-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-38	CF-SS-37	CF-SS-40	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-03	993194A-04	993194A-05	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	2.53	2.44	4.54	
2,4-Dinitrophenol	U UJ10	UJ11 U UJ10	UJ11 U UJ10	UJ11 1600
4-Nitrophenol	U	U	U	1600
Dibenzofuran	52J	68J	280J	330
2,4-Dinitrotoluene	U	U	U	330
Diethylphthalate	U	34JB 810U12	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	42J	170J	380J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	U	1600
Phenanthrene	460J	1700	5000	330
Anthracene	460J	1200	2800	330
Carbazole	87J	170J	660J	330
Di-n-butylphthalate	49JB 830U12	85JB 810U12	U	330
Fluoranthene	1100	3800	6300	330
Pyrene	1300	4300	6700	330
Butylbenzylphthalate	62J	150J	U	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	780J	3000	5400	330
Chrysene	990	3200	6000	330
bis(2-Ethylhexyl)phthalate	380JB 830U12	470JB 810U12	77JB 1500 U12	330
Di-n-octylphthalate	31JB 830U12	U	U	330
Benzo(b)fluoranthene	710J	2500	4800	330
Benzo(k)fluoranthene	1300 J10	4000 J10	6600 J10	330
Benzo(a)pyrene	740J	2800	5200	330
Indeno(1,2,3-cd)pyrene	260J	490J	1200J	330
Dibenzo(a,h)anthracene	95J	170J	500J	330
Benzo(g,h,i)perylene	200J	320J	840J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00 KS

TABLE SV-2.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-05 Client Sample Id: CF-SS-40

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.83	65000JAB R33
	UNKNOWN	8.31	6600JB R33
	UNKNOWN C20H12 PAH	28.55	4600J J35
	ALDOL CONDENSATION PRODUCT	6.12	2900JA J35
	UNKNOWN C20H12 PAH	28.90	2300J J35
	UNKNOWN C15H12 PAH	21.45	2200J J33
	UNKNOWN C20H12 PAH	28.11	2000J J33
	UNKNOWN C17H12 PAH	23.82	1600J J33
	UNKNOWN	29.24	1400J J35
	UNKNOWN C19H14 PAH	26.41	1300J J33
92-52-4	BIPHENYL	16.44	1200JN J33
	UNKNOWN C15H80 ISOMER	22.56	1200J J33
	UNKNOWN C15H12 PAH	21.26	1000J J33
	UNKNOWN C17H10O ISOMER	25.30	1000J J33
	UNKNOWN C17H10O ISOMER	24.88	990J J33
	UNKNOWN C16H12 PAH	21.80	960J J33
	UNKNOWN C3 ALKYLBENZENE	9.89	950J J33
	UNKNOWN	18.01	940J J35
	UNKNOWN C17H12 PAH	24.05	930J J35
	UNKNOWN C16H10 PAH	22.87	880J J33
	UNKNOWN C8H8 ISOMER	7.84	880J J33

Lab Sample Id: 993194A-06 Client Sample Id: CF-SS-39

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.76	140000JAB R33
	UNKNOWN	8.33	12000J J33
	UNKNOWN	6.15	4700J J33
503-74-2	BUTANOIC ACID, 3-METHYL-	6.63	4200JN J33
	UNKNOWN	33.31	3600J J33
	UNKNOWN	35.75	2600J J33
	UNKNOWN ACID	21.18	2500J J33
	UNKNOWN	16.35	2400J J33
	UNKNOWN	22.60	2400J J33

See Appendix for qualifier definitions

Soil

TABLE AS-1.1
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SS-40	CF-SS-39	CF-SS-36	CF-SS-35
Lab Sample I.D.	993194A-05	993194A-06	993194A-07	993194A-08
Arsenic	26.4	5.6	8.4	9.3
Barium	59.9	76.0	124.	110.
Cadmium	0.23B	1.4	0.53B	0.32B
Chromium	19.6	45.4	19.9	19.3
Lead	352. J13	283. J13	382. J13	251. J13
Mercury	0.82N J1	0.20N J1	0.62N J1	0.64N J1
Selenium	1.1	1.6	1.5	2.2
Silver	0.20U	0.47B J28	0.20B J28	0.21U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-40

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-05

% Solids: 87.1 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.590	U	mg/Kg		L
	TOC	36700		mg/Kg		D

Comments:

FORM I - WC

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

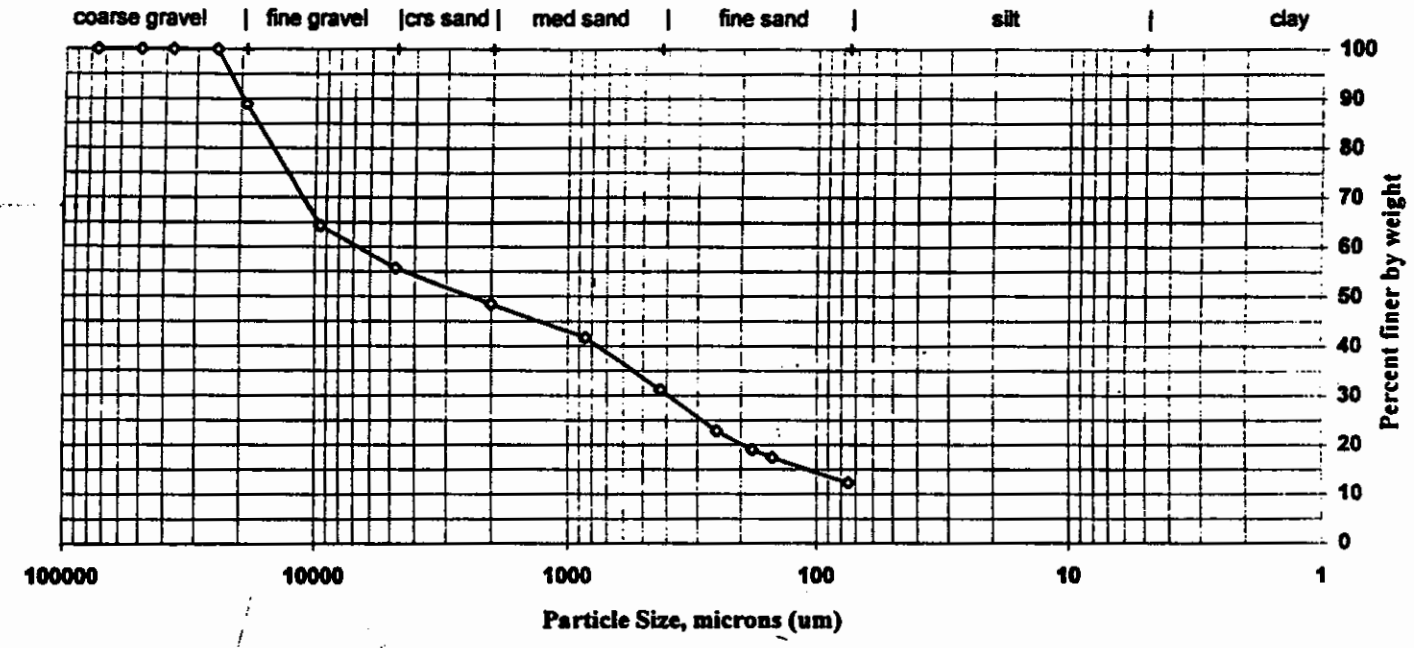
Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404200 | Sample ID: CF-SS-40

Percent Solids: 87.3% | Maximum Particle Size: 25 mm

Specific Gravity: 2.65 | Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	89.0	11.0
3/8 inch	9500	64.3	24.7
#4	4750	55.7	8.6
#10	2000	48.5	7.3
#20A	850	41.7	6.7
#40A	425	31.2	10.5
#60A	250	22.8	8.4
#80A	180	19.0	3.8
#100A	150	17.4	1.6
#200A	75	12.3	5.1
Hydrometer	0.0	0.0	12.3
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

11/12/00

Submitted By: [signature] Date: 12/16/99

Soil

TABLE VO-1.5
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-42	CF-SS-41	CF-SS-12	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-10	993194A-11	993194A-12	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.26	1.14	1.18	
Benzene	U	U	.6J	5.0
Toluene	.3J	U UJ15	.3J	5.0
Ethylbenzene	U	U UJ16	U	5.0
Xylene (total)	U	U UJ15	U	5.0
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Soil

TABLE VO-1.9
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	CF-SS-41 RE	CF-SS-19 RE	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKW	993194A-11RE	993194A-13RE	
Method Blank I.D.	VBLKKW	VBLKKW	VBLKKW	
Quant. Factor	1.00	1.14	1.52	
Benzene	U	U	U	5.0
Toluene	U	U UJ 15	U UJ 15	5.0
Ethylbenzene	U	U UJ15	U UJ15	5.0
Xylene (total)	U	U UJ15	U UJ15	5.0
Date Received		12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/08/99	12/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/10/00

TABLE SV-1.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-42 MSD	CF-SS-41	CF-SS-41 RE	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-10 MSD	993194A-11	993194A-11RE	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	1.23	1.18	1.18	
Phenol	2300X	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	3300X	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	1500X	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U UJ11	330
4-Methylphenol	30J	38J J+7	18J J+1 J11	330
N-Nitroso-di-n-propylamine	1500X	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	200J	170J J+7	90J J+7	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	1800X	U	U	330
Naphthalene	99J	60J	56J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	3100X	U	U	330
2-Methylnaphthalene	94J	90J	87J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	15J	330
Acenaphthylene	400J	240J	130J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	1600X	23J	18J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/15/99	12/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-SS-42 MSD 993194A-10 MSD SBLKSQ 1.23	CF-SS-41 993194A-11 SBLKSQ 1.18	CF-SS-41 RE 993194A-11RE SBLKSQ 1.18	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U UJ10	U UJ10, UJ11	1600
4-Nitrophenol	3300X	U	U	1600
Dibenzofuran	43J	26J	22J	330
2,4-Dinitrotoluene	1600X	U	U	330
Diethylphthalate	22JB	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	76J	28J	19J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	2800X	U	U	1600
Phenanthrene	760	390	340J	330
Anthracene	500	230J	100J	330
Carbazole	160J	71J	57J	330
Di-n-butylphthalate	76JB	180JB 390 U12	150JB 390 U12	330
Fluoranthene	1300	540	500	330
Pyrene	2500X	600	940 J15	330
Butylbenzylphthalate	240J	1000	1500 J15	330
3,3'-Dichlorobenzidine	U	U	U UJ15	660
Benzo(a)anthracene	910	380J	320J J15	330
Chrysene	1300	550	450 J15	330
bis(2-Ethylhexyl)phthalate	1200B	470B	590B J16	330
Di-n-octylphthalate	390JB	U UJ15	U R15	330
Benzo(b)fluoranthene	1500	680 J15	640 J15	330
Benzo(k)fluoranthene	2400	940 J15	J10 1100 J15 J10	330
Benzo(a)pyrene	1000	450 J15	420 J15	330
Indeno(1,2,3-cd)pyrene	140J	72J J15	130J J15	330
Dibenzo(a,h)anthracene	54J	U UJ15	U R15	330
Benzo(g,h,i)perylene	100J	61J J15	140J J15	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/15/99	12/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EJM 1/15/01 JRB

TABLE SV-2.5
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-10 Client Sample Id: CF-SS-42 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg	
	UNKNOWN C15H12 PAH	21.45	370J	J33
85-44-9	PHTHALIC ANHYDRIDE	15.01	320JN	J33
	UNKNOWN	13.09	260J	J33
	UNKNOWN	14.82	250J	J33

Lab Sample Id: 993194A-11 Client Sample Id: CF-SS-41

CAS#	Compound	RT	Estimated Conc., ug/Kg	
	ALDOL CONDENSATION PRODUCT	7.02	50000JAB	R33
	UNKNOWN	8.35	5700JB	R33
	UNKNOWN	5.60	940J	J33
	UNKNOWN	6.36	750JB	R33
	UNKNOWN	7.58	550JB	R33
	UNKNOWN ACID	21.12	350J	J33

Lab Sample Id: 993194A-11RE Client Sample Id: CF-SS-41RE

CAS#	Compound	RT	Estimated Conc., ug/Kg	
	ALDOL CONDENSATION PRODUCT	6.95	46000JAB	R33
	UNKNOWN	8.08	5200JB	R33
	UNKNOWN	7.35	610JB	R33
	UNKNOWN ACID	20.78	520J	J33
	UNKNOWN	9.30	380J	J33
	UNKNOWN	12.64	350J	J33
	UNKNOWN C6H10O ISOMER	5.25	350J	J33
	UNKNOWN	9.25	340J	J33
	UNKNOWN	5.74	310J	J33
	UNKNOWN	22.17	230J	J33
	UNKNOWN	17.56	140J	J33
85-44-9	PHTHALIC ANHYDRIDE	14.55	130JN	J33

See Appendix for qualifier definitions

Soil

TABLE AS-1.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D. Lab Sample I.D.	CF-SS-41 993194A-11	CF-SS-12 993194A-12	CF-SS-19 993194A-13	CF-SS-26 993194A-14
Arsenic	11.6	13.2	7.4	6.5
Barium	131.	537.	273.	97.2
Cadmium	1.1	2.1	2.2	0.84B
Chromium	18.8	41.2	34.1	23.0
Lead	400. J13	2740 J13	948. J13	362. J13
Mercury	0.18N J1	0.41N J1	0.73N J1	0.30N J1
Selenium	2.4	1.9	2.7	2.7
Silver	0.16U	0.45B J28	0.74B J28	0.25U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-41

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-11

% Solids: 87 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.600	U	UJ, mg/Kg		L
	TOC	73800		J, mg/Kg		D

Comments:

FORM I - WC

1/10/00

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404206 | Sample ID: CF-SS-41 [redacted]

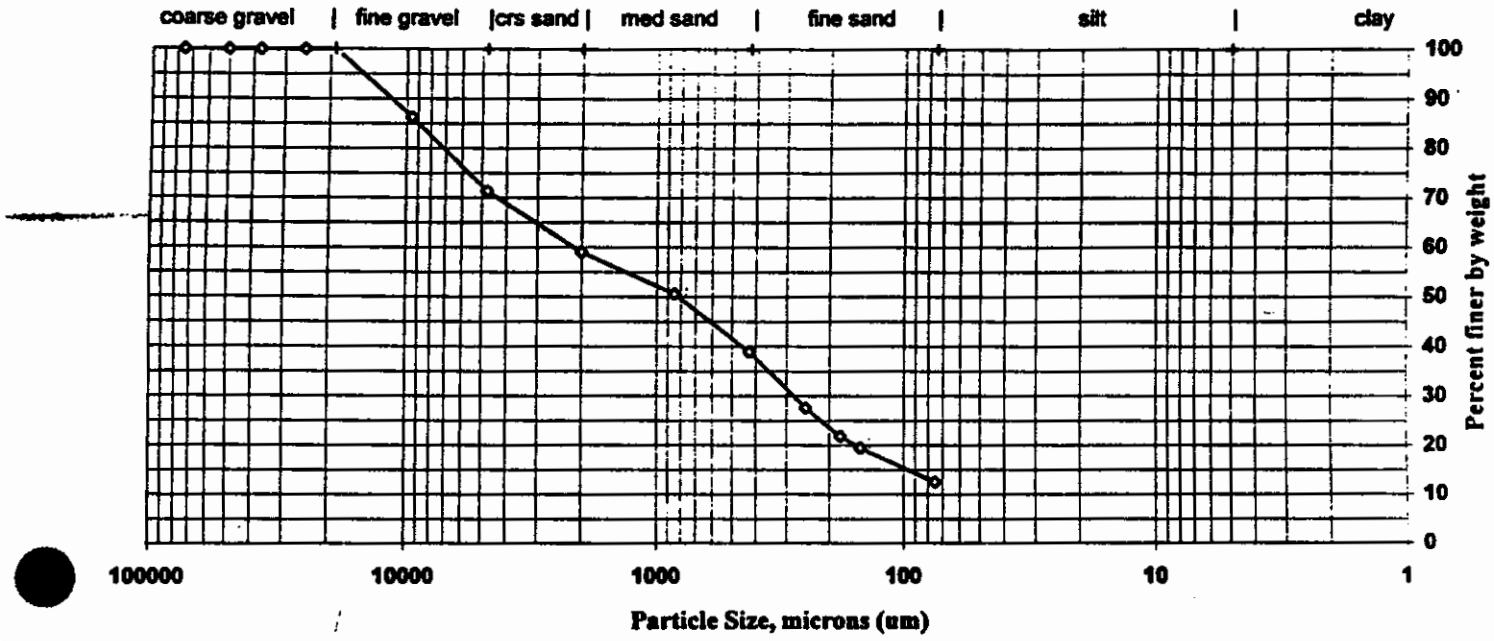
Percent Solids: 83.6%

Specific Gravity: 2.65

Maximum Particle Size: 19 mm

Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	86.3	13.7 JS
#4	4750	71.3	15.0
#10	2000	59.0	12.3
#20A	850	50.7	8.4
#40A	425	39.0	11.7
#60A	250	27.6	11.4
#80A	180	21.9	5.7
#100A	150	19.5	2.4
#200A	75	12.6	6.9
Hydrometer	0.0	0.0	12.6 JS
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

JS 1/10/00

Submitted By: [signature] Date: 12/16/99

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404206DP | Sample ID: CR-SS-41REP

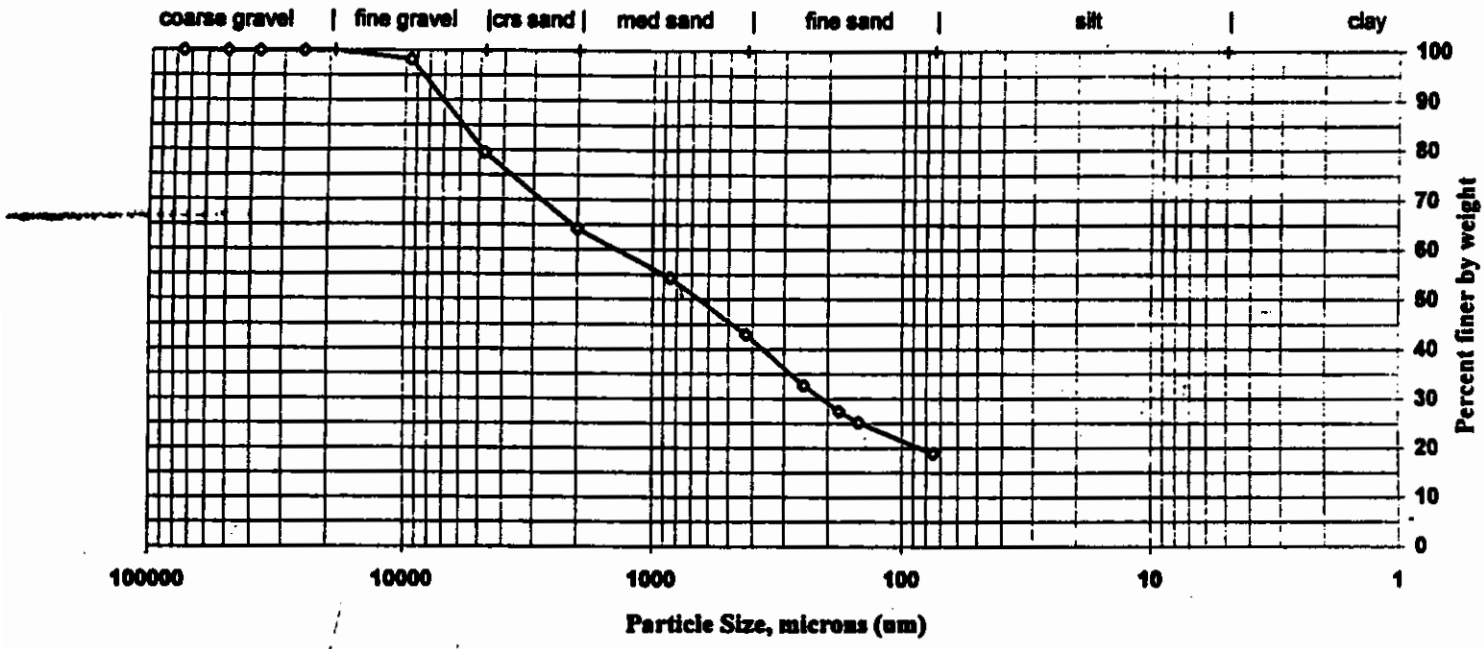
Percent Solids: 87.6%

Specific Gravity: 2.65

Maximum Particle Size: 19 mm

Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	98.2	1.8 J5
#4	4750	79.6	18.6
#10	2000	64.2	15.4
#20A	850	54.4	9.8
#40A	425	43.0	11.4
#60A	250	32.7	10.3
#80A	180	27.5	5.2
#100A	150	25.3	2.2
#200A	75	18.9	6.4
Hydrometer	0.0	0.0	18.9 J5
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: _____ Date: 12/16/99

TABLE VO-1.5 Soil
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-42	CF-SS-41	CF-SS-12	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-10	993194A-11	993194A-12	
Method Blank I.D.	VBLKKV	VBLKKV	VBLKKV	
Quant. Factor	1.26	1.14	1.18	
Benzene	U	U	.6J	5.0
Toluene	.3J	U UJ 15	.3J	5.0
Ethylbenzene	U	U UJ 15	U	5.0
Xylene (total)	U	U UJ 15	U	5.0
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/07/99	12/07/99	12/07/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKD

1/10/00

TABLE SV-1.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-34	CF-SS-42	CF-SS-42 MS	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-09	993194A-10	993194A-10MS	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	10.0	1.23	1.23	
Phenol	U	U	2200X	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	U	U	3100X	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	U	U	1400X	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U	330
4-Methylphenol	U	U	29J	330
N-Nitroso-di-n-propylamine	U	U	1500X	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	U	160J J27	200J	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	U	U	1700X	330
Naphthalene	210J	60J	73J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	U	U	3100X	330
2-Methylnaphthalene	160J	47J	65J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	U	330
Acenaphthylene	1800J	340J	360J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	250J	62J	1600X	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.3
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-34	CF-SS-42	CF-SS-42 MS	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-09	993194A-10	993194A-10MS	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	10.0	1.23	1.23	
2,4-Dinitrophenol	U UJ10	UJ11 U UJ10	UJ11 U	1600
4-Nitrophenol	U	U	3300X	1600
Dibenzofuran	140J	40J	47J	330
2,4-Dinitrotoluene	U	U	1700X	330
Diethylphthalate	U	U	18JB	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	320J	70J	82J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	U	U	2800X	1600
Phenanthrene	5200	680	770	330
Anthracene	1900J	420	480	330
Carbazole	710J	140J	160J	330
Di-n-butylphthalate	110JB 330 UJ12	38JB 410 UJ12	80JB	330
Fluoranthene	12000	1100	1300	330
Pyrene	13000	1100	2500X	330
Butylbenzylphthalate	210J	100J	130J	330
3,3'-Dichlorobenzidine	U	U	U	660
Benzo(a)anthracene	9400	800	890	330
Chrysene	12000	1100	1200	330
bis(2-Ethylhexyl)phthalate	2100JB 330 UJ12	370JB 410 UJ12	460B	330
Di-n-octylphthalate	U	U UJ15	370JB	330
Benzo(b)fluoranthene	8200	1100 J15	1300	330
Benzo(k)fluoranthene	10000 J10	1800 J15, J10	1900	330
Benzo(a)pyrene	8800	840 J15	970	330
Indeno(1,2,3-cd)pyrene	4000	130J J15	150J	330
Dibenzo(a,h)anthracene	1600J	56J J15	66J	330
Benzo(g,h,i)perylene	3100J	89J J15	100J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/14/99	12/14/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00 JKS

TABLE SV-2.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-08 Client Sample Id: CF-SS-35 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg
	UNKNOWN ALKANE	29.14	430J J35
	UNKNOWN C17H12 PAH	23.75	380J J33
	UNKNOWN C20H12 PAH	27.99	370J J33

Lab Sample Id: 993194A-09 Client Sample Id: CF-SS-34

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.79	100000JAB R33
	UNKNOWN	8.30	10000JB R33
	UNKNOWN C20H12 PAH	28.53	7600J J33
	UNKNOWN C17H12 PAH	23.82	5900J J33
	UNKNOWN	6.11	4400J J33
	UNKNOWN C16H11N ISOMER	25.97	3600J J33
	UNKNOWN C17H12 PAH	23.94	3600J J33
	UNKNOWN C20H12 PAH	28.87	3300J J33
	UNKNOWN C15H10 PAH	21.45	3100J J33
	UNKNOWN BENZO[B]NAPHTHOTHIOP	25.10	3000J J33
	UNKNOWN C19H14PAH	26.38	3000J J33
	UNKNOWN C17H10O ISOMER	25.28	2900J J33
	UNKNOWN METHYL-PYRENE	24.03	2800J J33
	UNKNOWN METHYL-PYRENE	23.58	2700J J33
	UNKNOWN C18H10 PAH	25.21	2500J J33
	UNKNOWN 4-METHYL CHRYSENE	26.68	2300J J33
	UNKNOWN C16H11N ISOMER	26.07	2200J J33
	UNKNOWN C17H10O ISOMER	24.87	2200J J33
	UNKNOWN	25.84	2000J J33
	UNKNOWN METHYL-PYRENE	24.29	2000J J33
	UNKNOWN C20H12 PAH	28.08	1800J J33

Lab Sample Id: 993194A-10 Client Sample Id: CF-SS-42

CAS#	Compound	RT	Estimated Conc., ug/Kg
	ALDOL CONDENSATION PRODUCT	6.95	36000JAB R33
	UNKNOWN	8.39	6000JB R33
	UNKNOWN	6.41	1900JB R33
	UNKNOWN	6.12	950J J33
	UNKNOWN	9.71	810JB R33
	UNKNOWN C6H10O ISOMER	5.65	710J J33
	UNKNOWN	7.62	620JB R33
	UNKNOWN ACID	21.16	470J J33

See Appendix for qualifier definitions

TABLE SV-2.5
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKSQ

Lab Sample Id: 993194A-10 Client Sample Id: CF-SS-42 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/Kg	
	UNKNOWN C15H12 PAH	21.45	370J	J33
85-44-9	PHTHALIC ANHYDRIDE	15.01	320JN	J33
	UNKNOWN	13.09	260J	J33
	UNKNOWN	14.82	250J	J33

Lab Sample Id: 993194A-11 Client Sample Id: CF-SS-41

CAS#	Compound	RT	Estimated Conc., ug/Kg	
	ALDOL CONDENSATION PRODUCT	7.02	50000JAB	R33
	UNKNOWN	8.35	5700JB	R33
	UNKNOWN	5.60	940J	J33
	UNKNOWN	6.36	750JB	R33
	UNKNOWN	7.58	550JB	R33
	UNKNOWN ACID	21.12	350J	J33

Lab Sample Id: 993194A-11RE Client Sample Id: CF-SS-41RE

CAS#	Compound	RT	Estimated Conc., ug/Kg	
	ALDOL CONDENSATION PRODUCT	6.95	46000JAB	R33
	UNKNOWN	8.08	5200JB	R33
	UNKNOWN	7.35	610JB	R33
	UNKNOWN ACID	20.78	520J	J33
	UNKNOWN	9.30	380J	J33
	UNKNOWN	12.64	350J	J33
	UNKNOWN C6H10O ISOMER	5.25	350J	J33
	UNKNOWN	9.25	340J	J33
	UNKNOWN	5.74	310J	J33
	UNKNOWN	22.17	230J	J33
	UNKNOWN	17.56	140J	J33
85-44-9	PHTHALIC ANHYDRIDE	14.55	130JN	J33

See Appendix for qualifier definitions

TABLE SV-1.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-42 MSD	CF-SS-41	CF-SS-41 RE	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-10 MSD	993194A-11	993194A-11RE	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	1.23	1.18	1.18	
Phenol	2300X	U	U	330
bis(2-Chloroethyl)ether	U	U	U	330
2-Chlorophenol	3300X	U	U	330
1,3-Dichlorobenzene	U	U	U	330
1,4-Dichlorobenzene	1500X	U	U	330
Benzyl alcohol	U	U	U	330
1,2-Dichlorobenzene	U	U	U	330
2-Methylphenol	U	U	U	330
2,2'-oxybis(1-Chloropropane)	U	U	U J11	330
4-Methylphenol	30J	38J J27	18J J27 J11	330
N-Nitroso-di-n-propylamine	1500X	U	U	330
Hexachloroethane	U	U	U	330
Nitrobenzene	U	U	U	330
Isophorone	U	U	U	330
2-Nitrophenol	U	U	U	330
2,4-Dimethylphenol	U	U	U	330
Benzoic acid	200J	170J J27	90J J27	1600
bis(2-Chloroethoxy)methane	U	U	U	330
2,4-Dichlorophenol	U	U	U	330
1,2,4-Trichlorobenzene	1800X	U	U	330
Naphthalene	99J	60J	56J	330
4-Chloroaniline	U	U	U	330
Hexachlorobutadiene	U	U	U	330
4-Chloro-3-methylphenol	3100X	U	U	330
2-Methylnaphthalene	94J	90J	87J	330
Hexachlorocyclopentadiene	U	U	U	330
2,4,6-Trichlorophenol	U	U	U	330
2,4,5-Trichlorophenol	U	U	U	1600
2-Chloronaphthalene	U	U	U	330
2-Nitroaniline	U	U	U	1600
Dimethylphthalate	U	U	15J	330
Acenaphthylene	400J	240J	130J	330
2,6-Dinitrotoluene	U	U	U	330
3-Nitroaniline	U	U	U	1600
Acenaphthene	1600X	23J	18J	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/15/99	12/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.4
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/Kg dry weight basis.

Client Sample I.D.	CF-SS-42 MSD	CF-SS-41	CF-SS-41 RE	Quant. Limits with no Dilution
Lab Sample I.D.	993194A-10 MSD	993194A-11	993194A-11RE	
Method Blank I.D.	SBLKSQ	SBLKSQ	SBLKSQ	
Quant. Factor	1.23	1.18	1.18	
2,4-Dinitrophenol	U	U UJ10	U UJ10 UJ11	1600
4-Nitrophenol	3300X	U	U	1600
Dibenzofuran	43J	26J	22J	330
2,4-Dinitrotoluene	1600X	U	U	330
Diethylphthalate	22JB	U	U	330
4-Chlorophenyl-phenylether	U	U	U	330
Fluorene	76J	28J	19J	330
4-Nitroaniline	U	U	U	1600
4,6-Dinitro-2-methylphenol	U	U	U	1600
N-Nitrosodiphenylamine (1)	U	U	U	330
4-Bromophenyl-phenylether	U	U	U	330
Hexachlorobenzene	U	U	U	330
Pentachlorophenol	2800X	U	U	1600
Phenanthrene	760	390	340J	330
Anthracene	500	230J	100J	330
Carbazole	160J	71J	57J	330
Di-n-butylphthalate	76JB	180JB 390 U12	150JB 390 U12	330
Fluoranthene	1300	540	500	330
Pyrene	2500X	600	940 J15	330
Butylbenzylphthalate	240J	1000	1500 J15	330
3,3'-Dichlorobenzidine	U	U	U UJ15	660
Benzo(a)anthracene	910	380J	320J J15	330
Chrysene	1300	550	450 J15	330
bis(2-Ethylhexyl)phthalate	1200B	470B	590B J15	330
Di-n-octylphthalate	390JB	U UJ15	U R15	330
Benzo(b)fluoranthene	1500	680 J15	640 J15	330
Benzo(k)fluoranthene	2400	940 J15 J10	1100 J15 J10	330
Benzo(a)pyrene	1000	450 J15	420 J15	330
Indeno(1,2,3-cd)pyrene	140J	72J J15	130J J15	330
Dibenzo(a,h)anthracene	54J	U UJ15	U R15	330
Benzo(g,h,i)perylene	100J	61J J15	140J J15	330
Date Received	12/01/99	12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/14/99	12/15/99	12/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EJM 1/15/00

Soil

TABLE AS-1.2
7099-3194A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are mg/Kg dry weight basis.

Client Sample I.D.	CF-SS-34	CF-SS-42	CF-SS-42 D	CF-SS-42 S
Lab Sample I.D.	993194A-09	993194A-10	993194A-10D	993194A-10S
Arsenic	7.9	8.5	6.0	15.1
Barium	94.8	126.	102.	523.
Cadmium	0.63B	0.35B	0.20B	1.3
Chromium	31.3	66.1	63.8	103.
Lead	225. J	225. J	191.	243.
Mercury	0.29NJ	0.20NJ	0.17	0.22N
Selenium	2.0	1.8	1.5	3.2
Silver	0.22U	0.19U	0.19U	10.8

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-SS-42

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194A SAS No.: _____ SDG No.: A3194

Matrix (soil/water): SOIL Lab Sample ID: 993194A-10

% Solids: 82.5 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	2.74		J, mg/Kg	N	L
	TOC	32500		J, mg/Kg		D

Comments:

FORM I - WC

JKS 1/10/00

Particle Size of Soils by ASTM D422

Sample preparation by: D2217

Client: STL - Monroe | Project No.: 99000 | ETR(s) #: 76190

Client Code: STLCT | Job No.: 99000 | SDG(s): 76190

Date Received: 03-Dec-99 | Start Date: 03-Dec-99 | End Date: 15-Dec-99

Lab ID: 404205 | Sample ID: CF-SS-42

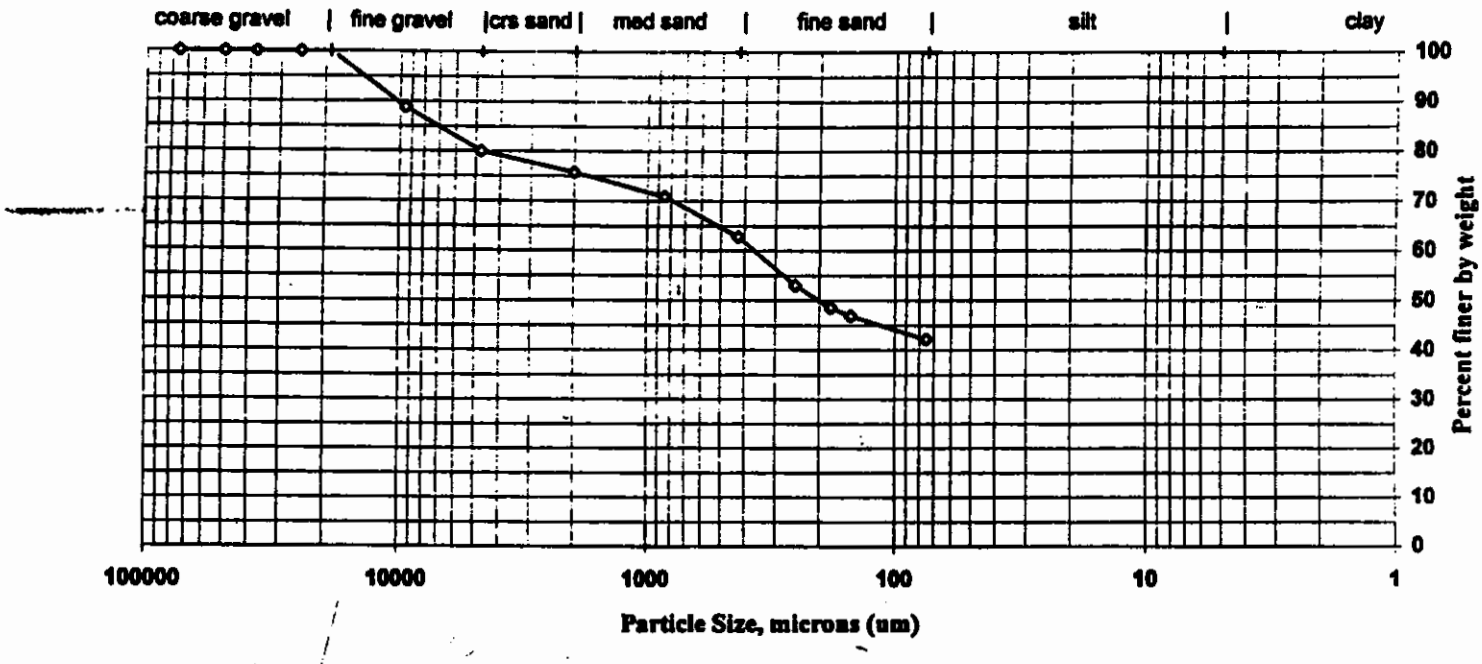
Percent Solids: 85.1%

Specific Gravity: 2.65

Maximum Particle Size: 19 mm

Shape (> #10): Subrounded

Hardness (> #10): Hard



Sieve size	Particle size, um	Percent finer	Incremental percent
3 inch	75000	100.0	0.0
2 inch	50000	100.0	0.0
1.5 inch	37500	100.0	0.0
1 inch	25000	100.0	0.0
3/4 inch	19000	100.0	0.0
3/8 inch	9500	88.9	11.1
#4	4750	80.1	8.8
#10	2000	75.7	4.3
#20A	850	70.9	4.8
#40A	425	62.8	8.1
#60A	250	53.1	9.7
#80A	180	48.6	4.5
#100A	150	46.9	1.7
#200A	75	42.2	4.7
Hydrometer	0.0	0.0	42.2
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
|	0.0	0.0	0.0
V	0.0	0.0	0.0

Dispersion of soil for hydrometer test by mechanical mixer with metal paddle, operated for at least one minute within a dispersion cup with 125 mls sodium hexametaphosphate

1/10/00

Submitted By: [signature] Date: 12/16/99

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-8
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 2145	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 2145	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 2145	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32177		05/03/04 2145	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-8
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		180	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ9	160	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Acenaphthylene, Solid*	580		J5	62	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Acenaphthene, Solid*	ND	U	UJ9	85	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Fluorene, Solid*	ND	U	UJ9	110	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Phenanthrene, Solid*	2200			140	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Anthracene, Solid*	1300		J5	68	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Fluoranthene, Solid*	11000		J10	120	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Pyrene, Solid*	9000		J10	110	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Benzo(a)anthracene, Solid*	5500		J10	85	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Chrysene, Solid*	4800		J10	96	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Benzo(b)fluoranthene, Solid*	7400		J10, J36,	210 J3	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ36	220	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Benzo(a)pyrene, Solid*	5000		J10, J10	90	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	2500			100	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Dibenzo(a,h)anthracene, Solid*	1000		J5	100	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr
	Benzo(ghi)perylene, Solid*	2700			96	1900	5.00000	ug/Kg	32097		05/06/04 2316	hlr

* In Description = Dry Wgt.

EHM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-8
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.068 J7	B	J10	0.016	2.1	1.0000	mg/Kg	31855		04/30/04 1245	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.3 J8	B		1.6	10.4	1	mg/Kg	31821		04/30/04 1326	dwh
	Barium, Solid*	14.1			0.24	2.6	1	mg/Kg	31821		04/30/04 1326	dwh
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	31821		04/30/04 1326	dwh
	Chromium, Solid*	12.1			0.44	3.9	1	mg/Kg	31821		04/30/04 1326	dwh
	Lead, Solid*	346 J10		J8	0.99	11.7	1	mg/Kg	31821		04/30/04 1326	dwh
	Selenium, Solid*	ND	U	J8	2.1	20.7	1	mg/Kg	31821		04/30/04 1326	dwh
	Silver, Solid*	ND	U		0.41	3.9	1	mg/Kg	31821		04/30/04 1326	dwh

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-8
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	5160 J8			~~31.2~~ 406	580	1.0	ug/Kg	31899		05/03/04 1606	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(0-5) duplicate of CF-SB-95 (10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-9
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	16.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 2219	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 2219	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 2219	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32177		05/03/04 2219	pam

* In Description = Dry Wgt.

EMM
5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date: 05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(0-5) duplicate of CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-9
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	16.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		38	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ9	33	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Acenaphthylene, Solid*	120	J	M JS	13	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Acenaphthene, Solid*	32	J	JS, J9	18	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Fluorene, Solid*	ND	U	UJ9	23	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Phenanthrene, Solid*	490			28	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Anthracene, Solid*	170	J	JS	14	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Fluoranthene, Solid*	990		J10	26	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Pyrene, Solid*	870		J10	22	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Benzo(a)anthracene, Solid*	580		J10	18	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Chrysene, Solid*	680		M J10	20	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Benzo(b)fluoranthene, Solid*	470		M J10	45	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Benzo(k)fluoranthene, Solid*	540		M	46	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Benzo(a)pyrene, Solid*	620		J10	19	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	390	J	J3, JS	21	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Dibenzo(a,h)anthracene, Solid*	150	J	M J3, JS	21	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr
	Benzo(ghi)perylene, Solid*	510			20	390	1.00000	ug/Kg	32097		05/04/04 2022	hlr

* In Description = Dry Wgt.

EMM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(0-5) duplicate of CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-9
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	16.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J1H, UJ10	0.016	2.1	1.0000	mg/Kg	31855		04/30/04 1248	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		1.7	11.0	1	mg/Kg	31821		04/30/04 1332	dwh
	Barium, Solid*	5.1			0.25	2.7	1	mg/Kg	31821		04/30/04 1332	dwh
	Cadmium, Solid*	ND	U		1.4	4.1	1	mg/Kg	31821		04/30/04 1332	dwh
	Chromium, Solid*	6.6			0.47	4.1	1	mg/Kg	31821		04/30/04 1332	dwh
	Lead, Solid*	51.5 J10		J8	1.0	12.4	1	mg/Kg	31821		04/30/04 1332	dwh
	Selenium, Solid*	ND	U	J8	2.2	22.0	1	mg/Kg	31821		04/30/04 1332	dwh
	Silver, Solid*	ND	U		0.44	4.1	1	mg/Kg	31821		04/30/04 1332	dwh

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(0-5) duplicate of CF-SB-95(10-15)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-9
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	16.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	12600 J8			~~31.9~~ 415	593	1.0	ug/Kg	32060		05/07/04 1651	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-95(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-7
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 2110	pam
	Toluene, Solid*	0.8	J	JS	0.5	6	1.00000	ug/Kg	32177		05/03/04 2110	pam
	Ethylbenzene, Solid*	1	J	JS	0.5	6	1.00000	ug/Kg	32177		05/03/04 2110	pam
	Xylenes (total), Solid*	5	J	JS	1	6	1.00000	ug/Kg	32177		05/03/04 2110	pam

* In Description = Dry Wgt.

EMM
5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-95(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-7
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		34	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ9	30	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Acenaphthene, Solid*	ND	U	UJ9	16	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Fluorene, Solid*	ND	U	UJ9	22	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Chrysene, Solid*	ND	U		18	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		19	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		19	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr
	Benzo(ghi)perylene, Solid*	ND	U		18	360	1.00000	ug/Kg	32097		05/04/04 1934	hlr

* In Description = Dry Wgt.

EMM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-95(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-7
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J14, J10	0.016	2.1	1.0000	mg/Kg	31855		04/30/04 1244	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.2 J8		J8	1.6	10.3	1	mg/Kg	31821		04/30/04 1320	dwh
	Barium, Solid*	58.2			0.24	2.6	1	mg/Kg	31821		04/30/04 1320	dwh
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	31821		04/30/04 1320	dwh
	Chromium, Solid*	41.5			0.44	3.9	1	mg/Kg	31821		04/30/04 1320	dwh
	Lead, Solid*	4.6 J10,		J8	0.98	11.6	1	mg/Kg	31821		04/30/04 1320	dwh
	Selenium, Solid*	ND	U	J8	2.1	20.7	1	mg/Kg	31821		04/30/04 1320	dwh
	Silver, Solid*	ND	U		0.41	3.9	1	mg/Kg	31821		04/30/04 1320	dwh

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-95(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-7
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.7			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.3			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~29.7~~ 387	553	1.0	ug/Kg	31899		05/03/04 1605	dtn

* In Description = Dry Wgt.

5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-96(5-10)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-5
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32178	RA	05/05/04 1528	pam
	Toluene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32178	RA	05/05/04 1528	pam
	Ethylbenzene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32178	RA	05/05/04 1528	pam
	Xylenes (total), Solid*	ND	U		2	7	1.00000	ug/Kg	32178	RA	05/05/04 1528	pam

* In Description = Dry Wgt.

Report these results.

EMM
5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-96(5-10)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-5
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	27.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32177		05/03/04 2001	pam
	Toluene, Solid*	1	J	JS, JQ, JII	0.5	7	1.00000	ug/Kg	32177		05/03/04 2001	pam
	Ethylbenzene, Solid*	ND	U	JJI	0.5	7	1.00000	ug/Kg	32177		05/03/04 2001	pam
	Xylenes (total), Solid*	ND	U	JJ11	2	7	1.00000	ug/Kg	32177		05/03/04 2001	pam

* In Description = Dry Wgt.

EMM
5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-96(5-10)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-5
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	27.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		670	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ4, UJ9	590	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Acenaphthylene, Solid*	6300	J	J5	230	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Acenaphthene, Solid*	ND	U	UJ9	310	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Fluorene, Solid*	ND	U	UJ9	420	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Phenanthrene, Solid*	8800			500	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Anthracene, Solid*	5300	J	J5	250	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Fluoranthene, Solid*	21000			460	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Pyrene, Solid*	19000			400	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Benzo(a)anthracene, Solid*	11000			310	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Chrysene, Solid*	12000			360	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Benzo(b)fluoranthene, Solid*	8800		M	800	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Benzo(k)fluoranthene, Solid*	10000		M J4	820	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Benzo(a)pyrene, Solid*	12000		J3	340	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	7100		M J3, J5	380	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Dibenzo(a,h)anthracene, Solid*	3100	J	M	380	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr
	Benzo(ghi)perylene, Solid*	9300			360	6900	4.00000	ug/Kg	32097		05/05/04 2335	hlr

* In Description = Dry Wgt.

EHM
6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-96(5-10)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-5
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	27.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.17 J1	B	* J10	0.018	2.5	1.0000	mg/Kg	31855		04/30/04 1241	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	5.6 J8	B		2.0	12.8	1	mg/Kg	31821		04/30/04 1308	dwh
	Barium, Solid*	12.7			0.29	3.2	1	mg/Kg	31821		04/30/04 1308	dwh
	Cadmium, Solid*	4.4	B		1.6	4.8	1	mg/Kg	31821		04/30/04 1308	dwh
	Chromium, Solid*	19.4			0.54	4.8	1	mg/Kg	31821		04/30/04 1308	dwh
	Lead, Solid*	534 J10,	J	J8	1.2	14.4	1	mg/Kg	31821		04/30/04 1308	dwh
	Selenium, Solid*	4.4 J8	B		2.6	25.6	1	mg/Kg	31821		04/30/04 1308	dwh
	Silver, Solid*	0.89	B		0.51	4.8	1	mg/Kg	31821		04/30/04 1308	dwh

* In Description = Dry Wgt.

Jm 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-96(5-10)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-5
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	27.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~36.5~~ 475	678	1.0	ug/Kg	31899		05/03/04 1603	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-96(20-25)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-10
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	12.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 2254	pam
	Toluene, Solid*	0.7	J	JS	0.5	6	1.00000	ug/Kg	32177		05/03/04 2254	pam
	Ethylbenzene, Solid*	1	J	JS	0.5	6	1.00000	ug/Kg	32177		05/03/04 2254	pam
	Xylenes (total), Solid*	3	J	JS	1	6	1.00000	ug/Kg	32177		05/03/04 2254	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-96(20-25)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-10
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	12.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ9	31	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Acenaphthene, Solid*	ND	U	UJ9	16	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Fluorene, Solid*	ND	U	UJ9	22	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Fluoranthene, Solid*	31	J	JS	24	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Benzo(a)anthracene, Solid*	17	J	JS	16	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	32097		05/04/04 2046	hlr

* In Description = Dry Wgt.

EMM
6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-96(~~25-30~~ 20-25)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-10
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	12.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	UJ7*, UJ10	0.016	2.1	1.0000	mg/Kg	31855		04/30/04 1249	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.7 J8	B		1.7	11.2	1	mg/Kg	31821		04/30/04 1350	dwh
	Barium, Solid*	59.7			0.26	2.8	1	mg/Kg	31821		04/30/04 1350	dwh
	Cadmium, Solid*	ND	U		1.4	4.2	1	mg/Kg	31821		04/30/04 1350	dwh
	Chromium, Solid*	26.4			0.47	4.2	1	mg/Kg	31821		04/30/04 1350	dwh
	Lead, Solid*	4.2 J10,	B	J8	1.1	12.5	1	mg/Kg	31821		04/30/04 1350	dwh
	Selenium, Solid*	ND	U	J8	2.2	22.3	1	mg/Kg	31821		04/30/04 1350	dwh
	Silver, Solid*	ND	U		0.45	4.2	1	mg/Kg	31821		04/30/04 1350	dwh

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-96(~~25-30~~ 20-25)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-10
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	12.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~30.0~~ 390	558	1.0	ug/Kg	32060		05/07/04 1654	dtn

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-96A(30-35)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-6
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 2036	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	32177		05/03/04 2036	pam
	Ethylbenzene, Solid*	2	J	JS	0.4	6	1.00000	ug/Kg	32177		05/03/04 2036	pam
	Xylenes (total), Solid*	2	J	JS	1	6	1.00000	ug/Kg	32177		05/03/04 2036	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-96A(30-35)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-6
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND		U	35	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	2-Methylnaphthalene, Solid*	ND		U VJ9	30	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Acenaphthylene, Solid*	ND		U	12	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Acenaphthene, Solid*	ND		U VJ9	16	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Fluorene, Solid*	ND		U VJ9	22	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Phenanthrene, Solid*	ND		U	26	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Anthracene, Solid*	ND		U	13	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Fluoranthene, Solid*	33		J JS	24	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Pyrene, Solid*	29		J JS	21	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Benzo(a)anthracene, Solid*	17		J JS	16	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Chrysene, Solid*	20		J JS	18	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Benzo(b)fluoranthene, Solid*	ND		U	41	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Benzo(k)fluoranthene, Solid*	ND		U	42	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Benzo(a)pyrene, Solid*	ND		U	17	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND		U	20	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Dibenzo(a,h)anthracene, Solid*	ND		U	20	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr
	Benzo(ghi)perylene, Solid*	ND		U	18	360	1.00000	ug/Kg	32097		05/04/04 1910	hlr

* In Description = Dry Wgt.

EMM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-96A(30-35)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-6
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J1Y, UJ10	0.014	1.9	1.0000	mg/Kg	31855		04/30/04 1243	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.8 J8	B		1.6	10.5	1	mg/Kg	31821		04/30/04 1314	dwh
	Barium, Solid*	44.1			0.24	2.6	1	mg/Kg	31821		04/30/04 1314	dwh
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	31821		04/30/04 1314	dwh
	Chromium, Solid*	24.0			0.45	3.9	1	mg/Kg	31821		04/30/04 1314	dwh
	Lead, Solid*	2.6 J10,	B	J8	1.0	11.8	1	mg/Kg	31821		04/30/04 1314	dwh
	Selenium, Solid*	ND	U	J8	2.1	21.0	1	mg/Kg	31821		04/30/04 1314	dwh
	Silver, Solid*	ND	U		0.42	3.9	1	mg/Kg	31821		04/30/04 1314	dwh

* In Description = Dry Wgt.

Jpm 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-96A(30-35)
Date Sampled.....: 04/27/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-6
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.0			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~29.6~~ 386	551	1.0	ug/Kg	31899		05/03/04 1604	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-97(5-10)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-3
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 1851	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 1851	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 1851	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32177		05/03/04 1851	pam

* In Description = Dry Wgt.

EMM
5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-97(5-10)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-3
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	720		J5	290	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	2-Methylnaphthalene, Solid*	340		J4, J5, J9	250	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Acenaphthylene, Solid*	10000			98	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Acenaphthene, Solid*	240		J5, J9	130	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Fluorene, Solid*	ND	U	UJ9	180	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Phenanthrene, Solid*	2700		J5	210	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Anthracene, Solid*	6900			110	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Fluoranthene, Solid*	11000			200	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Pyrene, Solid*	13000			170	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Benzo(a)anthracene, Solid*	12000			130	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Chrysene, Solid*	15000			150	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Benzo(b)fluoranthene, Solid*	11000			340	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Benzo(k)fluoranthene, Solid*	9900		J4	350	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Benzo(a)pyrene, Solid*	15000			140	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	9700		J3	160	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Dibenzo(a,h)anthracene, Solid*	5200		J3	160	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr
	Benzo(ghi)perylene, Solid*	14000			150	2900	4.00000	ug/Kg	32097		05/05/04 2311	hlr

* In Description = Dry Wgt.

EMM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-97(5-10)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-3
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.18 J17	B	, + J10	0.015	2.0	1.0000	mg/Kg	31855		04/30/04 1237	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.1 J8	B		1.6	10.6	1	mg/Kg	31821		04/30/04 1256	dwh
	Barium, Solid*	24.7			0.24	2.6	1	mg/Kg	31821		04/30/04 1256	dwh
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	31821		04/30/04 1256	dwh
	Chromium, Solid*	16.5			0.45	4.0	1	mg/Kg	31821		04/30/04 1256	dwh
	Lead, Solid*	457 J10, J8			1.0	11.9	1	mg/Kg	31821		04/30/04 1256	dwh
	Selenium, Solid*	ND	U	J8	2.1	21.1	1	mg/Kg	31821		04/30/04 1256	dwh
	Silver, Solid*	ND	U		0.42	4.0	1	mg/Kg	31821		04/30/04 1256	dwh

* In Description = Dry Wgt.

Jam 5/20/04

T990000

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-97(5-10)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-3
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	11.5			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~29.5~~ 384	549	1.0	ug/Kg	31899		05/03/04 1600	dtn

* In Description = Dry Wgt.

Jm 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-97(25-30)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-4
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 1926	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 1926	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 1926	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32177		05/03/04 1926	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-97(25-30)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-4
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		36	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJq	32	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Acenaphthylene, Solid*	ND	U		13	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Acenaphthene, Solid*	ND	U	UJq	17	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Fluorene, Solid*	ND	U	UJq	23	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Phenanthrene, Solid*	ND	U		27	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Anthracene, Solid*	ND	U		14	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Fluoranthene, Solid*	ND	U		25	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Pyrene, Solid*	ND	U		22	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Benzo(a)anthracene, Solid*	ND	U		17	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Chrysene, Solid*	ND	U		19	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		43	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		44	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	380	1.00000	ug/Kg	32097		05/04/04 1822	hlr

* In Description = Dry Wgt.

EMM
6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-97(25-30)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-4
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J1*, UJ1O	0.013	1.8	1.0000	mg/Kg	31855		04/30/04 1241	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.4 J8			1.6	10.6	1	mg/Kg	31821		04/30/04 1302	dwh
	Barium, Solid*	51.6			0.24	2.6	1	mg/Kg	31821		04/30/04 1302	dwh
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	31821		04/30/04 1302	dwh
	Chromium, Solid*	31.4			0.45	4.0	1	mg/Kg	31821		04/30/04 1302	dwh
	Lead, Solid*	4.2 J1O,		J8	1.0	11.9	1	mg/Kg	31821		04/30/04 1302	dwh
	Selenium, Solid*	ND	U	J8	2.1	21.2	1	mg/Kg	31821		04/30/04 1302	dwh
	Silver, Solid*	ND	U		0.42	4.0	1	mg/Kg	31821		04/30/04 1302	dwh

* In Description = Dry Wgt.

5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-97(25-30)
Date Sampled.....: 04/26/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-4
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.1			0.10	0.10	1	%	31776		04/29/04 0000	sbw
	% Moisture, Solid	14.9			0.10	0.10	1	%	31776		04/29/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~31.0~~ 403	576	1.0	ug/Kg	31899		05/03/04 1601	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(16.5-17.5)
Date Sampled.....: 04/28/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-12
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		51	670	1.00000	ug/Kg	32188		05/12/04 0151	pam
	Toluene, High/Med Level*	190		JS	37	670	1.00000	ug/Kg	32188		05/12/04 0151	pam
	Ethylbenzene, High/Med Level*	4400			37	670	1.00000	ug/Kg	32188		05/12/04 0151	pam
	Xylenes (total), High/Med Level*	7700			140	670	1.00000	ug/Kg	32188		05/12/04 0151	pam
ASTM D-2216												
	% Solids, Solid	74.6			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	25.4			0.10	0.10	1	%	31813		05/02/04 0000	sbw

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(16.5-17.5)
Date Sampled.....: 04/28/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-12
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.6			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	25.4			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1300000			17000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	2-Methylnaphthalene, Solid*	200000			15000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Acenaphthylene, Solid*	200000			5900	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Acenaphthene, Solid*	100000		JS	8000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Fluorene, Solid*	200000			11000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Phenanthrene, Solid*	780000			13000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Anthracene, Solid*	210000			6400	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Fluoranthene, Solid*	580000			12000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Pyrene, Solid*	440000			10000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Benzo(a)anthracene, Solid*	190000			8000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Chrysene, Solid*	180000		JS	9100	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Benzo(b)fluoranthene, Solid*	250000		JSB	20000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJSB	21000	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Benzo(a)pyrene, Solid*	170000		MJS	8500	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	70000		JS	9600	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Dibenzo(a,h)anthracene, Solid*	34000		MJS	9600	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr
	Benzo(ghi)perylene, Solid*	74000		MJS	9100	180000	100.0000	ug/Kg	32099		05/07/04 2105	hlr

* In Description = Dry Wgt.

EMM 6/11/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(16.5-17.5)
Date Sampled.....: 04/28/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-12
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.6			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	25.4			0.10	0.10	1	%	31813		05/02/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J17, UJ10	0.013	1.8	1.0000	mg/Kg	31974		05/05/04 1352	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.0 J8			1.7	11.5	1	mg/Kg	32059		05/07/04 1114	nnp
	Barium, Solid*	11.7			0.26	2.9	1	mg/Kg	32059		05/07/04 1114	nnp
	Cadmium, Solid*	ND	U		1.4	4.3	1	mg/Kg	32059		05/07/04 1114	nnp
	Chromium, Solid*	15.1			0.49	4.3	1	mg/Kg	32059		05/07/04 1114	nnp
	Lead, Solid*	2.6 J10,		J8	1.1	12.9	1	mg/Kg	32059		05/07/04 1114	nnp
	Selenium, Solid*	ND	U	J8	2.3	22.9	1	mg/Kg	32059		05/07/04 1114	nnp
	Silver, Solid*	ND	U		0.46	4.3	1	mg/Kg	32059		05/07/04 1114	nnp

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(16.5-17.5)
Date Sampled.....: 04/28/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-12
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.6			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	25.4			0.10	0.10	1	%	31813		05/02/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~34.3~~ 447	638	1.0	ug/Kg	32060		05/07/04 1656	dtn

* In Description = Dry Wgt.

JPM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 16:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-11
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/03/04 2329	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 2329	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32177		05/03/04 2329	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32177		05/03/04 2329	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 16:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-11
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		34	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ4	30	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Acenaphthylene, Solid*	ND	U		12	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Acenaphthene, Solid*	ND	U		16	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Fluorene, Solid*	ND	U		21	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Phenanthrene, Solid*	ND	U		26	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Anthracene, Solid*	ND	U		13	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Fluoranthene, Solid*	ND	U		23	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Pyrene, Solid*	ND	U		20	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Benzo(a)anthracene, Solid*	ND	U		16	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Chrysene, Solid*	ND	U		18	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		40	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ4	41	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Benzo(a)pyrene, Solid*	ND	U		17	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		19	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		19	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr
	Benzo(ghi)perylene, Solid*	ND	U		18	350	1.00000	ug/Kg	32099		05/05/04 2133	hlr

* In Description = Dry Wgt.

EMM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 16:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-11
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J17, UJ10	0.014	1.9	1.0000	mg/Kg	31974		05/05/04 1351	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.5 J8	B		1.6	10.3	1	mg/Kg	32059		05/07/04 1108	nnp
	Barium, Solid*	71.0			0.24	2.6	1	mg/Kg	32059		05/07/04 1108	nnp
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	32059		05/07/04 1108	nnp
	Chromium, Solid*	37.1			0.44	3.9	1	mg/Kg	32059		05/07/04 1108	nnp
	Lead, Solid*	3.3 J10,	B	J8	0.98	11.6	1	mg/Kg	32059		05/07/04 1108	nnp
	Selenium, Solid*	ND	U	J8	2.1	20.7	1	mg/Kg	32059		05/07/04 1108	nnp
	Silver, Solid*	ND	U		0.41	3.9	1	mg/Kg	32059		05/07/04 1108	nnp

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(25-30)
Date Sampled.....: 04/28/2004
Time Sampled.....: 16:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-11
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~29.7~~ 386	552	1.0	ug/Kg	32060		05/07/04 1655	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 11:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-13
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	10.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/04/04 0004	pam
	Toluene, Solid*	0.9	J	J5	0.4	6	1.00000	ug/Kg	32177		05/04/04 0004	pam
	Ethylbenzene, Solid*	14			0.4	6	1.00000	ug/Kg	32177		05/04/04 0004	pam
	Xylenes (total), Solid*	9			1	6	1.00000	ug/Kg	32177		05/04/04 0004	pam

0000018

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 11:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-13
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	10.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	320		J5	36	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	2-Methylnaphthalene, Solid*	ND	U	VJ4	31	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Fluoranthene, Solid*	ND	U		24	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	VJ4	43	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	32099		05/05/04 2158	hlr

* In Description = Dry Wgt.

EMH 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 11:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-13
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	10.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J17, UJ10	0.014	1.9	1.0000	mg/Kg	31974		05/05/04 1353	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.7 J8	B		1.6	10.4	1	mg/Kg	32059		05/07/04 1120	nnp
	Barium, Solid*	72.2		#	0.24	2.6	1	mg/Kg	32059		05/07/04 1120	nnp
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	32059		05/07/04 1120	nnp
	Chromium, Solid*	38.0			0.44	3.9	1	mg/Kg	32059		05/07/04 1120	nnp
	Lead, Solid*	4.4 J10,	B	J8#	0.99	11.7	1	mg/Kg	32059		05/07/04 1120	nnp
	Selenium, Solid*	ND	U	J8	2.1	20.8	1	mg/Kg	32059		05/07/04 1120	nnp
	Silver, Solid*	ND	U		0.42	3.9	1	mg/Kg	32059		05/07/04 1120	nnp

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-98A(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 11:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-13
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	10.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~28.5~~ 370	529	1.0	ug/Kg	32060		05/07/04 1657	dtn

* In Description = Dry Wgt.

Jpm 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-99(25-27)
Date Sampled.....: 04/29/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-15
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	12.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32178		05/05/04 1454	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32178		05/05/04 1454	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32178		05/05/04 1454	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32178		05/05/04 1454	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-99(25-27)
Date Sampled.....: 04/29/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-15
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	12.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	2-Methylnaphthalene, Solid*	ND	U	VJ4	31	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	VJ4	43	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	32099		05/05/04 2246	hlr

* In Description = Dry Wgt.

EHM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-99(25-27)
Date Sampled.....: 04/29/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-15
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	12.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.016	2.1	1.0000	mg/Kg	31974		05/05/04 1354	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		1.5	10.1	1	mg/Kg	32059		05/07/04 1132	nnp
	Barium, Solid*	37.8			0.23	2.5	1	mg/Kg	32059		05/07/04 1132	nnp
	Cadmium, Solid*	ND	U		1.3	3.8	1	mg/Kg	32059		05/07/04 1132	nnp
	Chromium, Solid*	14.5			0.43	3.8	1	mg/Kg	32059		05/07/04 1132	nnp
	Lead, Solid*	4.0	J	J10, J8*	0.96	11.3	1	mg/Kg	32059		05/07/04 1132	nnp
	Selenium, Solid*	ND	U	J8	2.0	20.1	1	mg/Kg	32059		05/07/04 1132	nnp
	Silver, Solid*	ND	U		0.40	3.8	1	mg/Kg	32059		05/07/04 1132	nnp

* In Description = Dry Wgt.

Jpm
5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-99(25-27)
Date Sampled.....: 04/29/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-15
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	12.0			0.10	0.10	1	%	31813		05/02/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~30.3~~ 394	563	1.0	ug/Kg	32060		05/07/04 1658	dtn

* In Description = Dry Wgt.

DM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-99(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 15:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-14
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32177		05/04/04 0038	pam
	Toluene, Solid*	0.9	J	JS	0.5	6	1.00000	ug/Kg	32177		05/04/04 0038	pam
	Ethylbenzene, Solid*	21			0.5	6	1.00000	ug/Kg	32177		05/04/04 0038	pam
	Xylenes (total), Solid*	6			1	6	1.00000	ug/Kg	32177		05/04/04 0038	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-99(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 15:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-14
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	340		J5	34	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ4	30	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Chrysene, Solid*	ND	U		18	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ4	42	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		19	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		19	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr
	Benzo(ghi)perylene, Solid*	ND	U		18	360	1.00000	ug/Kg	32099		05/05/04 2222	hlr

* In Description = Dry Wgt.

EMM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-99(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 15:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-14
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J17, UJ10	0.017	2.2	1.0000	mg/Kg	31974		05/05/04 1353	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.0 J8			1.7	10.9	1	mg/Kg	32059		05/07/04 1126	nnp
	Barium, Solid*	64.1			0.25	2.7	1	mg/Kg	32059		05/07/04 1126	nnp
	Cadmium, Solid*	ND	U		1.4	4.1	1	mg/Kg	32059		05/07/04 1126	nnp
	Chromium, Solid*	80.4			0.46	4.1	1	mg/Kg	32059		05/07/04 1126	nnp
	Lead, Solid*	4.7 J10,		J8	1.0	12.3	1	mg/Kg	32059		05/07/04 1126	nnp
	Selenium, Solid*	ND	U	J8	2.2	21.9	1	mg/Kg	32059		05/07/04 1126	nnp
	Silver, Solid*	ND	U		0.44	4.1	1	mg/Kg	32059		05/07/04 1126	nnp

* In Description = Dry Wgt.

JAM 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-99(45-50)
Date Sampled.....: 04/29/2004
Time Sampled.....: 15:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206467-14
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	31813		05/02/04 0000	sbw
	% Moisture, Solid	11.2			0.10	0.10	1	%	31813		05/02/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J8	~~29.1~~ 319	541	1.0	ug/Kg	32060		05/07/04 1657	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-100(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-1
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		660	8700	10.00000	ug/Kg	32469		05/15/04 1536	pam
	Toluene, High/Med Level*	8900			480	8700	10.00000	ug/Kg	32469		05/15/04 1536	pam
	Ethylbenzene, High/Med Level*	27000			470	8700	10.00000	ug/Kg	32469		05/15/04 1536	pam
	Xylenes (total), High/Med Level*	320000			1800	8700	10.00000	ug/Kg	32469		05/15/04 1536	pam
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	42.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh

* In Description = Dry Wgt.

EHM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-100(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-1
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	42.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	53000		JS	5500	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	2-Methylnaphthalene, Solid*	260000		JS	4800	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Acenaphthylene, Solid*	39000		JS	1900	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Acenaphthene, Solid*	16000		JS	2600	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Fluorene, Solid*	21000		JS	3400	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Phenanthrene, Solid*	59000			4100	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Anthracene, Solid*	8600		JS	2100	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Fluoranthene, Solid*	24000		JS	3800	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Pyrene, Solid*	30000		JS	3300	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Benzo(a)anthracene, Solid*	14000		JS	2600	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Chrysene, Solid*	18000		JS	2900	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Benzo(b)fluoranthene, Solid*	6600		M JB,JS	6500	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	M	6700	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Benzo(a)pyrene, Solid*	4400		JS	2700	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	3800		JS	3100	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		3100	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr
	Benzo(ghi)perylene, Solid*	4400		JS	2900	57000	25.00000	ug/Kg	32341		05/07/04 0142	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-100(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-1
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	42.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.5 J13, V		J10	0.021	2.8	1.0000	mg/Kg	32168		05/11/04 1349	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	27.4 J8		V	2.5	16.1	1	mg/Kg	32544		05/19/04 1616	nnp
	Barium, Solid*	96.3			0.37	4.0	1	mg/Kg	32544		05/19/04 1616	nnp
	Cadmium, Solid*	ND	U		2.0	6.0	1	mg/Kg	32544		05/19/04 1616	nnp
	Chromium, Solid*	60.4			0.68	6.0	1	mg/Kg	32544		05/19/04 1616	nnp
	Lead, Solid*	225 J8		V	1.5	18.1	1	mg/Kg	32544		05/19/04 1616	nnp
	Selenium, Solid*	ND UJ8,	U	J V21,	UJ16 3.2	32.2	1	mg/Kg	32544		05/19/04 1616	nnp
	Silver, Solid*	ND	U		0.64	6.0	1	mg/Kg	32544		05/19/04 1616	nnp

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-100(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-1
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	42.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	61400			~~222~~ 579	4130	5.0	ug/Kg	32060		05/07/04 1737	dtn

* In Description = Dry Wgt.

Xam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-100(8-10)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-2
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		580	7600	10.00000	ug/Kg	32469		05/15/04 1606	pam
	Toluene, High/Med Level*	ND	U		430	7600	10.00000	ug/Kg	32469		05/15/04 1606	pam
	Ethylbenzene, High/Med Level*	4100	J	JS	420	7600	10.00000	ug/Kg	32469		05/15/04 1606	pam
	Xylenes (total), High/Med Level*	ND	U		1600	7600	10.00000	ug/Kg	32469		05/15/04 1606	pam
ASTM D-2216												
	% Solids, Solid	65.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh

* In Description = Dry Wgt.

EHM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-100(8-10)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-2
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	290		J5	48	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	2-Methylnaphthalene, Solid*	ND	U		42	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Acenaphthylene, Solid*	1400			16	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Acenaphthene, Solid*	310		J5	22	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Fluorene, Solid*	530			30	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Phenanthrene, Solid*	3200			36	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Anthracene, Solid*	1100			18	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Fluoranthene, Solid*	1500			33	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Pyrene, Solid*	2100			28	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Benzo(a)anthracene, Solid*	880			22	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Chrysene, Solid*	890			25	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Benzo(b)fluoranthene, Solid*	710		J3, J36	57	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	J36	58	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Benzo(a)pyrene, Solid*	710			24	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	210		J5	27	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Dibenzo(a,h)anthracene, Solid*	120		J5	27	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr
	Benzo(ghi)perylene, Solid*	270		J5	25	490	1.00000	ug/Kg	32341		05/07/04 0029	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-100(8-10)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-2
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.24 J10	J		0.023	3.1	1.0000	mg/Kg	32168		05/11/04 1351	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	15.3 J8		J	2.3	14.8	1	mg/Kg	32544		05/19/04 1622	nnp
	Barium, Solid*	101			0.34	3.7	1	mg/Kg	32544		05/19/04 1622	nnp
	Cadmium, Solid*	ND	U		1.9	5.6	1	mg/Kg	32544		05/19/04 1622	nnp
	Chromium, Solid*	20.2			0.63	5.6	1	mg/Kg	32544		05/19/04 1622	nnp
	Lead, Solid*	242 J8		J	1.4	16.7	1	mg/Kg	32544		05/19/04 1622	nnp
	Selenium, Solid*	3.4 J8	J	J	3.0	29.7	1	mg/Kg	32544		05/19/04 1622	nnp
	Silver, Solid*	ND	U		0.59	5.6	1	mg/Kg	32544		05/19/04 1622	nnp

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-100(8-10)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-2
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	510U ~~52.8~~	B		~~39.2~~ 510	728	1.0	ug/Kg	32060		05/07/04 1703	dtn

* In Description = Dry Wgt.

yam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-100(15-17)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-3
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	71.3			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	28.7			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32387		05/10/04 1847	pam
	Toluene, Solid*	ND	U		0.6	7	1.00000	ug/Kg	32387		05/10/04 1847	pam
	Ethylbenzene, Solid*	ND	U		0.6	7	1.00000	ug/Kg	32387		05/10/04 1847	pam
	Xylenes (total), Solid*	ND	U		2	7	1.00000	ug/Kg	32387		05/10/04 1847	pam

* In Description = Dry Wgt.

EHM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-100(15-17)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-3
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	71.3			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	28.7			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		44	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	2-Methylnaphthalene, Solid*	ND	U		39	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Acenaphthylene, Solid*	78		J5	15	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Acenaphthene, Solid*	ND	U		21	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Fluorene, Solid*	ND	U		28	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Phenanthrene, Solid*	ND	U		33	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Anthracene, Solid*	30		J5	17	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Fluoranthene, Solid*	490			30	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Pyrene, Solid*	960			26	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Benzo(a)anthracene, Solid*	ND	U		21	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Chrysene, Solid*	ND	U		24	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		53	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		54	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Benzo(a)pyrene, Solid*	ND	U		22	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		25	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		25	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr
	Benzo(ghi)perylene, Solid*	ND	U		24	460	1.00000	ug/Kg	32341		05/07/04 0054	hlr

* In Description = Dry Wgt.

EMM
6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-100(15-17)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-3
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	71.3			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	28.7			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.020	2.7	1.0000	mg/Kg	32168		05/11/04 1352	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J	1.9	12.3	1	mg/Kg	32544		05/19/04 1628	nnp
	Barium, Solid*	7.9			0.28	3.1	1	mg/Kg	32544		05/19/04 1628	nnp
	Cadmium, Solid*	ND	U		1.5	4.6	1	mg/Kg	32544		05/19/04 1628	nnp
	Chromium, Solid*	7.4			0.52	4.6	1	mg/Kg	32544		05/19/04 1628	nnp
	Lead, Solid*	1.9 J8	J	J	1.2	13.8	1	mg/Kg	32544		05/19/04 1628	nnp
	Selenium, Solid*	ND	U	J J8	2.5	24.6	1	mg/Kg	32544		05/19/04 1628	nnp
	Silver, Solid*	ND	U		0.49	4.6	1	mg/Kg	32544		05/19/04 1628	nnp

* In Description = Dry Wgt.

jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-100(15-17)
Date Sampled.....: 05/03/2004
Time Sampled.....: 08:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-3
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	71.3			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	28.7			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~35.9~~ 468	668	1.0	ug/Kg	32060		05/07/04 1704	dtn

600000

* In Description = Dry Wgt.

Jam 5/17/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-101(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-4
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		1200	16000	20.00000	ug/Kg	32469		05/15/04 1636	pam
	Toluene, High/Med Level*	3400	J	JS	900	16000	20.00000	ug/Kg	32469		05/15/04 1636	pam
	Ethylbenzene, High/Med Level*	10000	J	JS	890	16000	20.00000	ug/Kg	32469		05/15/04 1636	pam
	Xylenes (total), High/Med Level*	350000			3400	16000	20.00000	ug/Kg	32469		05/15/04 1636	pam
ASTM D-2216												
	% Solids, Solid	61.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	38.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-101(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-4
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	38.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	260000		JS	26000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	2-Methylnaphthalene, Solid*	2100000			22000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Acenaphthylene, Solid*	120000		JS	8800	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Acenaphthene, Solid*	86000		JS	12000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Fluorene, Solid*	110000		JS	16000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Phenanthrene, Solid*	300000			19000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Anthracene, Solid*	26000		JS	9600	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Fluoranthene, Solid*	98000		JS	18000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Pyrene, Solid*	140000		JS	15000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Benzo(a)anthracene, Solid*	47000		JS	12000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Chrysene, Solid*	60000		JS	14000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Benzo(b)fluoranthene, Solid*	37000		JS, J36	30000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ36	31000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Benzo(a)pyrene, Solid*	18000		JS	13000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		14000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		14000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr
	Benzo(ghi)perylene, Solid*	ND	U		14000	260000	50.00000	ug/Kg	32341		05/07/04 2302	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-101(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-4
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	38.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.1 J10	B		0.020	2.6	1.0000	mg/Kg	32168		05/11/04 1353	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	39.8 J8		M	2.3	15.2	1	mg/Kg	32544		05/19/04 1634	nnp
	Barium, Solid*	70.1			0.35	3.8	1	mg/Kg	32544		05/19/04 1634	nnp
	Cadmium, Solid*	ND	U		1.9	5.7	1	mg/Kg	32544		05/19/04 1634	nnp
	Chromium, Solid*	94.6			0.64	5.7	1	mg/Kg	32544		05/19/04 1634	nnp
	Lead, Solid*	66.0 J8		M	1.4	17.1	1	mg/Kg	32544		05/19/04 1634	nnp
	Selenium, Solid*	ND UJ8,	U	J M2, UJ16	3.0	30.3	1	mg/Kg	32544		05/19/04 1634	nnp
	Silver, Solid*	ND	U		0.61	5.7	1	mg/Kg	32544		05/19/04 1634	nnp

* In Description = Dry Wgt.

Tom 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-101(3-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-4
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.6			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	38.4			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	134000			~~424~~ 552	7880	10.0	ug/Kg	32060		05/07/04 1738	dtn

* In Description = Dry Wgt.

0000070

Jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-101(10-11)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-5
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		2700	35000	50.00000	ug/Kg	32469		05/15/04 1706	pam
	Toluene, High/Med Level*	2800		J	2000	35000	50.00000	ug/Kg	32469		05/15/04 1706	pam
	Ethylbenzene, High/Med Level*	50000			1900	35000	50.00000	ug/Kg	32469		05/15/04 1706	pam
	Xylenes (total), High/Med Level*	53000			7400	35000	50.00000	ug/Kg	32469		05/15/04 1706	pam
ASTM D-2216												
	% Solids, Solid	70.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	29.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh

* In Description = Dry Wgt.

EMM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-101(10-11)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-5
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	29.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1100000			18000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	2-Methylnaphthalene, Solid*	360000			15000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Acenaphthylene, Solid*	230000			6100	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Acenaphthene, Solid*	46000	J	J5	8300	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Fluorene, Solid*	110000	J	J5	11000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Phenanthrene, Solid*	300000			13000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Anthracene, Solid*	120000	J	J5	6600	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Fluoranthene, Solid*	170000	J	J5	12000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Pyrene, Solid*	230000			11000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Benzo(a)anthracene, Solid*	88000	J	J5	8300	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Chrysene, Solid*	87000	J	J5	9400	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Benzo(b)fluoranthene, Solid*	37000	J	M J5	21000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Benzo(k)fluoranthene, Solid*	53000	J	M J5	22000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Benzo(a)pyrene, Solid*	71000	J	M J5	8900	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	23000	J	M J5	10000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Dibenzo(a,h)anthracene, Solid*	11000	J	J5	10000	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr
	Benzo(ghi)perylene, Solid*	25000	J	J5	9400	180000	100.0000	ug/Kg	32346		05/12/04 0134	hlr

* In Description = Dry Wgt.

EMH
6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-101(10-11)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-5
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	29.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.77 J10			0.020	2.6	1.0000	mg/Kg	32168		05/11/04 1354	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.5 J8			1.9	12.7	1	mg/Kg	32544		05/19/04 1640	nnp
	Barium, Solid*	37.6			0.29	3.2	1	mg/Kg	32544		05/19/04 1640	nnp
	Cadmium, Solid*	ND	U		1.6	4.8	1	mg/Kg	32544		05/19/04 1640	nnp
	Chromium, Solid*	16.4			0.54	4.8	1	mg/Kg	32544		05/19/04 1640	nnp
	Lead, Solid*	217 J8			1.2	14.3	1	mg/Kg	32544		05/19/04 1640	nnp
	Selenium, Solid*	ND	U	J8	2.5	25.4	1	mg/Kg	32544		05/19/04 1640	nnp
	Silver, Solid*	ND	U		0.51	4.8	1	mg/Kg	32544		05/19/04 1640	nnp

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-101(10-11)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-5
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	29.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~36.8~~ 479	685	1.0	ug/Kg	32060		05/07/04 1706	dtn

* In Description = Dry Wgt.

0000771

Jan 5/17/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-101(15-16)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-6
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	13.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32387		05/10/04 1921	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32387		05/10/04 1921	pam
	Ethylbenzene, Solid*	1	~~U~~ J	J5	0.5	6	1.00000	ug/Kg	32387		05/10/04 1921	pam
	Xylenes (total), Solid*	3	~~U~~ J	J5	1	6	1.00000	ug/Kg	32387		05/10/04 1921	pam

* In Description = Dry Wgt.

EMM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-101(15-16)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-6
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	13.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	330		J8, J5	37	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	2-Methylnaphthalene, Solid*	210		J8, J5	32	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Acenaphthylene, Solid*	120		J5	13	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Acenaphthene, Solid*	41		J5	17	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Fluorene, Solid*	170		J5	23	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Phenanthrene, Solid*	390			28	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Anthracene, Solid*	130		J5	14	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Fluoranthene, Solid*	500		J8	25	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Pyrene, Solid*	550			22	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Benzo(a)anthracene, Solid*	63		J5	17	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Chrysene, Solid*	66		J5	20	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Benzo(b)fluoranthene, Solid*	45		J5, J36	44	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ36	45	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Benzo(a)pyrene, Solid*	42		J5	18	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr
	Benzo(ghi)perylene, Solid*	ND	U		20	380	1.00000	ug/Kg	32341		05/07/04 2128	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-101(15-16)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-6
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	13.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.016	2.2	1.0000	mg/Kg	32168		05/11/04 1356	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J	1.5	9.9	1	mg/Kg	32544		05/19/04 1646	nnp
	Barium, Solid*	4.8			0.23	2.5	1	mg/Kg	32544		05/19/04 1646	nnp
	Cadmium, Solid*	ND	U		1.2	3.7	1	mg/Kg	32544		05/19/04 1646	nnp
	Chromium, Solid*	6.3			0.42	3.7	1	mg/Kg	32544		05/19/04 1646	nnp
	Lead, Solid*	1.2 J8	J	J	0.94	11.2	1	mg/Kg	32544		05/19/04 1646	nnp
	Selenium, Solid*	ND	U	J8 J	2.0	19.8	1	mg/Kg	32544		05/19/04 1646	nnp
	Silver, Solid*	ND	U		0.40	3.7	1	mg/Kg	32544		05/19/04 1646	nnp

* In Description = Dry Wgt.

Tom 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-101(15-16)
Date Sampled.....: 05/03/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-6
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	13.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.5~~ 394	563	1.0	ug/Kg	32060		05/07/04 1707	dtn

2700072

* In Description = Dry Wgt.

Tom 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-102(1-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-7
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		1200	15000	20.00000	ug/Kg	32469		05/15/04 1737	pam
	Toluene, High/Med Level*	2600		JS	850	15000	20.00000	ug/Kg	32469		05/15/04 1737	pam
	Ethylbenzene, High/Med Level*	1100		JS	840	15000	20.00000	ug/Kg	32469		05/15/04 1737	pam
	Xylenes (total), High/Med Level*	9500		JS	3200	15000	20.00000	ug/Kg	32469		05/15/04 1737	pam
ASTM D-2216												
	% Solids, Solid	65.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh

* In Description = Dry Wgt.

EMM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(1-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-7
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	200000			9700	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	2-Methylnaphthalene, Solid*	560000			8500	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Acenaphthylene, Solid*	100000	U	JS	3300	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Acenaphthene, Solid*	45000	U	JS	4500	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Fluorene, Solid*	55000	U	JS	6100	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Phenanthrene, Solid*	250000			7300	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Anthracene, Solid*	14000	U	JS	3600	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Fluoranthene, Solid*	86000	U	JS	6700	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Pyrene, Solid*	130000			5800	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Benzo(a)anthracene, Solid*	46000	U	JS	4500	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Chrysene, Solid*	67000	U	JS	5100	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Benzo(b)fluoranthene, Solid*	21000	U	M JS	12000	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Benzo(k)fluoranthene, Solid*	22000	U	M JS	12000	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Benzo(a)pyrene, Solid*	5200	U	JS	4800	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	12000	U	JS	5400	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Dibenzo(a,h)anthracene, Solid*	7200	U	JS	5400	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr
	Benzo(ghi)perylene, Solid*	14000	U	JS	5100	100000	20.00000	ug/Kg	32341		05/14/04 1918	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(1-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-7
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.2 J13, J8		J10	0.020	2.7	1.0000	mg/Kg	32168		05/11/04 1359	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	39.2 J8		V	2.2	14.5	1	mg/Kg	32544		05/19/04 1652	nnp
	Barium, Solid*	78.0			0.33	3.6	1	mg/Kg	32544		05/19/04 1652	nnp
	Cadmium, Solid*	ND	U		1.8	5.4	1	mg/Kg	32544		05/19/04 1652	nnp
	Chromium, Solid*	116			0.61	5.4	1	mg/Kg	32544		05/19/04 1652	nnp
	Lead, Solid*	45.6 J8		V	1.4	16.3	1	mg/Kg	32544		05/19/04 1652	nnp
	Selenium, Solid*	ND UJ8,	U	J J21, UJ16	2.9	28.9	1	mg/Kg	32544		05/19/04 1652	nnp
	Silver, Solid*	ND	U		0.58	5.4	1	mg/Kg	32544		05/19/04 1652	nnp

* In Description = Dry Wgt.

Tom 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(1-5)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-7
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.2			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	34.8			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	160000			~~404~~ 526	7520	10.0	ug/Kg	32060		05/07/04 1739	dtn

0000073

* In Description = Dry Wgt.

Tam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-102(10-12)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-8
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	18.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32387		05/10/04 1955	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32387		05/10/04 1955	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32387		05/10/04 1955	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32387		05/10/04 1955	pam

* In Description = Dry Wgt.

report these results

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(10-12)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-8
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	2	J	J7, J5	0.6	6	1.00000	ug/Kg	32386	RA	05/11/04 2103	pam
	Toluene, Solid*	3	J	J7, J11, J5	0.5	6	1.00000	ug/Kg	32386	RA	05/11/04 2103	pam
	Ethylbenzene, Solid*	1	J	J7, J11, J5	0.5	6	1.00000	ug/Kg	32386	RA	05/11/04 2103	pam
	Xylenes (total), Solid*	2	J	J7, J11, J5	1	6	1.00000	ug/Kg	32386	RA	05/11/04 2103	pam

00000013

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-102(10-12)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-8
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	18.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	2700		J5	1600	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	2-Methylnaphthalene, Solid*	ND	U		1400	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Acenaphthylene, Solid*	20000			540	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Acenaphthene, Solid*	2300		J5	730	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Fluorene, Solid*	ND	U		970	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Phenanthrene, Solid*	20000			1200	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Anthracene, Solid*	14000		J5	580	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Fluoranthene, Solid*	65000			1100	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Pyrene, Solid*	110000			920	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Benzo(a)anthracene, Solid*	28000			730	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Chrysene, Solid*	34000			830	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Benzo(b)fluoranthene, Solid*	24000			1800	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Benzo(k)fluoranthene, Solid*	24000			1900	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Benzo(a)pyrene, Solid*	40000			780	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	14000		J5	880	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Dibenzo(a,h)anthracene, Solid*	7300		J5	880	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr
	Benzo(ghi)perylene, Solid*	16000		J5	830	16000	10.00000	ug/Kg	32346		05/12/04 0227	hlr

* In Description = Dry Wgt.

EMM
6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(10-12)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-8
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	QT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	18.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.58 J10	B		0.016	2.2	1.0000	mg/Kg	32168		05/11/04 1400	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	13.4 J8		V	1.8	11.7	1	mg/Kg	32544		05/19/04 1659	nnp
	Barium, Solid*	58.4			0.27	2.9	1	mg/Kg	32544		05/19/04 1659	nnp
	Cadmium, Solid*	ND	U		1.5	4.4	1	mg/Kg	32544		05/19/04 1659	nnp
	Chromium, Solid*	34.8			0.50	4.4	1	mg/Kg	32544		05/19/04 1659	nnp
	Lead, Solid*	572 J8		V	1.1	13.2	1	mg/Kg	32544		05/19/04 1659	nnp
	Selenium, Solid*	ND	U	J8V	2.3	23.5	1	mg/Kg	32544		05/19/04 1659	nnp
	Silver, Solid*	ND	U		0.47	4.4	1	mg/Kg	32544		05/19/04 1659	nnp

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-102(10-12)
Date Sampled.....: 05/03/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-8
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	18.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~31.6~~ 411	587	1.0	ug/Kg	32060		05/07/04 1709	dtn

* In Description = Dry Wgt.

00000074

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-102(28-30)
Date Sampled.....: 05/03/2004
Time Sampled.....: 14:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-9
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	11.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32387		05/10/04 2029	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32387		05/10/04 2029	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32387		05/10/04 2029	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32387		05/10/04 2029	pam

0000014

* In Description = Dry Wgt.

EHM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-102(28-30)
Date Sampled.....: 05/03/2004
Time Sampled.....: 14:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-9
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	11.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		36	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Fluoranthene, Solid*	ND	U		24	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	32341		05/07/04 2239	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(28-30)
Date Sampled.....: 05/03/2004
Time Sampled.....: 14:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-9
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	11.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.015	2.0	1.0000	mg/Kg	32168		05/11/04 1402	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.9 J8			1.6	10.3	1	mg/Kg	32544		05/19/04 1717	nnp
	Barium, Solid*	58.2			0.24	2.6	1	mg/Kg	32544		05/19/04 1717	nnp
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	32544		05/19/04 1717	nnp
	Chromium, Solid*	43.7			0.44	3.9	1	mg/Kg	32544		05/19/04 1717	nnp
	Lead, Solid*	4.3 J8			0.98	11.6	1	mg/Kg	32544		05/19/04 1717	nnp
	Selenium, Solid*	ND	U	J8	2.1	20.6	1	mg/Kg	32544		05/19/04 1717	nnp
	Silver, Solid*	ND	U		0.41	3.9	1	mg/Kg	32544		05/19/04 1717	nnp

* In Description = Dry Wgt.

Tom 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-102(28-30)
Date Sampled.....: 05/03/2004
Time Sampled.....: 14:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-9
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.1			0.10	0.10	1	%	32020		05/06/04 0000	dwh
	% Moisture, Solid	11.9			0.10	0.10	1	%	32020		05/06/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.5~~ 397	568	1.0	ug/Kg	32060		05/07/04 1710	dtn

* In Description = Dry Wgt.

5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-103(12-13)
Date Sampled.....: 05/04/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-12
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		47	620	1.00000	ug/Kg	32470		05/17/04 1353	pam
	Toluene, High/Med Level*	73		J5	35	620	1.00000	ug/Kg	32470		05/17/04 1353	pam
	Ethylbenzene, High/Med Level*	1900			34	620	1.00000	ug/Kg	32470		05/17/04 1353	pam
	Xylenes (total), High/Med Level*	1600			130	620	1.00000	ug/Kg	32470		05/17/04 1353	pam
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	19.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

EMM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-103(12-13)
Date Sampled.....: 05/04/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-12
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	19.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	28000			790	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	2-Methylnaphthalene, Solid*	14000			690	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Acenaphthylene, Solid*	6100	J	J5	270	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Acenaphthene, Solid*	21000			370	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Fluorene, Solid*	12000			500	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Phenanthrene, Solid*	54000			590	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Anthracene, Solid*	19000			300	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Fluoranthene, Solid*	31000			540	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Pyrene, Solid*	31000			470	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Benzo(a)anthracene, Solid*	18000			370	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Chrysene, Solid*	19000			420	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Benzo(b)fluoranthene, Solid*	11000		J3 J4,	940 J36	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ36	970	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Benzo(a)pyrene, Solid*	10000			400	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	3200	J	J5	450	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Dibenzo(a,h)anthracene, Solid*	1700	J	J5	450	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr
	Benzo(ghi)perylene, Solid*	3400	J	J5	420	8200	20.00000	ug/Kg	32349		05/12/04 1441	hlr

* In Description = Dry Wgt.

EMM
6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-103(12-13)
Date Sampled.....: 05/04/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-12
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	19.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.44 J10			0.018	2.5	1.0000	mg/Kg	32168		05/11/04 1402	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.4 J8		N	1.7	11.0	1	mg/Kg	32544		05/19/04 1723	nnp
	Barium, Solid*	33.8			0.25	2.8	1	mg/Kg	32544		05/19/04 1723	nnp
	Cadmium, Solid*	ND	U		1.4	4.1	1	mg/Kg	32544		05/19/04 1723	nnp
	Chromium, Solid*	25.1			0.47	4.1	1	mg/Kg	32544		05/19/04 1723	nnp
	Lead, Solid*	50.7 J8		W	1.0	12.4	1	mg/Kg	32544		05/19/04 1723	nnp
	Selenium, Solid*	ND	U	J8W	2.2	22.1	1	mg/Kg	32544		05/19/04 1723	nnp
	Silver, Solid*	ND	U		0.44	4.1	1	mg/Kg	32544		05/19/04 1723	nnp

* In Description = Dry Wgt.

tam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-103(12-13)
Date Sampled.....: 05/04/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-12
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	19.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~33.5~~ 436	623	1.0	ug/Kg	32344		05/14/04 1447	dtn

* In Description = Dry Wgt.

5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-103(20-25)
Date Sampled.....: 05/04/2004
Time Sampled.....: 18:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-13
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	29.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	70.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	UJ20	2	17	1.00000	ug/Kg	32386		05/11/04 1702	pam
	Toluene, Solid*	ND	U	UJ20	1	17	1.00000	ug/Kg	32386		05/11/04 1702	pam
	Ethylbenzene, Solid*	2		~~J7~~ J5, J20	1	17	1.00000	ug/Kg	32386		05/11/04 1702	pam
	Xylenes (total), Solid*	7		~~J7~~ J5, J20	4	17	1.00000	ug/Kg	32386		05/11/04 1702	pam

8100018

* In Description = Dry Wgt.

Report these results.

EHM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-103(20-25)
Date Sampled.....: 05/04/2004
Time Sampled.....: 18:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-13
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	UJ20	2	17	1.00000	ug/Kg	32386	RA	05/11/04 1921	pam
	Toluene, Solid*	ND	U	UJ11, UJ20	1	17	1.00000	ug/Kg	32386	RA	05/11/04 1921	pam
	Ethylbenzene, Solid*	2		J7, J11, J5, J20	1	17	1.00000	ug/Kg	32386	RA	05/11/04 1921	pam
	Xylenes (total), Solid*	6		J7, J11, J5, J20	4	17	1.00000	ug/Kg	32386	RA	05/11/04 1921	pam

0000019

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-103(20-25)
Date Sampled.....: 05/04/2004
Time Sampled.....: 18:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-13
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	29.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	70.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	UJ20	420	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	2-Methylnaphthalene, Solid*	ND	U	UJ20	370	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Acenaphthylene, Solid*	ND	U	UJ20	140	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Acenaphthene, Solid*	ND	U	UJ20	200	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Fluorene, Solid*	ND	U	UJ20	260	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Phenanthrene, Solid*	ND	U	UJ20	320	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Anthracene, Solid*	ND	U	UJ20	160	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Fluoranthene, Solid*	ND	U	UJ20	290	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Pyrene, Solid*	ND	U	UJ20	250	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Benzo(a)anthracene, Solid*	ND	U	UJ20	200	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Chrysene, Solid*	ND	U	UJ20	220	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Benzo(b)fluoranthene, Solid*	ND	U	UJ20	500	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ20	510	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Benzo(a)pyrene, Solid*	ND	U	UJ20	210	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	UJ20	240	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U	UJ20	240	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr
	Benzo(ghi)perylene, Solid*	ND	U	UJ20	220	4300	1.00000	ug/Kg	32349		05/13/04 1609	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-103(20-25)
Date Sampled.....: 05/04/2004
Time Sampled.....: 18:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-13
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	29.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	70.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J20, UJ10	0.048	6.4	1.0000	mg/Kg	32168		05/11/04 1404	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J20	4.8	31.4	1	mg/Kg	32544		05/19/04 1729	nnp
	Barium, Solid*	77.4 J20			0.72	7.9	1	mg/Kg	32544		05/19/04 1729	nnp
	Cadmium, Solid*	ND	U	J20	3.9	11.8	1	mg/Kg	32544		05/19/04 1729	nnp
	Chromium, Solid*	21.4 J20			1.3	11.8	1	mg/Kg	32544		05/19/04 1729	nnp
	Lead, Solid*	4.5 J20	~~B~~	~~J~~ J8	3.0	35.3	1	mg/Kg	32544		05/19/04 1729	nnp
	Selenium, Solid*	ND	~~U~~	~~UJ~~ UJ20, UJ8	6.3	62.8	1	mg/Kg	32544		05/19/04 1729	nnp
	Silver, Solid*	ND	U	J20	1.3	11.8	1	mg/Kg	32544		05/19/04 1729	nnp

* In Description = Dry Wgt.

5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-103(20-25)
Date Sampled.....: 05/04/2004
Time Sampled.....: 18:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-13
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	29.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	70.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J20	~~92.1~~ 1200	1710	1.0	ug/Kg	32344		05/14/04 1448	dtn

8700078

* In Description = Dry Wgt.

Tam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-104(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-14
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		120	1600	2.00000	ug/Kg	32470		05/17/04 1834	pam
	Toluene, High/Med Level*	310		J5	91	1600	2.00000	ug/Kg	32470		05/17/04 1834	pam
	Ethylbenzene, High/Med Level*	4400		J10	89	1600	2.00000	ug/Kg	32470		05/17/04 1834	pam
	Xylenes (total), High/Med Level*	4500		J10	340	1600	2.00000	ug/Kg	32470		05/17/04 1834	pam
ASTM D-2216												
	% Solids, Solid	61.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-104(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-14
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	100000			5200	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	2-Methylnaphthalene, Solid*	81000			4500	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Acenaphthylene, Solid*	32000	J	JS	1800	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Acenaphthene, Solid*	76000			2400	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Fluorene, Solid*	31000	J	JS	3200	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Phenanthrene, Solid*	250000			3900	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Anthracene, Solid*	98000			1900	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Fluoranthene, Solid*	200000			3600	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Pyrene, Solid*	150000			3100	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Benzo(a)anthracene, Solid*	78000			2400	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Chrysene, Solid*	66000			2800	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Benzo(b)fluoranthene, Solid*	50000	J	H JS	6200	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Benzo(k)fluoranthene, Solid*	45000	J	JS	6300	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Benzo(a)pyrene, Solid*	60000			2600	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	30000	J	JS	2900	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Dibenzo(a,h)anthracene, Solid*	10000	J	H JS	2900	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr
	Benzo(ghi)perylene, Solid*	29000	J	JS	2800	53000	50.00000	ug/Kg	32348		05/14/04 1943	hlr

* In Description = Dry Wgt.

EMM
6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-104(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-14
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.25 J10	J		0.022	3.0	1.0000	mg/Kg	32168		05/11/04 1405	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	21.5 J8		J	2.1	13.7	1	mg/Kg	32544		05/19/04 1735	nnp
	Barium, Solid*	69.9			0.32	3.4	1	mg/Kg	32544		05/19/04 1735	nnp
	Cadmium, Solid*	ND	U		1.7	5.1	1	mg/Kg	32544		05/19/04 1735	nnp
	Chromium, Solid*	43.9			0.58	5.1	1	mg/Kg	32544		05/19/04 1735	nnp
	Lead, Solid*	140 J8		J	1.3	15.4	1	mg/Kg	32544		05/19/04 1735	nnp
	Selenium, Solid*	ND	U	J8N	2.7	27.4	1	mg/Kg	32544		05/19/04 1735	nnp
	Silver, Solid*	ND	U		0.55	5.1	1	mg/Kg	32544		05/19/04 1735	nnp

* In Description = Dry Wgt.

jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-104(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-14
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	565U ~~469~~		~~B~~	~~43.4~~ 565	808	1.0	ug/Kg	32344		05/14/04 1449	dtn

* In Description = Dry Wgt.

Jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(10-12) duplicate of CF-SB-104 (12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 07:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-16
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		300	3900	5.00000	ug/Kg	32475		05/18/04 0243	pam
	Toluene, High/Med Level*	550		J5	220	3900	5.00000	ug/Kg	32475		05/18/04 0243	pam
	Ethylbenzene, High/Med Level*	11000		J10	210	3900	5.00000	ug/Kg	32475		05/18/04 0243	pam
	Xylenes (total), High/Med Level*	14000		J10	820	3900	5.00000	ug/Kg	32475		05/18/04 0243	pam
ASTM D-2216												
	% Solids, Solid	64.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	35.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(10-12) duplicate of CF-SB-104(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 07:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-16
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	64.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	35.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	150000			9500	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	2-Methylnaphthalene, Solid*	140000			8300	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Acenaphthylene, Solid*	49000	J	J5	3300	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Acenaphthene, Solid*	110000			4400	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Fluorene, Solid*	45000	J	J5	5900	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Phenanthrene, Solid*	340000			7100	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Anthracene, Solid*	130000			3500	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Fluoranthene, Solid*	260000			6500	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Pyrene, Solid*	210000			5600	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Benzo(a)anthracene, Solid*	110000			4400	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Chrysene, Solid*	91000	J	J5	5000	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Benzo(b)fluoranthene, Solid*	52000	J	J5	11000	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Benzo(k)fluoranthene, Solid*	74000	J	J5	12000	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Benzo(a)pyrene, Solid*	83000	J	J5	4700	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	42000	J	J5	5300	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Dibenzo(a,h)anthracene, Solid*	21000	J	J5	5300	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr
	Benzo(ghi)perylene, Solid*	42000	J	J5	5000	98000	50.00000	ug/Kg	32348		05/14/04 2008	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(10-12) duplicate of CF-SB-104(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 07:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-16
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	64.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	35.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.2 J10			0.021	2.8	1.0000	mg/Kg	32168		05/11/04 1407	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	22.9 J8			2.1	13.5	1	mg/Kg	32544		05/19/04 1747	nnp
	Barium, Solid*	72.8			0.31	3.4	1	mg/Kg	32544		05/19/04 1747	nnp
	Cadmium, Solid*	ND	U		1.7	5.1	1	mg/Kg	32544		05/19/04 1747	nnp
	Chromium, Solid*	48.2			0.58	5.1	1	mg/Kg	32544		05/19/04 1747	nnp
	Lead, Solid*	154 J8			1.3	15.2	1	mg/Kg	32544		05/19/04 1747	nnp
	Selenium, Solid*	ND	U	J8	2.7	27.1	1	mg/Kg	32544		05/19/04 1747	nnp
	Silver, Solid*	0.57			0.54	5.1	1	mg/Kg	32544		05/19/04 1747	nnp

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(10-12) duplicate of CF-SB-104-(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 07:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-16
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	64.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	35.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~44.5~~ 540	771	1.0	ug/Kg	32344		05/14/04 1453	dtn

1800081

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-104(28-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-15
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	11.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32386		05/11/04 1738	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	32386		05/11/04 1738	pam
	Ethylbenzene, Solid*	2	J	JS	0.4	6	1.00000	ug/Kg	32386		05/11/04 1738	pam
	Xylenes (total), Solid*	7			1	6	1.00000	ug/Kg	32386		05/11/04 1738	pam

0000271

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-104(28-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-15
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	11.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Phenanthrene, Solid*	53	J	JJ	26	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Anthracene, Solid*	27	J	JJ	13	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Fluoranthene, Solid*	60	J	JJ	24	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Pyrene, Solid*	57	J	JJ	21	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Benzo(a)anthracene, Solid*	28	J	JJ	16	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Chrysene, Solid*	31	J	JJ	19	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	M	43	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Benzo(a)pyrene, Solid*	23	J	JJ	18	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	32347		05/11/04 2348	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-104(28-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-15
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	11.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.016	2.1	1.0000	mg/Kg	32168		05/11/04 1406	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J	1.5	10.1	1	mg/Kg	32544		05/19/04 1741	nnp
	Barium, Solid*	45.1			0.23	2.5	1	mg/Kg	32544		05/19/04 1741	nnp
	Cadmium, Solid*	ND	U		1.3	3.8	1	mg/Kg	32544		05/19/04 1741	nnp
	Chromium, Solid*	8.1			0.43	3.8	1	mg/Kg	32544		05/19/04 1741	nnp
	Lead, Solid*	9.9 J8	J	J	0.96	11.4	1	mg/Kg	32544		05/19/04 1741	nnp
	Selenium, Solid*	ND	U	J8J	2.0	20.3	1	mg/Kg	32544		05/19/04 1741	nnp
	Silver, Solid*	ND	U		0.41	3.8	1	mg/Kg	32544		05/19/04 1741	nnp

* In Description = Dry Wgt.

Jan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-104(28-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-15
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	11.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.3~~ 394	562	1.0	ug/Kg	32344		05/14/04 1450	dtn

0800080

* In Description = Dry Wgt.

Jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-105(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-17
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		42	550	1.00000	ug/Kg	32475		05/18/04 0142	pam
	Toluene, High/Med Level*	200		J5	31	550	1.00000	ug/Kg	32475		05/18/04 0142	pam
	Ethylbenzene, High/Med Level*	5400			30	550	1.00000	ug/Kg	32475		05/18/04 0142	pam
	Xylenes (total), High/Med Level*	6300			120	550	1.00000	ug/Kg	32475		05/18/04 0142	pam
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	9.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

EMM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-105(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-17
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	9.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	29000			2700	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	2-Methylnaphthalene, Solid*	20000		J5	2300	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Acenaphthylene, Solid*	18000		J5	920	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Acenaphthene, Solid*	69000			1200	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Fluorene, Solid*	16000		J5	1700	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Phenanthrene, Solid*	180000			2000	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Anthracene, Solid*	62000			1000	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Fluoranthene, Solid*	120000			1800	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Pyrene, Solid*	150000			1600	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Benzo(a)anthracene, Solid*	72000			1200	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Chrysene, Solid*	71000			1400	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Benzo(b)fluoranthene, Solid*	60000		J36	3200	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ36	3200	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Benzo(a)pyrene, Solid*	50000			1300	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	19000		J5	1500	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Dibenzo(a,h)anthracene, Solid*	11000		J5	1500	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr
	Benzo(ghi)perylene, Solid*	17000		J5	1400	27000	20.00000	ug/Kg	32349		05/13/04 1438	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-105(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-17
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	9.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.18 J10	J		0.015	2.0	1.0000	mg/Kg	32168		05/11/04 1408	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	5.1 J8	J	J	1.6	10.6	1	mg/Kg	32544		05/19/04 1753	nnp
	Barium, Solid*	12.1			0.24	2.7	1	mg/Kg	32544		05/19/04 1753	nnp
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	32544		05/19/04 1753	nnp
	Chromium, Solid*	22.1			0.45	4.0	1	mg/Kg	32544		05/19/04 1753	nnp
	Lead, Solid*	21.0 J8		J	1.0	11.9	1	mg/Kg	32544		05/19/04 1753	nnp
	Selenium, Solid*	ND	U	J8J	2.1	21.2	1	mg/Kg	32544		05/19/04 1753	nnp
	Silver, Solid*	ND	U		0.42	4.0	1	mg/Kg	32544		05/19/04 1753	nnp

* In Description = Dry Wgt.

Jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-105(12-13)
Date Sampled.....: 05/05/2004
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-17
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	9.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~28.8~~ 375	535	1.0	ug/Kg	32344		05/14/04 1454	dtn

2300000

* In Description = Dry Wgt.

From 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-105(27-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 14:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-18
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	13.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32386		05/11/04 1813	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32386		05/11/04 1813	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32386		05/11/04 1813	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32386		05/11/04 1813	pam

* In Description = Dry Wgt.

EHM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-105(27-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 14:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-18
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	13.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		36	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	2-Methylnaphthalene, Solid*	ND	U		32	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Acenaphthylene, Solid*	ND	U		13	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Acenaphthene, Solid*	ND	U		17	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Fluorene, Solid*	ND	U		23	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Phenanthrene, Solid*	ND	U		27	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Anthracene, Solid*	ND	U		14	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Fluoranthene, Solid*	ND	U		25	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Pyrene, Solid*	ND	U		22	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Benzo(a)anthracene, Solid*	ND	U		17	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Chrysene, Solid*	ND	U		19	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		43	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		44	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	380	1.00000	ug/Kg	32347		05/12/04 0014	hlr

* In Description = Dry Wgt.

EMM
6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-105(27-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 14:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-18
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	13.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.015	1.9	1.0000	mg/Kg	32168		05/11/04 1410	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.3 J8	#	#	1.5	9.7	1	mg/Kg	32544		05/19/04 1759	nnp
	Barium, Solid*	61.5			0.22	2.4	1	mg/Kg	32544		05/19/04 1759	nnp
	Cadmium, Solid*	ND	U		1.2	3.7	1	mg/Kg	32544		05/19/04 1759	nnp
	Chromium, Solid*	39.5			0.41	3.7	1	mg/Kg	32544		05/19/04 1759	nnp
	Lead, Solid*	3.0 J8	#	#	0.93	11.0	1	mg/Kg	32544		05/19/04 1759	nnp
	Selenium, Solid*	ND UJ8,	U	J # 21, UJ16	1.9	19.5	1	mg/Kg	32544		05/19/04 1759	nnp
	Silver, Solid*	ND	U		0.39	3.7	1	mg/Kg	32544		05/19/04 1759	nnp

* In Description = Dry Wgt.

Jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-105(27-30)
Date Sampled.....: 05/05/2004
Time Sampled.....: 14:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-18
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	13.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.0~~ 390	558	1.0	ug/Kg	32344		05/14/04 1456	dtn

* In Description = Dry Wgt.

5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-106(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-19
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		44	570	1.00000	ug/Kg	32475		05/18/04 0213	pam
	Toluene, High/Med Level*	ND	U		32	570	1.00000	ug/Kg	32475		05/18/04 0213	pam
	Ethylbenzene, High/Med Level*	350	J	JS	31	570	1.00000	ug/Kg	32475		05/18/04 0213	pam
	Xylenes (total), High/Med Level*	130	J	JS	120	570	1.00000	ug/Kg	32475		05/18/04 0213	pam
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

BM
6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-106(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-19
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1400		J5	1400	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	2-Methylnaphthalene, Solid*	ND	U		1200	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Acenaphthylene, Solid*	16000			480	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Acenaphthene, Solid*	52000			650	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Fluorene, Solid*	ND	U		870	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Phenanthrene, Solid*	28000			1000	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Anthracene, Solid*	50000			520	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Fluoranthene, Solid*	77000			950	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Pyrene, Solid*	100000			820	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Benzo(a)anthracene, Solid*	43000			650	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Chrysene, Solid*	47000			740	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Benzo(b)fluoranthene, Solid*	25000		J36	1600	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	UJ36	1700	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Benzo(a)pyrene, Solid*	27000			690	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	7800		J5	780	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Dibenzo(a,h)anthracene, Solid*	5300		J5	780	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr
	Benzo(ghi)perylene, Solid*	7700		J5	740	14000	20.00000	ug/Kg	32349		05/13/04 1500	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-106(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-19
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.26 J16	J		0.016	2.1	1.0000	mg/Kg	32168		05/11/04 1415	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	9.6 J8	J		1.7	11.0	1	mg/Kg	32544		05/19/04 1842	nnp
	Barium, Solid*	25.9			0.25	2.8	1	mg/Kg	32544		05/19/04 1842	nnp
	Cadmium, Solid*	ND	U		1.4	4.1	1	mg/Kg	32544		05/19/04 1842	nnp
	Chromium, Solid*	16.9			0.47	4.1	1	mg/Kg	32544		05/19/04 1842	nnp
	Lead, Solid*	53.4 J8		J	1.0	12.4	1	mg/Kg	32544		05/19/04 1842	nnp
	Selenium, Solid*	ND	U	J8J	2.2	22.1	1	mg/Kg	32544		05/19/04 1842	nnp
	Silver, Solid*	ND	U		0.44	4.1	1	mg/Kg	32544		05/19/04 1842	nnp

* In Description = Dry Wgt.

5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-106(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-19
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.9~~ 402	574	1.0	ug/Kg	32344		05/14/04 1457	dtn

0000384

* In Description = Dry Wgt.

Jam 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-106(15-17)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-20
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32386		05/11/04 1846	pam
	Toluene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32386		05/11/04 1846	pam
	Ethylbenzene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32386		05/11/04 1846	pam
	Xylenes (total), Solid*	ND	U		2	7	1.00000	ug/Kg	32386		05/11/04 1846	pam

* In Description = Dry Wgt.

report these results

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-106(15-17)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-20
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32386	RA	05/11/04 2029	pam
	Toluene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32386	RA	05/11/04 2029	pam
	Ethylbenzene, Solid*	0.8	J	J7, J5	0.5	7	1.00000	ug/Kg	32386	RA	05/11/04 2029	pam
	Xylenes (total), Solid*	4	J	J7, J5	2	7	1.00000	ug/Kg	32386	RA	05/11/04 2029	pam

0000027

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-106(15-17)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09/35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-20
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		42	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	2-Methylnaphthalene, Solid*	ND	U		37	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Acenaphthylene, Solid*	36	J	JS	14	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Acenaphthene, Solid*	480			20	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Fluorene, Solid*	ND	U		26	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Phenanthrene, Solid*	37	J	JS	32	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Anthracene, Solid*	37	J	JS	16	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Fluoranthene, Solid*	49	J	JS	29	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Pyrene, Solid*	38	J	JS	25	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Benzo(a)anthracene, Solid*	ND	U		20	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Chrysene, Solid*	ND	U		22	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Benzo(b)fluoranthene, Solid*	ND	U	UJ4	50	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		51	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Benzo(a)pyrene, Solid*	ND	U		21	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		24	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		24	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr
	Benzo(ghi)perylene, Solid*	ND	U		22	430	1.00000	ug/Kg	32349		05/12/04 1659	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-106(15-17)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-20
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10	0.018	2.4	1.0000	mg/Kg	32168		05/11/04 1416	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J	2.0	13.1	1	mg/Kg	32544		05/19/04 1848	nnp
	Barium, Solid*	14.3			0.30	3.3	1	mg/Kg	32544		05/19/04 1848	nnp
	Cadmium, Solid*	ND	U		1.6	4.9	1	mg/Kg	32544		05/19/04 1848	nnp
	Chromium, Solid*	11.5			0.56	4.9	1	mg/Kg	32544		05/19/04 1848	nnp
	Lead, Solid*	2.8 J8	J	J	1.2	14.7	1	mg/Kg	32544		05/19/04 1848	nnp
	Selenium, Solid*	ND	U	J8J	2.6	26.2	1	mg/Kg	32544		05/19/04 1848	nnp
	Silver, Solid*	ND	U		0.52	4.9	1	mg/Kg	32544		05/19/04 1848	nnp

* In Description = Dry Wgt.

Dan 5/27/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-106(15-17)
Date Sampled.....: 05/06/2004
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206497-20
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~33.9~~ 441	630	1.0	ug/Kg	32344		05/14/04 1458	dtn

* In Description = Dry Wgt.

5/27/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-107(9-10)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-1
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		1	13	2.00000	ug/Kg	32672	DL	05/17/04 0506	pam
	Toluene, Solid*	ND	U		1	13	2.00000	ug/Kg	32672	DL	05/17/04 0506	pam
	Ethylbenzene, Solid*	3 J7,	J	S	1	13	2.00000	ug/Kg	32672	DL	05/17/04 0506	pam
	Xylenes (total), Solid*	7 J7,	J	S	3	13	2.00000	ug/Kg	32672	DL	05/17/04 0506	pam

* In Description = Dry Wgt.

Jmm 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-107(9-10)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-1
Date Received.....: 05/07/2004
Time Received.....: 18:45

do not report

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	25.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32675		05/17/04 2143	pam
	Toluene, Solid*	ND	U	J11	0.5	7	1.00000	ug/Kg	32675		05/17/04 2143	pam
	Ethylbenzene, Solid*	0.6	J	5,J7,J11	0.5	7	1.00000	ug/Kg	32675		05/17/04 2143	pam
	Xylenes (total), Solid*	ND	U	J11	2	7	1.00000	ug/Kg	32675		05/17/04 2143	pam

* In Description = Dry Wgt.

Jam 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-107(9-10)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-1
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	25.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	8000			330	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	2-Methylnaphthalene, Solid*	7000			290	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Acenaphthylene, Solid*	13000			110	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Acenaphthene, Solid*	2200	J	5	160	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Fluorene, Solid*	3500		M	210	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Phenanthrene, Solid*	24000			250	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Anthracene, Solid*	11000			130	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Fluoranthene, Solid*	15000			230	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Pyrene, Solid*	24000			200	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Benzo(a)anthracene, Solid*	9900			160	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Chrysene, Solid*	11000			180	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Benzo(b)fluoranthene, Solid*	4600			400	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Benzo(k)fluoranthene, Solid*	6200	J3	M	410	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Benzo(a)pyrene, Solid*	10000			170	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	3700			190	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Dibenzo(a,h)anthracene, Solid*	1900	J	5	190	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr
	Benzo(ghi)perylene, Solid*	4300			180	3400	2.00000	ug/Kg	32629		05/18/04 2338	hlr

* In Description = Dry Wgt.

6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-107(9-10)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-1
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	25.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.12	B		0.016	2.1	1.0000	mg/Kg	32168		05/11/04 1457	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	10.1	B		2.0	13.1	1	mg/Kg	32635		05/20/04 1418	dwh
	Barium, Solid*	107			0.30	3.3	1	mg/Kg	32635		05/20/04 1418	dwh
	Cadmium, Solid*	ND	U		1.6	4.9	1	mg/Kg	32635		05/20/04 1418	dwh
	Chromium, Solid*	21.4			0.56	4.9	1	mg/Kg	32635		05/20/04 1418	dwh
	Lead, Solid*	184			1.2	14.7	1	mg/Kg	32635		05/20/04 1418	dwh
	Selenium, Solid*	4.3	B		2.6	26.2	1	mg/Kg	32635		05/20/04 1418	dwh
	Silver, Solid*	0.60 U	B		0.52	4.9	1	mg/Kg	32635		05/20/04 1418	dwh

* In Description = Dry Wgt.

Jan 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-107(9-10)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-1
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.8			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	25.2			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	20700			~~175~~ 468	3240	5.0	ug/Kg	32568		05/20/04 1425	dtn

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-107(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-2
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	1200	J	5	310	4100	5.00000	ug/Kg	32476		05/18/04 0413	pam
	Toluene, High/Med Level*	1200	J	5	230	4100	5.00000	ug/Kg	32476		05/18/04 0413	pam
	Ethylbenzene, High/Med Level*	92000			220	4100	5.00000	ug/Kg	32476		05/18/04 0413	pam
	Xylenes (total), High/Med Level*	34000			850	4100	5.00000	ug/Kg	32476		05/18/04 0413	pam
ASTM D-2216												
	% Solids, Solid	61.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

Jam 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-107(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-2
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1200000			21000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	2-Methylnaphthalene, Solid*	100000	J	5	18000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Acenaphthylene, Solid*	91000	J	5	7100	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Acenaphthene, Solid*	540000			9700	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Fluorene, Solid*	210000	J	5	13000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Phenanthrene, Solid*	850000			16000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Anthracene, Solid*	280000			7800	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Fluoranthene, Solid*	260000			14000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Pyrene, Solid*	360000			12000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Benzo(a)anthracene, Solid*	130000	J	5	9700	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Chrysene, Solid*	150000	J	5	11000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Benzo(b)fluoranthene, Solid*	45000	J	5	25000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Benzo(k)fluoranthene, Solid*	56000	J	5	25000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Benzo(a)pyrene, Solid*	87000	J	5	10000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	26000	J	5	12000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Dibenzo(a,h)anthracene, Solid*	14000	J	5	12000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr
	Benzo(ghi)perylene, Solid*	29000	J	5	11000	210000	100.0000	ug/Kg	32630		05/20/04 1802	hlr

* In Description = Dry Wgt.

Jam 6/21/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-107(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-2
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids						10					
	Mercury, Solid*	2.8			0.020	2.7	1.0000	mg/Kg	32168		05/11/04 1458	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	17.8			2.2	14.5	1	mg/Kg	32635		05/20/04 1437	dwh
	Barium, Solid*	95.1			0.33	3.6	1	mg/Kg	32635		05/20/04 1437	dwh
	Cadmium, Solid*	ND		U	1.8	5.4	1	mg/Kg	32635		05/20/04 1437	dwh
	Chromium, Solid*	49.2			0.62	5.4	1	mg/Kg	32635		05/20/04 1437	dwh
	Lead, Solid*	533			1.4	16.3	1	mg/Kg	32635		05/20/04 1437	dwh
	Selenium, Solid*	ND		U	2.9	29.0	1	mg/Kg	32635		05/20/04 1437	dwh
	Silver, Solid*	ND		U	0.58	5.4	1	mg/Kg	32635		05/20/04 1437	dwh

* In Description = Dry Wgt.

206004

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-107(12-13)
Date Sampled.....: 05/06/2004
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-2
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.5			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	558 U ~~181~~		B	~~42.9~~ 558	797	1.0	ug/Kg	32568		05/20/04 1349	dtn

* In Description = Dry Wgt.

JRM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-107(15-18)
Date Sampled.....: 05/06/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-3
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	32.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	67.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	3 J5,	J	20, J7	2	16	1.00000	ug/Kg	32708		05/12/04 2133	pam
	Toluene, Solid*	24	J	20, J7, J11	1	16	1.00000	ug/Kg	32708		05/12/04 2133	pam
	Ethylbenzene, Solid*	480	J	20, J7, J11	1	16	1.00000	ug/Kg	32708		05/12/04 2133	pam
	Xylenes (total), Solid*	780	J	20, J7, J11	4	16	1.00000	ug/Kg	32708		05/12/04 2133	pam

* In Description = Dry Wgt.

JAM 6/11/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-107(15-18)
Date Sampled.....: 05/06/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-3
Date Received.....: 05/07/2004
Time Received.....: 18:45

do not report

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	2 J5	J	20, J7	2	16	1.00000	ug/Kg	32293	RA	05/13/04 1848	pam
	Toluene, Solid*	21	J	20, J7, J11	1	16	1.00000	ug/Kg	32293	RA	05/13/04 1848	pam
	Ethylbenzene, Solid*	390	J	20, J7, J11	1	16	1.00000	ug/Kg	32293	RA	05/13/04 1848	pam
	Xylenes (total), Solid*	660	J	20, J7, J11	4	16	1.00000	ug/Kg	32293	RA	05/13/04 1848	pam

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-107(15-18)
Date Sampled.....: 05/06/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-3
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	32.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	67.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	510 J20,	J	5	200	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	2-Methylnaphthalene, Solid*	ND	U	J20	170	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Acenaphthylene, Solid*	270 J20,	J	5	68	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Acenaphthene, Solid*	1100 J20,	J	5	93	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Fluorene, Solid*	630 J20,	J	5	120	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Phenanthrene, Solid*	2200 J20			150	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Anthracene, Solid*	830 J20,	J	5	74	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Fluoranthene, Solid*	920 J20,	J	5	140	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Pyrene, Solid*	1100 J20,	J	5	120	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Benzo(a)anthracene, Solid*	450 J20,	J	5	93	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Chrysene, Solid*	480 J20,	J	5	110	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Benzo(b)fluoranthene, Solid*	ND	U	J20 M	240	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Benzo(k)fluoranthene, Solid*	300 J20,	J	5, M J3	240	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Benzo(a)pyrene, Solid*	370 J20,	J	5 M	99	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	140 J20,	J	5	110	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U	J20 M	110	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr
	Benzo(ghi)perylene, Solid*	140 J20,	J	5 M	110	2000	1.00000	ug/Kg	32629		05/18/04 2223	hlr

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-107(15-18)
Date Sampled.....: 05/06/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-3
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	32.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	67.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J26	0.041	5.4	1.0000	mg/Kg	32168		05/11/04 1459	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J26, UJ14	4.4	29.1	1	mg/Kg	32635		05/20/04 1443	dwh
	Barium, Solid*	418 J26			0.67	7.3	1	mg/Kg	32635		05/20/04 1443	dwh
	Cadmium, Solid*	ND	U	J26	3.6	10.9	1	mg/Kg	32635		05/20/04 1443	dwh
	Chromium, Solid*	30.2 J26			1.2	10.9	1	mg/Kg	32635		05/20/04 1443	dwh
	Lead, Solid*	6.9 J26, B		J14	2.8	32.8	1	mg/Kg	32635		05/20/04 1443	dwh
	Selenium, Solid*	ND	U	J26	5.8	58.2	1	mg/Kg	32635		05/20/04 1443	dwh
	Silver, Solid*	ND	U	J26	1.2	10.9	1	mg/Kg	32635		05/20/04 1443	dwh

* In Description = Dry Wgt.

JPM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-107(15-18)
Date Sampled.....: 05/06/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-3
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	32.1			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	67.9			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* 1059	UJ 20 ~~438 J 20~~	B		~~81.4~~ 1059	1510	1.0	ug/Kg	32568		05/20/04 1350	dtn

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-108(13-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-5
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		120	1600	2.00000	ug/Kg	32476		05/18/04 0343	pam
	Toluene, High/Med Level*	420	J	5	91	1600	2.00000	ug/Kg	32476		05/18/04 0343	pam
	Ethylbenzene, High/Med Level*	8400			89	1600	2.00000	ug/Kg	32476		05/18/04 0343	pam
	Xylenes (total), High/Med Level*	9900			340	1600	2.00000	ug/Kg	32476		05/18/04 0343	pam
ASTM D-2216												
	% Solids, Solid	61.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-108(13-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-5
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	34000			510	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	2-Methylnaphthalene, Solid*	14000			440	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Acenaphthylene, Solid*	1100	J	S	170	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Acenaphthene, Solid*	8400			240	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Fluorene, Solid*	2500	J	S	320	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Phenanthrene, Solid*	13000			380	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Anthracene, Solid*	4200	J	S	190	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Fluoranthene, Solid*	4000	J	S	350	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Pyrene, Solid*	6200			300	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Benzo(a)anthracene, Solid*	2200	J	S	240	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Chrysene, Solid*	2100	J	S	270	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Benzo(b)fluoranthene, Solid*	690	J	S N	600	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Benzo(k)fluoranthene, Solid*	1100	J	S, MJ3	620	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Benzo(a)pyrene, Solid*	1500	J	S	250	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	460	J	S	290	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Dibenzo(a,h)anthracene, Solid*	290	J	S M	290	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr
	Benzo(ghi)perylene, Solid*	580	J	S	270	5200	10.00000	ug/Kg	32629		05/18/04 2312	hlr

* In Description = Dry Wgt.

jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-108(13-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-5
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	2.8 J3			0.020	2.6	1.0000	mg/Kg	32168		05/11/04 1501	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	24.7			2.3	14.8	1	mg/Kg	32635		05/20/04 1449	dwh
	Barium, Solid*	77.6			0.34	3.7	1	mg/Kg	32635		05/20/04 1449	dwh
	Cadmium, Solid*	ND	U		1.9	5.6	1	mg/Kg	32635		05/20/04 1449	dwh
	Chromium, Solid*	49.1			0.63	5.6	1	mg/Kg	32635		05/20/04 1449	dwh
	Lead, Solid*	141			1.4	16.7	1	mg/Kg	32635		05/20/04 1449	dwh
	Selenium, Solid*	ND	U		3.0	29.6	1	mg/Kg	32635		05/20/04 1449	dwh
	Silver, Solid*	0.74 U6	B		0.59	5.6	1	mg/Kg	32635		05/20/04 1449	dwh

* In Description = Dry Wgt.

JM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-108(13-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-5
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	61.4			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	38.6			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	553U ~~208~~		~~B~~	~~42.5~~ 553	791	1.0	ug/Kg	32568		05/20/04 1351	dtn

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-108(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 12:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-6
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	27.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32708		05/12/04 2207	pam
	Toluene, Solid*	6 J7,	J	5	0.6	7	1.00000	ug/Kg	32708		05/12/04 2207	pam
	Ethylbenzene, Solid*	11 J7			0.6	7	1.00000	ug/Kg	32708		05/12/04 2207	pam
	Xylenes (total), Solid*	34 J7			2	7	1.00000	ug/Kg	32708		05/12/04 2207	pam

* In Description = Dry Wgt.

Dam 6/11/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-108(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 12:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-6
Date Received.....: 05/07/2004
Time Received.....: 18:45

do not report

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32293	RA	05/13/04 1922	pam
	Toluene, Solid*	5	J	J7,J11	0.6	7	1.00000	ug/Kg	32293	RA	05/13/04 1922	pam
	Ethylbenzene, Solid*	12		J7,J11	0.6	7	1.00000	ug/Kg	32293	RA	05/13/04 1922	pam
	Xylenes (total), Solid*	41		J7,J11	2	7	1.00000	ug/Kg	32293	RA	05/13/04 1922	pam

* In Description = Dry Wgt.

JAM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-108(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 12:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-6
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	27.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		170	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	2-Methylnaphthalene, Solid*	ND	U		150	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Acenaphthylene, Solid*	ND	U		60	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Acenaphthene, Solid*	ND	U		81	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Fluorene, Solid*	ND	U		110	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Phenanthrene, Solid*	ND	U		130	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Anthracene, Solid*	ND	U		65	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Fluoranthene, Solid*	ND	U		120	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Pyrene, Solid*	ND	U		100	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Benzo(a)anthracene, Solid*	ND	U		81	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Chrysene, Solid*	ND	U		92	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		210	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		210	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Benzo(a)pyrene, Solid*	ND	U		87	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		98	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		98	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr
	Benzo(ghi)perylene, Solid*	ND	U		92	1800	1.00000	ug/Kg	32630		05/19/04 1952	hlr

* In Description = Dry Wgt.

6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-108(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 12:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-6
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	27.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.018	2.4	1.0000	mg/Kg	32168		05/11/04 1502	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	9.0			2.0	13.4	1	mg/Kg	32635		05/20/04 1455	dwh
	Barium, Solid*	169			0.31	3.3	1	mg/Kg	32635		05/20/04 1455	dwh
	Cadmium, Solid*	ND	U		1.7	5.0	1	mg/Kg	32635		05/20/04 1455	dwh
	Chromium, Solid*	13.5			0.57	5.0	1	mg/Kg	32635		05/20/04 1455	dwh
	Lead, Solid*	2.4 J14			1.3	15.0	1	mg/Kg	32635		05/20/04 1455	dwh
	Selenium, Solid*	ND	U		2.7	26.7	1	mg/Kg	32635		05/20/04 1455	dwh
	Silver, Solid*	ND	U		0.53	5.0	1	mg/Kg	32635		05/20/04 1455	dwh

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-108(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 12:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-6
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.7			0.10	0.10	1	%	32166		05/10/04 0000	sbw
	% Moisture, Solid	27.3			0.10	0.10	1	%	32166		05/10/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~37.0~~ 481	688	1.0	ug/Kg	32568		05/20/04 1352	dtn

* In Description = Dry Wgt.

Jam 6/21/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(12-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-7
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		670	8900	10.00000	ug/Kg	32476		05/18/04 0513	pam
	Toluene, High/Med Level*	1600	J	5	490	8900	10.00000	ug/Kg	32476		05/18/04 0513	pam
	Ethylbenzene, High/Med Level*	44000			480	8900	10.00000	ug/Kg	32476		05/18/04 0513	pam
	Xylenes (total), High/Med Level*	57000			1900	8900	10.00000	ug/Kg	32476		05/18/04 0513	pam
ASTM D-2216												
	% Solids, Solid	56.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	43.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(12-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-7
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	43.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	35000			450	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	2-Methylnaphthalene, Solid*	20000			400	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Acenaphthylene, Solid*	750	J	5	160	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Acenaphthene, Solid*	13000			210	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Fluorene, Solid*	3600	J	5	280	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Phenanthrene, Solid*	18000			340	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Anthracene, Solid*	5600			170	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Fluoranthene, Solid*	5100			310	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Pyrene, Solid*	7700			270	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Benzo(a)anthracene, Solid*	2700	J	5	210	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Chrysene, Solid*	2800	J	5	240	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Benzo(b)fluoranthene, Solid*	940	J	5	540	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Benzo(k)fluoranthene, Solid*	1200	J	5	550	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Benzo(a)pyrene, Solid*	1700	J	5	230	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	510	J	5	260	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		260	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr
	Benzo(ghi)perylene, Solid*	600	J	5	240	4700	4.00000	ug/Kg	32630		05/19/04 1902	hlr

* In Description = Dry Wgt.

Jm 6/4/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(12-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-7
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	43.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	2.8		B	0.11	14.2	5.0000	mg/Kg	32514		05/17/04 1809	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	32.7			2.6	16.9	1	mg/Kg	32635		05/20/04 1501	dwh
	Barium, Solid*	104			0.39	4.2	1	mg/Kg	32635		05/20/04 1501	dwh
	Cadmium, Solid*	ND		U	2.1	6.3	1	mg/Kg	32635		05/20/04 1501	dwh
	Chromium, Solid*	67.4			0.72	6.3	1	mg/Kg	32635		05/20/04 1501	dwh
	Lead, Solid*	195			1.6	19.0	1	mg/Kg	32635		05/20/04 1501	dwh
	Selenium, Solid*	ND		U	3.4	33.8	1	mg/Kg	32635		05/20/04 1501	dwh
	Silver, Solid*	0.93 U6		B	0.68	6.3	1	mg/Kg	32635		05/20/04 1501	dwh

* In Description = Dry Wgt.

6/21/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(12-15)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-7
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	43.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~47.7~~ 621	887	1.0	ug/Kg	32568		05/20/04 1353	dtn

* In Description = Dry Wgt.

jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(15-20)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-13
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		44	570	1.00000	ug/Kg	32476		05/18/04 0313	pam
	Toluene, High/Med Level*	ND	U		32	570	1.00000	ug/Kg	32476		05/18/04 0313	pam
	Ethylbenzene, High/Med Level*	220	J	5	31	570	1.00000	ug/Kg	32476		05/18/04 0313	pam
	Xylenes (total), High/Med Level*	160	J	5	120	570	1.00000	ug/Kg	32476		05/18/04 0313	pam
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32288		05/13/04 0000	sbw

* In Description = Dry Wgt.

JAM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(15-20)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-13
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	6400	J	5	1400	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	2-Methylnaphthalene, Solid*	5400	J	5	1300	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Acenaphthylene, Solid*	24000			490	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Acenaphthene, Solid*	85000			670	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Fluorene, Solid*	ND		U	890	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Phenanthrene, Solid*	110000			1100	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Anthracene, Solid*	77000			540	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Fluoranthene, Solid*	110000			980	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Pyrene, Solid*	120000			850	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Benzo(a)anthracene, Solid*	55000			670	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Chrysene, Solid*	52000			760	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Benzo(b)fluoranthene, Solid*	18000			1700	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Benzo(k)fluoranthene, Solid*	28000 J3			1700	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Benzo(a)pyrene, Solid*	40000			720	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	12000	J	5	810	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Dibenzo(a,h)anthracene, Solid*	7000	J	5	810	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr
	Benzo(ghi)perylene, Solid*	13000	J	5	760	15000	10.00000	ug/Kg	32629		05/19/04 0233	hlr

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(15-20)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-13
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32288		05/13/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.014	B		0.014	1.8	1.0000	mg/Kg	32514		05/17/04 1637	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.4 J14	B		1.6	10.7	1	mg/Kg	32635		05/20/04 1531	dwh
	Barium, Solid*	9.0			0.25	2.7	1	mg/Kg	32635		05/20/04 1531	dwh
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	32635		05/20/04 1531	dwh
	Chromium, Solid*	10.7			0.46	4.0	1	mg/Kg	32635		05/20/04 1531	dwh
	Lead, Solid*	6.4	B		1.0	12.1	1	mg/Kg	32635		05/20/04 1531	dwh
	Selenium, Solid*	ND	U		2.1	21.5	1	mg/Kg	32635		05/20/04 1531	dwh
	Silver, Solid*	ND	U		0.43	4.0	1	mg/Kg	32635		05/20/04 1531	dwh

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(15-20)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-13
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.1			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	12.9			0.10	0.10	1	%	32288		05/13/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~29.7~~ 386	552	1.0	ug/Kg	32568		05/20/04 1401	dtn

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-8
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	34.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	66.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	J20	1	15	1.00000	ug/Kg	32523		05/14/04 1503	pam
	Toluene, Solid*	ND	U	J20	1	15	1.00000	ug/Kg	32523		05/14/04 1503	pam
	Ethylbenzene, Solid*	2 J5,	J	20, J7	1	15	1.00000	ug/Kg	32523		05/14/04 1503	pam
	Xylenes (total), Solid*	6 J5,	J	20, J7	4	15	1.00000	ug/Kg	32523		05/14/04 1503	pam

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-8
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	34.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	66.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	J20	370	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	2-Methylnaphthalene, Solid*	ND	U		320	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Acenaphthylene, Solid*	ND	U		130	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Acenaphthene, Solid*	ND	U		170	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Fluorene, Solid*	ND	U		230	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Phenanthrene, Solid*	ND	U		280	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Anthracene, Solid*	ND	U		140	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Fluoranthene, Solid*	ND	U		250	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Pyrene, Solid*	ND	U		220	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Benzo(a)anthracene, Solid*	ND	U		170	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Chrysene, Solid*	ND	U		190	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		440	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		450	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Benzo(a)pyrene, Solid*	ND	U		180	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		210	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		210	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr
	Benzo(ghi)perylene, Solid*	ND	U	J20	190	3800	1.00000	ug/Kg	32630		05/19/04 2017	hlr

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-8
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	34.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	66.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J20	0.036	4.8	1.0000	mg/Kg	32514		05/17/04 1632	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J20, UJ14	4.4	28.8	1	mg/Kg	32635		05/20/04 1507	dwh
	Barium, Solid*	36.9 J20			0.66	7.2	1	mg/Kg	32635		05/20/04 1507	dwh
	Cadmium, Solid*	ND	U	J20	3.6	10.8	1	mg/Kg	32635		05/20/04 1507	dwh
	Chromium, Solid*	13.9 J20			1.2	10.8	1	mg/Kg	32635		05/20/04 1507	dwh
	Lead, Solid*	ND	U	J20	2.7	32.4	1	mg/Kg	32635		05/20/04 1507	dwh
	Selenium, Solid*	ND	U	J20	5.8	57.7	1	mg/Kg	32635		05/20/04 1507	dwh
	Silver, Solid*	ND	U	J20	1.2	10.8	1	mg/Kg	32635		05/20/04 1507	dwh

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-109A(20-25)
Date Sampled.....: 05/07/2004
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-8
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	34.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	66.0			0.10	0.10	1	%	32288		05/13/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J2O	~~76.1~~ 990	1410	1.0	ug/Kg	32568		05/20/04 1354	dtn

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-110(10-15)
Date Sampled.....: 05/10/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-9
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	39.5			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	44			4	41	5.00000	ug/Kg	32675		05/17/04 2217	pam
	Toluene, Solid*	65			3	41	5.00000	ug/Kg	32675		05/17/04 2217	pam
	Ethylbenzene, Solid*	1000			3	41	5.00000	ug/Kg	32675		05/17/04 2217	pam
	Xylenes (total), Solid*	1900			10	41	5.00000	ug/Kg	32675		05/17/04 2217	pam

* In Description = Dry Wgt.

6/11/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-110(10-15)
Date Sampled.....: 05/10/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-9
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	39.5			0.10	0.10	1	%	32288		05/13/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	2.6			0.11	14.6	5.0000	mg/Kg	32514		05/17/04 1810	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	26.4			2.5	16.2	1	mg/Kg	32635		05/20/04 1513	dwh
	Barium, Solid*	82.9			0.37	4.1	1	mg/Kg	32635		05/20/04 1513	dwh
	Cadmium, Solid*	ND	U		2.0	6.1	1	mg/Kg	32635		05/20/04 1513	dwh
	Chromium, Solid*	50.9			0.69	6.1	1	mg/Kg	32635		05/20/04 1513	dwh
	Lead, Solid*	153			1.5	18.2	1	mg/Kg	32635		05/20/04 1513	dwh
	Selenium, Solid*	ND	U		3.2	32.4	1	mg/Kg	32635		05/20/04 1513	dwh
	Silver, Solid*	0.67 Uo			0.65	6.1	1	mg/Kg	32635		05/20/04 1513	dwh

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-110(10-15)
Date Sampled.....: 05/10/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-9
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	39.5			0.10	0.10	1	%	32288		05/13/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	567 ~~354~~	~~B~~		~~43.6~~ 567	810	1.0	ug/Kg	32568		05/20/04 1358	dtn

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-110(15-16)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-10
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		240	3100	5.00000	ug/Kg	32476		05/18/04 0443	pam
	Toluene, High/Med Level*	ND	U		170	3100	5.00000	ug/Kg	32476		05/18/04 0443	pam
	Ethylbenzene, High/Med Level*	2700	J	S	170	3100	5.00000	ug/Kg	32476		05/18/04 0443	pam
	Xylenes (total), High/Med Level*	5300			660	3100	5.00000	ug/Kg	32476		05/18/04 0443	pam
ASTM D-2216												
	% Solids, Solid	79.7			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	20.3			0.10	0.10	1	%	32288		05/13/04 0000	sbw

* In Description = Dry Wgt.

JAM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-110(15-16)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-10
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	79.7			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	20.3			0.10	0.10	1	%	32288		05/13/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.042	B		0.014	1.9	1.0000	mg/Kg	32514		05/17/04 1635	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.6	B		1.7	11.1	1	mg/Kg	32635		05/20/04 1519	dwh
	Barium, Solid*	38.1			0.26	2.8	1	mg/Kg	32635		05/20/04 1519	dwh
	Cadmium, Solid*	ND	U		1.4	4.2	1	mg/Kg	32635		05/20/04 1519	dwh
	Chromium, Solid*	16.8			0.47	4.2	1	mg/Kg	32635		05/20/04 1519	dwh
	Lead, Solid*	187			1.1	12.5	1	mg/Kg	32635		05/20/04 1519	dwh
	Selenium, Solid*	ND	U		2.2	22.2	1	mg/Kg	32635		05/20/04 1519	dwh
	Silver, Solid*	ND	U		0.44	4.2	1	mg/Kg	32635		05/20/04 1519	dwh

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-110(15-16)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-10
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	79.7			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	20.3			0.10	0.10	1	%	32288		05/13/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~32.1~~ 418	597	1.0	ug/Kg	32568		05/20/04 1359	dtn

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-110(19.5-20)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-11
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		460	6000	10.00000	ug/Kg	32476		05/18/04 0543	pam
	Toluene, High/Med Level*	ND	U		330	6000	10.00000	ug/Kg	32476		05/18/04 0543	pam
	Ethylbenzene, High/Med Level*	5800	J	5	330	6000	10.00000	ug/Kg	32476		05/18/04 0543	pam
	Xylenes (total), High/Med Level*	8300			1300	6000	10.00000	ug/Kg	32476		05/18/04 0543	pam
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	16.7			0.10	0.10	1	%	32288		05/13/04 0000	sbw

* In Description = Dry Wgt.

JPM 6/11/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-110(23-25)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-12
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32523		05/14/04 1537	pam
	Toluene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32523		05/14/04 1537	pam
	Ethylbenzene, Solid*	4	J	5	0.5	7	1.00000	ug/Kg	32523		05/14/04 1537	pam
	Xylenes (total), Solid*	9			2	7	1.00000	ug/Kg	32523		05/14/04 1537	pam

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-110(23-25)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-12
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		830	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	2-Methylnaphthalene, Solid*	ND	U		730	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Acenaphthylene, Solid*	ND	U		290	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Acenaphthene, Solid*	ND	U		390	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Fluorene, Solid*	ND	U		520	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Phenanthrene, Solid*	ND	U		620	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Anthracene, Solid*	ND	U		310	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Fluoranthene, Solid*	ND	U		570	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Pyrene, Solid*	ND	U		490	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Benzo(a)anthracene, Solid*	ND	U		390	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Chrysene, Solid*	ND	U		440	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		990	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		1000	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Benzo(a)pyrene, Solid*	ND	U		420	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		470	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		470	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr
	Benzo(ghi)perylene, Solid*	ND	U		440	8600	5.00000	ug/Kg	32629		05/19/04 0208	hlr

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-110(23-25)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-12
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.017	2.2	1.0000	mg/Kg	32514		05/17/04 1636	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.6 J14	B		1.8	11.9	1	mg/Kg	32635		05/20/04 1525	dwh
	Barium, Solid*	14.4			0.27	3.0	1	mg/Kg	32635		05/20/04 1525	dwh
	Cadmium, Solid*	ND	U		1.5	4.5	1	mg/Kg	32635		05/20/04 1525	dwh
	Chromium, Solid*	11.9			0.51	4.5	1	mg/Kg	32635		05/20/04 1525	dwh
	Lead, Solid*	4.0 J14	B		1.1	13.4	1	mg/Kg	32635		05/20/04 1525	dwh
	Selenium, Solid*	ND	U		2.4	23.8	1	mg/Kg	32635		05/20/04 1525	dwh
	Silver, Solid*	ND	U		0.48	4.5	1	mg/Kg	32635		05/20/04 1525	dwh

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-110(23-25)
Date Sampled.....: 05/10/2004
Time Sampled.....: 11:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-12
Date Received.....: 05/10/2004
Time Received.....: 18:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	75.6			0.10	0.10	1	%	32288		05/13/04 0000	sbw
	% Moisture, Solid	24.4			0.10	0.10	1	%	32288		05/13/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~33.9~~ 441	630	1.0	ug/Kg	32568		05/20/04 1400	dtn

* In Description = Dry Wgt.

6/12/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-111(15-17.5)
Date Sampled.....: 05/10/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-14
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	3	J	S	0.7	7	1.00000	ug/Kg	32675	RA	05/17/04 1926	pam
	Toluene, Solid*	3	J	S	0.5	7	1.00000	ug/Kg	32675	RA	05/17/04 1926	pam
	Ethylbenzene, Solid*	7			0.5	7	1.00000	ug/Kg	32675	RA	05/17/04 1926	pam
	Xylenes (total), Solid*	24			2	7	1.00000	ug/Kg	32675	RA	05/17/04 1926	pam

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-111(15-17.5)
Date Sampled.....: 05/10/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-14
Date Received.....: 05/12/2004
Time Received.....: 20:00

do not report

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	76.3			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	23.7			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	4 J1,	J	5	0.7	7	1.00000	ug/Kg	32675		05/17/04 1736	pam
	Toluene, Solid*	3 J1,	J	5	0.5	7	1.00000	ug/Kg	32675		05/17/04 1736	pam
	Ethylbenzene, Solid*	8 J1			0.5	7	1.00000	ug/Kg	32675		05/17/04 1736	pam
	Xylenes (total), Solid*	25 J1			2	7	1.00000	ug/Kg	32675		05/17/04 1736	pam

* In Description = Dry Wgt.

JAM 6/11/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-111(15-17.5)
Date Sampled.....: 05/10/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-14
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	76.3			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	23.7			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		83	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	2-Methylnaphthalene, Solid*	ND	U		73	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Acenaphthylene, Solid*	ND	U		29	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Acenaphthene, Solid*	130	J	5	39	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Fluorene, Solid*	ND	U		52	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Phenanthrene, Solid*	ND	U		63	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Anthracene, Solid*	ND	U		31	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Fluoranthene, Solid*	ND	U		57	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Pyrene, Solid*	ND	U		49	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Benzo(a)anthracene, Solid*	ND	U		39	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Chrysene, Solid*	ND	U		44	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		99	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		100	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Benzo(a)pyrene, Solid*	ND	U		42	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		47	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		47	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr
	Benzo(ghi)perylene, Solid*	ND	U		44	860	1.00000	ug/Kg	32628		05/19/04 2042	hlr

* In Description = Dry Wgt.

JAM 6/21/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-111(15-17.5)
Date Sampled.....: 05/10/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-14
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	76.3			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	23.7			0.10	0.10	1	%	32394		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.018	2.4	1.0000	mg/Kg	32514		05/17/04 1638	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J14	1.8	12.0	1	mg/Kg	32635		05/20/04 1602	dwh
	Barium, Solid*	14.4			0.28	3.0	1	mg/Kg	32635		05/20/04 1602	dwh
	Cadmium, Solid*	ND	U		1.5	4.5	1	mg/Kg	32635		05/20/04 1602	dwh
	Chromium, Solid*	8.2			0.51	4.5	1	mg/Kg	32635		05/20/04 1602	dwh
	Lead, Solid*	2.3 J14	B		1.1	13.5	1	mg/Kg	32635		05/20/04 1602	dwh
	Selenium, Solid*	ND	U		2.4	24.0	1	mg/Kg	32635		05/20/04 1602	dwh
	Silver, Solid*	ND	U		0.48	4.5	1	mg/Kg	32635		05/20/04 1602	dwh

* In Description = Dry Wgt.

6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-111(15-17.5)
Date Sampled.....: 05/10/2004
Time Sampled.....: 14:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-14
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	76.3			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	23.7			0.10	0.10	1	%	32394		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~34.2~~ 445	636	1.0	ug/Kg	32568		05/20/04 1402	dtn

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-112(13-14)
Date Sampled.....: 05/10/2004
Time Sampled.....: 16:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-15
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		84	1100	2.00000	ug/Kg	32493		05/18/04 1651	pam
	Toluene, High/Med Level*	270	J	S	61	1100	2.00000	ug/Kg	32493		05/18/04 1651	pam
	Ethylbenzene, High/Med Level*	2700			60	1100	2.00000	ug/Kg	32493		05/18/04 1651	pam
	Xylenes (total), High/Med Level*	3700			230	1100	2.00000	ug/Kg	32493		05/18/04 1651	pam
ASTM D-2216												
	% Solids, Solid	90.8			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	9.2			0.10	0.10	1	%	32394		05/17/04 0000	dwh

* In Description = Dry Wgt.

JAM 6/11/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-112(16-20)
Date Sampled.....: 05/10/2004
Time Sampled.....: 16:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-16
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.8			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	14.2			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32675		05/17/04 1810	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32675		05/17/04 1810	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32675		05/17/04 1810	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32675		05/17/04 1810	pam

* In Description = Dry Wgt.

Jam 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-112(16-20)
Date Sampled.....: 05/10/2004
Time Sampled.....: 16:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-16
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.8			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	14.2			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		37	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	2-Methylnaphthalene, Solid*	ND	U		32	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Acenaphthylene, Solid*	ND	U		13	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Acenaphthene, Solid*	ND	U		17	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Fluorene, Solid*	ND	U		23	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Phenanthrene, Solid*	ND	U		28	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Anthracene, Solid*	ND	U		14	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Fluoranthene, Solid*	ND	U		25	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Pyrene, Solid*	ND	U		22	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Benzo(a)anthracene, Solid*	ND	U		17	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Chrysene, Solid*	ND	U		20	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		44	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		45	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Benzo(a)pyrene, Solid*	ND	U		19	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr
	Benzo(ghi)perylene, Solid*	ND	U		20	380	1.00000	ug/Kg	32628		05/19/04 2107	hlr

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-112(16-20)
Date Sampled.....: 05/10/2004
Time Sampled.....: 16:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-16
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.8			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	14.2			0.10	0.10	1	%	32394		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.015	2.0	1.0000	mg/Kg	32514		05/17/04 1641	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J14	1.7	11.1	1	mg/Kg	32635		05/20/04 1608	dwh
	Barium, Solid*	102			0.26	2.8	1	mg/Kg	32635		05/20/04 1608	dwh
	Cadmium, Solid*	ND	U		1.4	4.2	1	mg/Kg	32635		05/20/04 1608	dwh
	Chromium, Solid*	30.9			0.47	4.2	1	mg/Kg	32635		05/20/04 1608	dwh
	Lead, Solid*	7.0	B		1.1	12.5	1	mg/Kg	32635		05/20/04 1608	dwh
	Selenium, Solid*	ND	U		2.2	22.2	1	mg/Kg	32635		05/20/04 1608	dwh
	Silver, Solid*	ND	U		0.44	4.2	1	mg/Kg	32635		05/20/04 1608	dwh

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-112(16-20)
Date Sampled.....: 05/10/2004
Time Sampled.....: 16:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-16
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.8			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	14.2			0.10	0.10	1	%	32394		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.1~~ 392	560	1.0	ug/Kg	32568		05/20/04 1403	dtn

* In Description = Dry Wgt.

6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-113(14.5-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-17
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		110	1500	2.00000	ug/Kg	32493		05/18/04 1722	pam
	Toluene, High/Med Level*	ND	U		82	1500	2.00000	ug/Kg	32493		05/18/04 1722	pam
	Ethylbenzene, High/Med Level*	2800			81	1500	2.00000	ug/Kg	32493		05/18/04 1722	pam
	Xylenes (total), High/Med Level*	1900			310	1500	2.00000	ug/Kg	32493		05/18/04 1722	pam
ASTM D-2216												
	% Solids, Solid	67.7			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	32.3			0.10	0.10	1	%	32394		05/17/04 0000	dwh

* In Description = Dry Wgt.

Jam 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-113(15-15.5)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-18
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh

* In Description = Dry Wgt.

JAM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-113(15-15.5)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-18
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.12	B		0.014	1.8	1.0000	mg/Kg	32514		05/17/04 1642	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.1 J14	B		1.6	10.7	1	mg/Kg	32635		05/20/04 1614	dwh
	Barium, Solid*	39.7			0.25	2.7	1	mg/Kg	32635		05/20/04 1614	dwh
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	32635		05/20/04 1614	dwh
	Chromium, Solid*	38.0			0.45	4.0	1	mg/Kg	32635		05/20/04 1614	dwh
	Lead, Solid*	104			1.0	12.0	1	mg/Kg	32635		05/20/04 1614	dwh
	Selenium, Solid*	ND	U		2.1	21.4	1	mg/Kg	32635		05/20/04 1614	dwh
	Silver, Solid*	ND	U		0.43	4.0	1	mg/Kg	32635		05/20/04 1614	dwh

* In Description = Dry Wgt.

JM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-113(15-15.5)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-18
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~29.9~~ 389	556	1.0	ug/Kg	32568		05/20/04 1404	dtn

* In Description = Dry Wgt.

JAM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-113(20-25)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-19
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	J20	1	12	1.00000	ug/Kg	32675	RA	05/17/04 2000	pam
	Toluene, Solid*	ND	U	J20	0.9	12	1.00000	ug/Kg	32675	RA	05/17/04 2000	pam
	Ethylbenzene, Solid*	5 J5,	J	20	0.9	12	1.00000	ug/Kg	32675	RA	05/17/04 2000	pam
	Xylenes (total), Solid*	5 J5,	J	20	3	12	1.00000	ug/Kg	32675	RA	05/17/04 2000	pam

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-113(20-25)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-19
Date Received.....: 05/12/2004
Time Received.....: 20:00

do not report

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	43.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	56.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	J20,	1	12	1.00000	ug/Kg	32675		05/17/04 1844	pam
	Toluene, Solid*	ND	U	J20	0.9	12	1.00000	ug/Kg	32675		05/17/04 1844	pam
	Ethylbenzene, Solid*	5 J5,	J	20, J1	0.9	12	1.00000	ug/Kg	32675		05/17/04 1844	pam
	Xylenes (total), Solid*	5 J5,	J	20, J1	3	12	1.00000	ug/Kg	32675		05/17/04 1844	pam

* In Description = Dry Wgt.

pam 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-113(20-25)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-19
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	43.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	56.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	J20	2900	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	2-Methylnaphthalene, Solid*	ND	U		2500	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Acenaphthylene, Solid*	ND	U		990	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Acenaphthene, Solid*	ND	U		1400	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Fluorene, Solid*	ND	U		1800	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Phenanthrene, Solid*	ND	U		2200	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Anthracene, Solid*	ND	U		1100	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Fluoranthene, Solid*	ND	U		2000	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Pyrene, Solid*	ND	U		1700	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Benzo(a)anthracene, Solid*	ND	U		1400	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Chrysene, Solid*	ND	U		1500	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		3400	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		3500	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Benzo(a)pyrene, Solid*	ND	U		1400	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		1600	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		1600	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr
	Benzo(ghi)perylene, Solid*	ND	U	J20	1500	30000	10.00000	ug/Kg	32626		05/19/04 0258	hlr

* In Description = Dry Wgt.

6/4/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-113(20-25)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-19
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	43.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	56.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J20	0.034	4.5	1.0000	mg/Kg	32514		05/17/04 1644	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.8 J20,	B	J14	3.4	22.3	1	mg/Kg	32635		05/20/04 1620	dwh
	Barium, Solid*	85.9 J20			0.51	5.6	1	mg/Kg	32635		05/20/04 1620	dwh
	Cadmium, Solid*	ND	U	J20	2.8	8.4	1	mg/Kg	32635		05/20/04 1620	dwh
	Chromium, Solid*	33.1 J20			0.95	8.4	1	mg/Kg	32635		05/20/04 1620	dwh
	Lead, Solid*	7.2 J20,	B	J14	2.1	25.1	1	mg/Kg	32635		05/20/04 1620	dwh
	Selenium, Solid*	ND	U	J20	4.5	44.6	1	mg/Kg	32635		05/20/04 1620	dwh
	Silver, Solid*	ND	U	J20	0.89	8.4	1	mg/Kg	32635		05/20/04 1620	dwh

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-113(20-25)
Date Sampled.....: 05/11/2004
Time Sampled.....: 10:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-19
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	43.1			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	56.9			0.10	0.10	1	%	32394		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J 2.0	~~60.6~~ 788	1130	1.0	ug/Kg	32568		05/20/04 1405	dtn

* In Description = Dry Wgt.

Jam 6/21/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-114A(13-14)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-20
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		110	1400	2.00000	ug/Kg	32493		05/18/04 1752	pam
	Toluene, High/Med Level*	ND	U		77	1400	2.00000	ug/Kg	32493		05/18/04 1752	pam
	Ethylbenzene, High/Med Level*	640	J	5	76	1400	2.00000	ug/Kg	32493		05/18/04 1752	pam
	Xylenes (total), High/Med Level*	730	J	5	290	1400	2.00000	ug/Kg	32493		05/18/04 1752	pam
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	28.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh

* In Description = Dry Wgt.

JAM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-114A(13-14)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-20
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	28.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	12000			350	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	2-Methylnaphthalene, Solid*	5700			300	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Acenaphthylene, Solid*	2200	J	5	120	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Acenaphthene, Solid*	15000			160	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Fluorene, Solid*	6800			220	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Phenanthrene, Solid*	29000			260	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Anthracene, Solid*	10000			130	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Fluoranthene, Solid*	13000			240	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Pyrene, Solid*	15000			210	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Benzo(a)anthracene, Solid*	6300			160	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Chrysene, Solid*	6600			180	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Benzo(b)fluoranthene, Solid*	1900	J	5	410	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Benzo(k)fluoranthene, Solid*	3100	J	5	420	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Benzo(a)pyrene, Solid*	4300			170	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	1200	J	5	190	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Dibenzo(a,h)anthracene, Solid*	770	J	5	190	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr
	Benzo(ghi)perylene, Solid*	1500	J	5	180	3600	2.00000	ug/Kg	32628		05/21/04 1306	hlr

* In Description = Dry Wgt.

Jam 6/21/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-114A(13-14)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-20
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	28.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.85	B		0.016	2.2	1.0000	mg/Kg	32514		05/17/04 1644	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	11.8	B		1.8	11.9	1	mg/Kg	32635		05/20/04 1626	dwh
	Barium, Solid*	80.8			0.27	3.0	1	mg/Kg	32635		05/20/04 1626	dwh
	Cadmium, Solid*	ND	U		1.5	4.5	1	mg/Kg	32635		05/20/04 1626	dwh
	Chromium, Solid*	34.8			0.50	4.5	1	mg/Kg	32635		05/20/04 1626	dwh
	Lead, Solid*	123			1.1	13.4	1	mg/Kg	32635		05/20/04 1626	dwh
	Selenium, Solid*	ND	U		2.4	23.7	1	mg/Kg	32635		05/20/04 1626	dwh
	Silver, Solid*	ND	U		0.47	4.5	1	mg/Kg	32635		05/20/04 1626	dwh

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/21/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-114A(13-14)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206537-20
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
	% Moisture, Solid	28.0			0.10	0.10	1	%	32394		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~36.6~~ 477	681	1.0	ug/Kg	32568		05/20/04 1406	dtn

* In Description = Dry Wgt.

Jam 6/2/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-114B(15-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-1
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.9			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	27.1			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	32798		05/18/04 1428	pam
	Toluene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32798		05/18/04 1428	pam
	Ethylbenzene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	32798		05/18/04 1428	pam
	Xylenes (total), Solid*	ND	U		2	7	1.00000	ug/Kg	32798		05/18/04 1428	pam

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-114B(15-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-1
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.9			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	27.1			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	UJ9	43	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	2-Methylnaphthalene, Solid*	ND	U		37	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Acenaphthylene, Solid*	ND	U		15	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Acenaphthene, Solid*	27	J	JS	20	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Fluorene, Solid*	ND	U		27	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Phenanthrene, Solid*	ND	U		32	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Anthracene, Solid*	ND	U		16	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Fluoranthene, Solid*	ND	U		29	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Pyrene, Solid*	ND	U		25	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Benzo(a)anthracene, Solid*	ND	U		20	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Chrysene, Solid*	ND	U		23	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		51	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		52	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Benzo(a)pyrene, Solid*	ND	U		21	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		24	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		24	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr
	Benzo(ghi)perylene, Solid*	ND	U		23	440	1.00000	ug/Kg	32792		05/24/04 1257	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-114B(15-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-1
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.9			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	27.1			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J10*N	0.017	2.3	1.0000	mg/Kg	32538		05/19/04 1631	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		2.0	12.8	1	mg/Kg	32860		05/25/04 1232	nnp
	Barium, Solid*	19.2			0.29	3.2	1	mg/Kg	32860		05/25/04 1232	nnp
	Cadmium, Solid*	ND	U		1.6	4.8	1	mg/Kg	32860		05/25/04 1232	nnp
	Chromium, Solid*	8.1			0.54	4.8	1	mg/Kg	32860		05/25/04 1232	nnp
	Lead, Solid*	2.2 J14	B		1.2	14.4	1	mg/Kg	32860		05/25/04 1232	nnp
	Selenium, Solid*	ND	U		2.6	25.6	1	mg/Kg	32860		05/25/04 1232	nnp
	Silver, Solid*	ND	U		0.51	4.8	1	mg/Kg	32860		05/25/04 1232	nnp

* In Description = Dry Wgt.

jam 6/3/04

Revised LAM 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-114B(15-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 12:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-1
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.9			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	27.1			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~36.2~~ 471	672	1.0	ug/Kg	32702		05/24/04 1000	dtn

* In Description = Dry Wgt.

jam 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-115(14-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-2
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		56	740	1.00000	ug/Kg	32779		05/24/04 1515	pam
	Toluene, High/Med Level*	ND	U		41	740	1.00000	ug/Kg	32779		05/24/04 1515	pam
	Ethylbenzene, High/Med Level*	850			40	740	1.00000	ug/Kg	32779		05/24/04 1515	pam
	Xylenes (total), High/Med Level*	2000			150	740	1.00000	ug/Kg	32779		05/24/04 1515	pam
ASTM D-2216												
	% Solids, Solid	68.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-115(14-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-2
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh

9200000

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-115(14-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-2
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.95	J	B *N J	0.019	2.6	1.0000	mg/Kg	32538		05/19/04 1632	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	27.8			2.1	13.5	1	mg/Kg	32860		05/25/04 1238	nnp
	Barium, Solid*	139			0.31	3.4	1	mg/Kg	32860		05/25/04 1238	nnp
	Cadmium, Solid*	ND	U		1.7	5.1	1	mg/Kg	32860		05/25/04 1238	nnp
	Chromium, Solid*	64.9			0.57	5.1	1	mg/Kg	32860		05/25/04 1238	nnp
	Lead, Solid*	459			1.3	15.2	1	mg/Kg	32860		05/25/04 1238	nnp
	Selenium, Solid*	ND	U		2.7	27.0	1	mg/Kg	32860		05/25/04 1238	nnp
	Silver, Solid*	ND	U		0.54	5.1	1	mg/Kg	32860		05/25/04 1238	nnp

* In Description = Dry Wgt.

Jam 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-115(14-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-2
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~39.2~~ 510	728	1.0	ug/Kg	32702		05/24/04 1000	dtn

* In Description = Dry Wgt.

Jm 10/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-115(18-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-3
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	13.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND		U		0.6	6	1.00000	ug/Kg	32798		05/18/04 1502	pam
	Toluene, Solid*	ND		U		0.5	6	1.00000	ug/Kg	32798		05/18/04 1502	pam
	Ethylbenzene, Solid*	ND		U		0.5	6	1.00000	ug/Kg	32798		05/18/04 1502	pam
	Xylenes (total), Solid*	3		J	JS	1	6	1.00000	ug/Kg	32798		05/18/04 1502	pam

* In Description = Dry Wgt.

EHM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-115(18-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-3
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	13.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	420		J9	36	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	2-Methylnaphthalene, Solid*	ND	U		32	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Acenaphthene, Solid*	110		J5	17	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Fluorene, Solid*	ND	U		23	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Phenanthrene, Solid*	76		J5	27	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Anthracene, Solid*	28		J5	14	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Fluoranthene, Solid*	48		J5	25	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Pyrene, Solid*	40		J5	21	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		44	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	32792		05/24/04 1324	hlr

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-115(18-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-3
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	13.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	~~NL~~	0.012	1.6	1.0000	mg/Kg	32538		05/19/04 1633	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		1.7	11.3	1	mg/Kg	32860		05/25/04 1244	nnp
	Barium, Solid*	7.4			0.26	2.8	1	mg/Kg	32860		05/25/04 1244	nnp
	Cadmium, Solid*	ND	U		1.4	4.3	1	mg/Kg	32860		05/25/04 1244	nnp
	Chromium, Solid*	10.7			0.48	4.3	1	mg/Kg	32860		05/25/04 1244	nnp
	Lead, Solid*	2.6 J14	[illegible]		1.1	12.8	1	mg/Kg	32860		05/25/04 1244	nnp
	Selenium, Solid*	ND	U		2.3	22.7	1	mg/Kg	32860		05/25/04 1244	nnp
	Silver, Solid*	ND	U		0.45	4.3	1	mg/Kg	32860		05/25/04 1244	nnp

* In Description = Dry Wgt.

Jan 10/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-115(18-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-3
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	13.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~30.2~~ 393	561	1.0	ug/Kg	32702		05/24/04 1001	dtn

* In Description = Dry Wgt.

JAM 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-116(12.5-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-4
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		69	910	1.00000	ug/Kg	32779		05/24/04 1445	pam
	Toluene, High/Med Level*	140		J5	51	910	1.00000	ug/Kg	32779		05/24/04 1445	pam
	Ethylbenzene, High/Med Level*	2400			50	910	1.00000	ug/Kg	32779		05/24/04 1445	pam
	Xylenes (total), High/Med Level*	3100			190	910	1.00000	ug/Kg	32779		05/24/04 1445	pam
ASTM D-2216												
	% Solids, Solid	54.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	45.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EMH
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(12.5-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-4
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	54.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	45.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	22000		J9	460	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	2-Methylnaphthalene, Solid*	13000			400	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Acenaphthylene, Solid*	1100		JS	160	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Acenaphthene, Solid*	8200			210	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Fluorene, Solid*	2700		MJS	290	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Phenanthrene, Solid*	9900			340	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Anthracene, Solid*	3400		JS	170	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Fluoranthene, Solid*	3500		JS	320	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Pyrene, Solid*	5200			270	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Benzo(a)anthracene, Solid*	2100		JS	210	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Chrysene, Solid*	2400		JS	240	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Benzo(b)fluoranthene, Solid*	620		JS	540	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Benzo(k)fluoranthene, Solid*	930		MJS	560	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Benzo(a)pyrene, Solid*	1500		MJS	230	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		260	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		260	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr
	Benzo(ghi)perylene, Solid*	610		MJS	240	4700	8.00000	ug/Kg	32792		05/22/04 2219	hlr

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(12.5-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-4
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	54.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	45.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	2.3 J10,	B	*N- J8	0.13	17.1	5.0000	mg/Kg	32538		05/19/04 1744	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	34.4			2.6	17.1	1	mg/Kg	32860		05/25/04 1251	nnp
	Barium, Solid*	108			0.39	4.3	1	mg/Kg	32860		05/25/04 1251	nnp
	Cadmium, Solid*	ND	U		2.1	6.4	1	mg/Kg	32860		05/25/04 1251	nnp
	Chromium, Solid*	63.1			0.73	6.4	1	mg/Kg	32860		05/25/04 1251	nnp
	Lead, Solid*	198			1.6	19.2	1	mg/Kg	32860		05/25/04 1251	nnp
	Selenium, Solid*	ND	U		3.4	34.2	1	mg/Kg	32860		05/25/04 1251	nnp
	Silver, Solid*	0.89	B		0.68	6.4	1	mg/Kg	32860		05/25/04 1251	nnp

* In Description = Dry Wgt.

Jam 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(12.5-15)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-4
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	54.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	45.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~48.7~~ 633	905	1.0	ug/Kg	32702		05/24/04 1004	dtn

* In Description = Dry Wgt.

6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(19-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-5
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	35.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.8	8	1.00000	ug/Kg	32798		05/18/04 1536	pam
	Toluene, Solid*	ND	U		0.6	8	1.00000	ug/Kg	32798		05/18/04 1536	pam
	Ethylbenzene, Solid*	2	J	J-7, J5	0.6	8	1.00000	ug/Kg	32798		05/18/04 1536	pam
	Xylenes (total), Solid*	13		J-7	2	8	1.00000	ug/Kg	32798		05/18/04 1536	pam

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(19-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-5
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	35.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	UJ9	96	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	2-Methylnaphthalene, Solid*	ND	U		84	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Acenaphthylene, Solid*	ND	U		33	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Acenaphthene, Solid*	ND	U		45	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Fluorene, Solid*	ND	U		60	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Phenanthrene, Solid*	ND	U		72	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Anthracene, Solid*	ND	U		36	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Fluoranthene, Solid*	ND	U		66	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Pyrene, Solid*	ND	U		57	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Benzo(a)anthracene, Solid*	ND	U	M	45	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Chrysene, Solid*	ND	U	M	51	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		110	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		120	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Benzo(a)pyrene, Solid*	ND	U		48	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		54	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		54	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr
	Benzo(ghi)perylene, Solid*	ND	U		51	990	1.00000	ug/Kg	32792		05/24/04 1352	hlr

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(19-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-5
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	35.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	*N	0.022	3.0	1.0000	mg/Kg	32538		05/19/04 1636	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		2.1	14.0	1	mg/Kg	32860		05/25/04 1257	nnp
	Barium, Solid*	46.7			0.32	3.5	1	mg/Kg	32860		05/25/04 1257	nnp
	Cadmium, Solid*	ND	U		1.7	5.2	1	mg/Kg	32860		05/25/04 1257	nnp
	Chromium, Solid*	14.2			0.59	5.2	1	mg/Kg	32860		05/25/04 1257	nnp
	Lead, Solid*	4.0 J14	B		1.3	15.7	1	mg/Kg	32860		05/25/04 1257	nnp
	Selenium, Solid*	ND	U		2.8	28.0	1	mg/Kg	32860		05/25/04 1257	nnp
	Silver, Solid*	ND	U		0.56	5.2	1	mg/Kg	32860		05/25/04 1257	nnp

8000048

* In Description = Dry Wgt.

Jm 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-116(19-20)
Date Sampled.....: 05/11/2004
Time Sampled.....: 16:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-5
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	35.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~39.8~~ 518	740	1.0	ug/Kg	32702		05/24/04 1007	dtn

* In Description = Dry Wgt.

Jan 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-117(10-12)
Date Sampled.....: 05/12/2004
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-6
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	67.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-117(10-12)
Date Sampled.....: 05/12/2004
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-6
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	67.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.12 J10, ~~B~~		*N J8	0.021	2.9	1.0000	mg/Kg	32538		05/19/04 1636	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.6			2.1	14.0	1	mg/Kg	32860		05/25/04 1303	nnp
	Barium, Solid*	18.8			0.32	3.5	1	mg/Kg	32860		05/25/04 1303	nnp
	Cadmium, Solid*	ND	U		1.8	5.3	1	mg/Kg	32860		05/25/04 1303	nnp
	Chromium, Solid*	5.9			0.60	5.3	1	mg/Kg	32860		05/25/04 1303	nnp
	Lead, Solid*	21.1			1.3	15.8	1	mg/Kg	32860		05/25/04 1303	nnp
	Selenium, Solid*	ND	U		2.8	28.1	1	mg/Kg	32860		05/25/04 1303	nnp
	Silver, Solid*	ND	U		0.56	5.3	1	mg/Kg	32860		05/25/04 1303	nnp

* In Description = Dry Wgt.

Jam 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-117(10-12)
Date Sampled.....: 05/12/2004
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-6
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	67.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	32.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~38.9~~ 506	723	1.0	ug/Kg	32702		05/24/04 1008	dtn

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-117(24-25)
Date Sampled.....: 05/12/2004
Time Sampled.....: 10:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-7
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	9.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32798		05/18/04 1610	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	32798		05/18/04 1610	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	32798		05/18/04 1610	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32798		05/18/04 1610	pam

0000011

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-117(24-25)
Date Sampled.....: 05/12/2004
Time Sampled.....: 10:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-7
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	9.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	UJ9	35	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	32792		05/24/04 1419	hlr

* In Description = Dry Wgt.

EMT 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-117(24-25)
Date Sampled.....: 05/12/2004
Time Sampled.....: 10:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-7
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	9.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	*N	0.014	1.8	1.0000	mg/Kg	32538		05/19/04 1640	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.8			1.5	9.9	1	mg/Kg	32860		05/25/04 1309	nnp
	Barium, Solid*	124			0.23	2.5	1	mg/Kg	32860		05/25/04 1309	nnp
	Cadmium, Solid*	ND	U		1.2	3.7	1	mg/Kg	32860		05/25/04 1309	nnp
	Chromium, Solid*	13.6			0.42	3.7	1	mg/Kg	32860		05/25/04 1309	nnp
	Lead, Solid*	5.4			0.94	11.1	1	mg/Kg	32860		05/25/04 1309	nnp
	Selenium, Solid*	ND	U		2.0	19.7	1	mg/Kg	32860		05/25/04 1309	nnp
	Silver, Solid*	ND	U		0.39	3.7	1	mg/Kg	32860		05/25/04 1309	nnp

* In Description = Dry Wgt.

Jan 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-117(24-25)
Date Sampled.....: 05/12/2004
Time Sampled.....: 10:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-7
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	9.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~28.9~~ 375	536	1.0	ug/Kg	32702		05/24/04 1009	dtn

* In Description = Dry Wgt.

Jam 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-118(32.5-35)
Date Sampled.....: 05/12/2004
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-8
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	16.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32798		05/18/04 1645	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32798		05/18/04 1645	pam
	Ethylbenzene, Solid*	4		J5	0.5	6	1.00000	ug/Kg	32798		05/18/04 1645	pam
	Xylenes (total), Solid*	6			1	6	1.00000	ug/Kg	32798		05/18/04 1645	pam

* In Description = Dry Wgt.

EMH
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-118(32.5-35)
Date Sampled.....: 05/12/2004
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-8
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	16.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	75	J	JS, JQ	38	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	2-Methylnaphthalene, Solid*	ND	U		33	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Acenaphthylene, Solid*	ND	U		13	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Acenaphthene, Solid*	62	J	JS	18	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Fluorene, Solid*	59	J	JS	24	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Phenanthrene, Solid*	260	J	JS	28	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Anthracene, Solid*	67	J	JS	14	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Fluoranthene, Solid*	170	J	JS	26	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Pyrene, Solid*	140	J	JS	23	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Benzo(a)anthracene, Solid*	73	J	JS	18	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Chrysene, Solid*	63	J	JS	20	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		45	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Benzo(k)fluoranthene, Solid*	60	J	MJS	46	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Benzo(a)pyrene, Solid*	55	J	JS	19	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr
	Benzo(ghi)perylene, Solid*	ND	U		20	390	1.00000	ug/Kg	32792		05/24/04 1446	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-118(32.5-35)
Date Sampled.....: 05/12/2004
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-8
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	16.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	NL	0.015	2.0	1.0000	mg/Kg	32538		05/19/04 1641	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	13.6			1.6	10.7	1	mg/Kg	32860		05/25/04 1315	nnp
	Barium, Solid*	344			0.25	2.7	1	mg/Kg	32860		05/25/04 1315	nnp
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	32860		05/25/04 1315	nnp
	Chromium, Solid*	51.7			0.45	4.0	1	mg/Kg	32860		05/25/04 1315	nnp
	Lead, Solid*	7.2	B		1.0	12.0	1	mg/Kg	32860		05/25/04 1315	nnp
	Selenium, Solid*	ND	U	J16	2.1	21.3	1	mg/Kg	32860		05/25/04 1315	nnp
	Silver, Solid*	ND	U		0.43	4.0	1	mg/Kg	32860		05/25/04 1315	nnp

* In Description = Dry Wgt.

Jan 6/15/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-118(32.5-35)
Date Sampled.....: 05/12/2004
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-8
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	16.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~30.9~~ 402	574	1.0	ug/Kg	32702		05/24/04 1010	dtn

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-119(17-18.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-10
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	2500		JS	470	6100	10.00000	ug/Kg	32494		05/18/04 1952	pam
	Toluene, High/Med Level*	4400		JS	340	6100	10.00000	ug/Kg	32494		05/18/04 1952	pam
	Ethylbenzene, High/Med Level*	47000			330	6100	10.00000	ug/Kg	32494		05/18/04 1952	pam
	Xylenes (total), High/Med Level*	74000			1300	6100	10.00000	ug/Kg	32494		05/18/04 1952	pam
ASTM D-2216												
	% Solids, Solid	81.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	18.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh

00008214

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-119(17-18.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-10
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	18.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	130000		B	1900	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	2-Methylnaphthalene, Solid*	48000			1600	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Acenaphthylene, Solid*	5300	J	JS	640	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Acenaphthene, Solid*	46000			880	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Fluorene, Solid*	25000			1200	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Phenanthrene, Solid*	84000			1400	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Anthracene, Solid*	25000			700	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Fluoranthene, Solid*	38000			1300	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Pyrene, Solid*	38000			1100	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Benzo(a)anthracene, Solid*	17000	J	JS	880	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Chrysene, Solid*	16000	J	JS	1000	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Benzo(b)fluoranthene, Solid*	7400	J	M JS	2200	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Benzo(k)fluoranthene, Solid*	9700	J	M JS	2300	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Benzo(a)pyrene, Solid*	12000	J	JS	940	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	6200	J	M JS	1100	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		1100	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr
	Benzo(ghi)perylene, Solid*	6200	J	M JS	1000	19000	25.00000	ug/Kg	32794		05/23/04 0013	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-119(17-18.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-10
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	18.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.28 J10,	B	*N J8	0.017	2.3	1.0000	mg/Kg	32538		05/19/04 1642	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	10.2			1.8	11.6	1	mg/Kg	32860		05/25/04 1333	nnp
	Barium, Solid*	37.8			0.27	2.9	1	mg/Kg	32860		05/25/04 1333	nnp
	Cadmium, Solid*	ND	U		1.4	4.3	1	mg/Kg	32860		05/25/04 1333	nnp
	Chromium, Solid*	20.3			0.49	4.3	1	mg/Kg	32860		05/25/04 1333	nnp
	Lead, Solid*	76.7			1.1	13.0	1	mg/Kg	32860		05/25/04 1333	nnp
	Selenium, Solid*	ND	U		2.3	23.1	1	mg/Kg	32860		05/25/04 1333	nnp
	Silver, Solid*	0.64			0.46	4.3	1	mg/Kg	32860		05/25/04 1333	nnp

* In Description = Dry Wgt.

Jan 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-119(17-18.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 15:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-10
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	81.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	18.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~32.0~~ 417	596	1.0	ug/Kg	32702		05/24/04 1011	dtn

* In Description = Dry Wgt.

Jam 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-119(25-27.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 16:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-11
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND		U		0.6	6	1.00000	ug/Kg	32845		05/21/04 1704	pam
	Toluene, Solid*	0.9		J	J5	0.5	6	1.00000	ug/Kg	32845		05/21/04 1704	pam
	Ethylbenzene, Solid*	0.6		J	J5	0.5	6	1.00000	ug/Kg	32845		05/21/04 1704	pam
	Xylenes (total), Solid*	ND		U		1	6	1.00000	ug/Kg	32845		05/21/04 1704	pam

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-119(25-27.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 16:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-11
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	130	~~J~~	~~B~~ 760J6	74	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	2-Methylnaphthalene, Solid*	ND	U		65	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Acenaphthylene, Solid*	ND	U		25	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Acenaphthene, Solid*	48	~~J~~	J5	35	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Fluorene, Solid*	ND	U	~~M~~	46	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Phenanthrene, Solid*	140	~~J~~	J5	55	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Anthracene, Solid*	49	~~J~~	J5	28	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Fluoranthene, Solid*	69	~~J~~	J5	51	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Pyrene, Solid*	81	~~J~~	J5	44	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Benzo(a)anthracene, Solid*	ND	U		35	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Chrysene, Solid*	ND	U		39	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Benzo(b)fluoranthene, Solid*	ND	U	~~M~~	88	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Benzo(k)fluoranthene, Solid*	ND	U	~~M~~	90	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Benzo(a)pyrene, Solid*	ND	U		37	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		41	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U	~~M~~	41	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr
	Benzo(ghi)perylene, Solid*	ND	U		39	760	1.00000	ug/Kg	32793		05/21/04 0114	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-119(25-27.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 16:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-11
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	*NL	0.013	1.7	1.0000	mg/Kg	32538		05/19/04 1643	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		1.6	10.2	1	mg/Kg	32860		05/25/04 1339	nnp
	Barium, Solid*	8.8			0.23	2.6	1	mg/Kg	32860		05/25/04 1339	nnp
	Cadmium, Solid*	ND	U		1.3	3.8	1	mg/Kg	32860		05/25/04 1339	nnp
	Chromium, Solid*	10.1			0.43	3.8	1	mg/Kg	32860		05/25/04 1339	nnp
	Lead, Solid*	2.2 J14	B		0.97	11.5	1	mg/Kg	32860		05/25/04 1339	nnp
	Selenium, Solid*	ND	U		2.0	20.4	1	mg/Kg	32860		05/25/04 1339	nnp
	Silver, Solid*	ND	U		0.41	3.8	1	mg/Kg	32860		05/25/04 1339	nnp

* In Description = Dry Wgt.

Jm 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-119(25-27.5)
Date Sampled.....: 05/12/2004
Time Sampled.....: 16:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-11
Date Received.....: 05/12/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~31.5~~ 410	586	1.0	ug/Kg	32702		05/24/04 1012	dtn

* In Description = Dry Wgt.

Jam 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(10-15)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-12
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	49			0.8	8	1.00000	ug/Kg	32798		05/18/04 2120	pam
	Toluene, Solid*	5		J5	0.7	8	1.00000	ug/Kg	32798		05/18/04 2120	pam
	Ethylbenzene, Solid*	50		J8	0.7	8	1.00000	ug/Kg	32798		05/18/04 2120	pam
	Xylenes (total), Solid*	120		J8	2	8	1.00000	ug/Kg	32798		05/18/04 2120	pam

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-120(10-15)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-12
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	4000		B J8	210	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	2-Methylnaphthalene, Solid*	1300		J8, J5	190	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Acenaphthylene, Solid*	970		J5	73	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Acenaphthene, Solid*	8300		J8	99	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Fluorene, Solid*	ND	U		130	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Phenanthrene, Solid*	16000		B J8	160	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Anthracene, Solid*	6700		J8, J9	79	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Fluoranthene, Solid*	9300		B J8	150	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Pyrene, Solid*	13000		B J8	130	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Benzo(a)anthracene, Solid*	4900		J8	99	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Chrysene, Solid*	4700		J8	110	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Benzo(b)fluoranthene, Solid*	2000		J8, J5	250	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Benzo(k)fluoranthene, Solid*	2200		J8, J5	260	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Benzo(a)pyrene, Solid*	3700		J8	110	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	1200		J3, J8, J5	120	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Dibenzo(a,h)anthracene, Solid*	520		J3, J8, J5	120	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr
	Benzo(ghi)perylene, Solid*	1500		J3, J8, J5	110	2200	2.00000	ug/Kg	32795		05/21/04 1810	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(10-15)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-12
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.87 J10, B		*N J8	0.021	2.8	1.0000	mg/Kg	32538		05/19/04 1644	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	22.0			2.4	15.6	1	mg/Kg	32860		05/25/04 1345	nnp
	Barium, Solid*	88.2			0.36	3.9	1	mg/Kg	32860		05/25/04 1345	nnp
	Cadmium, Solid*	ND	U		1.9	5.8	1	mg/Kg	32860		05/25/04 1345	nnp
	Chromium, Solid*	46.7			0.66	5.8	1	mg/Kg	32860		05/25/04 1345	nnp
	Lead, Solid*	115			1.5	17.5	1	mg/Kg	32860		05/25/04 1345	nnp
	Selenium, Solid*	ND	U		3.1	31.2	1	mg/Kg	32860		05/25/04 1345	nnp
	Silver, Solid*	ND	U		0.62	5.8	1	mg/Kg	32860		05/25/04 1345	nnp

* In Description = Dry Wgt.

Jam 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(10-15)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-12
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~44.5~~ 579	826	1.0	ug/Kg	32702		05/24/04 1013	dtn

* In Description = Dry Wgt.

JAm 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-120(17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-13
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	6800		J5, J10, J20	950	12000	10.00000	ug/Kg	32769		05/23/04 2207	pam
	Toluene, High/Med Level*	18000		J10, J20	700	12000	10.00000	ug/Kg	32769		05/23/04 2207	pam
	Ethylbenzene, High/Med Level*	38000		J10, J20	680	12000	10.00000	ug/Kg	32769		05/23/04 2207	pam
	Xylenes (total), High/Med Level*	89000		J10, J20	2600	12000	10.00000	ug/Kg	32769		05/23/04 2207	pam
ASTM D-2216												
	% Solids, Solid	40.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	60.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date: 05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-120(17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-13
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	40.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	60.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	14000000		B J10, J30	300000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	2-Methylnaphthalene, Solid*	2700000		J5, J10, J30	260000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Acenaphthylene, Solid*	960000		J5, J10, J30	100000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Acenaphthene, Solid*	2200000		J5, J10, J30	140000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Fluorene, Solid*	2000000		M J5, J10,	190000 J30	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Phenanthrene, Solid*	7400000		B J10, J30	230000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Anthracene, Solid*	2600000		J5, J10,	110000 J30	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Fluoranthene, Solid*	4500000		B J10, J30	210000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Pyrene, Solid*	3800000		B J10, J30	180000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Benzo(a)anthracene, Solid*	1700000		J5, J10, J30	140000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Chrysene, Solid*	1800000		J5, J10, J30	160000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Benzo(b)fluoranthene, Solid*	1200000		J5, J10, J30	360000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Benzo(k)fluoranthene, Solid*	1000000		J5, J10, J30	370000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Benzo(a)pyrene, Solid*	1500000		J5, J10, J30	150000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	790000		M J5, J10,	170000 J30	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U	UJ30	170000	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr
	Benzo(ghi)perylene, Solid*	780000		M J5, J10,	160000 J30	3100000	1000.000	ug/Kg	32796		05/24/04 1514	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-120(17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-13
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	40.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	60.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.097 J10	B	~~*N~~, J20, J8	0.033	4.4	1.0000	mg/Kg	32538		05/19/04 1648	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	51.4 J20			3.7	24.5	1	mg/Kg	32860		05/25/04 1416	nnp
	Barium, Solid*	211 J20			0.56	6.1	1	mg/Kg	32860		05/25/04 1416	nnp
	Cadmium, Solid*	ND	U	J20	3.1	9.2	1	mg/Kg	32860		05/25/04 1416	nnp
	Chromium, Solid*	72.7 J20			1.0	9.2	1	mg/Kg	32860		05/25/04 1416	nnp
	Lead, Solid*	627 J20			2.3	27.6	1	mg/Kg	32860		05/25/04 1416	nnp
	Selenium, Solid*	ND	U	J20	4.9	49.0	1	mg/Kg	32860		05/25/04 1416	nnp
	Silver, Solid*	1.2 J20			0.98	9.2	1	mg/Kg	32860		05/25/04 1416	nnp

* In Description = Dry Wgt.

JPM 6/15/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-13
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TEC
ASTM D-2216												
	% Solids, Solid	40.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	60.0			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ ~~R~~ ND	~~U~~	~~J2O~~	~~UJ~~ ~~64.7~~ 841	1200	1.0	ug/Kg	32702		05/24/04 1014	dtr

* In Description = Dry Wgt.

Revised
~~6/9/04~~
6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of CF-SB-120 (17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-15
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	2600		J5, J10	510	6700	10.00000	ug/Kg	32769		05/23/04 2237	pam
	Toluene, High/Med Level*	6100		J5, J10	370	6700	10.00000	ug/Kg	32769		05/23/04 2237	pam
	Ethylbenzene, High/Med Level*	11000		J6	370	6700	10.00000	ug/Kg	32769		05/23/04 2237	pam
	Xylenes (total), High/Med Level*	27000		J10	1400	6700	10.00000	ug/Kg	32769		05/23/04 2237	pam
ASTM D-2216												
	% Solids, Solid	74.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	25.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh

0000619

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date: 05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of CF-SB-120 (17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-15
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	25.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1300000		B J10	21000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	2-Methylnaphthalene, Solid*	650000		J10	18000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Acenaphthylene, Solid*	110000		J5, J10	7300	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Acenaphthene, Solid*	410000		J10	9900	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Fluorene, Solid*	280000		J10	13000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Phenanthrene, Solid*	990000		B J10	16000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Anthracene, Solid*	300000		J9, J10	7900	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Fluoranthene, Solid*	390000		B J10	15000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Pyrene, Solid*	480000		B J10	13000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Benzo(a)anthracene, Solid*	200000		M J5, J10	9900	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Chrysene, Solid*	210000		J5, J10	11000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Benzo(b)fluoranthene, Solid*	110000		M J5, J10	25000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Benzo(k)fluoranthene, Solid*	100000		M J5, J10	26000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Benzo(a)pyrene, Solid*	140000		J5, J10	11000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	69000		M J5, J10	12000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		12000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr
	Benzo(ghi)perylene, Solid*	67000		M J5, J10	11000	220000	250.0000	ug/Kg	32796		05/24/04 1541	hlr

* In Description = Dry Wgt.

EHM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of CF-SB-120 (17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-15
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	25.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.3 J10, B		*N J8	0.085	11.4	5.0000	mg/Kg	32538		05/19/04 1746	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	16.3			1.8	11.8	1	mg/Kg	32860		05/25/04 1428	nnp
	Barium, Solid*	94.9			0.27	3.0	1	mg/Kg	32860		05/25/04 1428	nnp
	Cadmium, Solid*	ND	U		1.5	4.4	1	mg/Kg	32860		05/25/04 1428	nnp
	Chromium, Solid*	23.5			0.50	4.4	1	mg/Kg	32860		05/25/04 1428	nnp
	Lead, Solid*	391			1.1	13.3	1	mg/Kg	32860		05/25/04 1428	nnp
	Selenium, Solid*	ND	U		2.4	23.6	1	mg/Kg	32860		05/25/04 1428	nnp
	Silver, Solid*	ND	U		0.47	4.4	1	mg/Kg	32860		05/25/04 1428	nnp

* In Description = Dry Wgt.

Jan 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of CF-SB-120(17-18)
Date Sampled.....: 05/13/2004
Time Sampled.....: 10:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-15
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	74.3			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	25.7			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ ~~R~~, ND	~~U~~	UJ	~~35.8~~ 471	666	1.0	ug/Kg	32702		05/24/04 1016	dtn

9400070

* In Description = Dry Wgt.

Jam ~~6/9/04~~ 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(32.5-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-14
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	11.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32798		05/18/04 1720	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32798		05/18/04 1720	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32798		05/18/04 1720	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32798		05/18/04 1720	pam

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(32.5-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-14
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	11.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	53	J	B	35	370 J6	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Phenanthrene, Solid*	38	J	B	27	370 J6	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Fluoranthene, Solid*	ND	U	B	24	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Pyrene, Solid*	27	J	B J5	21	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Benzo(a)anthracene, Solid*	ND	U	M	17	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr
	Benzo(ghi)perylene, Solid*	ND	U	M	19	370	1.00000	ug/Kg	32795		05/20/04 2310	hlr

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(32.5-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-14
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	11.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND VJ10	U	*N	0.014	1.8	1.0000	mg/Kg	32538		05/19/04 1649	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.8			1.7	11.0	1	mg/Kg	32860		05/25/04 1422	nnp
	Barium, Solid*	64.1			0.25	2.7	1	mg/Kg	32860		05/25/04 1422	nnp
	Cadmium, Solid*	ND	U		1.4	4.1	1	mg/Kg	32860		05/25/04 1422	nnp
	Chromium, Solid*	27.3			0.47	4.1	1	mg/Kg	32860		05/25/04 1422	nnp
	Lead, Solid*	4.9			1.0	12.3	1	mg/Kg	32860		05/25/04 1422	nnp
	Selenium, Solid*	ND	U		2.2	21.9	1	mg/Kg	32860		05/25/04 1422	nnp
	Silver, Solid*	ND	U		0.44	4.1	1	mg/Kg	32860		05/25/04 1422	nnp

* In Description = Dry Wgt.

Jam 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-120(32.5-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-14
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	11.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ ~~R~~ ND	~~U~~	U	~~29.5~~ 384	549	1.0	ug/Kg	32702		05/24/04 1015	dtn

* In Description = Dry Wgt.

Jam 6/9/04 6/10/04

LABORATORY TEST RESULTS

Job Number: 206586

Date: 05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-121(18.0-19.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-16
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	58.6			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.4			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ ← ND	~~U~~	UJ	~~44.1~~ 597	820	1.0	ug/Kg	32702		05/24/04 1018	dtn

* In Description = Dry Wgt.

Jan
~~6/9/04~~
6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-121(18.0-19.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-16
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	58.6			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.4			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-121(18.0-19.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-16
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	9100			650	8500	10.00000	ug/Kg	32769		05/23/04 2306	pam
	Toluene, High/Med Level*	19000			470	8500	10.00000	ug/Kg	32769		05/23/04 2306	pam
	Ethylbenzene, High/Med Level*	40000			470	8500	10.00000	ug/Kg	32769		05/23/04 2306	pam
	Xylenes (total), High/Med Level*	71000			1800	8500	10.00000	ug/Kg	32769		05/23/04 2306	pam
ASTM D-2216												
	% Solids, Solid	58.6			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.4			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EHM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-121(18.0-19.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-16
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	58.6			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.4			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	4.2 J10,	B	*N J8	0.20	27.3	10.000	mg/Kg	32538		05/19/04 1747	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	37.6			2.3	15.2	1	mg/Kg	32860		05/25/04 1446	nnp
	Barium, Solid*	142			0.35	3.8	1	mg/Kg	32860		05/25/04 1446	nnp
	Cadmium, Solid*	ND	U		1.9	5.7	1	mg/Kg	32860		05/25/04 1446	nnp
	Chromium, Solid*	53.6			0.65	5.7	1	mg/Kg	32860		05/25/04 1446	nnp
	Lead, Solid*	323			1.4	17.1	1	mg/Kg	32860		05/25/04 1446	nnp
	Selenium, Solid*	ND	U		3.0	30.5	1	mg/Kg	32860		05/25/04 1446	nnp
	Silver, Solid*	0.84	B		0.61	5.7	1	mg/Kg	32860		05/25/04 1446	nnp

* In Description = Dry Wgt.

Jan 6/5/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-121(33-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-17
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32798		05/18/04 1754	pam
	Toluene, Solid*	2	J	JS	0.5	6	1.00000	ug/Kg	32798		05/18/04 1754	pam
	Ethylbenzene, Solid*	4	J	JS	0.5	6	1.00000	ug/Kg	32798		05/18/04 1754	pam
	Xylenes (total), Solid*	15			1	6	1.00000	ug/Kg	32798		05/18/04 1754	pam

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-121(33-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-17
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	130		B 370J6	36	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	2-Methylnaphthalene, Solid*	37	J	JS	31	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Acenaphthylene, Solid*	18	J	JS	12	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Acenaphthene, Solid*	43	J	JS	17	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Fluorene, Solid*	47	J	JS	22	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Phenanthrene, Solid*	230	J	M JS	27	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Anthracene, Solid*	59	J	JS	13	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Fluoranthene, Solid*	150	J	JS	25	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Pyrene, Solid*	130	J	JS	21	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Benzo(a)anthracene, Solid*	58	J	JS	17	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Chrysene, Solid*	58	J	M JS	19	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Benzo(k)fluoranthene, Solid*	51	J	JS	44	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Benzo(a)pyrene, Solid*	53	J	JS	18	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	24	J	J3 JS	20	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U	M	20	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr
	Benzo(ghi)perylene, Solid*	29	J	J3, JS	19	370	1.00000	ug/Kg	32793		05/20/04 2245	hlr

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-121(33-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-17
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	*N	0.014	1.9	1.0000	mg/Kg	32538		05/19/04 1655	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.3			1.6	10.4	1	mg/Kg	32860		05/25/04 1452	nnp
	Barium, Solid*	56.3			0.24	2.6	1	mg/Kg	32860		05/25/04 1452	nnp
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	32860		05/25/04 1452	nnp
	Chromium, Solid*	27.6			0.44	3.9	1	mg/Kg	32860		05/25/04 1452	nnp
	Lead, Solid*	6.1			0.99	11.7	1	mg/Kg	32860		05/25/04 1452	nnp
	Selenium, Solid*	ND	U		2.1	20.8	1	mg/Kg	32860		05/25/04 1452	nnp
	Silver, Solid*	ND	U		0.42	3.9	1	mg/Kg	32860		05/25/04 1452	nnp

* In Description = Dry Wgt.

JAM 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-121(33-35)
Date Sampled.....: 05/13/2004
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-17
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ R ND		~~U~~ U	~~34.3~~ 416	582	1.0	ug/Kg	32702		05/24/04 1019	dtn

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-122(17.5-20)
Date Sampled.....: 05/13/2004
Time Sampled.....: 13:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-18
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	570		J5	49	650	1.00000	ug/Kg	32779		05/24/04 1615	pam
	Toluene, High/Med Level*	140		J5	36	650	1.00000	ug/Kg	32779		05/24/04 1615	pam
	Ethylbenzene, High/Med Level*	2700			35	650	1.00000	ug/Kg	32779		05/24/04 1615	pam
	Xylenes (total), High/Med Level*	3000			140	650	1.00000	ug/Kg	32779		05/24/04 1615	pam
ASTM D-2216												
	% Solids, Solid	77.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	22.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh

* In Description = Dry Wgt.

EMM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-122(17.5-20)
Date Sampled.....: 05/13/2004
Time Sampled.....: 13:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-18
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	77.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	22.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	2400000		B	32000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	2-Methylnaphthalene, Solid*	430000			28000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Acenaphthylene, Solid*	140000	J	J5	11000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Acenaphthene, Solid*	280000	J	J5	15000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Fluorene, Solid*	300000	J	J5	20000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Phenanthrene, Solid*	1100000			24000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Anthracene, Solid*	320000	J	J5	12000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Fluoranthene, Solid*	640000			22000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Pyrene, Solid*	510000			19000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Benzo(a)anthracene, Solid*	230000	J	J5	15000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Chrysene, Solid*	210000	J	J5	17000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Benzo(b)fluoranthene, Solid*	130000	J	J5	38000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Benzo(k)fluoranthene, Solid*	170000	J	J5	39000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Benzo(a)pyrene, Solid*	190000	J	J5	16000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	76000	J	J3 J5	18000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Dibenzo(a,h)anthracene, Solid*	41000	J	M J3 J5	18000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr
	Benzo(ghi)perylene, Solid*	74000	J	J3 J5	17000	330000	200.0000	ug/Kg	32793		05/21/04 1745	hlr

* In Description = Dry Wgt.

EMH 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-122(17.5-20)
Date Sampled.....: 05/13/2004
Time Sampled.....: 13:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-18
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	77.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	22.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	2.0 J10, B		~~*N~~ J8	0.092	12.3	5.0000	mg/Kg	32538		05/19/04 1748	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	12.9			1.9	12.3	1	mg/Kg	32860		05/25/04 1458	nnp
	Barium, Solid*	52.9			0.28	3.1	1	mg/Kg	32860		05/25/04 1458	nnp
	Cadmium, Solid*	ND	U		1.5	4.6	1	mg/Kg	32860		05/25/04 1458	nnp
	Chromium, Solid*	26.6			0.52	4.6	1	mg/Kg	32860		05/25/04 1458	nnp
	Lead, Solid*	135			1.2	13.8	1	mg/Kg	32860		05/25/04 1458	nnp
	Selenium, Solid*	ND	U		2.5	24.6	1	mg/Kg	32860		05/25/04 1458	nnp
	Silver, Solid*	ND	U		0.49	4.6	1	mg/Kg	32860		05/25/04 1458	nnp

* In Description = Dry Wgt.

Jam 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-122(17.5-20)
Date Sampled.....: 05/13/2004
Time Sampled.....: 13:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-18
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	77.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	22.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND ~~48.6~~	B	R	UJ ~~33.1~~ 45.2	614	1.0	ug/Kg	32702		05/24/04 1020	dtn

* In Description = Dry Wgt.

Jam 6/9/04 6/16/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-122(25-27.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-19
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
001	% Solids, Solid	58.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
001	% Moisture, Solid	41.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8260B	Volatile Organics											
002	Benzene, Solid*	5		J7, J5	0.9	9	1.00000	ug/Kg	32798		05/18/04 1829	pam
002	Toluene, Solid*	2		J7, J5	0.7	9	1.00000	ug/Kg	32798		05/18/04 1829	pam
002	Ethylbenzene, Solid*	31		J7	0.7	9	1.00000	ug/Kg	32798		05/18/04 1829	pam
003	Xylenes (total), Solid*	12		J7	2	9	1.00000	ug/Kg	32798		05/18/04 1829	pam

* In Description = Dry Wgt.

EAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-122(25-27.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-19
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	58.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	770		BJ5	110	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	2-Methylnaphthalene, Solid*	ND	U		95	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Acenaphthylene, Solid*	ND	U		37	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Acenaphthene, Solid*	69		J5	51	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Fluorene, Solid*	ND	U		68	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Phenanthrene, Solid*	170		B 1100 J	81	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Anthracene, Solid*	63		J5 J9	41	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Fluoranthene, Solid*	94		B 1100 J	75	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Pyrene, Solid*	95		BJ5	64	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Benzo(a)anthracene, Solid*	ND	U		51	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Chrysene, Solid*	ND	U		58	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Benzo(b)fluoranthene, Solid*	ND	U		130	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Benzo(k)fluoranthene, Solid*	ND	U		130	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Benzo(a)pyrene, Solid*	ND	U		54	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		61	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		61	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr
	Benzo(ghi)perylene, Solid*	ND	U		58	1100	1.00000	ug/Kg	32795		05/21/04 0205	hlr

* In Description = Dry Wgt.

GM
6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-122(25-27.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-19
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	58.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ10	U	~~N~~	0.021	2.9	1.0000	mg/Kg	32538		05/19/04 1657	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.9	J		2.3	15.3	1	mg/Kg	32860		05/25/04 1504	nnp
	Barium, Solid*	66.7			0.35	3.8	1	mg/Kg	32860		05/25/04 1504	nnp
	Cadmium, Solid*	ND	U		1.9	5.8	1	mg/Kg	32860		05/25/04 1504	nnp
	Chromium, Solid*	25.3			0.65	5.8	1	mg/Kg	32860		05/25/04 1504	nnp
	Lead, Solid*	10.8	J		1.5	17.3	1	mg/Kg	32860		05/25/04 1504	nnp
	Selenium, Solid*	ND	U		3.1	30.7	1	mg/Kg	32860		05/25/04 1504	nnp
	Silver, Solid*	ND	U		0.61	5.8	1	mg/Kg	32860		05/25/04 1504	nnp

* In Description = Dry Wgt.

JPM 6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-122(25-27.5)
Date Sampled.....: 05/13/2004
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-19
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	58.2			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	41.8			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ ND ~~R~~		~~U~~ UJ	~~44.0~~ 601	818	1.0	ug/Kg	32702		05/24/04 1021	dtn

* In Description = Dry Wgt.

JAM ~~6/9/04~~ 6/10/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-123(15-17)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-20
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	1200		JS	310	4100	5.00000	ug/Kg	32769		05/23/04 2137	pam
	Toluene, High/Med Level*	1200		JS	230	4100	5.00000	ug/Kg	32769		05/23/04 2137	pam
	Ethylbenzene, High/Med Level*	4500			230	4100	5.00000	ug/Kg	32769		05/23/04 2137	pam
	Xylenes (total), High/Med Level*	12000			870	4100	5.00000	ug/Kg	32769		05/23/04 2137	pam
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh

0000524

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-123(15-17)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-20
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	170000		B	2500	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	2-Methylnaphthalene, Solid*	100000			2200	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Acenaphthylene, Solid*	13000	J	J5	860	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Acenaphthene, Solid*	74000			1200	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Fluorene, Solid*	33000			1600	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Phenanthrene, Solid*	140000		B	1900	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Anthracene, Solid*	59000		J9	940	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Fluoranthene, Solid*	81000		B	1700	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Pyrene, Solid*	100000		B	1500	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Benzo(a)anthracene, Solid*	39000			1200	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Chrysene, Solid*	40000			1300	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Benzo(b)fluoranthene, Solid*	19000	J	M J5	3000	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Benzo(k)fluoranthene, Solid*	17000	J	M J5	3100	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Benzo(a)pyrene, Solid*	33000			1300	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Indeno(1,2,3-cd)pyrene, Solid*	14000	J	M J5	1400	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Dibenzo(a,h)anthracene, Solid*	ND	U		1400	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr
	Benzo(ghi)perylene, Solid*	18000	J	M J5	1300	26000	25.00000	ug/Kg	32796		05/24/04 1609	hlr

* In Description = Dry Wgt.

EMM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/26/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-123(15-17)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-20
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	3.1 J10,	B	*N J8	0.11	15.3	5.0000	mg/Kg	32538		05/19/04 1750	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	37.0			2.4	15.6	1	mg/Kg	32860		05/25/04 1510	nnp
	Barium, Solid*	196			0.36	3.9	1	mg/Kg	32860		05/25/04 1510	nnp
	Cadmium, Solid*	ND	U		1.9	5.8	1	mg/Kg	32860		05/25/04 1510	nnp
	Chromium, Solid*	54.7			0.66	5.8	1	mg/Kg	32860		05/25/04 1510	nnp
	Lead, Solid*	383			1.5	17.5	1	mg/Kg	32860		05/25/04 1510	nnp
	Selenium, Solid*	ND	U		3.1	31.2	1	mg/Kg	32860		05/25/04 1510	nnp
	Silver, Solid*	0.95	B		0.62	5.8	1	mg/Kg	32860		05/25/04 1510	nnp

* In Description = Dry Wgt.

6/3/04

LABORATORY TEST RESULTS

Job Number: 206586

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-123(15-17)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206586-20
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216	% Solids, Solid	60.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
	% Moisture, Solid	39.5			0.10	0.10	1	%	32396		05/17/04 0000	dwh
9012	Cyanide (Colorimetric) Cyanide, Total, Solid*	~~ND~~ ~~A~~ ND	~~U~~	UJ	~~440~~ 579	818	1.0	ug/Kg	32702		05/24/04 1022	dtn

* In Description = Dry Wgt.

JAM 6/9/04 6/10/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-123(27-30)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-1
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	13.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32880		05/18/04 1903	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32880		05/18/04 1903	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32880		05/18/04 1903	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32880		05/18/04 1903	pam

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-123(27-30)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-1
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	13.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	49 J	J		37	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	2-Methylnaphthalene, Solid*	ND	U		32	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Acenaphthylene, Solid*	ND	U		13	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Acenaphthene, Solid*	ND	U		17	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Fluorene, Solid*	ND	U		23	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Phenanthrene, Solid*	45 J	J		28	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Anthracene, Solid*	ND	U		14	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Fluoranthene, Solid*	30 J	J	M	25	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Pyrene, Solid*	24 J	J		22	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Chrysene, Solid*	ND	U		20	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		44	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		45	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Benzo(a)pyrene, Solid*	530			18	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw
	Benzo(ghi)perylene, Solid*	ND	U		20	380	1.00000	ug/Kg	32942		05/24/04 1129	jdw

* In Description = Dry Wgt.

Jpm 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-123(27-30)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-1
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	13.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.013	1.7	1.0000	mg/Kg	32889		05/26/04 1539	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.2 J			1.5	10	1	mg/Kg	32949		05/25/04 1648	nnp
	Barium, Solid*	41.1			0.23	2.5	1	mg/Kg	32949		05/25/04 1648	nnp
	Cadmium, Solid*	ND	U		1.2	3.7	1	mg/Kg	32949		05/25/04 1648	nnp
	Chromium, Solid*	36.4 J			0.42	3.7	1	mg/Kg	32949		05/25/04 1648	nnp
	Lead, Solid*	5.6 J			0.95	11.2	1	mg/Kg	32949		05/25/04 1648	nnp
	Selenium, Solid*	ND	U		2.0	20.0	1	mg/Kg	32949		05/25/04 1648	nnp
	Silver, Solid*	ND	U		0.40	3.7	1	mg/Kg	32949		05/25/04 1648	nnp

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-123(27-30)
Date Sampled.....: 05/14/2004
Time Sampled.....: 08:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-1
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	13.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~30.6~~ 398	568	1.0	ug/Kg	32922		05/26/04 1606	dtn

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-124(13-15)
Date Sampled.....: 05/14/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-4
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	78.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	21.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32880		05/18/04 1937	pam
	Toluene, Solid*	2 J	J		0.5	6	1.00000	ug/Kg	32880		05/18/04 1937	pam
	Ethylbenzene, Solid*	0.9 J	J		0.5	6	1.00000	ug/Kg	32880		05/18/04 1937	pam
	Xylenes (total), Solid*	2 J	J		2	6	1.00000	ug/Kg	32880		05/18/04 1937	pam

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-124(13-15)
Date Sampled.....: 05/14/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-4
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	78.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	21.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.10 J			0.016	2.1	1.0000	mg/Kg	32889		05/26/04 1542	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	9.1 J			1.8	11.9	1	mg/Kg	32949		05/25/04 1732	nnp
	Barium, Solid*	62.0			0.27	3.0	1	mg/Kg	32949		05/25/04 1732	nnp
	Cadmium, Solid*	ND	U		1.5	4.4	1	mg/Kg	32949		05/25/04 1732	nnp
	Chromium, Solid*	17.7 J			0.50	4.4	1	mg/Kg	32949		05/25/04 1732	nnp
	Lead, Solid*	59.2 J			1.1	13.3	1	mg/Kg	32949		05/25/04 1732	nnp
	Selenium, Solid*	ND	U	J	2.4	23.7	1	mg/Kg	32949		05/25/04 1732	nnp
	Silver, Solid*	ND	U		0.47	4.4	1	mg/Kg	32949		05/25/04 1732	nnp

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-124(13-15)
Date Sampled.....: 05/14/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-4
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	78.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	21.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~32.8~~ 427	610	1.0	ug/Kg	32922		05/26/04 1616	dtn

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-124(35-40)
Date Sampled.....: 05/14/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-5
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32880		05/18/04 2011	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	32880		05/18/04 2011	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	32880		05/18/04 2011	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32880		05/18/04 2011	pam

* In Description = Dry Wgt.

JAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-124(35-40)
Date Sampled.....: 05/14/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-5
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	2-Methylnaphthalene, Solid*	ND	U		30	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	32942		05/24/04 1154	jdw

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-124(35-40)
Date Sampled.....: 05/14/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-5
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.014	1.9	1.0000	mg/Kg	32889		05/26/04 1544	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.9 J	J		1.6	10.2	1	mg/Kg	32949		05/25/04 1738	nnp
	Barium, Solid*	85.9			0.23	2.5	1	mg/Kg	32949		05/25/04 1738	nnp
	Cadmium, Solid*	ND	U		1.3	3.8	1	mg/Kg	32949		05/25/04 1738	nnp
	Chromium, Solid*	95.6 J			0.43	3.8	1	mg/Kg	32949		05/25/04 1738	nnp
	Lead, Solid*	5.8 J	J		0.97	11.5	1	mg/Kg	32949		05/25/04 1738	nnp
	Selenium, Solid*	ND	U		2.0	20.4	1	mg/Kg	32949		05/25/04 1738	nnp
	Silver, Solid*	ND	U		0.41	3.8	1	mg/Kg	32949		05/25/04 1738	nnp

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-124(35-40)
Date Sampled.....: 05/14/2004
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-5
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~28.5~~ 370	529	1.0	ug/Kg	32922		05/26/04 1608	dtn

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-125(20-21)
Date Sampled.....: 05/14/2004
Time Sampled.....: 13:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-6
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	1900			49	640	1.00000	ug/Kg	32768		05/23/04 2007	pam
	Toluene, High/Med Level*	2300			36	640	1.00000	ug/Kg	32768		05/23/04 2007	pam
	Ethylbenzene, High/Med Level*	9200			35	640	1.00000	ug/Kg	32768		05/23/04 2007	pam
	Xylenes (total), High/Med Level*	18000			130	640	1.00000	ug/Kg	32768		05/23/04 2007	pam
ASTM D-2216												
	% Solids, Solid	78.1			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	21.9			0.10	0.10	1	%	32863		05/25/04 0000	dwh

* In Description = Dry Wgt.

Jm 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-125(30-35)
Date Sampled.....: 05/14/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-7
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	42.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	57.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	22 J			1	12	1.00000	ug/Kg	32880		05/18/04 2046	pam
	Toluene, Solid*	ND	U	J	0.9	12	1.00000	ug/Kg	32880		05/18/04 2046	pam
	Ethylbenzene, Solid*	4 J	J		0.9	12	1.00000	ug/Kg	32880		05/18/04 2046	pam
	Xylenes (total), Solid*	5 J	J		3	12	1.00000	ug/Kg	32880		05/18/04 2046	pam

* In Description = Dry Wgt.

jam 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-125(30-35)
Date Sampled.....: 05/14/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-7
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	42.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	57.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	J	150	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	2-Methylnaphthalene, Solid*	ND	U		130	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Acenaphthylene, Solid*	ND	U		51	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Acenaphthene, Solid*	ND	U		70	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Fluorene, Solid*	ND	U		93	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Phenanthrene, Solid*	ND	U		110	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Anthracene, Solid*	ND	U		56	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Fluoranthene, Solid*	ND	U		100	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Pyrene, Solid*	ND	U		89	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Benzo(a)anthracene, Solid*	ND	U		70	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Chrysene, Solid*	ND	U		79	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		180	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		180	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Benzo(a)pyrene, Solid*	ND	U		75	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		84	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		84	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw
	Benzo(ghi)perylene, Solid*	ND	U	J	79	1500	1.00000	ug/Kg	32942		05/24/04 2037	jdw

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-125(30-35)
Date Sampled.....: 05/14/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-7
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	42.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	57.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.028	3.7	1.0000	mg/Kg	32889		05/26/04 1544	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J N	3.4	22.1	1	mg/Kg	32949		05/25/04 1744	nnp
	Barium, Solid*	17.5 J			0.51	5.5	1	mg/Kg	32949		05/25/04 1744	nnp
	Cadmium, Solid*	ND	U	J	2.8	8.3	1	mg/Kg	32949		05/25/04 1744	nnp
	Chromium, Solid*	24.8 J		N	0.94	8.3	1	mg/Kg	32949		05/25/04 1744	nnp
	Lead, Solid*	8.7 J		N	2.1	24.9	1	mg/Kg	32949		05/25/04 1744	nnp
	Selenium, Solid*	ND	U	J	4.4	44.2	1	mg/Kg	32949		05/25/04 1744	nnp
	Silver, Solid*	ND	U	J	0.88	8.3	1	mg/Kg	32949		05/25/04 1744	nnp

* In Description = Dry Wgt.

6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-125(30-35)
Date Sampled.....: 05/14/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-7
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	42.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	57.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~61.7~~ 803	1150	1.0	ug/Kg	32922		05/26/04 1614	dtn

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-126(20-22)
Date Sampled.....: 05/14/2004
Time Sampled.....: 14:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-8
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	3000			230	3000	5.00000	ug/Kg	32780		05/24/04 1645	pam
	Toluene, High/Med Level*	4600			170	3000	5.00000	ug/Kg	32780		05/24/04 1645	pam
	Ethylbenzene, High/Med Level*	88000			160	3000	5.00000	ug/Kg	32780		05/24/04 1645	pam
	Xylenes (total), High/Med Level*	110000			620	3000	5.00000	ug/Kg	32780		05/24/04 1645	pam
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh

* In Description = Dry Wgt.

JPM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-126(20-22)
Date Sampled.....: 05/14/2004
Time Sampled.....: 14:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-8
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.91 J			0.015	2.0	1.0000	mg/Kg	32889		05/26/04 1545	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	9.4 J			1.7	11.4	1	mg/Kg	32949		05/25/04 1750	nnp
	Barium, Solid*	31.1			0.26	2.9	1	mg/Kg	32949		05/25/04 1750	nnp
	Cadmium, Solid*	ND	U		1.4	4.3	1	mg/Kg	32949		05/25/04 1750	nnp
	Chromium, Solid*	18.1 J			0.49	4.3	1	mg/Kg	32949		05/25/04 1750	nnp
	Lead, Solid*	94.8 J			1.1	12.8	1	mg/Kg	32949		05/25/04 1750	nnp
	Selenium, Solid*	ND	U		2.3	22.8	1	mg/Kg	32949		05/25/04 1750	nnp
	Silver, Solid*	ND	U		0.46	4.3	1	mg/Kg	32949		05/25/04 1750	nnp

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-126(20-22)
Date Sampled.....: 05/14/2004
Time Sampled.....: 14:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-8
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	15.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND ~~118~~		~~B~~ U	~~30.4~~ 396	566	1.0	ug/Kg	32922		05/26/04 1618	dtn

* In Description = Dry Wgt.

JAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(33-34)
Date Sampled.....: 05/17/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-9
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	67 J	J		36	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Acenaphthylene, Solid*	32 J	J		12	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Phenanthrene, Solid*	38 J	J		27	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Fluoranthene, Solid*	25 J	J		25	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Pyrene, Solid*	45 J	J		21	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	32942		05/24/04 1219	jdw

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(33-34)
Date Sampled.....: 05/17/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-9
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.012	1.6	1.0000	mg/Kg	32889		05/26/04 1547	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.3 J			1.5	9.7	1	mg/Kg	32949		05/25/04 1756	nnp
	Barium, Solid*	8.1			0.22	2.4	1	mg/Kg	32949		05/25/04 1756	nnp
	Cadmium, Solid*	ND	U		1.2	3.6	1	mg/Kg	32949		05/25/04 1756	nnp
	Chromium, Solid*	10.4 J			0.41	3.6	1	mg/Kg	32949		05/25/04 1756	nnp
	Lead, Solid*	3.8 J			0.92	10.9	1	mg/Kg	32949		05/25/04 1756	nnp
	Selenium, Solid*	ND	U		1.9	19.4	1	mg/Kg	32949		05/25/04 1756	nnp
	Silver, Solid*	ND	U		0.39	3.6	1	mg/Kg	32949		05/25/04 1756	nnp

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(33-34)
Date Sampled.....: 05/17/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-9
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~29.0~~ 378	540	1.0	ug/Kg	32922		05/26/04 1620	dtn

* In Description = Dry Wgt.

Jm 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(33-34)
Date Sampled.....: 05/17/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-9
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.1			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	10.9			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND		U		0.6	6	1.00000	ug/Kg	32993		05/21/04 2018	pam
	Toluene, Solid*	ND		U		0.4	6	1.00000	ug/Kg	32993		05/21/04 2018	pam
	Ethylbenzene, Solid*	ND		U		0.4	6	1.00000	ug/Kg	32993		05/21/04 2018	pam
	Xylenes (total), Solid*	ND		U		1	6	1.00000	ug/Kg	32993		05/21/04 2018	pam

* In Description = Dry Wgt.

JAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(43-44)
Date Sampled.....: 05/17/2004
Time Sampled.....: 12:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-10
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32993		05/21/04 2052	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32993		05/21/04 2052	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32993		05/21/04 2052	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32993		05/21/04 2052	pam

* In Description = Dry Wgt.

Jam 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(43-44)
Date Sampled.....: 05/17/2004
Time Sampled.....: 12:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-10
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	42 J	J		37	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	2-Methylnaphthalene, Solid*	ND	U		33	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Acenaphthylene, Solid*	ND	U		13	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Acenaphthene, Solid*	ND	U		18	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Fluorene, Solid*	ND	U		23	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Phenanthrene, Solid*	ND	U		28	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Anthracene, Solid*	ND	U		14	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Fluoranthene, Solid*	ND	U		26	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Pyrene, Solid*	ND	U		22	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Benzo(a)anthracene, Solid*	ND	U		18	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Chrysene, Solid*	ND	U		20	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		44	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		46	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Benzo(a)pyrene, Solid*	ND	U		19	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw
	Benzo(ghi)perylene, Solid*	ND	U		20	390	1.00000	ug/Kg	32942		05/24/04 1244	jdw

* In Description = Dry Wgt.

Jdw 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(43-44)
Date Sampled.....: 05/17/2004
Time Sampled.....: 12:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-10
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.014	1.8	1.0000	mg/Kg	32889		05/26/04 1548	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J	1.5	9.8	1	mg/Kg	32949		05/25/04 1802	nnp
	Barium, Solid*	83.0			0.22	2.4	1	mg/Kg	32949		05/25/04 1802	nnp
	Cadmium, Solid*	ND	U		1.2	3.7	1	mg/Kg	32949		05/25/04 1802	nnp
	Chromium, Solid*	30.3 J			0.41	3.7	1	mg/Kg	32949		05/25/04 1802	nnp
	Lead, Solid*	4.8 J			0.93	11.0	1	mg/Kg	32949		05/25/04 1802	nnp
	Selenium, Solid*	ND	U		2.0	19.5	1	mg/Kg	32949		05/25/04 1802	nnp
	Silver, Solid*	ND	U		0.39	3.7	1	mg/Kg	32949		05/25/04 1802	nnp

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-126A(43-44)
Date Sampled.....: 05/17/2004
Time Sampled.....: 12:45
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-10
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~32.3~~ 420	600	1.0	ug/Kg	32922		05/26/04 1621	dtn

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-127(19-20)
Date Sampled.....: 05/17/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-11
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	20000			290	3800	5.00000	ug/Kg	32780		05/24/04 2054	pam
	Toluene, High/Med Level*	37000			210	3800	5.00000	ug/Kg	32780		05/24/04 2054	pam
	Ethylbenzene, High/Med Level*	91000			210	3800	5.00000	ug/Kg	32780		05/24/04 2054	pam
	Xylenes (total), High/Med Level*	150000			800	3800	5.00000	ug/Kg	32780		05/24/04 2054	pam
ASTM D-2216												
	% Solids, Solid	65.6			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	34.4			0.10	0.10	1	%	32863		05/25/04 0000	dwh

* In Description = Dry Wgt.

JM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-127(19-20)
Date Sampled.....: 05/17/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-11
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.6			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	34.4			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	3.1 J			0.099	13.3	5.0000	mg/Kg	32889		05/26/04 1641	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	35.9 J			2.2	14.1	1	mg/Kg	32949		05/25/04 1808	nnp
	Barium, Solid*	127			0.32	3.5	1	mg/Kg	32949		05/25/04 1808	nnp
	Cadmium, Solid*	ND	U		1.8	5.3	1	mg/Kg	32949		05/25/04 1808	nnp
	Chromium, Solid*	51.2 J			0.60	5.3	1	mg/Kg	32949		05/25/04 1808	nnp
	Lead, Solid*	335 J			1.3	15.9	1	mg/Kg	32949		05/25/04 1808	nnp
	Selenium, Solid*	ND	U		2.8	28.2	1	mg/Kg	32949		05/25/04 1808	nnp
	Silver, Solid*	1.2			0.56	5.3	1	mg/Kg	32949		05/25/04 1808	nnp

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-127(19-20)
Date Sampled.....: 05/17/2004
Time Sampled.....: 16:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-11
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	65.6			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	34.4			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND ~~60.4~~		~~B~~ J	~~39.4~~ 513	733	1.0	ug/Kg	32922		05/26/04 1623	dtn

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-127(40-45)
Date Sampled.....: 05/17/2004
Time Sampled.....: 17:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-12
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	17.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32993		05/21/04 2126	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32993		05/21/04 2126	pam
	Ethylbenzene, Solid*	22			0.5	6	1.00000	ug/Kg	32993		05/21/04 2126	pam
	Xylenes (total), Solid*	20			1	6	1.00000	ug/Kg	32993		05/21/04 2126	pam

* In Description = Dry Wgt.

JAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-127(40-45)
Date Sampled.....: 05/17/2004
Time Sampled.....: 17:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-12
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	17.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		38	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	2-Methylnaphthalene, Solid*	ND	U		33	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Acenaphthylene, Solid*	ND	U		13	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Acenaphthene, Solid*	ND	U		18	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Fluorene, Solid*	ND	U		24	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Phenanthrene, Solid*	63 J	J		28	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Anthracene, Solid*	37 J	J		14	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Fluoranthene, Solid*	ND	U		26	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Pyrene, Solid*	ND	U		22	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Benzo(a)anthracene, Solid*	ND	U		18	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Chrysene, Solid*	ND	U		20	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	M	45	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		46	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Benzo(a)pyrene, Solid*	32 J	J		19	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw
	Benzo(ghi)perylene, Solid*	ND	U		20	390	1.00000	ug/Kg	32942		05/24/04 1309	jdw

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-127(40-45)
Date Sampled.....: 05/17/2004
Time Sampled.....: 17:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-12
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	17.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.013	1.7	1.0000	mg/Kg	32889		05/26/04 1550	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J	1.7	11.4	1	mg/Kg	32949		05/25/04 1826	nnp
	Barium, Solid*	31.4			0.26	2.8	1	mg/Kg	32949		05/25/04 1826	nnp
	Cadmium, Solid*	ND	U		1.4	4.3	1	mg/Kg	32949		05/25/04 1826	nnp
	Chromium, Solid*	19.3 J			0.48	4.3	1	mg/Kg	32949		05/25/04 1826	nnp
	Lead, Solid*	2.9 J			1.1	12.8	1	mg/Kg	32949		05/25/04 1826	nnp
	Selenium, Solid*	ND	U		2.3	22.7	1	mg/Kg	32949		05/25/04 1826	nnp
	Silver, Solid*	ND	U		0.45	4.3	1	mg/Kg	32949		05/25/04 1826	nnp

* In Description = Dry Wgt.

JSM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-127(40-45)
Date Sampled.....: 05/17/2004
Time Sampled.....: 17:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-12
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
.	% Solids, Solid	83.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
.	% Moisture, Solid	17.0			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~31.2~~ 405	579	1.0	ug/Kg	32922		05/26/04 1625	dtn

* In Description = Dry Wgt.

Jam 6/8/07

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-128(17-18)
Date Sampled.....: 05/18/2004
Time Sampled.....: 09:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-13
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	230 J	J		110	1500	2.00000	ug/Kg	32918		05/25/04 1842	pam
	Toluene, High/Med Level*	270 J	J		81	1500	2.00000	ug/Kg	32918		05/25/04 1842	pam
	Ethylbenzene, High/Med Level*	2400			80	1500	2.00000	ug/Kg	32918		05/25/04 1842	pam
	Xylenes (total), High/Med Level*	3400			310	1500	2.00000	ug/Kg	32918		05/25/04 1842	pam
ASTM D-2216												
	% Solids, Solid	68.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	31.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh

* In Description = Dry Wgt.

JPM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-128(17-18)
Date Sampled.....: 05/18/2004
Time Sampled.....: 09:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-13
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	31.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	52000			4600	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	2-Methylnaphthalene, Solid*	14000 J	J		4000	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Acenaphthylene, Solid*	28000 J	J	M	1600	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Acenaphthene, Solid*	140000			2200	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Fluorene, Solid*	ND	U		2900	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Phenanthrene, Solid*	300000			3500	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Anthracene, Solid*	110000			1700	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Fluoranthene, Solid*	120000			3200	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Pyrene, Solid*	160000			2700	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Benzo(a)anthracene, Solid*	69000			2200	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Chrysene, Solid*	72000			2400	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Benzo(b)fluoranthene, Solid*	28000 J	J	M	5500	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Benzo(k)fluoranthene, Solid*	25000 J	J	M	5600	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Benzo(a)pyrene, Solid*	50000			2300	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	20000 J	J	M	2600	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		2600	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw
	Benzo(ghi)perylene, Solid*	18000 J	J	M	2400	48000	50.00000	ug/Kg	32944		05/26/04 1637	jdw

* In Description = Dry Wgt.

JAM 6/8/07

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-128(17-18)
Date Sampled.....: 05/18/2004
Time Sampled.....: 09:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-13
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	31.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.8 J			0.098	13.1	5.0000	mg/Kg	32889		05/26/04 1642	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	30.3 J			2.1	13.5	1	mg/Kg	32949		05/25/04 1833	nnp
	Barium, Solid*	136			0.31	3.4	1	mg/Kg	32949		05/25/04 1833	nnp
	Cadmium, Solid*	ND	U		1.7	5.1	1	mg/Kg	32949		05/25/04 1833	nnp
	Chromium, Solid*	35.9 J			0.57	5.1	1	mg/Kg	32949		05/25/04 1833	nnp
	Lead, Solid*	849 J			1.3	15.2	1	mg/Kg	32949		05/25/04 1833	nnp
	Selenium, Solid*	ND	U		2.7	27.0	1	mg/Kg	32949		05/25/04 1833	nnp
	Silver, Solid*	0.84			0.54	5.1	1	mg/Kg	32949		05/25/04 1833	nnp

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-128(17-18)
Date Sampled.....: 05/18/2004
Time Sampled.....: 09:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-13
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	31.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND ~~56.3~~		~~B~~ U	~~37.4~~ 487	695	1.0	ug/Kg	32922		05/26/04 1627	dtn

* In Description = Dry Wgt.

JAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-128(33-35)
Date Sampled.....: 05/18/2004
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-14
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32993		05/21/04 2200	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32993		05/21/04 2200	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	32993		05/21/04 2200	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	32993		05/21/04 2200	pam

* In Description = Dry Wgt.

6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-128(33-35)
Date Sampled.....: 05/18/2004
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-14
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND		U	37	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	2-Methylnaphthalene, Solid*	ND		U	33	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Acenaphthylene, Solid*	ND		U	13	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Acenaphthene, Solid*	ND		U	18	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Fluorene, Solid*	ND		U	23	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Phenanthrene, Solid*	ND		U	28	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Anthracene, Solid*	ND		U	14	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Fluoranthene, Solid*	ND		U	26	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Pyrene, Solid*	ND		U	22	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Benzo(a)anthracene, Solid*	ND		U	18	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Chrysene, Solid*	ND		U	20	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Benzo(b)fluoranthene, Solid*	ND		U	44	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Benzo(k)fluoranthene, Solid*	ND		U	46	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Benzo(a)pyrene, Solid*	ND		U	19	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND		U	21	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Dibenzo(a,h)anthracene, Solid*	ND		U	21	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw
	Benzo(ghi)perylene, Solid*	ND		U	20	390	1.00000	ug/Kg	32942		05/24/04 1334	jdw

* In Description = Dry Wgt.

jpm 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-128(33-35)
Date Sampled.....: 05/18/2004
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-14
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.013	1.7	1.0000	mg/Kg	32889		05/26/04 1552	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U	J #	1.6	10.3	1	mg/Kg	32949		05/25/04 1839	nnp
	Barium, Solid*	51.7			0.24	2.6	1	mg/Kg	32949		05/25/04 1839	nnp
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	32949		05/25/04 1839	nnp
	Chromium, Solid*	43.9 J		#	0.44	3.9	1	mg/Kg	32949		05/25/04 1839	nnp
	Lead, Solid*	4.2 J	B	#	0.98	11.6	1	mg/Kg	32949		05/25/04 1839	nnp
	Selenium, Solid*	ND	U		2.1	20.7	1	mg/Kg	32949		05/25/04 1839	nnp
	Silver, Solid*	ND	U		0.41	3.9	1	mg/Kg	32949		05/25/04 1839	nnp

* In Description = Dry Wgt.

JAM 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-128(33-35)
Date Sampled.....: 05/18/2004
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-14
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.3			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	16.7			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~31.4~~ 408	583	1.0	ug/Kg	32934		05/27/04 1207	dtn

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-129(18-20)
Date Sampled.....: 05/18/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-15
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		54	710	1.00000	ug/Kg	32918		05/25/04 1812	pam
	Toluene, High/Med Level*	ND	U		39	710	1.00000	ug/Kg	32918		05/25/04 1812	pam
	Ethylbenzene, High/Med Level*	1500			39	710	1.00000	ug/Kg	32918		05/25/04 1812	pam
	Xylenes (total), High/Med Level*	330 J			150	710	1.00000	ug/Kg	32918		05/25/04 1812	pam
ASTM D-2216												
	% Solids, Solid	70.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	29.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh

* In Description = Dry Wgt.

Jpm 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-129(18-20)
Date Sampled.....: 05/18/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-15
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	29.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	7200 J	J		1100	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	2-Methylnaphthalene, Solid*	1100 J	J		980	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Acenaphthylene, Solid*	9000 J	J		380	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Acenaphthene, Solid*	40000			520	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Fluorene, Solid*	4900 J	J		700	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Phenanthrene, Solid*	53000			840	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Anthracene, Solid*	31000			420	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Fluoranthene, Solid*	36000			770	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Pyrene, Solid*	51000			660	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Benzo(a)anthracene, Solid*	20000			520	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Chrysene, Solid*	21000			600	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Benzo(b)fluoranthene, Solid*	14000 J			1300	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Benzo(k)fluoranthene, Solid*	ND	U	J	1400	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Benzo(a)pyrene, Solid*	14000			560	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	5100 J	J		630	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Dibenzo(a,h)anthracene, Solid*	2100 J	J		630	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw
	Benzo(ghi)perylene, Solid*	4900 J	J		600	12000	25.00000	ug/Kg	32944		05/26/04 1703	jdw

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-129(18-20)
Date Sampled.....: 05/18/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-15
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	29.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.077 J		B	0.019	2.5	1.0000	mg/Kg	32889		05/26/04 1555	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	17.8 J		B	2.0	13.3	1	mg/Kg	32949		05/25/04 1845	nnp
	Barium, Solid*	52.6			0.30	3.3	1	mg/Kg	32949		05/25/04 1845	nnp
	Cadmium, Solid*	ND	U		1.7	5.0	1	mg/Kg	32949		05/25/04 1845	nnp
	Chromium, Solid*	22.8 J		B	0.56	5.0	1	mg/Kg	32949		05/25/04 1845	nnp
	Lead, Solid*	349 J		B	1.3	14.9	1	mg/Kg	32949		05/25/04 1845	nnp
	Selenium, Solid*	ND	U		2.7	26.5	1	mg/Kg	32949		05/25/04 1845	nnp
	Silver, Solid*	ND	U		0.53	5.0	1	mg/Kg	32949		05/25/04 1845	nnp

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-129(18-20)
Date Sampled.....: 05/18/2004
Time Sampled.....: 13:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-15
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	29.5			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~38.2~~ 496	709	1.0	ug/Kg	32934		05/27/04 1208	dtn

* In Description = Dry Wgt.

JPM 6/18/07

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-129(25-30)
Date Sampled.....: 05/18/2004
Time Sampled.....: 14:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-16
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	19.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	32993		05/21/04 2233	pam
	Toluene, Solid*	3 J	J		0.5	6	1.00000	ug/Kg	32993		05/21/04 2233	pam
	Ethylbenzene, Solid*	3 J	J		0.5	6	1.00000	ug/Kg	32993		05/21/04 2233	pam
	Xylenes (total), Solid*	8 J			1	6	1.00000	ug/Kg	32993		05/21/04 2233	pam

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-129(25-30)
Date Sampled.....: 05/18/2004
Time Sampled.....: 14:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-16
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	19.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		78	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	2-Methylnaphthalene, Solid*	ND	U		68	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Acenaphthylene, Solid*	ND	U		27	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Acenaphthene, Solid*	ND	U		37	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Fluorene, Solid*	ND	U		49	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Phenanthrene, Solid*	ND	U		59	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Anthracene, Solid*	ND	U		29	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Fluoranthene, Solid*	ND	U		54	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Pyrene, Solid*	ND	U		46	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Benzo(a)anthracene, Solid*	ND	U		37	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Chrysene, Solid*	ND	U		42	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		93	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		95	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Benzo(a)pyrene, Solid*	ND	U		39	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		44	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		44	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw
	Benzo(ghi)perylene, Solid*	ND	U		42	810	1.00000	ug/Kg	32942		05/24/04 1359	jdw

* In Description = Dry Wgt.

6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-129(25-30)
Date Sampled.....: 05/18/2004
Time Sampled.....: 14:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-16
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	19.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.016	2.1	1.0000	mg/Kg	32889		05/26/04 1557	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.0 J			1.6	10.7	1	mg/Kg	32949		05/25/04 1851	nnp
	Barium, Solid*	133			0.25	2.7	1	mg/Kg	32949		05/25/04 1851	nnp
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	32949		05/25/04 1851	nnp
	Chromium, Solid*	17.1 J			0.45	4.0	1	mg/Kg	32949		05/25/04 1851	nnp
	Lead, Solid*	8.2 J			1.0	12.0	1	mg/Kg	32949		05/25/04 1851	nnp
	Selenium, Solid*	ND	U		2.1	21.3	1	mg/Kg	32949		05/25/04 1851	nnp
	Silver, Solid*	ND	U		0.43	4.0	1	mg/Kg	32949		05/25/04 1851	nnp

* In Description = Dry Wgt.

JPM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-129(25-30)
Date Sampled.....: 05/18/2004
Time Sampled.....: 14:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206618-16
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.2			0.10	0.10	1	%	32863		05/25/04 0000	dwh
	% Moisture, Solid	19.8			0.10	0.10	1	%	32863		05/25/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		~~31.9~~ 416	594	1.0	ug/Kg	32934		05/27/04 1209	dtn

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-130(22-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 16:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-19
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	460 J	J		85	1100	2.00000	ug/Kg	33159		05/28/04 1545	pam
	Toluene, High/Med Level*	ND	U		62	1100	2.00000	ug/Kg	33159		05/28/04 1545	pam
	Ethylbenzene, High/Med Level*	6800			61	1100	2.00000	ug/Kg	33159		05/28/04 1545	pam
	Xylenes (total), High/Med Level*	3100			230	1100	2.00000	ug/Kg	33159		05/28/04 1545	pam
ASTM D-2216												
	% Solids, Solid	89.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	10.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw

C200003

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-130(22-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 16:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-19
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	10.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	24000			1800	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	2-Methylnaphthalene, Solid*	13000 J			1500	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Acenaphthylene, Solid*	4500 J			600	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Acenaphthene, Solid*	25000			820	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Fluorene, Solid*	18000			1100	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Phenanthrene, Solid*	77000			1300	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Anthracene, Solid*	16000 J			660	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Fluoranthene, Solid*	45000			1200	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Pyrene, Solid*	41000			1000	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Benzo(a)anthracene, Solid*	18000 J			820	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Chrysene, Solid*	13000			930	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Benzo(b)fluoranthene, Solid*	11000		M	2100	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Benzo(k)fluoranthene, Solid*	12000		M	2100	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Benzo(a)pyrene, Solid*	15000			880	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	7100			990	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Dibenzo(a,h)anthracene, Solid*	3500		N	990	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw
	Benzo(ghi)perylene, Solid*	7000 J			930	18000	25.00000	ug/Kg	33320		06/03/04 1525	jdw

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-130(22-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 16:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-19
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	10.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.015	2.0	1.0000	mg/Kg	32897		05/26/04 1828	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.8			1.7	11.1	1	mg/Kg	32951		05/26/04 1531	nnp
	Barium, Solid*	11.4			0.26	2.8	1	mg/Kg	32951		05/26/04 1531	nnp
	Cadmium, Solid*	ND	U		1.4	4.2	1	mg/Kg	32951		05/26/04 1531	nnp
	Chromium, Solid*	16.5 J			0.47	4.2	1	mg/Kg	32951		05/26/04 1531	nnp
	Lead, Solid*	6.3 J			1.1	12.5	1	mg/Kg	32951		05/26/04 1531	nnp
	Selenium, Solid*	ND	U		2.2	22.3	1	mg/Kg	32951		05/26/04 1531	nnp
	Silver, Solid*	ND	U		0.45	4.2	1	mg/Kg	32951		05/26/04 1531	nnp

* In Description = Dry Wgt.

9500056

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-130(22-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 16:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-19
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	10.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~28.0~~ 364	520	1.0	ug/Kg	33079		05/28/04 1652	dtn

0700074

* In Description = Dry Wgt.

6/17/07

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-130(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-17
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	63.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	16 J			0.8	8	1.00000	ug/Kg	33232		05/26/04 1614	pam
	Toluene, Solid*	4 J			0.6	8	1.00000	ug/Kg	33232		05/26/04 1614	pam
	Ethylbenzene, Solid*	41 J			0.6	8	1.00000	ug/Kg	33232		05/26/04 1614	pam
	Xylenes (total), Solid*	23 J			2	8	1.00000	ug/Kg	33232		05/26/04 1614	pam

T200021

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-130(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-17
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	63.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	J	100	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	2-Methylnaphthalene, Solid*	ND	U	J	87	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Acenaphthylene, Solid*	ND	U		34	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Acenaphthene, Solid*	86 J	J		47	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Fluorene, Solid*	ND	U		62	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Phenanthrene, Solid*	ND	U	J	75	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Anthracene, Solid*	ND	U		37	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Fluoranthene, Solid*	ND	U	J	69	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Pyrene, Solid*	ND	U	J	59	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Benzo(a)anthracene, Solid*	ND	U	J	47	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Chrysene, Solid*	ND	U	J	53	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	J	120	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		120	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Benzo(a)pyrene, Solid*	ND	U	J	50	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	J	56	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	J	56	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw
	Benzo(ghi)perylene, Solid*	ND	U		53	1000	1.00000	ug/Kg	33218		05/25/04 2203	jdw

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-130(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-17
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	63.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J M	0.016	2.1	1.0000	mg/Kg	32897		05/26/04 1823	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.2	B		2.2	14.1	1	mg/Kg	32951		05/26/04 1519	nnp
	Barium, Solid*	37.8			0.32	3.5	1	mg/Kg	32951		05/26/04 1519	nnp
	Cadmium, Solid*	ND	U		1.8	5.3	1	mg/Kg	32951		05/26/04 1519	nnp
	Chromium, Solid*	26.0 J		M	0.60	5.3	1	mg/Kg	32951		05/26/04 1519	nnp
	Lead, Solid*	5.9 J	B	M	1.3	15.9	1	mg/Kg	32951		05/26/04 1519	nnp
	Selenium, Solid*	ND	U		2.8	28.3	1	mg/Kg	32951		05/26/04 1519	nnp
	Silver, Solid*	ND	U		0.57	5.3	1	mg/Kg	32951		05/26/04 1519	nnp

* In Description = Dry Wgt.

4200064

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-130(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:35
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-17
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	63.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~41.7~~ 543	776	1.0	ug/Kg	33079		05/28/04 1649	dtn

* In Description = Dry Wgt.

2700072

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-131(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-18
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	1900 J	J		260	3500	5.00000	ug/Kg	33159		05/28/04 1745	pam
	Toluene, High/Med Level*	5500			190	3500	5.00000	ug/Kg	33159		05/28/04 1745	pam
	Ethylbenzene, High/Med Level*	67000			190	3500	5.00000	ug/Kg	33159		05/28/04 1745	pam
	Xylenes (total), High/Med Level*	99000			730	3500	5.00000	ug/Kg	33159		05/28/04 1745	pam
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	28.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw

0000022

* In Description = Dry Wgt.

JPM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-131(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-18
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	28.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.8 J	B	N	0.083	11.1	5.0000	mg/Kg	32897		05/26/04 1843	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.8	B		2.1	13.5	1	mg/Kg	32951		05/26/04 1525	nnp
	Barium, Solid*	78.7			0.31	3.4	1	mg/Kg	32951		05/26/04 1525	nnp
	Cadmium, Solid*	ND	U		1.7	5.1	1	mg/Kg	32951		05/26/04 1525	nnp
	Chromium, Solid*	17.3 J		N	0.57	5.1	1	mg/Kg	32951		05/26/04 1525	nnp
	Lead, Solid*	256 J		N	1.3	15.2	1	mg/Kg	32951		05/26/04 1525	nnp
	Selenium, Solid*	ND	U		2.7	27.0	1	mg/Kg	32951		05/26/04 1525	nnp
	Silver, Solid*	ND	U		0.54	5.1	1	mg/Kg	32951		05/26/04 1525	nnp

0000055

* In Description = Dry Wgt.

JAM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-131(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-18
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	72.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	28.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~37.0~~ 472	688	1.0	ug/Kg	32934		05/27/04 1225	dtn

0000073

* In Description = Dry Wgt.

JAM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-131(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-20
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	84 J	J	M	75	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	2-Methylnaphthalene, Solid*	ND	U		66	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Acenaphthylene, Solid*	ND	U		26	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Acenaphthene, Solid*	ND	U		35	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Fluorene, Solid*	ND	U		47	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Phenanthrene, Solid*	ND	U	M	56	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Anthracene, Solid*	ND	U		28	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Fluoranthene, Solid*	ND	U		52	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Pyrene, Solid*	ND	U		45	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Benzo(a)anthracene, Solid*	ND	U		35	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Chrysene, Solid*	ND	U		40	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		89	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		92	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Benzo(a)pyrene, Solid*	ND	U		38	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		42	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		42	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw
	Benzo(ghi)perylene, Solid*	ND	U		40	780	1.00000	ug/Kg	33218		05/25/04 2228	jdw

0000639

* In Description = Dry Wgt.

10/10/07

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-131(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-20
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	33232		05/26/04 1458	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33232		05/26/04 1458	pam
	Ethylbenzene, Solid*	15 J			0.5	6	1.00000	ug/Kg	33232		05/26/04 1458	pam
	Xylenes (total), Solid*	14 J			1	6	1.00000	ug/Kg	33232		05/26/04 1458	pam

0000024

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-131(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-20
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J N	0.015	2.0	1.0000	mg/Kg	32897		05/26/04 1829	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.3		B	1.6	10.6	1	mg/Kg	32951		05/26/04 1537	nnp
	Barium, Solid*	38.2			0.24	2.7	1	mg/Kg	32951		05/26/04 1537	nnp
	Cadmium, Solid*	ND	U		1.3	4.0	1	mg/Kg	32951		05/26/04 1537	nnp
	Chromium, Solid*	9.9 J		N	0.45	4.0	1	mg/Kg	32951		05/26/04 1537	nnp
	Lead, Solid*	2.9 J		B N	1.0	12.0	1	mg/Kg	32951		05/26/04 1537	nnp
	Selenium, Solid*	ND	U		2.1	21.3	1	mg/Kg	32951		05/26/04 1537	nnp
	Silver, Solid*	ND	U		0.43	4.0	1	mg/Kg	32951		05/26/04 1537	nnp

00000057

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-131(25-30)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-20
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.0			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~31.7~~ 413	589	1.0	ug/Kg	33079		05/28/04 1653	dtn

* In Description = Dry Wgt.

Jam 6/17/02

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-132(10-11)
Date Sampled.....: 05/19/2004
Time Sampled.....: 10:50
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-4
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	2500			95	1200	2.00000	ug/Kg	33159		05/28/04 1440	pam
	Toluene, High/Med Level*	1400			69	1200	2.00000	ug/Kg	33159		05/28/04 1440	pam
	Ethylbenzene, High/Med Level*	310 J	J		68	1200	2.00000	ug/Kg	33159		05/28/04 1440	pam
	Xylenes (total), High/Med Level*	2700			260	1200	2.00000	ug/Kg	33159		05/28/04 1440	pam
ASTM D-2216												
	% Solids, Solid	80.1			0.10	0.10	1	%	33250		06/02/04 0000	msh
	% Moisture, Solid	19.9			0.10	0.10	1	%	33250		06/02/04 0000	msh

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-132(15-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-1
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	39.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	60.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	J	1	13	1.00000	ug/Kg	33231		05/25/04 1648	pam
	Toluene, Solid*	ND	U	J	1	13	1.00000	ug/Kg	33231		05/25/04 1648	pam
	Ethylbenzene, Solid*	ND	U	J	1	13	1.00000	ug/Kg	33231		05/25/04 1648	pam
	Xylenes (total), Solid*	ND	U	J	3	13	1.00000	ug/Kg	33231		05/25/04 1648	pam

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-132(15-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-1
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	39.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	60.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		160	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	2-Methylnaphthalene, Solid*	ND	U		140	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Acenaphthylene, Solid*	ND	U		55	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Acenaphthene, Solid*	ND	U		74	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Fluorene, Solid*	ND	U		99	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Phenanthrene, Solid*	ND	U		120	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Anthracene, Solid*	ND	U		60	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Fluoranthene, Solid*	ND	U		110	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Pyrene, Solid*	ND	U		94	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Benzo(a)anthracene, Solid*	ND	U		74	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Chrysene, Solid*	ND	U		84	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		190	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		190	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Benzo(a)pyrene, Solid*	ND	U		79	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		89	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		89	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw
	Benzo(ghi)perylene, Solid*	ND	U		84	1600	1.00000	ug/Kg	33221		05/28/04 2024	jdw

R

R

0000486

* In Description = Dry Wgt.

JFM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-132(15-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-1
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	39.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	60.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.037	5.0	1.0000	mg/Kg	32897		05/26/04 1805	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	11.9 J			3.7	24.3	1	mg/Kg	32951		05/26/04 1340	nnp
	Barium, Solid*	169 J			0.56	6.1	1	mg/Kg	32951		05/26/04 1340	nnp
	Cadmium, Solid*	ND	U	J	3.0	9.1	1	mg/Kg	32951		05/26/04 1340	nnp
	Chromium, Solid*	30.4 J			1.0	9.1	1	mg/Kg	32951		05/26/04 1340	nnp
	Lead, Solid*	6.7 J			2.3	27.4	1	mg/Kg	32951		05/26/04 1340	nnp
	Selenium, Solid*	ND	U	J	4.9	48.7	1	mg/Kg	32951		05/26/04 1340	nnp
	Silver, Solid*	ND	U	J	0.97	9.1	1	mg/Kg	32951		05/26/04 1340	nnp

0000040

* In Description = Dry Wgt.

6/7/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-132(15-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 10:55
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-1
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	39.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	60.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~67.4~~ 877	1250	1.0	ug/Kg	32934		05/27/04 1228	dtn

0000058

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of CF-SB-132 (15-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-5
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	36.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	63.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	J	1	14	1.00000	ug/Kg	33231		05/25/04 1801	pam
	Toluene, Solid*	5 J			1	14	1.00000	ug/Kg	33231		05/25/04 1801	pam
	Ethylbenzene, Solid*	5 J			1	14	1.00000	ug/Kg	33231		05/25/04 1801	pam
	Xylenes (total), Solid*	15 J			3	14	1.00000	ug/Kg	33231		05/25/04 1801	pam

600000

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of (CF-SB-132 (15-18))
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-5
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	36.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	63.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	R	U	170	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	2-Methylnaphthalene, Solid*	ND		U	150	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Acenaphthylene, Solid*	ND		U	60	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Acenaphthene, Solid*	ND		U	81	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Fluorene, Solid*	ND		U	110	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Phenanthrene, Solid*	ND		U	130	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Anthracene, Solid*	ND		U	65	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Fluoranthene, Solid*	ND		U	120	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Pyrene, Solid*	ND		U	100	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Benzo(a)anthracene, Solid*	ND		U	81	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Chrysene, Solid*	ND		U	92	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Benzo(b)fluoranthene, Solid*	ND		U	210	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Benzo(k)fluoranthene, Solid*	ND		U	210	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Benzo(a)pyrene, Solid*	ND		U	87	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND		U	97	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Dibenzo(a,h)anthracene, Solid*	ND		U	97	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw
	Benzo(ghi)perylene, Solid*	ND	R	U	92	1800	1.00000	ug/Kg	33221		05/28/04 2049	jdw

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

duplicate of CF-SB-132(15-18

Customer Sample ID: CF-SB-XX(18-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-5
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	36.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	63.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.037	4.9	1.0000	mg/Kg	32897		05/26/04 1807	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.1 J			4.2	27.2	1	mg/Kg	32951		05/26/04 1352	nnp
	Barium, Solid*	206 J			0.63	6.8	1	mg/Kg	32951		05/26/04 1352	nnp
	Cadmium, Solid*	ND	U	J	3.4	10.2	1	mg/Kg	32951		05/26/04 1352	nnp
	Chromium, Solid*	31.4 J			1.2	10.2	1	mg/Kg	32951		05/26/04 1352	nnp
	Lead, Solid*	7.2 J			2.6	30.7	1	mg/Kg	32951		05/26/04 1352	nnp
	Selenium, Solid*	ND	U	J	5.4	54.5	1	mg/Kg	32951		05/26/04 1352	nnp
	Silver, Solid*	ND	U	J	1.1	10.2	1	mg/Kg	32951		05/26/04 1352	nnp

0000042

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-XX(18-20) duplicate of CF-SB-132 (15-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-5
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	36.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	63.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~71.9~~ 935	1340	1.0	ug/Kg	32934		05/27/04 1232	dtn

0000060

* In Description = Dry Wgt.

JAM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-133(9.5-10)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-3
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	14000			88	1200	2.00000	ug/Kg	33159		05/28/04 1407	pam
	Toluene, High/Med Level*	10000			64	1200	2.00000	ug/Kg	33159		05/28/04 1407	pam
	Ethylbenzene, High/Med Level*	2800			63	1200	2.00000	ug/Kg	33159		05/28/04 1407	pam
	Xylenes (total), High/Med Level*	24000			240	1200	2.00000	ug/Kg	33159		05/28/04 1407	pam
ASTM D-2216												
	% Solids, Solid	86.3			0.10	0.10	1	%	33250		06/02/04 0000	msh
	% Moisture, Solid	13.7			0.10	0.10	1	%	33250		06/02/04 0000	msh

0000007

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-133(16-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-2
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.7			0.10	0.10	1	%	33190		06/01/04 0000	dwh
	% Moisture, Solid	12.3			0.10	0.10	1	%	33190		06/01/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	33231		05/25/04 1722	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33231		05/25/04 1722	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33231		05/25/04 1722	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	33231		05/25/04 1722	pam

9000000

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-133(16-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-2
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.7			0.10	0.10	1	%	33190		06/01/04 0000	dwh
	% Moisture, Solid	12.3			0.10	0.10	1	%	33190		06/01/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	2-Methylnaphthalene, Solid*	ND	U	J	31	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Phenanthrene, Solid*	ND	U	J	26	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Fluoranthene, Solid*	ND	U	J	24	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Pyrene, Solid*	ND	U	J	21	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Benzo(a)anthracene, Solid*	ND	U	J	16	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Chrysene, Solid*	ND	U	J	19	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	J	42	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Benzo(a)pyrene, Solid*	ND	U	J	18	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	J	20	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	J	20	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	33218		05/25/04 1819	jdw

0000026

* In Description = Dry Wgt.

Jan 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-133(16-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-2
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.7			0.10	0.10	1	%	33190		06/01/04 0000	dwh
	% Moisture, Solid	12.3			0.10	0.10	1	%	33190		06/01/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J M	0.012	1.6	1.0000	mg/Kg	32897		05/26/04 1806	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.2	B		1.7	11.2	1	mg/Kg	32951		05/26/04 1346	nnp
	Barium, Solid*	42.1			0.26	2.8	1	mg/Kg	32951		05/26/04 1346	nnp
	Cadmium, Solid*	ND	U		1.4	4.2	1	mg/Kg	32951		05/26/04 1346	nnp
	Chromium, Solid*	41.4 J		M	0.48	4.2	1	mg/Kg	32951		05/26/04 1346	nnp
	Lead, Solid*	2.4 J	B	M	1.1	12.6	1	mg/Kg	32951		05/26/04 1346	nnp
	Selenium, Solid*	ND	U		2.2	22.4	1	mg/Kg	32951		05/26/04 1346	nnp
	Silver, Solid*	ND	U		0.45	4.2	1	mg/Kg	32951		05/26/04 1346	nnp

0000041

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-133(16-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:15
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-2
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.7			0.10	0.10	1	%	33190		06/01/04 0000	dwh
	% Moisture, Solid	12.3			0.10	0.10	1	%	33190		06/01/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~30.1~~ 391	559	1.0	ug/Kg	32934		05/27/04 1231	dtn

* In Description = Dry Wgt.

0000059

jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-134(11-11.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-7
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	660 J	J		110	1500	2.00000	ug/Kg	33159		05/28/04 1512	pam
	Toluene, High/Med Level*	1200 J	J		82	1500	2.00000	ug/Kg	33159		05/28/04 1512	pam
	Ethylbenzene, High/Med Level*	1800			80	1500	2.00000	ug/Kg	33159		05/28/04 1512	pam
	Xylenes (total), High/Med Level*	1600			310	1500	2.00000	ug/Kg	33159		05/28/04 1512	pam
ASTM D-2216												
	% Solids, Solid	67.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	32.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-134(11-11.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-7
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	67.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	32.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	6200 J			750	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	2-Methylnaphthalene, Solid*	2000 J			660	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Acenaphthylene, Solid*	10000			260	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Acenaphthene, Solid*	4500 J			350	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Fluorene, Solid*	1300 J			470	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Phenanthrene, Solid*	22000 J			560	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Anthracene, Solid*	12000			280	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Fluoranthene, Solid*	35000 J			520	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Pyrene, Solid*	43000 J			440	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Benzo(a)anthracene, Solid*	20000 J			350	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Chrysene, Solid*	23000 J			400	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Benzo(b)fluoranthene, Solid*	9100 J		M	890	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Benzo(k)fluoranthene, Solid*	9100		M	910	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Benzo(a)pyrene, Solid*	15000 J			370	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	4900 J			420	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Dibenzo(a,h)anthracene, Solid*	3100 J		M	420	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw
	Benzo(ghi)perylene, Solid*	5700 J			400	7700	8.00000	ug/Kg	33219		05/28/04 2138	jdw

0000029

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-134(11-11.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-7
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	67.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	32.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.15 J	B	M	0.019	2.5	1.0000	mg/Kg	32897		05/26/04 1809	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	15.3			2.1	13.8	1	mg/Kg	32951		05/26/04 1404	nnp
	Barium, Solid*	139			0.32	3.4	1	mg/Kg	32951		05/26/04 1404	nnp
	Cadmium, Solid*	ND	U		1.7	5.2	1	mg/Kg	32951		05/26/04 1404	nnp
	Chromium, Solid*	19.4 J		M	0.58	5.2	1	mg/Kg	32951		05/26/04 1404	nnp
	Lead, Solid*	478 J		M	1.3	15.5	1	mg/Kg	32951		05/26/04 1404	nnp
	Selenium, Solid*	3.4	B		2.8	27.5	1	mg/Kg	32951		05/26/04 1404	nnp
	Silver, Solid*	ND	U		0.55	5.2	1	mg/Kg	32951		05/26/04 1404	nnp

0000044

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-134(11-11.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-7
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	67.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	32.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	1080	J		~~39.6~~ 500	736	1.0	ug/Kg	33079		05/28/04 1634	dtn

2900062

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-134(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-6
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	33231		05/25/04 1839	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33231		05/25/04 1839	pam
	Ethylbenzene, Solid*	0.6 J	J		0.5	6	1.00000	ug/Kg	33231		05/25/04 1839	pam
	Xylenes (total), Solid*	2 J	J		1	6	1.00000	ug/Kg	33231		05/25/04 1839	pam

OT00000

* In Description = Dry Wgt.

LAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-134(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-6
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	J	38	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	2-Methylnaphthalene, Solid*	ND	U	J	33	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Acenaphthylene, Solid*	ND	U		13	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Acenaphthene, Solid*	ND	U		18	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Fluorene, Solid*	ND	U		24	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Phenanthrene, Solid*	ND	U	J	29	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Anthracene, Solid*	ND	U		14	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Fluoranthene, Solid*	ND	U	J	26	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Pyrene, Solid*	ND	U	J	23	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Benzo(a)anthracene, Solid*	ND	U	J	18	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Chrysene, Solid*	ND	U	J	20	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	J	45	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		47	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Benzo(a)pyrene, Solid*	ND	U	J	19	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	J	22	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	J	22	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw
	Benzo(ghi)perylene, Solid*	ND	U		20	390	1.00000	ug/Kg	33218		05/25/04 1909	jdw

8270000

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-134(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-6
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J N	0.016	2.1	1.0000	mg/Kg	32897		05/26/04 1808	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.5	B		1.7	11.1	1	mg/Kg	32951		05/26/04 1358	nnp
	Barium, Solid*	61.1			0.26	2.8	1	mg/Kg	32951		05/26/04 1358	nnp
	Cadmium, Solid*	ND	U		1.4	4.2	1	mg/Kg	32951		05/26/04 1358	nnp
	Chromium, Solid*	33.4 J		N	0.47	4.2	1	mg/Kg	32951		05/26/04 1358	nnp
	Lead, Solid*	4.3 J	B	M	1.1	12.5	1	mg/Kg	32951		05/26/04 1358	nnp
	Selenium, Solid*	ND	U		2.2	22.3	1	mg/Kg	32951		05/26/04 1358	nnp
	Silver, Solid*	ND	U		0.45	4.2	1	mg/Kg	32951		05/26/04 1358	nnp

* In Description = Dry Wgt.

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-134(17-18)
Date Sampled.....: 05/19/2004
Time Sampled.....: 13:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-6
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	83.1			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	16.9			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~31.4~~ 409	584	1.0	ug/Kg	32934		05/27/04 1233	dtn

1900061

* In Description = Dry Wgt.

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-135(14.5-15)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-8
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	90 J			66	870	1.00000	ug/Kg	33159		05/28/04 1645	pam
	Toluene, High/Med Level*	94 J			48	870	1.00000	ug/Kg	33159		05/28/04 1645	pam
	Ethylbenzene, High/Med Level*	280 J			47	870	1.00000	ug/Kg	33159		05/28/04 1645	pam
	Xylenes (total), High/Med Level*	330 J			180	870	1.00000	ug/Kg	33159		05/28/04 1645	pam
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	42.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw

* In Description = Dry Wgt.

Jam 6/10/09

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-135(14.5-15)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-8
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	42.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	9600 J			1100	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	2-Methylnaphthalene, Solid*	5900 J			930	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Acenaphthylene, Solid*	10000 J			360	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Acenaphthene, Solid*	42000			500	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Fluorene, Solid*	ND	U		660	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Phenanthrene, Solid*	79000 J			800	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Anthracene, Solid*	27000			400	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Fluoranthene, Solid*	26000 J			730	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Pyrene, Solid*	41000 J			630	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Benzo(a)anthracene, Solid*	18000 J			500	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Chrysene, Solid*	21000 J			560	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Benzo(b)fluoranthene, Solid*	8800 J			1300	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Benzo(k)fluoranthene, Solid*	ND	U	J	1300	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Benzo(a)pyrene, Solid*	9300 J			530	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	3300 J			600	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Dibenzo(a,h)anthracene, Solid*	2000 J			600	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw
	Benzo(ghi)perylene, Solid*	4000 J			560	11000	10.00000	ug/Kg	33220		05/26/04 2346	jdw

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-135(14.5-15)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-8
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	42.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.4 J			0.023	3.0	1.0000	mg/Kg	32897		05/26/04 1812	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	33.1			2.5	16.4	1	mg/Kg	32951		05/26/04 1410	nnp
	Barium, Solid*	122			0.38	4.1	1	mg/Kg	32951		05/26/04 1410	nnp
	Cadmium, Solid*	ND	U		2.0	6.1	1	mg/Kg	32951		05/26/04 1410	nnp
	Chromium, Solid*	65.9 J			0.70	6.1	1	mg/Kg	32951		05/26/04 1410	nnp
	Lead, Solid*	358 J			1.6	18.4	1	mg/Kg	32951		05/26/04 1410	nnp
	Selenium, Solid*	ND	U		3.3	32.8	1	mg/Kg	32951		05/26/04 1410	nnp
	Silver, Solid*	0.78	B		0.66	6.1	1	mg/Kg	32951		05/26/04 1410	nnp

0000045

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-135(14.5-15)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-8
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	57.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	42.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~44.5~~ 579	827	1.0	ug/Kg	33079		05/28/04 1636	dtn

* In Description = Dry Wgt.

0000083

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-135(21-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-9
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	49.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	50.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U	J	1	10	1.00000	ug/Kg	33231		05/25/04 1913	pam
	Toluene, Solid*	9	J		0.8	10	1.00000	ug/Kg	33231		05/25/04 1913	pam
	Ethylbenzene, Solid*	14	J		0.8	10	1.00000	ug/Kg	33231		05/25/04 1913	pam
	Xylenes (total), Solid*	43	J		2	10	1.00000	ug/Kg	33231		05/25/04 1913	pam

0000013

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-135(21-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-9
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	49.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	50.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	U	1000	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	2-Methylnaphthalene, Solid*	ND	U	U	900	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Acenaphthylene, Solid*	ND	U	U	350	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Acenaphthene, Solid*	ND	U	U	480	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Fluorene, Solid*	ND	U	U	640	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Phenanthrene, Solid*	ND	U	U	770	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Anthracene, Solid*	ND	U	U	390	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Fluoranthene, Solid*	ND	U	U	710	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Pyrene, Solid*	ND	U	U	610	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Benzo(a)anthracene, Solid*	ND	U	U	480	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Chrysene, Solid*	ND	U	U	550	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	U	1200	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Benzo(k)fluoranthene, Solid*	ND	U	U	1300	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Benzo(a)pyrene, Solid*	1200 J		J	520	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	U	580	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	U	580	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw
	Benzo(ghi)perylene, Solid*	ND	U	U	550	11000	8.00000	ug/Kg	33221		05/28/04 2114	jdw

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-135(21-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-9
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	49.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	50.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J M	0.030	4.0	1.0000	mg/Kg	32897		05/26/04 1814	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	5.6 J	B		3.0	19.9	1	mg/Kg	32951		05/26/04 1416	nnp
	Barium, Solid*	95.6 J			0.46	5.0	1	mg/Kg	32951		05/26/04 1416	nnp
	Cadmium, Solid*	ND	U	J	2.5	7.5	1	mg/Kg	32951		05/26/04 1416	nnp
	Chromium, Solid*	25.6 J		M	0.85	7.5	1	mg/Kg	32951		05/26/04 1416	nnp
	Lead, Solid*	6.6 J	B	M	1.9	22.4	1	mg/Kg	32951		05/26/04 1416	nnp
	Selenium, Solid*	ND	U	J	4.0	39.8	1	mg/Kg	32951		05/26/04 1416	nnp
	Silver, Solid*	ND	U	J	0.80	7.5	1	mg/Kg	32951		05/26/04 1416	nnp

* In Description = Dry Wgt.

0000046

Jan 6/17/07

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-135(21-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-9
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	49.7			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	50.3			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~53.1~~ 690	986	1.0	ug/Kg	33079		05/28/04 1637	dtn

0000064

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(13-14)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-11
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	29.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		1	14	2.00000	ug/Kg	33252		06/01/04 1450	pam
	Toluene, Solid*	ND	U		1	14	2.00000	ug/Kg	33252		06/01/04 1450	pam
	Ethylbenzene, Solid*	2 J	J		1	14	2.00000	ug/Kg	33252		06/01/04 1450	pam
	Xylenes (total), Solid*	4 J	J		3	14	2.00000	ug/Kg	33252		06/01/04 1450	pam

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-136(13-14)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-11
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	29.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	5400 J			900	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	2-Methylnaphthalene, Solid*	2500 J			790	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Acenaphthylene, Solid*	5700 J			310	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Acenaphthene, Solid*	1100 J			420	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Fluorene, Solid*	1400 J		N	560	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Phenanthrene, Solid*	5300 J			680	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Anthracene, Solid*	4100 J			340	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Fluoranthene, Solid*	2800 J			620	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Pyrene, Solid*	49000 J			540	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Benzo(a)anthracene, Solid*	11000 J			420	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Chrysene, Solid*	12000 J			480	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Benzo(b)fluoranthene, Solid*	6400 J		M	1100	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Benzo(k)fluoranthene, Solid*	7400 J		M	1100	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Benzo(a)pyrene, Solid*	13000 J			450	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	3900 J			510	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Dibenzo(a,h)anthracene, Solid*	2300 J		N	510	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw
	Benzo(ghi)perylene, Solid*	4900 J			480	9300	10.00000	ug/Kg	33219		05/28/04 2203	jdw

0000033

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(13-14)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-11
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	29.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.59 J	B	N	0.019	2.6	1.0000	mg/Kg	32897		05/26/04 1816	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	18.0			2.2	14.2	1	mg/Kg	32951		05/26/04 1440	nnp
	Barium, Solid*	124			0.33	3.6	1	mg/Kg	32951		05/26/04 1440	nnp
	Cadmium, Solid*	ND	U		1.8	5.3	1	mg/Kg	32951		05/26/04 1440	nnp
	Chromium, Solid*	16.0 J		N	0.60	5.3	1	mg/Kg	32951		05/26/04 1440	nnp
	Lead, Solid*	426 J		N	1.3	16.0	1	mg/Kg	32951		05/26/04 1440	nnp
	Selenium, Solid*	3.3	B		2.8	28.4	1	mg/Kg	32951		05/26/04 1440	nnp
	Silver, Solid*	ND	U		0.57	5.3	1	mg/Kg	32951		05/26/04 1440	nnp

* In Description = Dry Wgt.

0000048

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(13-14)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-11
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	70.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	29.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~37.8~~ 492	703	1.0	ug/Kg	33079		05/28/04 1639	dtn

9900000

* In Description = Dry Wgt.

Jam 6/17/07

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(23-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-10
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	11.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	33231		05/25/04 1947	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33231		05/25/04 1947	pam
	Ethylbenzene, Solid*	1 J	J		0.5	6	1.00000	ug/Kg	33231		05/25/04 1947	pam
	Xylenes (total), Solid*	4 J	J		1	6	1.00000	ug/Kg	33231		05/25/04 1947	pam

AT00004
00001A

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(23-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-10
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	11.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	2-Methylnaphthalene, Solid*	ND	U	J	31	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Phenanthrene, Solid*	ND	U	J	27	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Fluoranthene, Solid*	ND	U	J	24	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Pyrene, Solid*	ND	U	J	21	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Benzo(a)anthracene, Solid*	ND	U	J	17	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Chrysene, Solid*	ND	U	J	19	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	J	42	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Benzo(k)fluoranthene, Solid*	ND	U	J	43	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Benzo(a)pyrene, Solid*	ND	U	J	18	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	J	20	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	J	20	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw
	Benzo(ghi)perylene, Solid*	ND	U	J	19	370	1.00000	ug/Kg	33218		05/25/04 2023	jdw

0000032

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(23-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-10
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	11.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.013	1.7	1.0000	mg/Kg	32897		05/26/04 1815	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.9			1.6	10.3	1	mg/Kg	32951		05/26/04 1422	nnp
	Barium, Solid*	9.5			0.24	2.6	1	mg/Kg	32951		05/26/04 1422	nnp
	Cadmium, Solid*	ND	U		1.3	3.9	1	mg/Kg	32951		05/26/04 1422	nnp
	Chromium, Solid*	16.9 J			0.44	3.9	1	mg/Kg	32951		05/26/04 1422	nnp
	Lead, Solid*	3.7 J			0.98	11.6	1	mg/Kg	32951		05/26/04 1422	nnp
	Selenium, Solid*	ND	U		2.1	20.6	1	mg/Kg	32951		05/26/04 1422	nnp
	Silver, Solid*	ND	U		0.41	3.9	1	mg/Kg	32951		05/26/04 1422	nnp

00000047

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-136(23-25)
Date Sampled.....: 05/19/2004
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-10
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	11.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~29.5~~ 384	549	1.0	ug/Kg	33079		05/28/04 1638	dtn

9900065

* In Description = Dry Wgt.

JAM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(18.5-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-13
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	31.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	33231		05/25/04 2021	pam
	Toluene, Solid*	ND	U		0.6	7	1.00000	ug/Kg	33231		05/25/04 2021	pam
	Ethylbenzene, Solid*	ND	U		0.6	7	1.00000	ug/Kg	33231		05/25/04 2021	pam
	Xylenes (total), Solid*	ND	U		2	7	1.00000	ug/Kg	33231		05/25/04 2021	pam

000017

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(18.5-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-13
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	31.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	15000 J	J		9000	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	2-Methylnaphthalene, Solid*	ND	U	J	7900	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Acenaphthylene, Solid*	92000 J	J		3100	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Acenaphthene, Solid*	77000 J	J		4200	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Fluorene, Solid*	22000 J	J		5600	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Phenanthrene, Solid*	380000 J			6700	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Anthracene, Solid*	190000			3400	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Fluoranthene, Solid*	220000 J			6200	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Pyrene, Solid*	390000 J			5300	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Benzo(a)anthracene, Solid*	140000 J			4200	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Chrysene, Solid*	160000 J			4800	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Benzo(b)fluoranthene, Solid*	49000 J	J	M	11000	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Benzo(k)fluoranthene, Solid*	55000 J	J	M	11000	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Benzo(a)pyrene, Solid*	93000 J			4500	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	28000 J	J		5100	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Dibenzo(a,h)anthracene, Solid*	17000 J	J	N	5100	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw
	Benzo(ghi)perylene, Solid*	36000 J	J		4800	93000	100.0000	ug/Kg	33219		05/28/04 2228	jdw

0000034

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(18.5-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-13
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	31.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	1.5 J		N	0.083	11.1	5.0000	mg/Kg	32897		05/26/04 1840	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	29.4			2.1	13.7	1	mg/Kg	32951		05/26/04 1453	nnp
	Barium, Solid*	102			0.31	3.4	1	mg/Kg	32951		05/26/04 1453	nnp
	Cadmium, Solid*	ND	U		1.7	5.1	1	mg/Kg	32951		05/26/04 1453	nnp
	Chromium, Solid*	43.4 J		N	0.58	5.1	1	mg/Kg	32951		05/26/04 1453	nnp
	Lead, Solid*	141 J		N	1.3	15.4	1	mg/Kg	32951		05/26/04 1453	nnp
	Selenium, Solid*	ND	U		2.7	27.3	1	mg/Kg	32951		05/26/04 1453	nnp
	Silver, Solid*	0.66	B		0.55	5.1	1	mg/Kg	32951		05/26/04 1453	nnp

* In Description = Dry Wgt.

0000050

JAM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(18.5-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:25
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-13
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	68.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	31.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~39.3~~ 512	731	1.0	ug/Kg	33079		05/28/04 1642	dtn

890008

* In Description = Dry Wgt.

JPM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(22.5-23.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-12
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		300	3900	5.00000	ug/Kg	33159		05/28/04 1715	pam
	Toluene, High/Med Level*	1200 J	J		220	3900	5.00000	ug/Kg	33159		05/28/04 1715	pam
	Ethylbenzene, High/Med Level*	66000			220	3900	5.00000	ug/Kg	33159		05/28/04 1715	pam
	Xylenes (total), High/Med Level*	29000			830	3900	5.00000	ug/Kg	33159		05/28/04 1715	pam
ASTM D-2216												
	% Solids, Solid	63.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw

* In Description = Dry Wgt.

JAM 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-137(22.5-23.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-12
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	63.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	2.3 J			0.099	13.1	5.0000	mg/Kg	32897		05/26/04 1837	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	25.6			2.4	15.6	1	mg/Kg	32951		05/26/04 1447	nnp
	Barium, Solid*	108			0.36	3.9	1	mg/Kg	32951		05/26/04 1447	nnp
	Cadmium, Solid*	ND	U		2.0	5.9	1	mg/Kg	32951		05/26/04 1447	nnp
	Chromium, Solid*	36.5 J			0.66	5.9	1	mg/Kg	32951		05/26/04 1447	nnp
	Lead, Solid*	336 J			1.5	17.6	1	mg/Kg	32951		05/26/04 1447	nnp
	Selenium, Solid*	ND	U		3.1	31.2	1	mg/Kg	32951		05/26/04 1447	nnp
	Silver, Solid*	ND	U		0.62	5.9	1	mg/Kg	32951		05/26/04 1447	nnp

0000049

* In Description = Dry Wgt.

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-137(22.5-23.5)
Date Sampled.....: 05/19/2004
Time Sampled.....: 08:10
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-12
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	63.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	36.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~39.7~~ 536	737	1.0	ug/Kg	32934		05/27/04 1222	dtn

* In Description = Dry Wgt.

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(32-34)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-14
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	33231		05/25/04 2055	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33231		05/25/04 2055	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33231		05/25/04 2055	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	33231		05/25/04 2055	pam

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(32-34)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-14
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		38	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	2-Methylnaphthalene, Solid*	ND	U	h	33	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Acenaphthylene, Solid*	ND	U		13	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Acenaphthene, Solid*	ND	U		18	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Fluorene, Solid*	ND	U		24	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Phenanthrene, Solid*	ND	U	h	28	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Anthracene, Solid*	ND	U		14	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Fluoranthene, Solid*	ND	U	h	26	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Pyrene, Solid*	ND	U	h	22	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Benzo(a)anthracene, Solid*	ND	U	h	18	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Chrysene, Solid*	ND	U	h	20	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	h	45	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		46	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Benzo(a)pyrene, Solid*	ND	U	h	19	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	h	21	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	h	21	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw
	Benzo(ghi)perylene, Solid*	ND	U		20	390	1.00000	ug/Kg	33218		05/25/04 2113	jdw

0000035

* In Description = Dry Wgt.

6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(32-34)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-14
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.012	1.6	1.0000	mg/Kg	32897		05/26/04 1819	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		1.8	11.8	1	mg/Kg	32951		05/26/04 1459	nnp
	Barium, Solid*	83.2			0.27	3.0	1	mg/Kg	32951		05/26/04 1459	nnp
	Cadmium, Solid*	ND	U		1.5	4.4	1	mg/Kg	32951		05/26/04 1459	nnp
	Chromium, Solid*	23.9 J			0.50	4.4	1	mg/Kg	32951		05/26/04 1459	nnp
	Lead, Solid*	6.2 J			1.1	13.3	1	mg/Kg	32951		05/26/04 1459	nnp
	Selenium, Solid*	ND	U		2.4	23.7	1	mg/Kg	32951		05/26/04 1459	nnp
	Silver, Solid*	ND	U		0.47	4.4	1	mg/Kg	32951		05/26/04 1459	nnp

T900051

* In Description = Dry Wgt.

Jam 6/7/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-137(32-34)
Date Sampled.....: 05/19/2004
Time Sampled.....: 09:05
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-14
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.5			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	9480 J			~~31.2~~ 406	580	1.0	ug/Kg	33079		05/28/04 1643	dtn

6900009

* In Description = Dry Wgt.

Jam 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-138(18-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-15
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	2300 J	J		280	3700	4.00000	ug/Kg	33173		06/01/04 1545	pam
	Toluene, High/Med Level*	7900			200	3700	4.00000	ug/Kg	33173		06/01/04 1545	pam
	Ethylbenzene, High/Med Level*	73000			200	3700	4.00000	ug/Kg	33173		06/01/04 1545	pam
	Xylenes (total), High/Med Level*	91000			770	3700	4.00000	ug/Kg	33173		06/01/04 1545	pam
ASTM D-2216												
	% Solids, Solid	54.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	45.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw

* In Description = Dry Wgt.

10/10/07

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-138(18-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-15
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	54.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	45.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	3.4 J	B	[illegible]	0.14	18.4	5.0000	mg/Kg	32897		05/26/04 1842	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	50.0			2.8	18.4	1	mg/Kg	32951		05/26/04 1505	nnp
	Barium, Solid*	269			0.42	4.6	1	mg/Kg	32951		05/26/04 1505	nnp
	Cadmium, Solid*	ND	U		2.3	6.9	1	mg/Kg	32951		05/26/04 1505	nnp
	Chromium, Solid*	69.5 J		[illegible]	0.78	6.9	1	mg/Kg	32951		05/26/04 1505	nnp
	Lead, Solid*	624 J		[illegible]	1.7	20.7	1	mg/Kg	32951		05/26/04 1505	nnp
	Selenium, Solid*	ND	U		3.7	36.8	1	mg/Kg	32951		05/26/04 1505	nnp
	Silver, Solid*	1.8	B		0.74	6.9	1	mg/Kg	32951		05/26/04 1505	nnp

0000052

* In Description = Dry Wgt.

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-138(18-20)
Date Sampled.....: 05/19/2004
Time Sampled.....: 11:00
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-15
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	54.4			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	45.6			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~49.4~~ 619	919	1.0	ug/Kg	32934		05/27/04 1223	dtn

0200000

* In Description = Dry Wgt.

JAM 6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-138(30-35)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-16
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	33232		05/26/04 1538	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33232		05/26/04 1538	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	33232		05/26/04 1538	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	33232		05/26/04 1538	pam

0700020

* In Description = Dry Wgt.

Jam 6/10/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-138(30-35)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-16
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J N	0.013	1.8	1.0000	mg/Kg	32897		05/26/04 1822	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.1	B		1.8	11.9	1	mg/Kg	32951		05/26/04 1513	nnp
	Barium, Solid*	104			0.27	3.0	1	mg/Kg	32951		05/26/04 1513	nnp
	Cadmium, Solid*	ND	U		1.5	4.5	1	mg/Kg	32951		05/26/04 1513	nnp
	Chromium, Solid*	225 J		N	0.50	4.5	1	mg/Kg	32951		05/26/04 1513	nnp
	Lead, Solid*	7.6 J	B	N	1.1	13.4	1	mg/Kg	32951		05/26/04 1513	nnp
	Selenium, Solid*	ND	U		2.4	23.8	1	mg/Kg	32951		05/26/04 1513	nnp
	Silver, Solid*	ND	U		0.48	4.5	1	mg/Kg	32951		05/26/04 1513	nnp

* In Description = Dry Wgt.

6/17/04

LABORATORY TEST RESULTS

Job Number: 206654

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-138(30-35)
Date Sampled.....: 05/19/2004
Time Sampled.....: 12:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206654-16
Date Received.....: 05/20/2004
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	84.2			0.10	0.10	1	%	33031		05/27/04 0000	sbw
	% Moisture, Solid	15.8			0.10	0.10	1	%	33031		05/27/04 0000	sbw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~30.4~~ 396	566	1.0	ug/Kg	33079		05/28/04 1648	dtn

* In Description = Dry Wgt.

JAM 6/1/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-139(7.5-10)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-1
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	26.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.7	7	1.00000	ug/Kg	33147		05/28/04 1942	pam
	Toluene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	33147		05/28/04 1942	pam
	Ethylbenzene, Solid*	ND	U		0.5	7	1.00000	ug/Kg	33147		05/28/04 1942	pam
	Xylenes (total), Solid*	ND	U		2	7	1.00000	ug/Kg	33147		05/28/04 1942	pam

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-139(7.5-10)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-1
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	26.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	400		JS	350	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	2-Methylnaphthalene, Solid*	ND	U		300	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Acenaphthylene, Solid*	1300		JS	120	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Acenaphthene, Solid*	8100			160	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Fluorene, Solid*	ND	U		220	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Phenanthrene, Solid*	1500		JS	260	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Anthracene, Solid*	7000			130	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Fluoranthene, Solid*	13000			240	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Pyrene, Solid*	19000			210	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Benzo(a)anthracene, Solid*	7900			160	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Chrysene, Solid*	7800			180	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Benzo(b)fluoranthene, Solid*	3500		JS	410	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Benzo(k)fluoranthene, Solid*	3400		JS	420	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Benzo(a)pyrene, Solid*	6300			170	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	2300		JS	200	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Dibenzo(a,h)anthracene, Solid*	1200		JS	200	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw
	Benzo(ghi)perylene, Solid*	2900		JS	180	3600	4.00000	ug/Kg	33291		06/02/04 2242	jdw

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/02/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-139(7.5-10)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-1
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	26.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.043 J			0.018	2.4	1.0000	mg/Kg	32889		05/26/04 1637	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.8			1.8	11.6	1	mg/Kg	32955		05/26/04 1858	nnp
	Barium, Solid*	50.4			0.27	2.9	1	mg/Kg	32955		05/26/04 1858	nnp
	Cadmium, Solid*	ND	U		1.4	4.3	1	mg/Kg	32955		05/26/04 1858	nnp
	Chromium, Solid*	25.9			0.49	4.3	1	mg/Kg	32955		05/26/04 1858	nnp
	Lead, Solid*	8.8 J			1.1	13.0	1	mg/Kg	32955		05/26/04 1858	nnp
	Selenium, Solid*	ND	U		2.3	23.2	1	mg/Kg	32955		05/26/04 1858	nnp
	Silver, Solid*	ND	U		0.46	4.3	1	mg/Kg	32955		05/26/04 1858	nnp

0000012

* In Description = Dry Wgt.

JAM 6/21/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-139(7.5-10)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:20
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-1
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	73.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	26.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U	J	~~35.7~~ 465	664	1.0	ug/Kg	33107		06/01/04 1418	dtn

* In Description = Dry Wgt.

00000015

6/21/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-139(13-15)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-3
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	460		JS	250	3300	5.00000	ug/Kg	33140		05/27/04 2008	pam
	Toluene, High/Med Level*	480		JS	190	3300	5.00000	ug/Kg	33140		05/27/04 2008	pam
	Ethylbenzene, High/Med Level*	58000			180	3300	5.00000	ug/Kg	33140		05/27/04 2008	pam
	Xylenes (total), High/Med Level*	22000			700	3300	5.00000	ug/Kg	33140		05/27/04 2008	pam
ASTM D-2216												
	% Solids, Solid	75.1			0.10	0.10	1	%	33250		06/02/04 0000	msh
	% Moisture, Solid	24.9			0.10	0.10	1	%	33250		06/02/04 0000	msh

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-139(16.5-18)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-2
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	43.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.9	9	1.00000	ug/Kg	33147		05/28/04 1840	pam
	Toluene, Solid*	2	J	J5	0.7	9	1.00000	ug/Kg	33147		05/28/04 1840	pam
	Ethylbenzene, Solid*	1	J	J5	0.7	9	1.00000	ug/Kg	33147		05/28/04 1840	pam
	Xylenes (total), Solid*	6	J	J5	2	9	1.00000	ug/Kg	33147		05/28/04 1840	pam

0000051

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-139(16.5-18)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-2
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	43.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		110	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	2-Methylnaphthalene, Solid*	ND	U		96	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Acenaphthylene, Solid*	ND	U		38	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Acenaphthene, Solid*	ND	U		52	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Fluorene, Solid*	ND	U		69	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Phenanthrene, Solid*	ND	U		83	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Anthracene, Solid*	ND	U		41	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Fluoranthene, Solid*	ND	U		76	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Pyrene, Solid*	ND	U		65	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Benzo(a)anthracene, Solid*	ND	U		52	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Chrysene, Solid*	ND	U		59	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		130	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		130	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Benzo(a)pyrene, Solid*	ND	U		55	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U	UJ9	62	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U	UJ9	62	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw
	Benzo(ghi)perylene, Solid*	ND	U		59	1100	1.00000	ug/Kg	33289		06/01/04 1953	jdw

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/02/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-139(16.5-18)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-2
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	43.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U	J	0.022	2.9	1.0000	mg/Kg	32889		05/26/04 1640	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	ND	U		2.5	16.1	1	mg/Kg	32955		05/26/04 1941	nnp
	Barium, Solid*	41.9		A	0.37	4.0	1	mg/Kg	32955		05/26/04 1941	nnp
	Cadmium, Solid*	ND	U		2.0	6.0	1	mg/Kg	32955		05/26/04 1941	nnp
	Chromium, Solid*	14.9			0.69	6.0	1	mg/Kg	32955		05/26/04 1941	nnp
	Lead, Solid*	4.1 J	B	M	1.5	18.1	1	mg/Kg	32955		05/26/04 1941	nnp
	Selenium, Solid*	ND	U		3.2	32.2	1	mg/Kg	32955		05/26/04 1941	nnp
	Silver, Solid*	ND	U		0.64	6.0	1	mg/Kg	32955		05/26/04 1941	nnp

0000013

* In Description = Dry Wgt.

6/21/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-139(16.5-18)
Date Sampled.....: 05/20/2004
Time Sampled.....: 14:40
Sample Matrix.....: Soil

Laboratory Sample ID: 206665-2
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	56.9			0.10	0.10	1	%	33182		06/01/04 0000	dwh
	% Moisture, Solid	43.1			0.10	0.10	1	%	33182		06/01/04 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND ~~66.6~~	~~B~~	UJ	~~45.9~~ 597	853	1.0	ug/Kg	33107		06/01/04 1419	dtn

* In Description = Dry Wgt.

00000016

6/21/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-FB042804
Date Sampled.....: 04/28/2004
Time Sampled.....: 08:35
Sample Matrix.....: Water

Laboratory Sample ID: 206467-1
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	31983		05/04/04 2013	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	31983		05/04/04 2013	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	31983		05/04/04 2013	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	31983		05/04/04 2013	pam

* In Description = Dry Wgt.

EMM 5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/11/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-FB042804
Date Sampled.....: 04/28/2004
Time Sampled.....: 08:35
Sample Matrix.....: Water

Laboratory Sample ID: 206467-1
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8270C	Semivolatile Organics											
	Naphthalene	ND	U	UJ9	0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	2-Methylnaphthalene	ND	U	UJ9	0.3	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Acenaphthylene	ND	U		0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Acenaphthene	ND	U		0.3	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Fluorene	ND	U		0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Phenanthrene	ND	U	UJ9	0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Anthracene	ND	U		0.5	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Fluoranthene	ND	U	UJ9	0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Pyrene	ND	U		0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Benzo(a)anthracene	ND	U		0.5	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Chrysene	ND	U	UJ9	0.6	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Benzo(b)fluoranthene	ND	U		1	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Benzo(k)fluoranthene	ND	U		0.3	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Benzo(a)pyrene	ND	U	UJ9	0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Dibenzo(a,h)anthracene	ND	U		0.5	11	1.00000	ug/L	32098		05/04/04 1334	hlr
	Benzo(ghi)perylene	ND	U		0.4	11	1.00000	ug/L	32098		05/04/04 1334	hlr

* In Description = Dry Wgt.

EMM
6/1/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-FB042804
Date Sampled.....: 04/28/2004
Time Sampled.....: 08:35
Sample Matrix.....: Water

Laboratory Sample ID: 206467-1
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.070	0.20	1.0000	ug/L	31886		05/03/04 1426	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		3.9	40.0	1	ug/L	31916		05/03/04 1656	nnp
	Barium	ND	U		0.74	5.0	1	ug/L	31916		05/03/04 1656	nnp
	Cadmium	ND	U		1.1	10.0	1	ug/L	31916		05/03/04 1656	nnp
	Chromium	ND	U		1.3	10.0	1	ug/L	31916		05/03/04 1656	nnp
	Lead	ND	U		3.0	10.0	1	ug/L	31916		05/03/04 1656	nnp
	Selenium	ND	U		5.0	30.0	1	ug/L	31916		05/03/04 1656	nnp
	Silver	ND	U		1.1	6.0	1	ug/L	31916		05/03/04 1656	nnp

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/10/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-FB042804
Date Sampled.....: 04/28/2004
Time Sampled.....: 08:35
Sample Matrix.....: Water

Laboratory Sample ID: 206467-1
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	ug/L	31899		05/03/04 1556	dtn

* In Description = Dry Wgt.

Jam 5/20/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB050404
Date Sampled.....: 05/04/2004
Time Sampled.....: 10:00
Sample Matrix.....: Water

Laboratory Sample ID: 206497-11
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	32308		05/14/04 1136	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	32308		05/14/04 1136	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	32308		05/14/04 1136	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	32308		05/14/04 1136	pam

00000016

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: FB050404
Date Sampled.....: 05/04/2004
Time Sampled.....: 10:00
Sample Matrix.....: Water

Laboratory Sample ID: 206497-11
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8270C	Semivolatile Organics											
	Naphthalene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Acenaphthylene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Acenaphthene	ND	U		0.3	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Fluorene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Phenanthrene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Anthracene	ND	U		0.5	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Fluoranthene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Pyrene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Chrysene	ND	U		0.6	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug/L	32339		05/06/04 2050	hlr
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug/L	32339		05/06/04 2050	hlr

* In Description = Dry Wgt.

EMM 6/9/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/20/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: FB050404
Date Sampled.....: 05/04/2004
Time Sampled.....: 10:00
Sample Matrix.....: Water

Laboratory Sample ID: 206497-11
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.070	0.20	1.0000	ug/L	32165		05/11/04 1116	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		3.9	40.0	1	ug/L	32458		05/17/04 1620	dwh
	Barium	ND	U		0.74	5.0	1	ug/L	32458		05/17/04 1620	dwh
	Cadmium	ND	U		1.1	10.0	1	ug/L	32458		05/17/04 1620	dwh
	Chromium	ND	U		1.3	10.0	1	ug/L	32458		05/17/04 1620	dwh
	Lead	ND	U		3.0	10.0	1	ug/L	32458		05/17/04 1620	dwh
	Selenium	ND	U		5.0	30.0	1	ug/L	32458		05/17/04 1620	dwh
	Silver	ND	U		1.1	6.0	1	ug/L	32458		05/17/04 1620	dwh

* In Description = Dry Wgt.

5/21/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/17/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: FB050404
Date Sampled.....: 05/04/2004
Time Sampled.....: 10:00
Sample Matrix.....: Water

Laboratory Sample ID: 206497-11
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	ug/L	32060		05/07/04 1647	dtn

* In Description = Dry Wgt.

Tom 5/27/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB-051304
Date Sampled.....: 05/13/2004
Time Sampled.....: 15:00
Sample Matrix.....: Water

Laboratory Sample ID: 206618-2
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	32516		05/18/04 1852	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	32516		05/18/04 1852	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	32516		05/18/04 1852	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	32516		05/18/04 1852	pam

* In Description = Dry Wgt.

Jpm 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: FB-051304
Date Sampled.....: 05/13/2004
Time Sampled.....: 15:00
Sample Matrix.....: Water

Laboratory Sample ID: 206618-2
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8270C	Semivolatile Organics											
	Naphthalene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Acenaphthylene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Acenaphthene	ND	U		0.3	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Fluorene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Phenanthrene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Anthracene	ND	U		0.5	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Fluoranthene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Pyrene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Chrysene	ND	U		0.6	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug/L	32943		05/20/04 1924	jdw
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug/L	32943		05/20/04 1924	jdw

* In Description = Dry Wgt.

Jdw 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB-051304
Date Sampled.....: 05/13/2004
Time Sampled.....: 15:00
Sample Matrix.....: Water

Laboratory Sample ID: 206618-2
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.070	0.20	1.0000	ug/L	32813		05/25/04 1408	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		3.9	40.0	1	ug/L	32852		05/25/04 1359	dwh
	Barium	ND	U		0.74	5.0	1	ug/L	32852		05/25/04 1359	dwh
	Cadmium	ND	U		1.1	10.0	1	ug/L	32852		05/25/04 1359	dwh
	Chromium	ND	U		1.3	10.0	1	ug/L	32852		05/25/04 1359	dwh
	Lead	ND	U		3.0	10.0	1	ug/L	32852		05/25/04 1359	dwh
	Selenium	ND	U		5.0	30.0	1	ug/L	32852		05/25/04 1359	dwh
	Silver	ND	U		1.1	6.0	1	ug/L	32852		05/25/04 1359	dwh

* In Description = Dry Wgt.

Jam 6/8/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/27/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB-051304
Date Sampled.....: 05/13/2004
Time Sampled.....: 15:00
Sample Matrix.....: Water

Laboratory Sample ID: 206618-2
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	ug/L	32922		05/26/04 1553	dtn

* In Description = Dry Wgt.

JAM 6/8/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB-052104
Date Sampled.....: 05/21/2004
Time Sampled.....: 09:15
Sample Matrix.....: Water

Laboratory Sample ID: 206665-4
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	33141		05/31/04 1757	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	33141		05/31/04 1757	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	33141		05/31/04 1757	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	33141		05/31/04 1757	pam

0000007

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/04/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB-052104
Date Sampled.....: 05/21/2004
Time Sampled.....: 09:15
Sample Matrix.....: Water

Laboratory Sample ID: 206665-4
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8270C	Semivolatile Organics											
	Naphthalene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Acenaphthylene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Acenaphthene	ND	U		0.3	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Fluorene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Phenanthrene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Anthracene	ND	U		0.5	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Fluoranthene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Pyrene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Chrysene	ND	U		0.6	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Benzo(b)fluoranthene	ND	U	VJH	1	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug/L	33290		05/25/04 1658	jdw
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug/L	33290		05/25/04 1658	jdw

TT00011

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/02/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: FB-052104
Date Sampled.....: 05/21/2004
Time Sampled.....: 09:15
Sample Matrix.....: Water

Laboratory Sample ID: 206665-4
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.070	0.20	1.0000	ug/L	32813		05/25/04 1412	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		3.9	40.0	1	ug/L	33132		05/26/04 1304	nnp
	Barium	ND	U		0.74	5.0	1	ug/L	33132		05/26/04 1304	nnp
	Cadmium	ND	U		1.1	10.0	1	ug/L	33132		05/26/04 1304	nnp
	Chromium	2.5	B		1.3	10.0	1	ug/L	33132		05/26/04 1304	nnp
	Lead	ND	U		3.0	10.0	1	ug/L	33132		05/26/04 1304	nnp
	Selenium	ND	U		5.0	30.0	1	ug/L	33132		05/26/04 1304	nnp
	Silver	ND	U		1.1	6.0	1	ug/L	33132		05/26/04 1304	nnp

0000014

* In Description = Dry Wgt.

6/21/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: FB-052104
Date Sampled.....: 05/21/2004
Time Sampled.....: 09:15
Sample Matrix.....: Water

Laboratory Sample ID: 206665-4
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	ug/L	33107		06/01/04 1420	dtn

* In Description = Dry Wgt.

00000017

6/21/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-TRIPBLANK
Date Sampled.....: 04/28/2004
Time Sampled.....: 10:30
Sample Matrix.....: Water

Laboratory Sample ID: 206467-2
Date Received.....: 04/28/2004
Time Received.....: 19:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	31983		05/04/04 1943	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	31983		05/04/04 1943	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	31983		05/04/04 1943	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	31983		05/04/04 1943	pam

* In Description = Dry Wgt.

EMM
5/26/04

LABORATORY TEST RESULTS

Job Number: 206467

Date:05/13/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB-043004
Date Sampled.....: 04/30/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206467-16
Date Received.....: 04/30/2004
Time Received.....: 15:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	31983		05/04/04 1913	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	31983		05/04/04 1913	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	31983		05/04/04 1913	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	31983		05/04/04 1913	pam

0000021

* In Description = Dry Wgt.

EMM
5/06/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB050304
Date Sampled.....: 05/03/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206497-10
Date Received.....: 05/04/2004
Time Received.....: 16:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	32308		05/14/04 1205	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	32308		05/14/04 1205	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	32308		05/14/04 1205	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	32308		05/14/04 1205	pam

0000015

* In Description = Dry Wgt.

GMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206497

Date:05/19/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB0506404
Date Sampled.....: 05/04/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206497-21
Date Received.....: 05/06/2004
Time Received.....: 18:35

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	32308		05/14/04 1235	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	32308		05/14/04 1235	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	32308		05/14/04 1235	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	32308		05/14/04 1235	pam

8200028

* In Description = Dry Wgt.

EMM 6/2/04

LABORATORY TEST RESULTS

Job Number: 206537

Date:05/24/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB-050704
Date Sampled.....: 05/07/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206537-4
Date Received.....: 05/07/2004
Time Received.....: 18:45

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	32309		05/13/04 1818	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	32309		05/13/04 1818	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	32309		05/13/04 1818	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	32309		05/13/04 1818	pam

* In Description = Dry Wgt.

6/1/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB-051404
Date Sampled.....: 05/14/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206618-3
Date Received.....: 05/14/2004
Time Received.....: 19:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U	J	0.5	5	1.00000	ug/L	32516		05/18/04 1922	pam
	Toluene	ND	U	J	0.4	5	1.00000	ug/L	32516		05/18/04 1922	pam
	Ethylbenzene	ND	U	J	0.5	5	1.00000	ug/L	32516		05/18/04 1922	pam
	Xylenes (total)	ND	U	J	0.9	5	1.00000	ug/L	32516		05/18/04 1922	pam

* In Description = Dry Wgt.

Jpm 6/18/04

LABORATORY TEST RESULTS

Job Number: 206618

Date:05/28/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB-051804
Date Sampled.....: 05/18/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206618-17
Date Received.....: 05/18/2004
Time Received.....: 19:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	32920		05/25/04 1210	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	32920		05/25/04 1210	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	32920		05/25/04 1210	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	32920		05/25/04 1210	pam

* In Description = Dry Wgt.

pam 6/18/04

LABORATORY TEST RESULTS

Job Number: 206665

Date:06/03/2004

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: TB-052104
Date Sampled.....: 05/21/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206665-5
Date Received.....: 05/21/2004
Time Received.....: 20:15

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.5	5	1.00000	ug/L	33141		05/31/04 1727	pam
	Toluene	ND	U		0.4	5	1.00000	ug/L	33141		05/31/04 1727	pam
	Ethylbenzene	ND	U		0.5	5	1.00000	ug/L	33141		05/31/04 1727	pam
	Xylenes (total)	ND	U		0.9	5	1.00000	ug/L	33141		05/31/04 1727	pam

8000000

* In Description = Dry Wgt.

EMM
6/16/04

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (33-33.5)
Date Sampled.....: 12/04/2001
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-1
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	11.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		110	548	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0028 J9	B		0.00037	0.038	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.1 J5	B		0.86	6390	1	mg/Kg	2090		01/03/02 1427	ckc
	Barium, Solid*	36.6	B		0.24	2130	1	mg/Kg	2090		01/03/02 1427	ckc
	Cadmium, Solid*	ND	U		0.30	2130	1	mg/Kg	2090		01/03/02 1427	ckc
	Chromium, Solid*	20.5	B		0.35	1060	1	mg/Kg	2090		01/03/02 1427	ckc
	Lead, Solid*	3.8 J16	B		1.0	5320	1	mg/Kg	2090		01/03/02 1427	ckc
	Selenium, Solid*	ND	U		1.7	10600	1	mg/Kg	2090		01/03/02 1427	ckc
	Silver, Solid*	ND	U		0.27	2130	1	mg/Kg	2090		01/03/02 1427	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U	a	27	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		120	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		18	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,2-oxybis (1-chloropropane), Solid*	~~ND~~ R9	U		20	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Hexachloroethane, Solid*	ND UJ9	U		24	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (33-33.5)
Date Sampled.....: 12/04/2001
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-1
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2-Chlorophenol, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Nitrobenzene, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Isophorone, Solid*	ND	U		26	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,4-Dimethylphenol, Solid*	ND	U		36	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Hexachlorobutadiene, Solid*	ND	U		37	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Naphthalene, Solid*	870			36	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,4-Dichlorophenol, Solid*	ND	U		34	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	4-Chloroaniline, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		11	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		50	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2-Methylnaphthalene, Solid*	310 35	J	a	31	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2-Nitroaniline, Solid*	ND	U		25	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2-Chloronaphthalene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		35	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2-Nitrophenol, Solid*	ND	U		31	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	3-Nitroaniline, Solid*	ND	U		20	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Dimethyl phthalate, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,4-Dinitrophenol, Solid*	ND	U		57	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Acenaphthylene, Solid*	60 35	J	a*	12	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Dibenzofuran, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	4-Nitrophenol, Solid*	ND	U		95	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (33-33.5)
Date Sampled.....: 12/04/2001
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-1
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		27	740	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Hexachlorobenzene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Diethyl phthalate, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Pentachlorophenol, Solid*	ND	U		48	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		31	1800	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Carbazole, Solid*	ND	U		25	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Di-n-butyl phthalate, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Fluoranthene, Solid*	ND	U		25	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Butyl benzyl phthalate, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		38	740	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		40	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Di-n-octyl phthalate, Solid*	ND	U		13	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		44	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/24/01 2121	jdw
8260B	Volatile Organics											
	Benzene, Solid*	12 J5	J		2	23	4.00000	ug/Kg	2011		12/14/01 1958	pam

* In Description = Dry Wgt.

fm 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (33-33.5)
Date Sampled.....: 12/04/2001
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-1
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	~~21~~ 23U	~~J~~	~~B~~	2	23	4.00000	ug/Kg	2011		12/14/01 1958	pam
	Ethylbenzene, Solid*	5 JS	J		2	23	4.00000	ug/Kg	2011		12/14/01 1958	pam
	Xylenes (total), Solid*	18 JS	J		5	23	4.00000	ug/Kg	2011		12/14/01 1958	pam

* In Description = Dry Wgt.

fm 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (54.5-55)
Date Sampled.....: 12/05/2001
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-2
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	11.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		107	537	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0038 J9	B		0.00049	0.051	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.5	B		0.62	4610	1	mg/Kg	2090		01/03/02 1433	ckc
	Barium, Solid*	72.5	B		0.18	1540	1	mg/Kg	2090		01/03/02 1433	ckc
	Cadmium, Solid*	0.33 J9	B		0.21	1540	1	mg/Kg	2090		01/03/02 1433	ckc
	Chromium, Solid*	15.3	B		0.25	768	1	mg/Kg	2090		01/03/02 1433	ckc
	Lead, Solid*	7.4 J16	B		0.72	3840	1	mg/Kg	2090		01/03/02 1433	ckc
	Selenium, Solid*	ND	U		1.2	7680	1	mg/Kg	2090		01/03/02 1433	ckc
	Silver, Solid*	ND	U		0.20	1540	1	mg/Kg	2090		01/03/02 1433	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		120	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		18	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,2-oxybis (1-chloropropane), Solid*	~~ND~~ R9	U		20	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Hexachloroethane, Solid*	ND UJ9	U		23	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (54.5-55)
Date Sampled.....: 12/05/2001
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-2
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2-Chlorophenol, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Nitrobenzene, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Isophorone, Solid*	ND	U		26	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,4-Dimethylphenol, Solid*	ND	U		36	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Hexachlorobutadiene, Solid*	ND	U		37	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Naphthalene, Solid*	ND	U		36	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,4-Dichlorophenol, Solid*	ND	U		34	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	4-Chloroaniline, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		11	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		50	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2-Nitroaniline, Solid*	ND	U		25	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2-Chloronaphthalene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		35	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2-Nitrophenol, Solid*	ND	U		31	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	3-Nitroaniline, Solid*	ND	U		20	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Dimethyl phthalate, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,4-Dinitrophenol, Solid*	ND	U		57	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Acenaphthylene, Solid*	ND	U	*	12	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Dibenzofuran, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	4-Nitrophenol, Solid*	ND	U		95	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (54.5-55)
Date Sampled.....: 12/05/2001
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-2
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		27	740	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Hexachlorobenzene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Diethyl phthalate, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Pentachlorophenol, Solid*	ND	U		48	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		31	1800	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Carbazole, Solid*	ND	U		25	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Di-n-butyl phthalate, Solid*	ND	U		16	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Fluoranthene, Solid*	ND	U		25	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Butyl benzyl phthalate, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		38	740	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		40	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Di-n-octyl phthalate, Solid*	ND	U		13	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		44	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/24/01 2202	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	2011		12/15/01 1400	pam

* In Description = Dry Wgt.

for 1/24/02

Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (54.5-55)
Date Sampled.....: 12/05/2001
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-2
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	ND	U	B	0.5	6	1.00000	ug/Kg	2011		12/15/01 1400	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	2011		12/15/01 1400	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	2011		12/15/01 1400	pam

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (33-33.5)
Date Sampled.....: 12/04/2001
Time Sampled.....: 17:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-1
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	11.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.00283	B		0.00037	0.038	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.135	B		0.86	8.5	1	mg/Kg	2090		01/03/02 1427	ckc
	Barium, Solid*	36.6			0.24	2.1	1	mg/Kg	2090		01/03/02 1427	ckc
	Cadmium, Solid*	ND	U		0.30	3.2	1	mg/Kg	2090		01/03/02 1427	ckc
	Chromium, Solid*	20.5			0.35	3.2	1	mg/Kg	2090		01/03/02 1427	ckc
	Lead, Solid*	3.8 J1b	B		1.0	9.6	1	mg/Kg	2090		01/03/02 1427	ckc
	Selenium, Solid*	ND	U		1.7	17.0	1	mg/Kg	2090		01/03/02 1427	ckc
	Silver, Solid*	ND	U		0.27	3.2	1	mg/Kg	2090		01/03/02 1427	ckc

Laboratory revised metals (MDL/RL) results for 200201, 200079, and 200201.

No changes for 200239 and 200102.

1/30/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-68 (54.5-55)
Date Sampled.....: 12/05/2001
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-2
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	11.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0038	B	J7	0.00049	0.051	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.5	B		0.62	6.1	1	mg/Kg	2090		01/03/02 1433	ckc
	Barium, Solid*	72.5			0.18	1.5	1	mg/Kg	2090		01/03/02 1433	ckc
	Cadmium, Solid*	0.33 J5	B		0.21	2.3	1	mg/Kg	2090		01/03/02 1433	ckc
	Chromium, Solid*	15.3			0.25	2.3	1	mg/Kg	2090		01/03/02 1433	ckc
	Lead, Solid*	7.4 J16			0.72	6.9	1	mg/Kg	2090		01/03/02 1433	ckc
	Selenium, Solid*	ND	U		1.2	12.3	1	mg/Kg	2090		01/03/02 1433	ckc
	Silver, Solid*	ND	U		0.20	2.3	1	mg/Kg	2090		01/03/02 1433	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (33-33.5)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:25
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-3
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.9			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.1			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		109	545	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.00098J9	B		0.00033	0.034	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.3	B		0.76	5590	1	mg/Kg	2090		01/03/02 1457	ckc
	Barium, Solid*	33.8	B		0.21	1860	1	mg/Kg	2090		01/03/02 1457	ckc
	Cadmium, Solid*	0.30 J5	B		0.26	1860	1	mg/Kg	2090		01/03/02 1457	ckc
	Chromium, Solid*	39.7	B		0.31	932	1	mg/Kg	2090		01/03/02 1457	ckc
	Lead, Solid*	3.8 J16	B		0.88	4660	1	mg/Kg	2090		01/03/02 1457	ckc
	Selenium, Solid*	ND	U		1.5	9320	1	mg/Kg	2090		01/03/02 1457	ckc
	Silver, Solid*	ND	U		0.24	1860	1	mg/Kg	2090		01/03/02 1457	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		5200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		22000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		3400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		4100	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		3900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		3400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND J9	U		3900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		3000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Hexachloroethane, Solid*	ND UJ9	U		4500	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw

* In Description = Dry Wgt.

for 1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (33-33.5)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:25
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-3
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		3900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2-Chlorophenol, Solid*	ND	U		5200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Nitrobenzene, Solid*	ND	U		5400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		3000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		5400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Isophorone, Solid*	ND	U		4900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,4-Dimethylphenol, Solid*	ND	U		6900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Hexachlorobutadiene, Solid*	ND	U		7100	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Naphthalene, Solid*	290000			6900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,4-Dichlorophenol, Solid*	ND	U		6400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	4-Chloroaniline, Solid*	ND	U		5400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		3900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		2100	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		9700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2-Methylnaphthalene, Solid*	240000			6000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2-Nitroaniline, Solid*	ND	U		4700	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2-Chloronaphthalene, Solid*	ND	U		4100	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		6700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		3000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2-Nitrophenol, Solid*	ND	U		6000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	3-Nitroaniline, Solid*	ND	U		3900	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Dimethyl phthalate, Solid*	ND	U		3200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,4-Dinitrophenol, Solid*	ND	U		11000	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Acenaphthylene, Solid*	9000 JS	J	a*	2400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		4100	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Acenaphthene, Solid*	97000			3200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Dibenzofuran, Solid*	6000 JS	J	a	3200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	4-Nitrophenol, Solid*	ND	U		18000	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Fluorene, Solid*	49000 JS	J	a	4300	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (33-33.5)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:25
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-3
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		5200	140000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		2800	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Hexachlorobenzene, Solid*	ND	U		4100	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Diethyl phthalate, Solid*	ND	U		3700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		3400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Pentachlorophenol, Solid*	ND	U		9200	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		3400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		6000	340000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Phenanthrene, Solid*	140000			5200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Anthracene, Solid*	39000 JS	J	a	2600	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Carbazole, Solid*	ND	U		4700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Di-n-butyl phthalate, Solid*	ND	U		3000	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Fluoranthene, Solid*	33000 JS	J	a	4700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Pyrene, Solid*	52000 JS	J	a	4100	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Butyl benzyl phthalate, Solid*	ND	U		2800	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Benzo(a)anthracene, Solid*	18000 JS	J	a	3200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Chrysene, Solid*	18000 JS	J	a	3700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		7300	140000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		7700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Di-n-octyl phthalate, Solid*	ND	U		2600	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		8200	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		8400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Benzo(a)pyrene, Solid*	ND	U		3400	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		3900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		3900	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
	Benzo(ghi)perylene, Solid*	ND	U		3700	71000	200.0000	ug/Kg	2072		01/03/02 1931	jdw
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		4700	52000	100.000	ug/Kg	2011		12/13/01 0250	pam

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (33-33.5)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:25
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-3
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, High/Med Level*	ND	U	B	9100	52000	100.000	ug/Kg	2011		12/13/01 0250	pam
	Ethylbenzene, High/Med Level*	95000		H	7900	52000	100.000	ug/Kg	2011		12/13/01 0250	pam
	Xylenes (total), High/Med Level*	97000			27000	52000	100.000	ug/Kg	2011		12/13/01 0250	pam

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (44.5-45)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-4
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.2			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		111	555	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0011 J9	B		0.00029	0.030	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.0	B		0.66	4910	1	mg/Kg	2090		01/03/02 1503	ckc
	Barium, Solid*	75.5	B		0.19	1640	1	mg/Kg	2090		01/03/02 1503	ckc
	Cadmium, Solid*	0.30 J5	B		0.23	1640	1	mg/Kg	2090		01/03/02 1503	ckc
	Chromium, Solid*	16.2	B		0.27	818	1	mg/Kg	2090		01/03/02 1503	ckc
	Lead, Solid*	7.3 J16	B		0.77	4090	1	mg/Kg	2090		01/03/02 1503	ckc
	Selenium, Solid*	ND	U		1.3	8180	1	mg/Kg	2090		01/03/02 1503	ckc
	Silver, Solid*	ND	U		0.21	1640	1	mg/Kg	2090		01/03/02 1503	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		110	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		18	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND R9	U		20	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Hexachloroethane, Solid*	ND UJ9	U		23	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (44.5-45)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-4
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2-Chlorophenol, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Nitrobenzene, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Isophorone, Solid*	ND	U		25	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,4-Dimethylphenol, Solid*	ND	U		35	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Hexachlorobutadiene, Solid*	ND	U		37	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Naphthalene, Solid*	330 JS	J	a	35	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,4-Dichlorophenol, Solid*	ND	U		33	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	4-Chloroaniline, Solid*	ND	U		28	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		11	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		50	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2-Methylnaphthalene, Solid*	200 JS	J	a	31	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2-Nitroaniline, Solid*	ND	U		24	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2-Chloronaphthalene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		34	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2-Nitrophenol, Solid*	ND	U		31	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	3-Nitroaniline, Solid*	ND	U		20	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Dimethyl phthalate, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,4-Dinitrophenol, Solid*	ND UJ4	U		56	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Acenaphthylene, Solid*	ND	U	*	12	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Acenaphthene, Solid*	51 JS	J	a	17	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Dibenzofuran, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	4-Nitrophenol, Solid*	ND UJ4	U		94	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw

* In Description = Dry Wgt.

for 1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (44.5-45)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-4
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		27	730	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		14	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Hexachlorobenzene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Diethyl phthalate, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Pentachlorophenol, Solid*	ND	U		48	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		31	1800	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Carbazole, Solid*	ND	U		24	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Di-n-butyl phthalate, Solid*	ND	U		15	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Fluoranthene, Solid*	ND	U		24	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Butyl benzyl phthalate, Solid*	ND	U		14	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		38	730	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		40	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Di-n-octyl phthalate, Solid*	ND	U		13	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	2072		12/27/01 1849	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	2011		12/15/01 1548	pam

* In Description = Dry Wgt.

fm 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (44.5-45)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-4
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	ND	U	B	0.4	6	1.00000	ug/Kg	2011		12/15/01 1548	pam
	Ethylbenzene, Solid*	3 J3	J		0.4	6	1.00000	ug/Kg	2011		12/15/01 1548	pam
	Xylenes (total), Solid*	2 J3	J		1	6	1.00000	ug/Kg	2011		12/15/01 1548	pam

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (33-33.5)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:25
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-3
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.9			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.1			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.00098	B	J9	0.00033	0.034	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.3	B		0.76	7.5	1	mg/Kg	2090		01/03/02 1457	ckc
	Barium, Solid*	33.8			0.21	1.9	1	mg/Kg	2090		01/03/02 1457	ckc
	Cadmium, Solid*	0.30	J5	B	0.26	2.8	1	mg/Kg	2090		01/03/02 1457	ckc
	Chromium, Solid*	39.7			0.31	2.8	1	mg/Kg	2090		01/03/02 1457	ckc
	Lead, Solid*	3.8	J16	B	0.88	8.4	1	mg/Kg	2090		01/03/02 1457	ckc
	Selenium, Solid*	ND		U	1.5	14.9	1	mg/Kg	2090		01/03/02 1457	ckc
	Silver, Solid*	ND		U	0.24	2.8	1	mg/Kg	2090		01/03/02 1457	ckc

fm 1/30/02

* In Description = Dry Wgt.

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-69 (44.5-45)
Date Sampled.....: 12/05/2001
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-4
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.2			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0011	B	J9	0.00029	0.030	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.0	B		0.66	6.5	1	mg/Kg	2090		01/03/02 1503	ckc
	Barium, Solid*	75.5			0.19	1.6	1	mg/Kg	2090		01/03/02 1503	ckc
	Cadmium, Solid*	0.30 J5	B		0.23	2.5	1	mg/Kg	2090		01/03/02 1503	ckc
	Chromium, Solid*	16.2			0.27	2.5	1	mg/Kg	2090		01/03/02 1503	ckc
	Lead, Solid*	7.3 J16	B		0.77	7.4	1	mg/Kg	2090		01/03/02 1503	ckc
	Selenium, Solid*	ND	U		1.3	13.1	1	mg/Kg	2090		01/03/02 1503	ckc
	Silver, Solid*	ND	U		0.21	2.5	1	mg/Kg	2090		01/03/02 1503	ckc

fm
1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (31.5-32)
Date Sampled.....: 12/07/2001
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-6
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	77.2			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	22.8			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		126	629	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.00033	0.034	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.1	B		0.86	6370	1	mg/Kg	2090		01/03/02 1509	ckc
	Barium, Solid*	83.6	B		0.24	2120	1	mg/Kg	2090		01/03/02 1509	ckc
	Cadmium, Solid*	0.58 J3	B		0.30	2120	1	mg/Kg	2090		01/03/02 1509	ckc
	Chromium, Solid*	72.0	B		0.35	1060	1	mg/Kg	2090		01/03/02 1509	ckc
	Lead, Solid*	9.5 J16	B		1.0	5310	1	mg/Kg	2090		01/03/02 1509	ckc
	Selenium, Solid*	ND	U		1.7	10600	1	mg/Kg	2090		01/03/02 1509	ckc
	Silver, Solid*	ND	U		0.27	2120	1	mg/Kg	2090		01/03/02 1509	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		77000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		330000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		51000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		61000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		58000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		51000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND R9	U		58000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		45000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Hexachloroethane, Solid*	ND UJ9	U		67000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (31.5-32)
Date Sampled.....: 12/07/2001
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-6
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		58000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2-Chlorophenol, Solid*	ND	U		77000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Nitrobenzene, Solid*	ND	U		80000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		45000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		80000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Isophorone, Solid*	ND	U		74000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,4-Dimethylphenol, Solid*	ND	U		100000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Hexachlorobutadiene, Solid*	ND	U		110000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Naphthalene, Solid*	7100000			100000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,4-Dichlorophenol, Solid*	ND	U		96000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	4-Chloroaniline, Solid*	ND	U		80000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		58000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		32000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		140000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2-Methylnaphthalene, Solid*	5300000			90000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2-Nitroaniline, Solid*	ND	U		71000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2-Chloronaphthalene, Solid*	ND	U		61000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		99000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		45000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2-Nitrophenol, Solid*	ND	U		90000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	3-Nitroaniline, Solid*	ND	U		58000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Dimethyl phthalate, Solid*	ND	U		48000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,4-Dinitrophenol, Solid*	ND UJ4	U		160000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Acenaphthylene, Solid*	250000 J3	J	a*	35000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		61000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Acenaphthene, Solid*	1700000			48000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Dibenzofuran, Solid*	120000 J3	J	a	48000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	4-Nitrophenol, Solid*	ND UJ4	U		270000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Fluorene, Solid*	1000000 J3	J	a	64000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw

* In Description = Dry Wgt.

fm 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (31.5-32)
Date Sampled.....: 12/07/2001
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-6
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		77000	2100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		42000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Hexachlorobenzene, Solid*	ND	U		61000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Diethyl phthalate, Solid*	ND	U		55000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		51000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Pentachlorophenol, Solid*	ND	U		140000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		51000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND UJ4	U		90000	5100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Phenanthrene, Solid*	2400000			77000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Anthracene, Solid*	690000 JS	J	a	38000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Carbazole, Solid*	ND	U		71000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Di-n-butyl phthalate, Solid*	ND	U		45000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Fluoranthene, Solid*	670000 JS	J	a	71000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Pyrene, Solid*	920000 JS	J	a	61000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Butyl benzyl phthalate, Solid*	ND	U		42000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Benzo(a)anthracene, Solid*	360000 JS	J	a	48000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Chrysene, Solid*	390000 JS	J	a	55000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		110000	2100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		120000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Di-n-octyl phthalate, Solid*	ND	U		38000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	a	120000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Benzo(k)fluoranthene, Solid*	150000 JS	J	a	130000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Benzo(a)pyrene, Solid*	210000 JS	J	a	51000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		58000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		58000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
	Benzo(ghi)perylene, Solid*	ND	U		55000	1100000	500.0000	ug/Kg	2072		12/29/01 1909	jdw
8260B	Volatile Organics											
	Benzene, High/Med Level*	140000		H	5700	64000	100.000	ug/Kg	2011		12/13/01 1720	pam

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (31.5-32)
Date Sampled.....: 12/07/2001
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-6
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, High/Med Level*	120000		B	11000	64000	100.000	ug/Kg	2011		12/13/01 1720	pam
	Ethylbenzene, High/Med Level*	390000		H	9700	64000	100.000	ug/Kg	2011		12/13/01 1720	pam
	Xylenes (total), High/Med Level*	490000			33000	64000	100.000	ug/Kg	2011		12/13/01 1720	pam

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (31.5-32)
Date Sampled.....: 12/07/2001
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-6
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	77.2			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	22.8			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.00033	0.034	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.1	B		0.86	8.5	1	mg/Kg	2090		01/03/02 1509	ckc
	Barium, Solid*	83.6			0.24	2.1	1	mg/Kg	2090		01/03/02 1509	ckc
	Cadmium, Solid*	0.58 J5	B		0.30	3.2	1	mg/Kg	2090		01/03/02 1509	ckc
	Chromium, Solid*	72.0			0.35	3.2	1	mg/Kg	2090		01/03/02 1509	ckc
	Lead, Solid*	9.5 J16	B		1.0	9.6	1	mg/Kg	2090		01/03/02 1509	ckc
	Selenium, Solid*	ND	U		1.7	17.0	1	mg/Kg	2090		01/03/02 1509	ckc
	Silver, Solid*	ND	U		0.27	3.2	1	mg/Kg	2090		01/03/02 1509	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (54.5-55)
Date Sampled.....: 12/07/2001
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-7
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		105	527	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0022 J9	B		0.00036	0.036	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6	B		0.66	4880	1	mg/Kg	2090		01/03/02 1534	ckc
	Barium, Solid*	69.9	B		0.19	1630	1	mg/Kg	2090		01/03/02 1534	ckc
	Cadmium, Solid*	0.28 J5	B		0.23	1630	1	mg/Kg	2090		01/03/02 1534	ckc
	Chromium, Solid*	17.8	B		0.27	813	1	mg/Kg	2090		01/03/02 1534	ckc
	Lead, Solid*	6.9 J16	B		0.76	4070	1	mg/Kg	2090		01/03/02 1534	ckc
	Selenium, Solid*	ND	U		1.3	8130	1	mg/Kg	2090		01/03/02 1534	ckc
	Silver, Solid*	ND	U		0.21	1630	1	mg/Kg	2090		01/03/02 1534	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		26	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		110	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		17	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		21	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		19	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		17	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND R9	U		19	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		15	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Hexachloroethane, Solid*	ND UJ9	U		23	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (54.5-55)
Date Sampled.....: 12/07/2001
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-7
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		19	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2-Chlorophenol, Solid*	ND	U		26	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Nitrobenzene, Solid*	ND	U		27	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		15	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		27	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Isophorone, Solid*	ND	U		25	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,4-Dimethylphenol, Solid*	ND	U		35	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Hexachlorobutadiene, Solid*	ND	U		36	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Naphthalene, Solid*	530			35	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,4-Dichlorophenol, Solid*	ND	U		32	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	4-Chloroaniline, Solid*	ND	U		27	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		19	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		11	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		49	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2-Methylnaphthalene, Solid*	ND	U	a	30	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2-Nitroaniline, Solid*	ND	U		24	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2-Chloronaphthalene, Solid*	ND	U		21	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		34	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		15	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2-Nitrophenol, Solid*	ND	U		30	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	3-Nitroaniline, Solid*	ND	U		19	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Dimethyl phthalate, Solid*	ND	U		16	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,4-Dinitrophenol, Solid*	ND VJ4	U		55	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Acenaphthylene, Solid*	ND	U	*	12	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		21	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Dibenzofuran, Solid*	ND	U		16	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	4-Nitrophenol, Solid*	ND VJ4	U		92	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw

* In Description = Dry Wgt.

1/24/02

Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (54.5-55)
Date Sampled.....: 12/07/2001
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-7
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		26	710	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		14	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Hexachlorobenzene, Solid*	ND	U		21	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Diethyl phthalate, Solid*	ND	U		18	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		17	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Pentachlorophenol, Solid*	ND	U		46	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		17	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		30	1700	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Carbazole, Solid*	ND	U		24	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Di-n-butyl phthalate, Solid*	ND	U		15	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Butyl benzyl phthalate, Solid*	ND	U		14	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Chrysene, Solid*	ND	U		18	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		37	710	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		39	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Di-n-octyl phthalate, Solid*	ND	U		13	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		19	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		19	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
	Benzo(ghi)perylene, Solid*	ND	U		18	360	1.00000	ug/Kg	2072		12/27/01 1929	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	2011		12/15/01 1624	pam

* In Description = Dry Wgt.

1/14/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (54.5-55)
Date Sampled.....: 12/07/2001
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-7
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	ND	U	B	0.4	6	1.00000	ug/Kg	2011		12/15/01 1624	pam
	Ethylbenzene, Solid*	2 JS	J		0.4	6	1.00000	ug/Kg	2011		12/15/01 1624	pam
	Xylenes (total), Solid*	2 JS	J		1	6	1.00000	ug/Kg	2011		12/15/01 1624	pam

* In Description = Dry Wgt.

tm 1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-70A (54.5-55)
Date Sampled.....: 12/07/2001
Time Sampled.....: 11:05
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-7
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0022	B	J9	0.00036	0.036	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6	B		0.66	6.5	1	mg/Kg	2090		01/03/02 1534	ckc
	Barium, Solid*	69.9			0.19	1.6	1	mg/Kg	2090		01/03/02 1534	ckc
	Cadmium, Solid*	0.28 J5	B		0.23	2.4	1	mg/Kg	2090		01/03/02 1534	ckc
	Chromium, Solid*	17.8			0.27	2.4	1	mg/Kg	2090		01/03/02 1534	ckc
	Lead, Solid*	6.9 J1b	B		0.76	7.3	1	mg/Kg	2090		01/03/02 1534	ckc
	Selenium, Solid*	ND	U		1.3	13.0	1	mg/Kg	2090		01/03/02 1534	ckc
	Silver, Solid*	ND	U		0.21	2.4	1	mg/Kg	2090		01/03/02 1534	ckc

fm 1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-30-30.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-14
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	86.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	13.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		115	577	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0068	0.70	1	mg/Kg	2069		01/04/02 1556	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.1	B		0.64	4770	1	mg/Kg	2090		01/03/02 1558	ckc
	Barium, Solid*	66.0	B		0.18	1590	1	mg/Kg	2090		01/03/02 1558	ckc
	Cadmium, Solid*	0.34 J5	B		0.22	1590	1	mg/Kg	2090		01/03/02 1558	ckc
	Chromium, Solid*	41.6	B		0.26	796	1	mg/Kg	2090		01/03/02 1558	ckc
	Lead, Solid*	8.4 J16	B		0.75	3980	1	mg/Kg	2090		01/03/02 1558	ckc
	Selenium, Solid*	ND	U		1.3	7960	1	mg/Kg	2090		01/03/02 1558	ckc
	Silver, Solid*	ND	U		0.20	1590	1	mg/Kg	2090		01/03/02 1558	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		27	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		120	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		22	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		16	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	24	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-30-30.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-14
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Chlorophenol, Solid*	ND	U		27	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Nitrobenzene, Solid*	ND	U		28	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		16	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		28	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Isophorone, Solid*	ND	U		26	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,4-Dimethylphenol, Solid*	ND	U		36	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Hexachlorobutadiene, Solid*	ND	U		38	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Naphthalene, Solid*	ND	U		36	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,4-Dichlorophenol, Solid*	ND	U		34	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	4-Chloroaniline, Solid*	ND	U		28	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,4,5-Trichlorophenol, Solid*	ND UJ9	U		11	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Hexachlorocyclopentadiene, Solid*	ND UJ9, UJ4	U		51	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Methylnaphthalene, Solid*	ND	U		32	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Nitroaniline, Solid*	ND	U		25	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Chloronaphthalene, Solid*	ND	U		22	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		35	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		16	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Nitrophenol, Solid*	ND	U		32	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	3-Nitroaniline, Solid*	ND	U		20	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Dimethyl phthalate, Solid*	ND	U		17	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,4-Dinitrophenol, Solid*	ND	U		58	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Acenaphthylene, Solid*	ND	U		13	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		22	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Acenaphthene, Solid*	ND	U		17	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Dibenzofuran, Solid*	ND	U		17	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	4-Nitrophenol, Solid*	ND	U		97	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Fluorene, Solid*	ND	U		23	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw

* In Description = Dry Wgt.

tpm 1/29/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-30-30.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-14
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		27	750	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		15	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Hexachlorobenzene, Solid*	ND	U		22	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Diethyl phthalate, Solid*	ND	U		19	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Pentachlorophenol, Solid*	ND	U		49	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		32	1800	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Phenanthrene, Solid*	ND	U		27	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Anthracene, Solid*	ND	U		14	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Carbazole, Solid*	ND	U		25	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Di-n-butyl phthalate, Solid*	ND	U		16	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Fluoranthene, Solid*	ND	U		25	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Pyrene, Solid*	ND	U		22	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Butyl benzyl phthalate, Solid*	ND	U		15	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Chrysene, Solid*	ND	U		19	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		39	750	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		41	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Di-n-octyl phthalate, Solid*	ND	U		14	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		43	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		44	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		19	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
8260B	Volatile Organics											
	Benzene, Solid*	2 J5	J		0.6	6	1.00000	ug/Kg	2011		12/17/01 1953	pam

* In Description = Dry Wgt.

hpm 1/29/10

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-30-30.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-14
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	5 6.0 U6	J	B	0.5	6	1.00000	ug/Kg	2011		12/17/01 1953	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	2011		12/17/01 1953	pam
	Xylenes (total), Solid*	1 J5	J		1	6	1.00000	ug/Kg	2011		12/17/01 1953	pam

* In Description = Dry Wgt.

1/29/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-30-30.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-14
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	86.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	13.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U		0.0068	0.70	1	mg/Kg	2069		01/04/02 1556	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.1		B		0.64	6.4	1	mg/Kg	2090		01/03/02 1558	ckc
	Barium, Solid*	66.0				0.18	1.6	1	mg/Kg	2090		01/03/02 1558	ckc
	Cadmium, Solid*	0.34 J5		B		0.22	2.4	1	mg/Kg	2090		01/03/02 1558	ckc
	Chromium, Solid*	41.6				0.26	2.4	1	mg/Kg	2090		01/03/02 1558	ckc
	Lead, Solid*	8.4 J16				0.75	7.2	1	mg/Kg	2090		01/03/02 1558	ckc
	Selenium, Solid*	ND		U		1.3	12.7	1	mg/Kg	2090		01/03/02 1558	ckc
	Silver, Solid*	ND		U		0.20	2.4	1	mg/Kg	2090		01/03/02 1558	ckc

1/20/02

* In Description = Dry Wgt.

Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

USTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-30-30.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-14
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	86.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	13.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* (revised)	ND UJ9	U		115	577	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0068	0.70	1	mg/Kg	2069		01/04/02 1556	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.1	B		0.64	4770	1	mg/Kg	2090		01/03/02 1558	ckc
	Barium, Solid*	66.0	B		0.18	1590	1	mg/Kg	2090		01/03/02 1558	ckc
	Cadmium, Solid*	0.34 J5	B		0.22	1590	1	mg/Kg	2090		01/03/02 1558	ckc
	Chromium, Solid*	41.6	B		0.26	796	1	mg/Kg	2090		01/03/02 1558	ckc
	Lead, Solid*	8.4 J16	B		0.75	3980	1	mg/Kg	2090		01/03/02 1558	ckc
	Selenium, Solid*	ND	U		1.3	7960	1	mg/Kg	2090		01/03/02 1558	ckc
	Silver, Solid*	ND	U		0.20	1590	1	mg/Kg	2090		01/03/02 1558	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		27	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		120	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		22	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		20	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		16	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	24	380	1.00000	ug/Kg	2073		12/20/01 1716	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-44-45
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:45
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-15
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		111	553	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0063	0.65	1	mg/Kg	2069		01/04/02 1558	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.4	B		0.77	5670	1	mg/Kg	2090		01/03/02 1604	ckc
	Barium, Solid*	65.0	B		0.22	1890	1	mg/Kg	2090		01/03/02 1604	ckc
	Cadmium, Solid*	0.30 JS	B		0.26	1890	1	mg/Kg	2090		01/03/02 1604	ckc
	Chromium, Solid*	20.3	B		0.31	945	1	mg/Kg	2090		01/03/02 1604	ckc
	Lead, Solid*	8.3 JW	B		0.89	4730	1	mg/Kg	2090		01/03/02 1604	ckc
	Selenium, Solid*	ND	U		1.5	9450	1	mg/Kg	2090		01/03/02 1604	ckc
	Silver, Solid*	ND	U		0.24	1890	1	mg/Kg	2090		01/03/02 1604	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		26	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		110	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,3-Dichlorobenzene, Solid*	ND VJ9	U	*	18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,4-Dichlorobenzene, Solid*	ND VJ9	U		21	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,2-Dichlorobenzene, Solid*	ND VJ9	U	*	20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Hexachloroethane, Solid*	ND VJ9	U	*	23	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-44-45
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:45
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-15
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Chlorophenol, Solid*	ND	U		26	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Nitrobenzene, Solid*	ND	U		27	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		27	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Isophorone, Solid*	ND	U		25	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,4-Dimethylphenol, Solid*	ND	U		35	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Hexachlorobutadiene, Solid*	ND	U		36	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,4-Dichlorophenol, Solid*	ND	U		33	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	4-Chloroaniline, Solid*	ND	U		27	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,4,5-Trichlorophenol, Solid*	ND UJ9	U		11	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Hexachlorocyclopentadiene, Solid*	ND UJ9, UJ4	U		49	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Nitroaniline, Solid*	ND	U		24	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Chloronaphthalene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		34	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Nitrophenol, Solid*	ND	U		31	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	3-Nitroaniline, Solid*	ND	U		20	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Dimethyl phthalate, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,4-Dinitrophenol, Solid*	ND	U		56	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Dibenzofuran, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	4-Nitrophenol, Solid*	ND	U		93	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-44-45
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:45
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-15
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		26	720	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		14	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Hexachlorobenzene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Diethyl phthalate, Solid*	ND	U		19	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Pentachlorophenol, Solid*	ND	U		47	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		31	1800	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Carbazole, Solid*	ND	U		24	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Di-n-butyl phthalate, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Butyl benzyl phthalate, Solid*	ND	U		14	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		37	720	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	260 J5	J	a	39	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Di-n-octyl phthalate, Solid*	ND	U		13	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		19	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	2011		12/17/01 2029	pam

* In Description = Dry Wgt.

1/28/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-44-45
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:45
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-15
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	4 6U6	U	B	0.4	6	1.00000	ug/Kg	2011		12/17/01 2029	pam
	Ethylbenzene, Solid*	0.7 JS	J		0.4	6	1.00000	ug/Kg	2011		12/17/01 2029	pam
	Xylenes (total), Solid*	2 JS	J		1	6	1.00000	ug/Kg	2011		12/17/01 2029	pam

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-44-45
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:45
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-15
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0063	0.65	1	mg/Kg	2069		01/04/02 1558	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.4	B		0.77	7.6	1	mg/Kg	2090		01/03/02 1604	ckc
	Barium, Solid*	65.0			0.22	1.9	1	mg/Kg	2090		01/03/02 1604	ckc
	Cadmium, Solid*	0.30 J5	B		0.26	2.8	1	mg/Kg	2090		01/03/02 1604	ckc
	Chromium, Solid*	20.3			0.31	2.8	1	mg/Kg	2090		01/03/02 1604	ckc
	Lead, Solid*	8.3 J1c	B		0.89	8.5	1	mg/Kg	2090		01/03/02 1604	ckc
	Selenium, Solid*	ND	U		1.5	15.1	1	mg/Kg	2090		01/03/02 1604	ckc
	Silver, Solid*	ND	U		0.24	2.8	1	mg/Kg	2090		01/03/02 1604	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: GEI CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-71-44-45
Date Sampled.....: 12/11/2001
Time Sampled.....: 15:45
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-15
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	9.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* (revised)	ND UJ9	U		111	553	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids (AM 2/4/02)											
	Mercury, Solid*	ND	U		0.0063	0.65	1	mg/Kg	2069		01/04/02 1558	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.4	B		0.77	5670	1	mg/Kg	2090		01/03/02 1604	ckc
	Barium, Solid*	65.0	B		0.22	1890	1	mg/Kg	2090		01/03/02 1604	ckc
	Cadmium, Solid*	0.30 J$	B		0.26	1890	1	mg/Kg	2090		01/03/02 1604	ckc
	Chromium, Solid*	20.3	B		0.31	945	1	mg/Kg	2090		01/03/02 1604	ckc
	Lead, Solid*	8.3 J16	B		0.89	4730	1	mg/Kg	2090		01/03/02 1604	ckc
	Selenium, Solid*	ND	U		1.5	9450	1	mg/Kg	2090		01/03/02 1604	ckc
	Silver, Solid*	ND	U		0.24	1890	1	mg/Kg	2090		01/03/02 1604	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		26	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		110	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		21	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	23	360	1.00000	ug/Kg	2073		12/20/01 1757	jdw

* In Description = Dry Wgt.

jm 1/24/02

LABORATORY TEST RESULTS

Job Number: 200239

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-72-24.5-25
Date Sampled.....: 12/12/2001
Time Sampled.....: 08:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-2
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	87.5			0.10	0.10	1	%	1979		01/03/02 0000	ksw
	% Moisture, Solid	12.5			0.10	0.10	1	%	1979		01/03/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		113	566	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0056	0.058	1	mg/Kg	2069		01/04/02 1613	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.8	B		0.82	8.1	1	mg/Kg	2261		01/10/02 1324	ckc
	Barium, Solid*	52.7			0.23	2.0	1	mg/Kg	2261		01/10/02 1324	ckc
	Cadmium, Solid*	0.35 JS,	B	JS	0.28	3.0	1	mg/Kg	2261		01/10/02 1324	ckc
	Chromium, Solid*	75.8			0.33	3.0	1	mg/Kg	2261		01/10/02 1324	ckc
	Lead, Solid*	6.8 JM	B		0.95	9.1	1	mg/Kg	2261		01/10/02 1324	ckc
	Selenium, Solid*	ND	U		1.6	16.2	1	mg/Kg	2261		01/10/02 1324	ckc
	Silver, Solid*	ND	U		0.26	3.0	1	mg/Kg	2261		01/10/02 1324	ckc
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		36	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Fluoranthene, Solid*	ND	U		24	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw

* In Description = Dry Wgt.

for 1/20/02

Job Number: 200239

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-72-24.5-25
Date Sampled.....: 12/12/2001
Time Sampled.....: 08:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-2
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		20	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		19	370	1.00000	ug/Kg	2266		12/20/01 1301	jdw
82608	Volatile Organics											
	Benzene, Solid*	2 J5	J		0.6	6	1.00000	ug/Kg	2005		12/17/01 2253	pam
	Toluene, Solid*	+ 6U6	U	B	0.5	6	1.00000	ug/Kg	2005		12/17/01 2253	pam
	Ethylbenzene, Solid*	0.5 J5	J		0.5	6	1.00000	ug/Kg	2005		12/17/01 2253	pam
	Xylenes (total), Solid*	2 J5	J		1	6	1.00000	ug/Kg	2005		12/17/01 2253	pam

* In Description = Dry Wgt.

1/20/02

LABORATORY TEST RESULTS

Job Number: 200239

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-72-48-49
Date Sampled.....: 12/12/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-1
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	83.1			0.10	0.10	1	%	1979		01/03/02 0000	ksw
	% Moisture, Solid	16.9			0.10	0.10	1	%	1979		01/03/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		120	602	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0067	0.069	1	mg/Kg	2069		01/04/02 1611	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.0			0.72	7.1	1	mg/Kg	2261		01/10/02 1318	ckc
	Barium, Solid*	56.2			0.21	1.8	1	mg/Kg	2261		01/10/02 1318	ckc
	Cadmium, Solid*	ND UJ	U		0.25	2.7	1	mg/Kg	2261		01/10/02 1318	ckc
	Chromium, Solid*	11.1			0.29	2.7	1	mg/Kg	2261		01/10/02 1318	ckc
	Lead, Solid*	6.4 J			0.84	8.0	1	mg/Kg	2261		01/10/02 1318	ckc
	Selenium, Solid*	ND	U		1.4	14.3	1	mg/Kg	2261		01/10/02 1318	ckc
	Silver, Solid*	ND	U		0.23	2.7	1	mg/Kg	2261		01/10/02 1318	ckc
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1600			38	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	2-Methylnaphthalene, Solid*	1200			33	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Acenaphthylene, Solid*	120 J	J	a	13	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Acenaphthene, Solid*	20 J	J	a	18	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Fluorene, Solid*	ND	U		24	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Phenanthrene, Solid*	ND	U		28	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Anthracene, Solid*	ND	U		14	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Fluoranthene, Solid*	ND	U		26	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Pyrene, Solid*	ND	U		22	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 200239

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-72-48-49
Date Sampled.....: 12/12/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-1
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzo(a)anthracene, Solid*	ND	U		18	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Chrysene, Solid*	ND	U		20	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		45	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		46	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Benzo(a)pyrene, Solid*	ND	U		19	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		21	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		20	390	1.00000	ug/Kg	2266		12/20/01 1220	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	2005		12/17/01 2217	pam
	Toluene, Solid*	ND	U	B	0.5	6	1.00000	ug/Kg	2005		12/17/01 2217	pam
	Ethylbenzene, Solid*	0.5 J3	J		0.5	6	1.00000	ug/Kg	2005		12/17/01 2217	pam
	Xylenes (total), Solid*	2 J3	J		1	6	1.00000	ug/Kg	2005		12/17/01 2217	pam

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 200239

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-73-30-31
Date Sampled.....: 12/12/2001
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-3
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.7			0.10	0.10	1	%	1979		01/03/02 0000	ksw
	% Moisture, Solid	10.3			0.10	0.10	1	%	1979		01/03/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND		U	111	557	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.0060	0.062	1	mg/Kg	2069		01/04/02 1615	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.0		B	0.75	7.4	1	mg/Kg	2261		01/10/02 1330	ckc
	Barium, Solid*	61.3			0.21	1.9	1	mg/Kg	2261		01/10/02 1330	ckc
	Cadmium, Solid*	0.34 JB,		B	J 0.26	2.8	1	mg/Kg	2261		01/10/02 1330	ckc
	Chromium, Solid*	82.2			0.31	2.8	1	mg/Kg	2261		01/10/02 1330	ckc
	Lead, Solid*	6.6 JB		B	0.87	8.4	1	mg/Kg	2261		01/10/02 1330	ckc
	Selenium, Solid*	ND		U	1.5	14.9	1	mg/Kg	2261		01/10/02 1330	ckc
	Silver, Solid*	ND		U	0.24	2.8	1	mg/Kg	2261		01/10/02 1330	ckc
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND		U	35	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	2-Methylnaphthalene, Solid*	ND		U	31	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Acenaphthylene, Solid*	ND		U	12	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Acenaphthene, Solid*	ND		U	16	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Fluorene, Solid*	ND		U	22	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Phenanthrene, Solid*	ND		U	26	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Anthracene, Solid*	ND		U	13	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Fluoranthene, Solid*	ND		U	24	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Pyrene, Solid*	ND		U	21	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 200239

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-73-30-31
Date Sampled.....: 12/12/2001
Time Sampled.....: 11:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-3
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		20	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		19	360	1.00000	ug/Kg	2266		12/20/01 1432	jdw
8260B	Volatile Organics											
	Benzene, Solid*	2 J5 → 6U6	J		0.6	6	1.00000	ug/Kg	2005		12/17/01 2329	pam
	Toluene, Solid*		U		0.4	6	1.00000	ug/Kg	2005		12/17/01 2329	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	2005		12/17/01 2329	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	2005		12/17/01 2329	pam

* In Description = Dry Wgt.

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Job Number: 200239

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-73-54-55
Date Sampled.....: 12/12/2001
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-4
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	83.2			0.10	0.10	1	%	1979		01/03/02 0000	ksw
	% Moisture, Solid	16.8			0.10	0.10	1	%	1979		01/03/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		118	589	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0070	0.072	1	mg/Kg	2069		01/04/02 1617	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.2	B		0.84	8.3	1	mg/Kg	2261		01/10/02 1337	ckc
	Barium, Solid*	33.0			0.24	2.1	1	mg/Kg	2261		01/10/02 1337	ckc
	Cadmium, Solid*	ND UJ g	U		0.29	3.1	1	mg/Kg	2261		01/10/02 1337	ckc
	Chromium, Solid*	9.9			0.34	3.1	1	mg/Kg	2261		01/10/02 1337	ckc
	Lead, Solid*	5.4 J[illegible]	B		0.97	9.3	1	mg/Kg	2261		01/10/02 1337	ckc
	Selenium, Solid*	ND	U		1.6	16.6	1	mg/Kg	2261		01/10/02 1337	ckc
	Silver, Solid*	ND	U		0.27	3.1	1	mg/Kg	2261		01/10/02 1337	ckc
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		37	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	2-Methylnaphthalene, Solid*	ND	U		33	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Acenaphthylene, Solid*	ND	U		13	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Acenaphthene, Solid*	ND	U		18	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Fluorene, Solid*	ND	U		23	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Phenanthrene, Solid*	ND	U		28	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Anthracene, Solid*	ND	U		14	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Fluoranthene, Solid*	ND	U		26	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Pyrene, Solid*	ND	U		22	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 200239

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-73-54-55
Date Sampled.....: 12/12/2001
Time Sampled.....: 12:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200239-4
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzo(a)anthracene, Solid*	ND	U		18	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Chrysene, Solid*	ND	U		20	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		44	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		46	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Benzo(a)pyrene, Solid*	ND	U		19	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		21	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		20	390	1.00000	ug/Kg	2266		12/20/01 1514	jdw
8260B	Volatile Organics											
	Benzene, Solid*	3 J5	J		0.6	6	1.00000	ug/Kg	2005		12/18/01 0005	pam
	Toluene, Solid*	3 6U6	↓	B	0.5	6	1.00000	ug/Kg	2005		12/18/01 0005	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	2005		12/18/01 0005	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	2005		12/18/01 0005	pam

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-21-21.5
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-18
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	19.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		123	613	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0054	0.55	1	mg/Kg	2069		01/04/02 1607	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6	B		0.64	4770	1	mg/Kg	2090		01/03/02 1622	ckc
	Barium, Solid*	36.0	B		0.18	1590	1	mg/Kg	2090		01/03/02 1622	ckc
	Cadmium, Solid*	0.39 J5	B		0.22	1590	1	mg/Kg	2090		01/03/02 1622	ckc
	Chromium, Solid*	46.1	B		0.26	794	1	mg/Kg	2090		01/03/02 1622	ckc
	Lead, Solid*	5.2 J16	B		0.75	3970	1	mg/Kg	2090		01/03/02 1622	ckc
	Selenium, Solid*	ND	U		1.3	7940	1	mg/Kg	2090		01/03/02 1622	ckc
	Silver, Solid*	ND	U		0.20	1590	1	mg/Kg	2090		01/03/02 1622	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		3000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		13000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		2300	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		1700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	2600	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-21-21.5
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-18
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Chlorophenol, Solid*	ND	U		3000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Nitrobenzene, Solid*	ND	U		3100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		1700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		3100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Isophorone, Solid*	ND	U		2800	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,4-Dimethylphenol, Solid*	ND	U		4000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Hexachlorobutadiene, Solid*	ND	U		4100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Naphthalene, Solid*	180000			4000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,4-Dichlorophenol, Solid*	ND	U		3700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	4-Chloroaniline, Solid*	ND	U		3100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,4,5-Trichlorophenol, Solid*	ND UJ9	U		1200	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Hexachlorocyclopentadiene, Solid*	ND UJ9	U		5600	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Methylnaphthalene, Solid*	190000			3500	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Nitroaniline, Solid*	ND	U		2700	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Chloronaphthalene, Solid*	ND	U		2300	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		3800	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		1700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Nitrophenol, Solid*	ND	U		3500	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	3-Nitroaniline, Solid*	ND	U		2200	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Dimethyl phthalate, Solid*	ND	U		1900	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,4-Dinitrophenol, Solid*	ND UJ4	U		6300	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Acenaphthylene, Solid*	8100 JS	J	a	1400	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		2300	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Acenaphthene, Solid*	27000 JS	J	a	1900	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Dibenzofuran, Solid*	6500 JS	J	a	1900	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	4-Nitrophenol, Solid*	ND UJ4	U		11000	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Fluorene, Solid*	41000 JS	J	a	2500	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw

* In Description = Dry Wgt.

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Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-21-21.5
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-18
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		3000	82000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		1600	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Hexachlorobenzene, Solid*	ND	U		2300	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Diethyl phthalate, Solid*	ND	U		2100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Pentachlorophenol, Solid*	ND	U		5300	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		3500	200000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Phenanthrene, Solid*	100000			3000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Anthracene, Solid*	21000 JS	J	a	1500	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Carbazole, Solid*	ND	U		2700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Di-n-butyl phthalate, Solid*	ND	U		1700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Fluoranthene, Solid*	27000 JS	J	a	2700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Pyrene, Solid*	47000			2300	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Butyl benzyl phthalate, Solid*	ND	U		1600	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Benzo(a)anthracene, Solid*	17000 JS	J	a	1900	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Chrysene, Solid*	18000 JS	J	a	2100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		4200	82000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		4400	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Di-n-octyl phthalate, Solid*	ND	U		1500	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Benzo(b)fluoranthene, Solid*	6100 JS	J	a	4700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Benzo(k)fluoranthene, Solid*	7000 JS	J	a	4800	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Benzo(a)pyrene, Solid*	13000 JS	J	a	2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	3100 JS	J	a	2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Benzo(ghi)perylene, Solid*	ND	U		2100	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
8260B	Volatile Organics											
	Benzene, High/Med Level*	3800 JS	J		500	5600	10.0000	ug/Kg	2011		12/21/01 1622	pam

* In Description = Dry Wgt.

tm 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-21-21.5
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-18
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, High/Med Level*	6400		B	980	5600	10.0000	ug/Kg	2011		12/21/01 1622	pam
	Ethylbenzene, High/Med Level*	30000			850	5600	10.0000	ug/Kg	2011		12/21/01 1622	pam
	Xylenes (total), High/Med Level*	36000			2900	5600	10.0000	ug/Kg	2011		12/21/01 1622	pam

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 — Date:01/11/2002

STONER: GEI/ATLANTIC ENVIRONMENTAL — PROJECT: GEI CLIFTON MGP — ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-21-21.5
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-18
Date Received.....: 12/12/2001
Time Received.....: 20:00

EST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	19.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* (reused)	ND UJ9	U		123	613	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0054	0.55	1	mg/Kg	2069		01/04/02 1607	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6	B		0.64	4770	1	mg/Kg	2090		01/03/02 1622	ckc
	Barium, Solid*	36.0	B		0.18	1590	1	mg/Kg	2090		01/03/02 1622	ckc
	Cadmium, Solid*	0.39 J5	B		0.22	1590	1	mg/Kg	2090		01/03/02 1622	ckc
	Chromium, Solid*	46.1	B		0.26	794	1	mg/Kg	2090		01/03/02 1622	ckc
	Lead, Solid*	5.2 J16	B		0.75	3970	1	mg/Kg	2090		01/03/02 1622	ckc
	Selenium, Solid*	ND	U		1.3	7940	1	mg/Kg	2090		01/03/02 1622	ckc
	Silver, Solid*	ND	U		0.20	1590	1	mg/Kg	2090		01/03/02 1622	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		3000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		13000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		2300	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		2000	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		2200	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		1700	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	2600	41000	100.0000	ug/Kg	2073		12/27/01 2332	jdw

* In Description = Dry Wgt.

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-21-21.5
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-18
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	19.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0054	0.55	1	mg/Kg	2069		01/04/02 1607	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6	B		0.64	6.4	1	mg/Kg	2090		01/03/02 1622	ckc
	Barium, Solid*	36.0			0.18	1.6	1	mg/Kg	2090		01/03/02 1622	ckc
	Cadmium, Solid*	0.39 J5	B		0.22	2.4	1	mg/Kg	2090		01/03/02 1622	ckc
	Chromium, Solid*	46.1			0.26	2.4	1	mg/Kg	2090		01/03/02 1622	ckc
	Lead, Solid*	5.2 J10	B		0.75	7.1	1	mg/Kg	2090		01/03/02 1622	ckc
	Selenium, Solid*	ND	U		1.3	12.7	1	mg/Kg	2090		01/03/02 1622	ckc
	Silver, Solid*	ND	U		0.20	2.4	1	mg/Kg	2090		01/03/02 1622	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-34.5-35
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-19
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.0			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.0			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		107	534	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0067	0.68	1	mg/Kg	2069		01/04/02 1609	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.0	B		0.68	5010	1	mg/Kg	2090		01/03/02 1628	ckc
	Barium, Solid*	82.7	B		0.19	1670	1	mg/Kg	2090		01/03/02 1628	ckc
	Cadmium, Solid*	0.29 J5	B		0.23	1670	1	mg/Kg	2090		01/03/02 1628	ckc
	Chromium, Solid*	15.7	B		0.28	835	1	mg/Kg	2090		01/03/02 1628	ckc
	Lead, Solid*	8.2 J16	B		0.79	4180	1	mg/Kg	2090		01/03/02 1628	ckc
	Selenium, Solid*	ND	U		1.3	8350	1	mg/Kg	2090		01/03/02 1628	ckc
	Silver, Solid*	ND	U		0.21	1670	1	mg/Kg	2090		01/03/02 1628	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U	a	26	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		110	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		21	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	23	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw

* In Description = Dry Wgt.

1/29/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-34.5-35
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-19
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Chlorophenol, Solid*	ND	U		26	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Nitrobenzene, Solid*	ND	U		27	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		27	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Isophorone, Solid*	ND	U		25	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,4-Dimethylphenol, Solid*	ND	U		35	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Hexachlorobutadiene, Solid*	ND	U		36	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Naphthalene, Solid*	530			35	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,4-Dichlorophenol, Solid*	ND	U		33	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	4-Chloroaniline, Solid*	ND	U		27	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,4,5-Trichlorophenol, Solid*	ND U3Y	U		11	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Hexachlorocyclopentadiene, Solid*	ND U3Y, U34	U		49	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Methylnaphthalene, Solid*	ND	U	a	30	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Nitroaniline, Solid*	ND	U		24	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Chloronaphthalene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		34	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Nitrophenol, Solid*	ND	U		30	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	3-Nitroaniline, Solid*	ND	U		20	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Dimethyl phthalate, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,4-Dinitrophenol, Solid*	ND	U		55	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Dibenzofuran, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	4-Nitrophenol, Solid*	ND	U		92	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw

* In Description = Dry Wgt.

jdw 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-34.5-35
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-19
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		26	720	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		14	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Hexachlorobenzene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Diethyl phthalate, Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Pentachlorophenol, Solid*	ND	U		47	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		30	1700	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Carbazole, Solid*	ND	U		24	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Di-n-butyl phthalate, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Butyl benzyl phthalate, Solid*	ND	U		14	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Chrysene, Solid*	ND	U		18	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		37	720	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		39	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Di-n-octyl phthalate, Solid*	ND	U		13	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND U14	U		20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Benzo(ghi)perylene, Solid*	ND U14	U		18	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
8260B	Volatile Organics											
	Benzene, Solid*	13			0.6	6	1.00000	ug/Kg	2011		12/17/01 2141	pam

* In Description = Dry Wgt.

1/24/02

Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-34.5-35
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-19
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	13		B	0.4	6	1.00000	ug/Kg	2011		12/17/01 2141	pam
	Ethylbenzene, Solid*	35			0.4	6	1.00000	ug/Kg	2011		12/17/01 2141	pam
	Xylenes (total), Solid*	27			1	6	1.00000	ug/Kg	2011		12/17/01 2141	pam

* In Description = Dry Wgt.

for 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

USTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-34.5-35
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-19
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.0			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.0			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* (revised 1/24/02)	ND UJ9	U		107	534	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0067	0.68	1	mg/Kg	2069		01/04/02 1609	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.0			0.68	5010	1	mg/Kg	2090		01/03/02 1628	ckc
	Barium, Solid*	82.7			0.19	1670	1	mg/Kg	2090		01/03/02 1628	ckc
	Cadmium, Solid*	0.29 J5			0.23	1670	1	mg/Kg	2090		01/03/02 1628	ckc
	Chromium, Solid*	15.7			0.28	835	1	mg/Kg	2090		01/03/02 1628	ckc
	Lead, Solid*	8.2 J16			0.79	4180	1	mg/Kg	2090		01/03/02 1628	ckc
	Selenium, Solid*	ND	U		1.3	8350	1	mg/Kg	2090		01/03/02 1628	ckc
	Silver, Solid*	ND	U		0.21	1670	1	mg/Kg	2090		01/03/02 1628	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U	a	26	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		110	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		21	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		17	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		20	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		15	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	23	360	1.00000	ug/Kg	2073		12/20/01 2002	jdw

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-74-34.5-35
Date Sampled.....: 12/10/2001
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-19
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.0			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.0			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0067	0.68	1	mg/Kg	2069		01/04/02 1609	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.0	B		0.68	6.7	1	mg/Kg	2090		01/03/02 1628	ckc
	Barium, Solid*	82.7			0.19	1.7	1	mg/Kg	2090		01/03/02 1628	ckc
	Cadmium, Solid*	0.29 J5	B		0.23	2.5	1	mg/Kg	2090		01/03/02 1628	ckc
	Chromium, Solid*	15.7			0.28	2.5	1	mg/Kg	2090		01/03/02 1628	ckc
	Lead, Solid*	8.2 J16			0.79	7.5	1	mg/Kg	2090		01/03/02 1628	ckc
	Selenium, Solid*	ND	U		1.3	13.4	1	mg/Kg	2090		01/03/02 1628	ckc
	Silver, Solid*	ND	U		0.21	2.5	1	mg/Kg	2090		01/03/02 1628	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-52-52.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-16
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	87.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	12.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		114	571	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0071	0.72	1	mg/Kg	2069		01/04/02 1600	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.1	B		0.63	4660	1	mg/Kg	2090		01/03/02 1610	ckc
	Barium, Solid*	57.7	B		0.18	1550	1	mg/Kg	2090		01/03/02 1610	ckc
	Cadmium, Solid*	ND	U		0.22	1550	1	mg/Kg	2090		01/03/02 1610	ckc
	Chromium, Solid*	12.2	B		0.26	777	1	mg/Kg	2090		01/03/02 1610	ckc
	Lead, Solid*	6.7 J16	B		0.73	3880	1	mg/Kg	2090		01/03/02 1610	ckc
	Selenium, Solid*	ND	U		1.2	7770	1	mg/Kg	2090		01/03/02 1610	ckc
	Silver, Solid*	ND	U		0.20	1550	1	mg/Kg	2090		01/03/02 1610	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		47000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		8600	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		6300	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	9500	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw

* In Description = Dry Wgt.

for 1/29/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-52-52.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-16
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Chlorophenol, Solid*	ND	U		11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Nitrobenzene, Solid*	ND	U		11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		6300	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Isophorone, Solid*	ND	U		10000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,4-Dimethylphenol, Solid*	ND	U		14000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Hexachlorobutadiene, Solid*	ND	U		15000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Naphthalene, Solid*	950000			14000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,4-Dichlorophenol, Solid*	ND	U		14000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	4-Chloroaniline, Solid*	ND	U		11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,4,5-Trichlorophenol, Solid*	ND UJ9	U		4500	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Hexachlorocyclopentadiene, Solid*	ND UJ9	U		20000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Methylnaphthalene, Solid*	690000			13000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Nitroaniline, Solid*	ND	U		9900	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Chloronaphthalene, Solid*	ND	U		8600	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		14000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		6300	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Nitrophenol, Solid*	ND	U		13000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	3-Nitroaniline, Solid*	ND	U		8100	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Dimethyl phthalate, Solid*	ND	U		6800	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,4-Dinitrophenol, Solid*	ND UJ4	U		23000	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Acenaphthylene, Solid*	240000			5000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		8600	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Acenaphthene, Solid*	31000 JS	J	a	6800	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Dibenzofuran, Solid*	18000 JS	J	a	6800	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	4-Nitrophenol, Solid*	ND UJ4	U		38000	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Fluorene, Solid*	150000		a	9000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw

* In Description = Dry Wgt.

1/24/02

Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-52-52.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-16
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		11000	300000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		5900	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Hexachlorobenzene, Solid*	ND	U		8600	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Diethyl phthalate, Solid*	ND	U		7700	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Pentachlorophenol, Solid*	ND	U		19000	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND UJ4	U		13000	720000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Phenanthrene, Solid*	350000			11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Anthracene, Solid*	92000 JS	J	a	5400	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Carbazole, Solid*	ND	U		9900	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Di-n-butyl phthalate, Solid*	ND	U		6300	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Fluoranthene, Solid*	95000 JS	J	a	9900	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Pyrene, Solid*	120000 JS	J	a	8600	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Butyl benzyl phthalate, Solid*	ND	U		5900	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Benzo(a)anthracene, Solid*	45000 JS	J	a	6800	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Chrysene, Solid*	48000 JS	J	a	7700	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		15000	300000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		16000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Di-n-octyl phthalate, Solid*	ND	U		5400	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	a	17000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Benzo(k)fluoranthene, Solid*	ND	U	a	18000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Benzo(a)pyrene, Solid*	27000 JS	J	a	7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Benzo(ghi)perylene, Solid*	ND	U		7700	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
82608	Volatile Organics											
	Benzene, High/Med Level*	8800 JS	J		990	11000	20.0000	ug/Kg	2011		12/21/01 1655	pam

* In Description = Dry Wgt.

fpa 1/21/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-52-52.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-16
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, High/Med Level*	33000		B	1900	11000	20.0000	ug/Kg	2011		12/21/01 1655	pam
	Ethylbenzene, High/Med Level*	26000			1700	11000	20.0000	ug/Kg	2011		12/21/01 1655	pam
	Xylenes (total), High/Med Level*	56000			5800	11000	20.0000	ug/Kg	2011		12/21/01 1655	pam

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

ISTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-52-52.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-16
Date Received.....: 12/12/2001
Time Received.....: 20:00

EST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	87.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	12.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* (revised LAM 2/4/02)	ND UJ9	U		114	571	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0071	0.72	1	mg/Kg	2069		01/04/02 1600	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.1			0.63	4660	1	mg/Kg	2090		01/03/02 1610	ckc
	Barium, Solid*	57.7			0.18	1550	1	mg/Kg	2090		01/03/02 1610	ckc
	Cadmium, Solid*	ND	U		0.22	1550	1	mg/Kg	2090		01/03/02 1610	ckc
	Chromium, Solid*	12.2			0.26	777	1	mg/Kg	2090		01/03/02 1610	ckc
	Lead, Solid*	6.7 J16			0.73	3880	1	mg/Kg	2090		01/03/02 1610	ckc
	Selenium, Solid*	ND	U		1.2	7770	1	mg/Kg	2090		01/03/02 1610	ckc
	Silver, Solid*	ND	U		0.20	1550	1	mg/Kg	2090		01/03/02 1610	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		11000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		47000	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		8600	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		7200	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		8100	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		6300	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	9500	150000	400.0000	ug/Kg	2073		12/29/01 1829	jdw

* In Description = Dry Wgt.

fam 1/29/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-52-52.5
Date Sampled.....: 12/11/2001
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-16
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	87.6			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	12.4			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0071	0.72	1	mg/Kg	2069		01/04/02 1600	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.1	B		0.63	6.2	1	mg/Kg	2090		01/03/02 1610	ckc
	Barium, Solid*	57.7			0.18	1.6	1	mg/Kg	2090		01/03/02 1610	ckc
	Cadmium, Solid*	ND	U		0.22	2.3	1	mg/Kg	2090		01/03/02 1610	ckc
	Chromium, Solid*	12.2			0.26	2.3	1	mg/Kg	2090		01/03/02 1610	ckc
	Lead, Solid*	6.7 J1C	B		0.73	7.0	1	mg/Kg	2090		01/03/02 1610	ckc
	Selenium, Solid*	ND	U		1.2	12.4	1	mg/Kg	2090		01/03/02 1610	ckc
	Silver, Solid*	ND	U		0.20	2.3	1	mg/Kg	2090		01/03/02 1610	ckc

for 1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON NOP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-70-72
Date Sampled.....: 12/11/2001
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-17
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	83.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	16.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		118	588	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0066	0.68	1	mg/Kg	2069		01/04/02 1605	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.6 J5	B		0.88	6490	1	mg/Kg	2090		01/03/02 1616	ckc
	Barium, Solid*	62.7	B		0.25	2160	1	mg/Kg	2090		01/03/02 1616	ckc
	Cadmium, Solid*	ND	U		0.30	2160	1	mg/Kg	2090		01/03/02 1616	ckc
	Chromium, Solid*	10.4	B		0.36	1080	1	mg/Kg	2090		01/03/02 1616	ckc
	Lead, Solid*	5.5 J16	B		1.0	5410	1	mg/Kg	2090		01/03/02 1616	ckc
	Selenium, Solid*	ND	U		1.7	10800	1	mg/Kg	2090		01/03/02 1616	ckc
	Silver, Solid*	ND	U		0.28	2160	1	mg/Kg	2090		01/03/02 1616	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	160 J5	J	B	28	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		120	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		22	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		16	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	25	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-70-72
Date Sampled.....: 12/11/2001
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-17
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Chlorophenol, Solid*	ND	U		28	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Nitrobenzene, Solid*	ND	U		29	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		16	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		29	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Isophorone, Solid*	ND	U		27	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,4-Dimethylphenol, Solid*	ND	U		37	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Hexachlorobutadiene, Solid*	ND	U		39	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Naphthalene, Solid*	360 J$	J	a	37	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,4-Dichlorophenol, Solid*	ND	U		35	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	4-Chloroaniline, Solid*	ND	U		29	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,4,5-Trichlorophenol, Solid*	ND UJ9	U		12	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Hexachlorocyclopentadiene, Solid*	ND UJ9, UJ4	U		53	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Methylnaphthalene, Solid*	320 J$	J	a	33	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Nitroaniline, Solid*	ND	U		26	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Chloronaphthalene, Solid*	ND	U		22	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		36	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		16	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Nitrophenol, Solid*	ND	U		33	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	3-Nitroaniline, Solid*	ND	U		21	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Dimethyl phthalate, Solid*	ND	U		18	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,4-Dinitrophenol, Solid*	ND	U		60	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Acenaphthylene, Solid*	80 J$	J	a	13	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		22	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Acenaphthene, Solid*	ND	U	a	18	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Dibenzofuran, Solid*	ND	U		18	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	4-Nitrophenol, Solid*	ND	U		99	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Fluorene, Solid*	57 J$	J	a	23	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw

* In Description = Dry Wgt.

fax 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-70-72
Date Sampled.....: 12/11/2001
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-17
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		28	770	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		15	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Hexachlorobenzene, Solid*	ND	U		22	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Diethyl phthalate, Solid*	ND	U		20	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Pentachlorophenol, Solid*	ND	U		50	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		33	1900	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Phenanthrene, Solid*	230 JS	J	a	28	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Anthracene, Solid*	50 JS	J	a	14	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Carbazole, Solid*	ND	U		26	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Di-n-butyl phthalate, Solid*	ND	U		16	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Fluoranthene, Solid*	ND	U		26	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Pyrene, Solid*	ND	U		22	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Butyl benzyl phthalate, Solid*	ND	U		15	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Benzo(a)anthracene, Solid*	ND	U		18	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Chrysene, Solid*	ND	U		20	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		40	770	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		42	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Di-n-octyl phthalate, Solid*	ND	U		14	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		44	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		46	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Benzo(a)pyrene, Solid*	ND	U		19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND UJ4	U		21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Benzo(ghi)perylene, Solid*	ND UJ4	U		20	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
8260B	Volatile Organics											
	Benzene, Solid*	4 JS	J		0.6	6	1.00000	ug/Kg	2011		12/18/01 0041	pam

* In Description = Dry Wgt.

fpw 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-70-72
Date Sampled.....: 12/11/2001
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-17
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	3 6U6	U	B	0.5	6	1.00000	ug/Kg	2011		12/18/01 0041	pam
	Ethylbenzene, Solid*	0.8 3$	J		0.5	6	1.00000	ug/Kg	2011		12/18/01 0041	pam
	Xylenes (total), Solid*	3 3$	J		1	6	1.00000	ug/Kg	2011		12/18/01 0041	pam

* In Description = Dry Wgt.

fax 1/21/02

LABORATORY TEST RESULTS

Job Number: 200201 — Date:01/11/2002

ISTOMER: GEI/ATLANTIC ENVIRONMENTAL — PROJECT: GEI CLIFTON MGP — ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-70-72
Date Sampled.....: 12/11/2001
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-17
Date Received.....: 12/12/2001
Time Received.....: 20:00

EST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	83.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	16.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid* (revised)	ND UJ9	U		118	588	1	ug/Kg	1835		12/21/01 0000	ddm
7471A	Mercury (CVAA) Solids (AM 2/4/02)											
	Mercury, Solid*	ND	U		0.0066	0.68	1	mg/Kg	2069		01/04/02 1605	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.6 J5	B		0.88	6490	1	mg/Kg	2090		01/03/02 1616	ckc
	Barium, Solid*	62.7	B		0.25	2160	1	mg/Kg	2090		01/03/02 1616	ckc
	Cadmium, Solid*	ND	U		0.30	2160	1	mg/Kg	2090		01/03/02 1616	ckc
	Chromium, Solid*	10.4	B		0.36	1080	1	mg/Kg	2090		01/03/02 1616	ckc
	Lead, Solid*	5.5 J16	B		1.0	5410	1	mg/Kg	2090		01/03/02 1616	ckc
	Selenium, Solid*	ND	U		1.7	10800	1	mg/Kg	2090		01/03/02 1616	ckc
	Silver, Solid*	ND	U		0.28	2160	1	mg/Kg	2090		01/03/02 1616	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	160 J5	J	a	28	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		120	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U	*	19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,4-Dichlorobenzene, Solid*	ND UJ9	U		22	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	1,2-Dichlorobenzene, Solid*	ND UJ9	U	*	21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		19	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND	U		21	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		16	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw
	Hexachloroethane, Solid*	ND UJ9	U	*	25	390	1.00000	ug/Kg	2073		12/20/01 1920	jdw

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-75-70-72
Date Sampled.....: 12/11/2001
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-17
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	83.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	16.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.0066	0.68	1	mg/Kg	2069		01/04/02 1605	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.6 J5	B		0.88	8.7	1	mg/Kg	2090		01/03/02 1616	ckc
	Barium, Solid*	62.7			0.25	2.2	1	mg/Kg	2090		01/03/02 1616	ckc
	Cadmium, Solid*	ND	U		0.30	3.2	1	mg/Kg	2090		01/03/02 1616	ckc
	Chromium, Solid*	10.4			0.36	3.2	1	mg/Kg	2090		01/03/02 1616	ckc
	Lead, Solid*	5.5 J16	B		1.0	9.7	1	mg/Kg	2090		01/03/02 1616	ckc
	Selenium, Solid*	ND	U		1.7	17.3	1	mg/Kg	2090		01/03/02 1616	ckc
	Silver, Solid*	ND	U		0.28	3.2	1	mg/Kg	2090		01/03/02 1616	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (44-44.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-8
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.5			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.5			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		112	559	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0012J9	B		0.00036	0.036	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.1	B		0.57	4190	1	mg/Kg	2090		01/03/02 1540	ckc
	Barium, Solid*	36.7	B		0.16	1400	1	mg/Kg	2090		01/03/02 1540	ckc
	Cadmium, Solid*	0.42	B		0.20	1400	1	mg/Kg	2090		01/03/02 1540	ckc
	Chromium, Solid*	46.7	B		0.23	698	1	mg/Kg	2090		01/03/02 1540	ckc
	Lead, Solid*	3.7 J16	B		0.66	3490	1	mg/Kg	2090		01/03/02 1540	ckc
	Selenium, Solid*	ND	U		1.1	6980	1	mg/Kg	2090		01/03/02 1540	ckc
	Silver, Solid*	ND	U		0.18	1400	1	mg/Kg	2090		01/03/02 1540	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	ND	U		130000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		570000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		88000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		100000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		99000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		88000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND R9	U		99000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		77000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Hexachloroethane, Solid*	ND UJ9	U		120000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (44-44.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-8
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		99000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2-Chlorophenol, Solid*	ND	U		130000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Nitrobenzene, Solid*	ND	U		140000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		77000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		140000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Isophorone, Solid*	ND	U		130000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,4-Dimethylphenol, Solid*	ND	U		180000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Hexachlorobutadiene, Solid*	ND	U		180000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Naphthalene, Solid*	13000000			180000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,4-Dichlorophenol, Solid*	ND	U		170000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	4-Chloroaniline, Solid*	ND	U		140000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		99000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		55000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		250000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2-Methylnaphthalene, Solid*	3400000			150000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2-Nitroaniline, Solid*	ND	U		120000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2-Chloronaphthalene, Solid*	ND	U		100000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		170000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		77000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2-Nitrophenol, Solid*	ND	U		150000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	3-Nitroaniline, Solid*	ND	U		99000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Dimethyl phthalate, Solid*	ND	U		83000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,4-Dinitrophenol, Solid*	ND	U		280000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Acenaphthylene, Solid*	1300000 J5	J	a*	61000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		100000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Acenaphthene, Solid*	330000 J5	J	a	83000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Dibenzofuran, Solid*	160000 J5	J	a	83000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	4-Nitrophenol, Solid*	ND	U		470000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Fluorene, Solid*	1200000 J5	J	a	110000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw

* In Description = Dry Wgt.

fm 1/29/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (44-44.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-8
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		130000	3600000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		72000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Hexachlorobenzene, Solid*	ND	U		100000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Diethyl phthalate, Solid*	ND	U		94000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		88000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Pentachlorophenol, Solid*	ND	U		240000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		88000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND	U		150000	8800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Phenanthrene, Solid*	4100000			130000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Anthracene, Solid*	780000 JS	J	a	66000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Carbazole, Solid*	ND	U		120000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Di-n-butyl phthalate, Solid*	ND	U		77000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Fluoranthene, Solid*	1600000 JS	J	a	120000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Pyrene, Solid*	2000000			100000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Butyl benzyl phthalate, Solid*	ND	U		72000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Benzo(a)anthracene, Solid*	690000 JS	J	a	83000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Chrysene, Solid*	650000 JS	J	a	94000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		190000	3600000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		200000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Di-n-octyl phthalate, Solid*	ND	U		66000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Benzo(b)fluoranthene, Solid*	250000 JS	J	a	210000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Benzo(k)fluoranthene, Solid*	400000 JS	J	a	220000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Benzo(a)pyrene, Solid*	550000 JS	J	a	88000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		99000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		99000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
	Benzo(ghi)perylene, Solid*	ND	U		94000	1800000	1000.000	ug/Kg	2072		01/03/02 2012	jdw
8260B	Volatile Organics											
	Benzene, High/Med Level*	870000			4800	54000	100.000	ug/Kg	2011		12/13/01 1756	pam

* In Description = Dry Wgt.

12/19/02

Job Number: 200201

LABORATORY TEST RESULTS

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (44-44.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-8
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DI	DATE/TIME	TECH
	Toluene, High/Med Level*	2100000		B	9400	54000	100.000	ug/Kg	2011		12/13/01 1756	pam
	Ethylbenzene, High/Med Level*	1300000		H	8100	54000	100.000	ug/Kg	2011		12/13/01 1756	pam
	Xylenes (total), High/Med Level*	1700000			28000	54000	100.000	ug/Kg	2011		12/13/01 1756	pam

* In Description = Dry Wgt.

1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (44-44.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 12:50
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-8
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.5			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	10.5			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0012	B	J9	0.00036	0.036	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.1			0.57	5.6	1	mg/Kg	2090		01/03/02 1540	ckc
	Barium, Solid*	36.7			0.16	1.4	1	mg/Kg	2090		01/03/02 1540	ckc
	Cadmium, Solid*	0.42	B		0.20	2.1	1	mg/Kg	2090		01/03/02 1540	ckc
	Chromium, Solid*	46.7			0.23	2.1	1	mg/Kg	2090		01/03/02 1540	ckc
	Lead, Solid*	3.7 J16	B		0.66	6.3	1	mg/Kg	2090		01/03/02 1540	ckc
	Selenium, Solid*	ND	U		1.1	11.2	1	mg/Kg	2090		01/03/02 1540	ckc
	Silver, Solid*	ND	U		0.18	2.1	1	mg/Kg	2090		01/03/02 1540	ckc

kw 1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (58-58.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-9
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	11.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ9	U		112	561	1	ug/Kg	1491		12/13/01 0000	dtn
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0026 J9	B		0.00032	0.033	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.4	B		0.81	6010	1	mg/Kg	2090		01/03/02 1552	ckc
	Barium, Solid*	89.4	B		0.23	2000	1	mg/Kg	2090		01/03/02 1552	ckc
	Cadmium, Solid*	0.35 J5	B		0.28	2000	1	mg/Kg	2090		01/03/02 1552	ckc
	Chromium, Solid*	40.6	B		0.33	1000	1	mg/Kg	2090		01/03/02 1552	ckc
	Lead, Solid*	6.7 J16	B		0.94	5010	1	mg/Kg	2090		01/03/02 1552	ckc
	Selenium, Solid*	ND	U		1.6	10000	1	mg/Kg	2090		01/03/02 1552	ckc
	Silver, Solid*	ND	U		0.26	2000	1	mg/Kg	2090		01/03/02 1552	ckc
8270C	Semivolatile Organics											
	Phenol, Solid*	95 J5	J	a	53	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Bis(2-chloroethyl)ether, Solid*	ND	U		230	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	1,3-Dichlorobenzene, Solid*	ND UJ9	U		36	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	1,4-Dichlorobenzene, Solid*	ND	U		42	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	1,2-Dichlorobenzene, Solid*	ND	U		40	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2-Methylphenol (o-cresol), Solid*	ND	U		36	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,2-oxybis (1-chloropropane), Solid*	ND R9	U		40	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	n-Nitroso-di-n-propylamine, Solid*	ND	U		31	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Hexachloroethane, Solid*	ND UJ9	U		47	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw

* In Description = Dry Wgt.

tam 1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (58-58.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-9
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Methylphenol (m/p-cresol), Solid*	ND	U		40	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2-Chlorophenol, Solid*	ND	U		53	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Nitrobenzene, Solid*	ND	U		56	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Bis(2-chloroethoxy)methane, Solid*	ND	U		31	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	1,2,4-Trichlorobenzene, Solid*	ND	U		56	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Isophorone, Solid*	ND	U		51	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,4-Dimethylphenol, Solid*	ND	U		71	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Hexachlorobutadiene, Solid*	ND	U		74	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Naphthalene, Solid*	3900			71	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,4-Dichlorophenol, Solid*	ND	U		67	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	4-Chloroaniline, Solid*	ND	U		56	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,4,6-Trichlorophenol, Solid*	ND	U		40	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,4,5-Trichlorophenol, Solid*	ND	U		22	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Hexachlorocyclopentadiene, Solid*	ND	U		100	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2-Methylnaphthalene, Solid*	2700			62	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2-Nitroaniline, Solid*	ND	U		49	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2-Chloronaphthalene, Solid*	ND	U		42	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	4-Chloro-3-methylphenol, Solid*	ND	U		69	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,6-Dinitrotoluene, Solid*	ND	U		31	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2-Nitrophenol, Solid*	ND	U		62	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	3-Nitroaniline, Solid*	ND	U		40	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Dimethyl phthalate, Solid*	ND	U		33	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,4-Dinitrophenol, Solid*	ND UJ4	U		110	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Acenaphthylene, Solid*	920		*	25	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	2,4-Dinitrotoluene, Solid*	ND	U		42	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Acenaphthene, Solid*	360 J3	J	a	33	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Dibenzofuran, Solid*	130 J3	J	a	33	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	4-Nitrophenol, Solid*	ND UJ4	U		190	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Fluorene, Solid*	1100			45	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (58-58.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-9
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	4-Nitroaniline, Solid*	ND	U		53	1500	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	4-Bromophenyl phenyl ether, Solid*	ND	U		29	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Hexachlorobenzene, Solid*	ND	U		42	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Diethyl phthalate, Solid*	ND	U		38	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	4-Chlorophenyl phenyl ether, Solid*	ND	U		36	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Pentachlorophenol, Solid*	ND	U		96	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	n-Nitrosodiphenylamine, Solid*	ND	U		36	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	4,6-Dinitro-2-methylphenol, Solid*	ND UJ4	U		62	3600	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Phenanthrene, Solid*	3000			53	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Anthracene, Solid*	670 JS	J	a	27	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Carbazole, Solid*	ND	U		49	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Di-n-butyl phthalate, Solid*	ND	U		31	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Fluoranthene, Solid*	1100			49	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Pyrene, Solid*	1400			42	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Butyl benzyl phthalate, Solid*	ND	U		29	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Benzo(a)anthracene, Solid*	550 JS	J	a	33	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Chrysene, Solid*	570 JS	J	a	38	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	3,3-Dichlorobenzidine, Solid*	ND	U		76	1500	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Bis(2-ethylhexyl)phthalate, Solid*	ND	U		80	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Di-n-octyl phthalate, Solid*	ND	U		27	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Benzo(b)fluoranthene, Solid*	190 JS	J	a	85	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Benzo(k)fluoranthene, Solid*	300 JS	J	a	87	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Benzo(a)pyrene, Solid*	420 JS	J	a	36	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	120 JS	J	a	40	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		40	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
	Benzo(ghi)perylene, Solid*	140 JS	J	a	38	740	2.00000	ug/Kg	2072		12/29/01 2112	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	2011		12/15/01 1700	pam

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (58-58.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-9
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Toluene, Solid*	ND	U	B	0.5	6	1.00000	ug/Kg	2011		12/15/01 1700	pam
	Ethylbenzene, Solid*	1 J5	J		0.5	6	1.00000	ug/Kg	2011		12/15/01 1700	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	2011		12/15/01 1700	pam

* In Description = Dry Wgt.

for 1/24/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-76 (58-58.5)
Date Sampled.....: 12/07/2001
Time Sampled.....: 15:00
Sample Matrix.....: Soil

Laboratory Sample ID: 200201-9
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.3			0.10	0.10	1	%	1662		12/20/01 0000	ksw
	% Moisture, Solid	11.7			0.10	0.10	1	%	1662		12/20/01 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	0.0026	B	J9	0.00032	0.033	1	mg/Kg	2093		12/11/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.4	B		0.81	8.0	1	mg/Kg	2090		01/03/02 1552	ckc
	Barium, Solid*	89.4			0.23	2.0	1	mg/Kg	2090		01/03/02 1552	ckc
	Cadmium, Solid*	0.35 J5	B		0.28	3.0	1	mg/Kg	2090		01/03/02 1552	ckc
	Chromium, Solid*	40.6			0.33	3.0	1	mg/Kg	2090		01/03/02 1552	ckc
	Lead, Solid*	6.7 J16	B		0.94	9.0	1	mg/Kg	2090		01/03/02 1552	ckc
	Selenium, Solid*	ND	U		1.6	16.0	1	mg/Kg	2090		01/03/02 1552	ckc
	Silver, Solid*	ND	U		0.26	3.0	1	mg/Kg	2090		01/03/02 1552	ckc

1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (17-21)
Date Sampled.....: 05/22/2002
Time Sampled.....: 12:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-1
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
82608	Volatile Organics											
	Benzene, High/Med Level*	2700			200	2200	4.00000	ug/Kg	6032		06/03/02 1931	pam
	Toluene, High/Med Level*	27000			390	2200	4.00000	ug/Kg	6032		06/03/02 1931	pam
	Ethylbenzene, High/Med Level*	40000			340	2200	4.00000	ug/Kg	6032		06/03/02 1931	pam
	Xylenes (total), High/Med Level*	72000			1200	2200	4.00000	ug/Kg	6032		06/03/02 1931	pam
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.4			0.10	0.10	1	%	5940		05/31/02 0000	ksw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (17-21)
Date Sampled.....: 05/22/2002
Time Sampled.....: 12:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-1
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.4			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1400000			17000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	2-Methylnaphthalene, Solid*	800000			15000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Acenaphthylene, Solid*	240000			6000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Acenaphthene, Solid*	58000 JS	J		8200	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Fluorene, Solid*	160000 JS	J		11000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Phenanthrene, Solid*	440000			13000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Anthracene, Solid*	130000 JS	J		6500	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Fluoranthene, Solid*	150000 JS	J		12000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Pyrene, Solid*	170000 JS	J		10000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Benzo(a)anthracene, Solid*	68000 JS	J		8200	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Chrysene, Solid*	66000 JS	J		9300	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Benzo(b)fluoranthene, Solid*	24000 JS	J	H	21000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Benzo(k)fluoranthene, Solid*	39000 JS	J		21000	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Benzo(a)pyrene, Solid*	46000 JS	J		8700	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	16000 JS	J		9800	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		9800	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw
	Benzo(ghi)perylene, Solid*	16000 JS	J		9300	180000	500.0000	ug/Kg	6038		05/30/02 1617	jdw

* In Description = Dry Wgt.

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LABORATORY TEST RESULTS

Job Number: 201118

Date:06/07/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (17-21)
Date Sampled.....: 05/22/2002
Time Sampled.....: 12:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-1
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.4			0.10	0.10	1	%	5940		05/31/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U		0.093	2.1	1.0000	mg/Kg	5928		05/30/02 1505	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.2		B		1.0	8.1	1	mg/Kg	6181		06/04/02 1632	nnp
	Barium, Solid*	48.5				0.30	2.0	1	mg/Kg	6181		06/04/02 1632	nnp
	Cadmium, Solid*	ND		U		1.0	3.0	1	mg/Kg	6181		06/04/02 1632	nnp
	Chromium, Solid*	37.5				0.51	3.0	1	mg/Kg	6181		06/04/02 1632	nnp
	Lead, Solid*	13.0				1.0	9.1	1	mg/Kg	6181		06/04/02 1632	nnp
	Selenium, Solid*	ND		U		1.6	16.2	1	mg/Kg	6181		06/04/02 1632	nnp
	Silver, Solid*	ND		U		0.30	3.0	1	mg/Kg	6181		06/04/02 1632	nnp

* In Description = Dry Wgt.

7/13/02

Job Number: 201118

LABORATORY TEST RESULTS

Date:05/31/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (17-21)
Date Sampled.....: 05/22/2002
Time Sampled.....: 12:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-1
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.4			0.10	0.10	1	%	5940		05/31/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		112	558	1.0	ug/Kg	5922		05/30/02 1445	dtn

* In Description = Dry Wgt.

tam 7/15/02

Job Number: 201118

LABORATORY TEST RESULTS

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (41-45)
Date Sampled.....: 05/22/2002
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-2
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	9.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	6066		06/04/02 2051	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6066		06/04/02 2051	pam
	Ethylbenzene, Solid*	6			0.4	6	1.00000	ug/Kg	6066		06/04/02 2051	pam
	Xylenes (total), Solid*	3 JS	J		1	6	1.00000	ug/Kg	6066		06/04/02 2051	pam

* In Description = Dry Wgt.

7/13/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (41-45)
Date Sampled.....: 05/22/2002
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-2
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	9.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	160 J	J		35	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Anthracene, Solid*	ND	U	M	13	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	6038		05/29/02 1539	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/07/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON NGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (41-45)
Date Sampled.....: 05/22/2002
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-2
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	9.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.091	2.0	1.0000	mg/Kg	5928		05/30/02 1506	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	4.0		B	0.76	6.0	1	mg/Kg	6181		06/04/02 1644	nnp
	Barium, Solid*	53.5			0.23	1.5	1	mg/Kg	6181		06/04/02 1644	nnp
	Cadmium, Solid*	ND		U	0.76	2.3	1	mg/Kg	6181		06/04/02 1644	nnp
	Chromium, Solid*	73.6			0.38	2.3	1	mg/Kg	6181		06/04/02 1644	nnp
	Lead, Solid*	5.1		B	0.76	6.8	1	mg/Kg	6181		06/04/02 1644	nnp
	Selenium, Solid*	ND		U	1.2	12.1	1	mg/Kg	6181		06/04/02 1644	nnp
	Silver, Solid*	ND		U	0.23	2.3	1	mg/Kg	6181		06/04/02 1644	nnp

* In Description = Dry Wgt.

7/15/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:05/31/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-81 (41-45)
Date Sampled.....: 05/22/2002
Time Sampled.....: 13:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-2
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	9.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		111	555	1.0	ug/Kg	5922		05/30/02 1446	dtn

* In Description = Dry Wgt.

7/15/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (5-9)
Date Sampled.....: 05/23/2002
Time Sampled.....: 08:05
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-3
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	R.L.	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	19.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND		U	0.6	6	1.00000	ug/Kg	6066		06/04/02 2127	pam
	Toluene, Solid*	ND		U	0.5	6	1.00000	ug/Kg	6066		06/04/02 2127	pam
	Ethylbenzene, Solid*	ND		U	0.5	6	1.00000	ug/Kg	6066		06/04/02 2127	pam
	Xylenes (total), Solid*	ND		U	1	6	1.00000	ug/Kg	6066		06/04/02 2127	pam

* In Description = Dry Wgt.

6/13/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (5-9)
Date Sampled.....: 05/23/2002
Time Sampled.....: 08:05
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-3
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	19.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		39	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	2-Methylnaphthalene, Solid*	ND	U		34	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Acenaphthylene, Solid*	ND	U		13	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Acenaphthene, Solid*	35 J5	J		18	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Fluorene, Solid*	ND	U		24	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Phenanthrene, Solid*	ND	U		29	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Anthracene, Solid*	ND	U		15	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Fluoranthene, Solid*	ND	U		27	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Pyrene, Solid*	ND	U		23	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Benzo(a)anthracene, Solid*	ND	U		18	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Chrysene, Solid*	ND	U		21	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Benzo(b)fluoranthene, Solid*	ND	U	M	46	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		48	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Benzo(a)pyrene, Solid*	ND	U		20	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		22	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		22	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw
	Benzo(ghi)perylene, Solid*	ND	U		21	400	1.00000	ug/Kg	6038		05/29/02 1625	jdw

In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/07/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (5-9)
Date Sampled.....: 05/23/2002
Time Sampled.....: 08:05
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-3
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	19.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.10	2.3	1.0000	mg/Kg	5928		05/30/02 1507	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.5		B	0.97	7.7	1	mg/Kg	6181		06/04/02 1650	nnp
	Barium, Solid*	43.6			0.29	1.9	1	mg/Kg	6181		06/04/02 1650	nnp
	Cadmium, Solid*	ND		U	0.97	2.9	1	mg/Kg	6181		06/04/02 1650	nnp
	Chromium, Solid*	56.9			0.48	2.9	1	mg/Kg	6181		06/04/02 1650	nnp
	Lead, Solid*	24.2			0.97	8.7	1	mg/Kg	6181		06/04/02 1650	nnp
	Selenium, Solid*	ND		U	1.5	15.5	1	mg/Kg	6181		06/04/02 1650	nnp
	Silver, Solid*	ND		U	0.29	2.9	1	mg/Kg	6181		06/04/02 1650	nnp

* In Description = Dry Wgt.

7/31/02

Job Number: 201118

LABORATORY TEST RESULTS

Date:05/31/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (5-9)
Date Sampled.....: 05/23/2002
Time Sampled.....: 08:05
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-3
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	80.9			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	19.1			0.10	0.10	1	%	5940		05/31/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND U58	U		124	618	1.0	ug/Kg	5922		05/30/02 1449	dtn

* In Description = Dry Wgt.

7/15/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (25-29)
Date Sampled.....: 05/23/2002
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-4
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.2			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	5	1.00000	ug/Kg	6066		06/04/02 2203	pam
	Toluene, Solid*	ND	U		0.4	5	1.00000	ug/Kg	6066		06/04/02 2203	pam
	Ethylbenzene, Solid*	ND	U		0.4	5	1.00000	ug/Kg	6066		06/04/02 2203	pam
	Xylenes (total), Solid*	ND	U		1	5	1.00000	ug/Kg	6066		06/04/02 2203	pam

* In Description = Dry Wgt.

7/13/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (25-29)
Date Sampled.....: 05/23/2002
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-4
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.2			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	5940		05/31/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	6038		05/29/02 1712	jdw

In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118 | Date:06/07/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (25-29)
Date Sampled.....: 05/23/2002
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-4
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.2			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	5940		05/31/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.099	2.2	1.0000	mg/Kg	5928		05/30/02 1509	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	3.7		B	0.93	7.5	1	mg/Kg	6181		06/04/02 1656	nnp
	Barium, Solid*	65.2			0.28	1.9	1	mg/Kg	6181		06/04/02 1656	nnp
	Cadmium, Solid*	ND		U	0.93	2.8	1	mg/Kg	6181		06/04/02 1656	nnp
	Chromium, Solid*	99.5			0.47	2.8	1	mg/Kg	6181		06/04/02 1656	nnp
	Lead, Solid*	5.0		B	0.93	8.4	1	mg/Kg	6181		06/04/02 1656	nnp
	Selenium, Solid*	ND		U	1.5	14.9	1	mg/Kg	6181		06/04/02 1656	nnp
	Silver, Solid*	ND		U	0.28	2.8	1	mg/Kg	6181		06/04/02 1656	nnp

* In Description = Dry Wgt.

7/13/02

Job Number: 201118

LABORATORY TEST RESULTS

Date:05/31/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-82 (25-29)
Date Sampled.....: 05/23/2002
Time Sampled.....: 11:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201118-4
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.2			0.10	0.10	1	%	5940		05/31/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	5940		05/31/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND U58	U		111	555	1.0	ug/Kg	5922		05/30/02 1451	dtn

* In Description = Dry Wgt.

fm 11/3/02

LABORATORY TEST RESULTS

Job Number: 201275

Date:06/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (8-12)
Date Sampled.....: 06/19/2002
Time Sampled.....: 17:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-8
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	31.8			0.10	0.10	1	%	6753		06/25/02 0000	jdw
	% Moisture, Solid	68.2			0.10	0.10	1	%	6753		06/25/02 0000	jdw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		302	1510	1	ug/Kg	6742		06/25/02 1556	dtn

* In Description = Dry Wgt.

7/19/02

Job Number: 201275

LABORATORY TEST RESULTS

Date:07/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (8-12)
Date Sampled.....: 06/19/2002
Time Sampled.....: 17:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-8
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	31.8			0.10	0.10	1	%	6753		06/25/02 0000	jdw
	% Moisture, Solid	68.2			0.10	0.10	1	%	6753		06/25/02 0000	jdw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.27	5.9	1.0000	mg/Kg	6814		06/26/02 1400	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	19.4	B		2.6	21.0	1	mg/Kg	6954		07/01/02 1601	nnp
	Barium, Solid*	1430			0.79	5.2	1	mg/Kg	6954		07/01/02 1601	nnp
	Cadmium, Solid*	ND	U		2.6	7.9	1	mg/Kg	6954		07/01/02 1601	nnp
	Chromium, Solid*	65.9			1.3	7.9	1	mg/Kg	6954		07/01/02 1601	nnp
	Lead, Solid*	11.6	B		2.6	23.6	1	mg/Kg	6954		07/01/02 1601	nnp
	Selenium, Solid*	ND	U		4.2	41.9	1	mg/Kg	6954		07/01/02 1601	nnp
	Silver, Solid*	ND	U		0.79	7.9	1	mg/Kg	6954		07/01/02 1601	nnp

* In Description = Dry Wgt.

7/19/02

Job Number: 201275

LABORATORY TEST RESULTS

Date: 07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (8-12)
Date Sampled.....: 06/19/2002
Time Sampled.....: 17:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-8
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	31.8			0.10	0.10	1	%	6753		06/25/02 0000	jdw
	% Moisture, Solid	68.2			0.10	0.10	1	%	6753		06/25/02 0000	jdw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	24000			390	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	2-Methylnaphthalene, Solid*	2600 J5	J		340	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Acenaphthylene, Solid*	ND	U		140	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Acenaphthene, Solid*	ND	U		180	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Fluorene, Solid*	ND	U		250	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Phenanthrene, Solid*	ND	U		290	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Anthracene, Solid*	ND	U		150	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Fluoranthene, Solid*	ND	U		270	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Pyrene, Solid*	ND	U		230	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Benzo(a)anthracene, Solid*	ND	U		180	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Chrysene, Solid*	ND	U		210	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		470	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		480	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Benzo(a)pyrene, Solid*	ND	U		200	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		220	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		220	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw
	Benzo(ghi)perylene, Solid*	ND	U		210	4100	4.00000	ug/Kg	6976		06/28/02 1519	jdw

* In Description = Dry Wgt.

7/19/02

LABORATORY TEST RESULTS

Job Number: 201275

Date: 07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (8-12)
Date Sampled.....: 06/19/2002
Time Sampled.....: 17:50
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-8
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	410 JS	J		280	3100	2.00000	ug/Kg	6893		06/27/02 1132	pam
	Toluene, High/Med Level*	ND	U		550	3100	2.00000	ug/Kg	6893		06/27/02 1132	pam
	Ethylbenzene, High/Med Level*	30000			470	3100	2.00000	ug/Kg	6893		06/27/02 1132	pam
	Xylenes (total), High/Med Level*	30000			1600	3100	2.00000	ug/Kg	6893		06/27/02 1132	pam
Solids												
	% Solids, Solid	31.8			0.10	0.10	1	%	6753		06/25/02 0000	jdw
	% Moisture, Solid	68.2			0.10	0.10	1	%	6753		06/25/02 0000	jdw

* In Description = Dry Wgt.

jam 7/19/02

Job Number: 201275

LABORATORY TEST RESULTS

Date:06/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (35-39)
Date Sampled.....: 06/21/2002
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-9
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	91.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
	% Moisture, Solid	9.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		107	533	1	ug/Kg	6742		06/25/02 1557	dtn

* In Description = Dry Wgt.

YM 7/19/02

LABORATORY TEST RESULTS

Job Number: 201275

Date:07/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (35-39)
Date Sampled.....: 06/21/2002
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-9
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	91.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
	% Moisture, Solid	9.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.086	1.9	1.0000	mg/Kg	6814		06/26/02 1401	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.2		B	0.83	6.5	1	mg/Kg	6954		07/01/02 1613	nnp
	Barium, Solid*	69.0			0.25	1.7	1	mg/Kg	6954		07/01/02 1613	nnp
	Cadmium, Solid*	ND		U	0.83	2.5	1	mg/Kg	6954		07/01/02 1613	nnp
	Chromium, Solid*	20.0			0.41	2.5	1	mg/Kg	6954		07/01/02 1613	nnp
	Lead, Solid*	6.6		B	0.83	7.4	1	mg/Kg	6954		07/01/02 1613	nnp
	Selenium, Solid*	ND		U	1.3	13.2	1	mg/Kg	6954		07/01/02 1613	nnp
	Silver, Solid*	ND		U	0.25	2.5	1	mg/Kg	6954		07/01/02 1613	nnp

* In Description = Dry Wgt.

7/19/02

Job Number: 201275

LABORATORY TEST RESULTS

Date: 07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (35-39)
Date Sampled.....: 06/21/2002
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-9
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	91.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
	% Moisture, Solid	9.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
8270C	Semivolatile Organics											
	Naphthalene, Solid*	390			35	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	2-Methylnaphthalene, Solid*	270 J5	J		30	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Chrysene, Solid*	ND	U		18	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw
	Benzo(ghi)perylene, Solid*	ND	U		18	360	1.00000	ug/Kg	6976		06/28/02 1453	jdw

* In Description = Dry Wgt.

7/19/02

Job Number: 201275

LABORATORY TEST RESULTS

Date:07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84 (35-39)
Date Sampled.....: 06/21/2002
Time Sampled.....: 09:30
Sample Matrix.....: Soil

Laboratory Sample ID: 201275-9
Date Received.....: 06/21/2002
Time Received.....: 18:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	91.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
	% Moisture, Solid	9.0			0.10	0.10	1	%	6786		06/26/02 0000	ckc
8260B	Volatile Organics											
	Benzene, Solid*	1 JS	J		0.5	5	1.00000	ug/Kg	6803		06/26/02 1305	pam
	Toluene, Solid*	0.6 JS	J		0.4	5	1.00000	ug/Kg	6803		06/26/02 1305	pam
	Ethylbenzene, Solid*	7			0.4	5	1.00000	ug/Kg	6803		06/26/02 1305	pam
	Xylenes (total), Solid*	4 JS	J		1	5	1.00000	ug/Kg	6803		06/26/02 1305	pam

* In Description = Dry Wgt.

7/11/02

Job Number: 201284

LABORATORY TEST RESULTS

Date: 07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(40-44)
Date Sampled.....: 06/21/2002
Time Sampled.....: 13:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-1
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.8			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.2			0.10	0.10	1	%	6923		07/02/02 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	6964		07/02/02 0000	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6964		07/02/02 0000	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6964		07/02/02 0000	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	6964		07/02/02 0000	pam

* In Description = Dry Wgt.

7/24/02

LABORATORY TEST RESULTS

Job Number: 201284

Date:07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(40-44)
Date Sampled.....: 06/21/2002
Time Sampled.....: 13:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-1
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.8			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.2			0.10	0.10	1	%	6923		07/02/02 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Acenaphthylene, Solid*	180 J5	J		12	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Acenaphthene, Solid*	37 J5	J	Q	16	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Fluorene, Solid*	260 J5	J	M	22	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Phenanthrene, Solid*	1200			26	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Anthracene, Solid*	320 J5	J		13	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Fluoranthene, Solid*	350 J5	J		24	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Pyrene, Solid*	540			21	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Benzo(a)anthracene, Solid*	180 J5	J	Q	16	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Chrysene, Solid*	190 J5	J		19	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Benzo(a)pyrene, Solid*	120 J5	J	M	18	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	6975		06/28/02 0032	jdw

* In Description = Dry Wgt.

7/10/02

LABORATORY TEST RESULTS

Job Number: 201284

Date:07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(40-44)
Date Sampled.....: 06/21/2002
Time Sampled.....: 13:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-1
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.8			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.2			0.10	0.10	1	%	6923		07/02/02 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND U3Q	U		0.097	2.2	1.0000	mg/Kg	6912		07/01/02 1456	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.8	B		0.98	7.8	1	mg/Kg	6954		07/01/02 1619	nnp
	Barium, Solid*	67.4			0.29	2.0	1	mg/Kg	6954		07/01/02 1619	nnp
	Cadmium, Solid*	ND	U		0.98	2.9	1	mg/Kg	6954		07/01/02 1619	nnp
	Chromium, Solid*	14.9			0.49	2.9	1	mg/Kg	6954		07/01/02 1619	nnp
	Lead, Solid*	7.2	B		0.98	8.8	1	mg/Kg	6954		07/01/02 1619	nnp
	Selenium, Solid*	ND	U		1.6	15.6	1	mg/Kg	6954		07/01/02 1619	nnp
	Silver, Solid*	ND	U		0.29	2.9	1	mg/Kg	6954		07/01/02 1619	nnp

* In Description = Dry Wgt.

JM 7/2/02

Job Number: 201284

LABORATORY TEST RESULTS

Date:07/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(40-44)
Date Sampled.....: 06/21/2002
Time Sampled.....: 13:45
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-1
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.8			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.2			0.10	0.10	1	%	6923		07/02/02 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND- R9, R2	U		111	557	1	ug/Kg	7004		07/02/02 1136	dtn

* In Description = Dry Wgt.

7/26/02

LABORATORY TEST RESULTS

Job Number: 201284

Date: 07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(48-52)
Date Sampled.....: 06/21/2002
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-2
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.9			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.1			0.10	0.10	1	%	6923		07/02/02 0000	dwh
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	6957		06/28/02 1752	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6957		06/28/02 1752	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6957		06/28/02 1752	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	6957		06/28/02 1752	pam

* In Description = Dry Wgt.

JM 7/10/02

Job Number: 201284

LABORATORY TEST RESULTS

Date:07/09/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(48-52)
Date Sampled.....: 06/21/2002
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-2
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.9			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.1			0.10	0.10	1	%	6923		07/02/02 0000	dwh
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Fluoranthene, Solid*	ND	U		24	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	6975		06/28/02 0150	jdw

* In Description = Dry Wgt.

7/20/02

LABORATORY TEST RESULTS

Job Number: 201284

Date:07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(48-52)
Date Sampled.....: 06/21/2002
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-2
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.9			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.1			0.10	0.10	1	%	6923		07/02/02 0000	dwh
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND UJ9	U		0.091	2.0	1.0000	mg/Kg	6912		07/01/02 1504	mnp
60108	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.9	B		0.85	6.8	1	mg/Kg	6954		07/01/02 1701	mnp
	Barium, Solid*	42.2			0.25	1.7	1	mg/Kg	6954		07/01/02 1701	mnp
	Cadmium, Solid*	ND	U		0.85	2.5	1	mg/Kg	6954		07/01/02 1701	mnp
	Chromium, Solid*	12.8			0.42	2.5	1	mg/Kg	6954		07/01/02 1701	mnp
	Lead, Solid*	6.3	B		0.85	7.5	1	mg/Kg	6954		07/01/02 1701	mnp
	Selenium, Solid*	ND	U		1.4	13.6	1	mg/Kg	6954		07/01/02 1701	mnp
	Silver, Solid*	ND	U		0.25	2.5	1	mg/Kg	6954		07/01/02 1701	mnp

* In Description = Dry Wgt.

7/24/02

LABORATORY TEST RESULTS

Job Number: 201284

Date:07/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-84(48-52)
Date Sampled.....: 06/21/2002
Time Sampled.....: 14:55
Sample Matrix.....: Soil

Laboratory Sample ID: 201284-2
Date Received.....: 06/25/2002
Time Received.....: 17:05

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.9			0.10	0.10	1	%	6923		07/02/02 0000	dwh
	% Moisture, Solid	10.1			0.10	0.10	1	%	6923		07/02/02 0000	dwh
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	~~ND~~ R9, R8	U		107	535	1	ug/Kg	7004		07/02/02 1140	dtn

* In Description = Dry Wgt.

7/29/02

Job Number: 201195

LABORATORY TEST RESULTS

Date: 07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (28-32)
Date Sampled.....: 06/11/2002
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-13
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	11.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
82608	Volatile Organics											
	Benzene, Solid*	1 J8,J5	J		0.6	6	1.00000	ug/Kg	6712		06/21/02 1440	pem
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	6712		06/21/02 1440	pem
	Ethylbenzene, Solid*	2 J5	J		0.5	6	1.00000	ug/Kg	6712		06/21/02 1440	pem
	Xylenes (total), Solid*	1 J5	J		1	6	1.00000	ug/Kg	6712		06/21/02 1440	pem

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201195

Date:07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (28-32)
Date Sampled.....: 06/11/2002
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-13
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	11.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	240 J5	J		35	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Acenaphthene, Solid*	ND VJ5	U		16	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	6663		06/18/02 2124	jdw

* In Description = Dry Wgt.

Job Number: 201195

LABORATORY TEST RESULTS

Date:06/19/2002

CUSTOMER: DEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (28-32)
Date Sampled.....: 06/11/2002
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-13
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	11.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.087	1.9	1.0000	mg/Kg	6512		06/19/02 1128	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.0 J?	B		0.86	6.8	1	mg/Kg	6513		06/18/02 1501	ckc
	Barium, Solid*	71.2			0.26	1.7	1	mg/Kg	6513		06/18/02 1501	ckc
	Cadmium, Solid*	ND	U		0.86	2.6	1	mg/Kg	6513		06/18/02 1501	ckc
	Chromium, Solid*	99.9 J+?,		J8	0.43	2.6	1	mg/Kg	6513		06/18/02 1501	ckc
	Lead, Solid*	6.7 J?	B		0.86	7.7	1	mg/Kg	6513		06/18/02 1501	ckc
	Selenium, Solid*	ND L J?	U		1.4	13.7	1	mg/Kg	6513		06/18/02 1501	ckc
	Silver, Solid*	ND	U		0.26	2.6	1	mg/Kg	6513		06/18/02 1501	ckc

* In Description = Dry Wgt.

Job Number: 201195

LABORATORY TEST RESULTS

Date:06/20/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (28-32)
Date Sampled.....: 06/11/2002
Time Sampled.....: 10:20
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-13
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	88.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	11.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND UJ8	U		107	537	1.0	ug/Kg	6549		06/20/02 1145	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201195

Date: 07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (44-48)
Date Sampled.....: 06/11/2002
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-14
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.3			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	9.7			0.10	0.10	1	%	6489		06/18/02 0000	jdw
8260B	Volatile Organics											
	Benzene, Solid*	ND		U	0.6	6	1.00000	ug/Kg	6712		06/21/02 1516	pam
	Toluene, Solid*	ND		U	0.4	6	1.00000	ug/Kg	6712		06/21/02 1516	pam
	Ethylbenzene, Solid*	ND		U	0.4	6	1.00000	ug/Kg	6712		06/21/02 1516	pam
	Xylenes (total), Solid*	ND		U	1	6	1.00000	ug/Kg	6712		06/21/02 1516	pam

0000027

* In Description = Dry Wgt.

7/15/02

LABORATORY TEST RESULTS

Job Number: 201195

Date: 07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (44-48)
Date Sampled.....: 06/11/2002
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-14
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.3			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	9.7			0.10	0.10	1	%	6489		06/18/02 0000	jdw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		33	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	2-Methylnaphthalene, Solid*	ND	U		29	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Acenaphthylene, Solid*	ND	U		11	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Acenaphthene, Solid*	ND	U		16	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Fluorene, Solid*	ND	U		21	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Phenanthrene, Solid*	ND	U		25	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Anthracene, Solid*	ND	U		13	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Fluoranthene, Solid*	ND	U		23	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Pyrene, Solid*	ND	U		20	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Chrysene, Solid*	ND	U		18	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		40	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		41	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		19	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		19	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw
	Benzo(ghi)perylene, Solid*	ND	U		18	340	1.00000	ug/Kg	6663		06/18/02 2244	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201195

Date:06/19/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (44-48)
Date Sampled.....: 06/11/2002
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-14
Date Received.....: 06/12/2002
Time Received.....: 22:20

PREP METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.3			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	9.7			0.10	0.10	1	%	6489		06/18/02 0000	jdw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.080	1.8	1.0000	mg/Kg	6512		06/19/02 1135	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	1.9 J8	B		0.89	7.1	1	mg/Kg	6513		06/18/02 1543	ckc
	Barium, Solid*	72.3			0.27	1.8	1	mg/Kg	6513		06/18/02 1543	ckc
	Cadmium, Solid*	ND	U		0.89	2.7	1	mg/Kg	6513		06/18/02 1543	ckc
	Chromium, Solid*	17.9 J17		J8	0.45	2.7	1	mg/Kg	6513		06/18/02 1543	ckc
	Lead, Solid*	6.7 J8	B		0.89	8.0	1	mg/Kg	6513		06/18/02 1543	ckc
	Selenium, Solid*	ND UJ8	U		1.4	14.3	1	mg/Kg	6513		06/18/02 1543	ckc
	Silver, Solid*	ND	U		0.27	2.7	1	mg/Kg	6513		06/18/02 1543	ckc

* In Description = Dry Wgt.

Job Number: 201195

LABORATORY TEST RESULTS

Date:06/20/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (44-48)
Date Sampled.....: 06/11/2002
Time Sampled.....: 14:35
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-14
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	90.3			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	9.7			0.10	0.10	1	%	6489		06/18/02 0000	jdw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND V3?	U		111	554	1.0	ug/Kg	6549		06/20/02 1150	dtn

* In Description = Dry Wgt.

7/15/02

Job Number: 201195

LABORATORY TEST RESULTS

Date:07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (48-52)
Date Sampled.....: 06/11/2002
Time Sampled.....: 17:00
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-15
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	6489		06/18/02 0000	jdm
	% Moisture, Solid	10.4			0.10	0.10	1	%	6489		06/18/02 0000	jdm
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	6712		06/21/02 1552	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6712		06/21/02 1552	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	6712		06/21/02 1552	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	6712		06/21/02 1552	pam

00000028

* In Description = Dry Wgt.

Job Number: 201195

LABORATORY TEST RESULTS

Date:07/02/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (48-52)
Date Sampled.....: 06/11/2002
Time Sampled.....: 17:00
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-15
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	10.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Acenaphthene, Solid*	ND	U		17	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	6663		06/18/02 2310	jdw

* In Description = Dry Wgt.

Job Number: 201195

LABORATORY TEST RESULTS

Date:06/19/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (48-52)
Date Sampled.....: 06/11/2002
Time Sampled.....: 17:00
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-15
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	10.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.089	2.0	1.0000	mg/Kg	6512		06/19/02 1136	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.5 J8	B		0.83	6.7	1	mg/Kg	6513		06/18/02 1549	ckc
	Barium, Solid*	71.3			0.25	1.7	1	mg/Kg	6513		06/18/02 1549	ckc
	Cadmium, Solid*	ND	U		0.83	2.5	1	mg/Kg	6513		06/18/02 1549	ckc
	Chromium, Solid*	20.5 J7		J8	0.42	2.5	1	mg/Kg	6513		06/18/02 1549	ckc
	Lead, Solid*	10.2 J8			0.83	7.5	1	mg/Kg	6513		06/18/02 1549	ckc
	Selenium, Solid*	ND UJ8	U		1.3	13.3	1	mg/Kg	6513		06/18/02 1549	ckc
	Silver, Solid*	ND	U		0.25	2.5	1	mg/Kg	6513		06/18/02 1549	ckc

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201195

Date:06/20/2002

CUSTOMER: SEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-SB-88 (48-52)
Date Sampled.....: 06/11/2002
Time Sampled.....: 17:00
Sample Matrix.....: Soil

Laboratory Sample ID: 201195-15
Date Received.....: 06/12/2002
Time Received.....: 22:20

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
Solids												
	% Solids, Solid	89.6			0.10	0.10	1	%	6489		06/18/02 0000	jdw
	% Moisture, Solid	10.4			0.10	0.10	1	%	6489		06/18/02 0000	jdw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND U58	U		111	553	1.0	ug/Kg	6549		06/20/02 1150	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 13:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-9
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
82608	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 1935	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	11775		11/18/02 1935	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	11775		11/18/02 1935	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 1935	pam

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 13:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-9
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	M	37	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	2-Methylnaphthalene, Solid*	ND	U		32	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Acenaphthylene, Solid*	ND	U		13	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Acenaphthene, Solid*	ND	U		17	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Fluorene, Solid*	ND	U		23	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Phenanthrene, Solid*	ND	U		27	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Anthracene, Solid*	ND	U		14	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Fluoranthene, Solid*	ND	U		25	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Pyrene, Solid*	ND	U		22	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Chrysene, Solid*	ND	U		19	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		43	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		45	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		21	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		21	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	380	1.00000	ug/Kg	12366		11/25/02 2313	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 13:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-9
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.042	1.7	1.0000	mg/Kg	12100		11/26/02 0958	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6	B		1.0	8.1	1	mg/Kg	12353		12/04/02 2252	nnp
	Barium, Solid*	43.6			0.30	2.0	1	mg/Kg	12353		12/04/02 2252	nnp
	Cadmium, Solid*	ND	U		1.0	3.0	1	mg/Kg	12353		12/04/02 2252	nnp
	Chromium, Solid*	33.6			0.51	3.0	1	mg/Kg	12353		12/04/02 2252	nnp
	Lead, Solid*	4.0	B		1.0	9.1	1	mg/Kg	12353		12/04/02 2252	nnp
	Selenium, Solid*	ND	U		1.6	16.2	1	mg/Kg	12353		12/04/02 2252	nnp
	Silver, Solid*	ND	U		0.30	3.0	1	mg/Kg	12353		12/04/02 2252	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 13:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-9
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	87.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		59.3	549	1.0	ug/Kg	11913		11/19/02 1154	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (32-36')
Date Sampled.....: 11/14/2002
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-8
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 1823	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	11775		11/18/02 1823	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	11775		11/18/02 1823	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 1823	pam

000144

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (32-36')
Date Sampled.....: 11/14/2002
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-8
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND		U	35	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	2-Methylnaphthalene, Solid*	ND		U	31	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Acenaphthylene, Solid*	ND		U	12	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Acenaphthene, Solid*	ND		U	17	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Fluorene, Solid*	ND		U	22	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Phenanthrene, Solid*	ND		U	27	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Anthracene, Solid*	ND		U	13	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Fluoranthene, Solid*	ND		U	24	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Pyrene, Solid*	ND		U	21	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Benzo(a)anthracene, Solid*	ND		U	17	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Chrysene, Solid*	ND		U	19	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Benzo(b)fluoranthene, Solid*	ND		U	42	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Benzo(k)fluoranthene, Solid*	ND		U	43	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Benzo(a)pyrene, Solid*	ND		U	18	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND		U	20	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Dibenzo(a,h)anthracene, Solid*	ND		U	20	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw
	Benzo(ghi)perylene, Solid*	ND		U	19	370	1.00000	ug/Kg	12366		11/25/02 2247	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (32-36')
Date Sampled.....: 11/14/2002
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-8
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.056	2.2	1.0000	mg/Kg	12100		11/26/02 0953	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.0		B	0.96	7.7	1	mg/Kg	12353		12/04/02 2158	nnp
	Barium, Solid*	66.5			0.29	1.9	1	mg/Kg	12353		12/04/02 2158	nnp
	Cadmium, Solid*	ND		U	0.96	2.9	1	mg/Kg	12353		12/04/02 2158	nnp
	Chromium, Solid*	94.8			0.48	2.9	1	mg/Kg	12353		12/04/02 2158	nnp
	Lead, Solid*	7.0		B	0.96	8.6	1	mg/Kg	12353		12/04/02 2158	nnp
	Selenium, Solid*	ND		U	1.5	15.4	1	mg/Kg	12353		12/04/02 2158	nnp
	Silver, Solid*	ND		U	0.29	2.9	1	mg/Kg	12353		12/04/02 2158	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-90C (32-36')
Date Sampled.....: 11/14/2002
Time Sampled.....: 14:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-8
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND		U	58.2	539	1.0	ug/Kg	11913		11/19/02 1151	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-91 (8-12')
Date Sampled.....: 11/15/2002
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-12
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 1859	pam
	Toluene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	11775		11/18/02 1859	pam
	Ethylbenzene, Solid*	ND	U		0.5	6	1.00000	ug/Kg	11775		11/18/02 1859	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 1859	pam

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-91 (8-12')
Date Sampled.....: 11/15/2002
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-12
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	M	36	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	2-Methylnaphthalene, Solid*	ND	U		32	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Acenaphthylene, Solid*	100	J		12	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Fluorene, Solid*	ND	U		23	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Phenanthrene, Solid*	52	J		27	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Anthracene, Solid*	53	J		14	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Fluoranthene, Solid*	270	J		25	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Pyrene, Solid*	320	J		22	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Benzo(a)anthracene, Solid*	170	J		17	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Chrysene, Solid*	180	J		19	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Benzo(b)fluoranthene, Solid*	160	J		43	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Benzo(k)fluoranthene, Solid*	230	J		44	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Benzo(a)pyrene, Solid*	250	J		18	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	140	J		20	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Dibenzo(a,h)anthracene, Solid*	53	J	H	20	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw
	Benzo(ghi)perylene, Solid*	140	J		19	370	1.00000	ug/Kg	12366		11/26/02 0032	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-91 (8-12')
Date Sampled.....: 11/15/2002
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-12
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.046	1.8	1.0000	mg/Kg	12100		11/26/02 1005	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.0	B		0.90	7.2	1	mg/Kg	12353		12/04/02 2310	nnp
	Barium, Solid*	11.0			0.27	1.8	1	mg/Kg	12353		12/04/02 2310	nnp
	Cadmium, Solid*	ND	U		0.90	2.7	1	mg/Kg	12353		12/04/02 2310	nnp
	Chromium, Solid*	10.6			0.45	2.7	1	mg/Kg	12353		12/04/02 2310	nnp
	Lead, Solid*	12.8			0.90	8.1	1	mg/Kg	12353		12/04/02 2310	nnp
	Selenium, Solid*	ND	U		1.4	14.4	1	mg/Kg	12353		12/04/02 2310	nnp
	Silver, Solid*	ND	U		0.27	2.7	1	mg/Kg	12353		12/04/02 2310	nnp

* In Description = Dry Wgt.

00040

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-91 (8-12')
Date Sampled.....: 11/15/2002
Time Sampled.....: 08:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-12
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	12.0			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		60.8	563	1.0	ug/Kg	11913		11/19/02 1156	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-91A (36-40')
Date Sampled.....: 11/15/2002
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-13
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
82608	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 2011	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2011	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2011	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 2011	pam

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-91A (36-40')
Date Sampled.....: 11/15/2002
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-13
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	M	36	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	2-Methylnaphthalene, Solid*	ND	U		31	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Acenaphthylene, Solid*	ND	U		12	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Acenaphthene, Solid*	ND	U		17	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Phenanthrene, Solid*	ND	U		27	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Anthracene, Solid*	ND	U		13	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Fluoranthene, Solid*	ND	U		25	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Pyrene, Solid*	ND	U		21	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		44	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	12366		11/26/02 0058	jdw

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-91A (36-40')
Date Sampled.....: 11/15/2002
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-13
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.051	2.0	1.0000	mg/Kg	12100		11/26/02 1007	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.8	B		1.0	8.1	1	mg/Kg	12353		12/04/02 2316	nnp
	Barium, Solid*	48.0			0.30	2.0	1	mg/Kg	12353		12/04/02 2316	nnp
	Cadmium, Solid*	ND	U		1.0	3.0	1	mg/Kg	12353		12/04/02 2316	nnp
	Chromium, Solid*	84.6			0.50	3.0	1	mg/Kg	12353		12/04/02 2316	nnp
	Lead, Solid*	4.7	B		1.0	9.1	1	mg/Kg	12353		12/04/02 2316	nnp
	Selenium, Solid*	ND	U		1.6	16.1	1	mg/Kg	12353		12/04/02 2316	nnp
	Silver, Solid*	ND	U		0.30	3.0	1	mg/Kg	12353		12/04/02 2316	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-91A (36-40')
Date Sampled.....: 11/15/2002
Time Sampled.....: 09:45
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-13
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.5			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		58.0	537	1.0	ug/Kg	11913		11/19/02 1157	dtn

* In Description = Dry Wgt.

00053

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (5-9')
Date Sampled.....: 11/12/2002
Time Sampled.....: 10:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-1
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.6			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	14.4			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		3	29	5.00000	ug/Kg	12044		11/18/02 2111	pem
	Toluene, Solid*	ND	U		2	29	5.00000	ug/Kg	12044		11/18/02 2111	pem
	Ethylbenzene, Solid*	ND	U		2	29	5.00000	ug/Kg	12044		11/18/02 2111	pem
	Xylenes (total), Solid*	ND	U		6	29	5.00000	ug/Kg	12044		11/18/02 2111	pem

* In Description = Dry Wgt.

00004

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (5-9')
Date Sampled.....: 11/12/2002
Time Sampled.....: 10:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-1
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.6			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	14.4			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U	M	37	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	2-Methylnaphthalene, Solid*	ND	U		32	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Acenaphthylene, Solid*	260	J		13	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Acenaphthene, Solid*	58	J		17	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Fluorene, Solid*	34	J		23	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Phenanthrene, Solid*	61	J		28	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Anthracene, Solid*	87	J		14	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Fluoranthene, Solid*	140	J		25	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Pyrene, Solid*	170	J		22	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Benzo(a)anthracene, Solid*	120	J		17	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Chrysene, Solid*	140	J		20	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Benzo(b)fluoranthene, Solid*	120	J		44	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Benzo(k)fluoranthene, Solid*	130	J		45	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Benzo(a)pyrene, Solid*	170	J		18	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	110	J		21	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Dibenzo(a,h)anthracene, Solid*	49	J		21	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw
	Benzo(ghi)perylene, Solid*	170	J		20	380	1.00000	ug/Kg	12366		11/26/02 0216	jdw

* In Description = Dry Wgt.

00018

LABORATORY TEST RESULTS

Job Number: 202480

Date:12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (5-9')
Date Sampled.....: 11/12/2002
Time Sampled.....: 10:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-1
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.6			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	14.4			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.041	1.6	1.0000	mg/Kg	12100		11/26/02 0945	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.7		B	0.83	6.7	1	mg/Kg	12353		12/04/02 2133	nnp
	Barium, Solid*	22.5			0.25	1.7	1	mg/Kg	12353		12/04/02 2133	nnp
	Cadmium, Solid*	ND		U	0.83	2.5	1	mg/Kg	12353		12/04/02 2133	nnp
	Chromium, Solid*	20.2			0.42	2.5	1	mg/Kg	12353		12/04/02 2133	nnp
	Lead, Solid*	35.2			0.83	7.5	1	mg/Kg	12353		12/04/02 2133	nnp
	Selenium, Solid*	ND		U	1.3	13.4	1	mg/Kg	12353		12/04/02 2133	nnp
	Silver, Solid*	ND		U	0.25	2.5	1	mg/Kg	12353		12/04/02 2133	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (5-9')
Date Sampled.....: 11/12/2002
Time Sampled.....: 10:40
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-1
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	85.6			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	14.4			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		61.2	567	1.0	ug/Kg	11913		11/19/02 1144	dtn

* In Description = Dry Wgt.

00042

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (37-41')
Date Sampled.....: 11/12/2002
Time Sampled.....: 13:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-2
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 2124	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2124	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2124	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 2124	pam

* In Description = Dry Wgt.

00005

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (37-41')
Date Sampled.....: 11/12/2002
Time Sampled.....: 13:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-2
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		35	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	2-Methylnaphthalene, Solid*	ND	U		30	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Pyrene, Solid*	ND	U		21	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Chrysene, Solid*	ND	U		19	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	360	1.00000	ug/Kg	12366		11/22/02 1331	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (37-41')
Date Sampled.....: 11/12/2002
Time Sampled.....: 13:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-2
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.045	1.8	1.0000	mg/Kg	12100		11/26/02 0947	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.2	B		0.99	7.9	1	mg/Kg	12353		12/04/02 2140	nnp
	Barium, Solid*	62.7			0.30	2.0	1	mg/Kg	12353		12/04/02 2140	nnp
	Cadmium, Solid*	ND	U		0.99	3.0	1	mg/Kg	12353		12/04/02 2140	nnp
	Chromium, Solid*	82.2			0.50	3.0	1	mg/Kg	12353		12/04/02 2140	nnp
	Lead, Solid*	6.2	B		0.99	8.9	1	mg/Kg	12353		12/04/02 2140	nnp
	Selenium, Solid*	ND	U		1.6	15.9	1	mg/Kg	12353		12/04/02 2140	nnp
	Silver, Solid*	ND	U		0.30	3.0	1	mg/Kg	12353		12/04/02 2140	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (37-41')
Date Sampled.....: 11/12/2002
Time Sampled.....: 13:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-2
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	89.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	10.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		59.4	550	1.0	ug/Kg	11913		11/19/02 1145	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (45-50')
Date Sampled.....: 11/12/2002
Time Sampled.....: 08:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-3
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 2200	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2200	pam
	Ethylbenzene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2200	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 2200	pam

* In Description = Dry Wgt.

90000

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (45-50')
Date Sampled.....: 11/12/2002
Time Sampled.....: 08:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-3
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	ND	U		34	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	2-Methylnaphthalene, Solid*	ND	U		30	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Acenaphthylene, Solid*	ND	U		12	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Acenaphthene, Solid*	ND	U		16	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Phenanthrene, Solid*	ND	U		26	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Anthracene, Solid*	ND	U		13	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Fluoranthene, Solid*	ND	U		24	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Benzo(a)anthracene, Solid*	ND	U		16	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Chrysene, Solid*	ND	U		18	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		19	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		19	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw
	Benzo(ghi)perylene, Solid*	ND	U		18	360	1.00000	ug/Kg	12366		11/22/02 1358	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (45-50')
Date Sampled.....: 11/12/2002
Time Sampled.....: 08:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-3
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.045	1.8	1.0000	mg/Kg	12100		11/26/02 0949	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.8		B	0.94	7.5	1	mg/Kg	12353		12/04/02 2146	nnp
	Barium, Solid*	47.8			0.28	1.9	1	mg/Kg	12353		12/04/02 2146	nnp
	Cadmium, Solid*	ND		U	0.94	2.8	1	mg/Kg	12353		12/04/02 2146	nnp
	Chromium, Solid*	72.0			0.47	2.8	1	mg/Kg	12353		12/04/02 2146	nnp
	Lead, Solid*	5.3		B	0.94	8.5	1	mg/Kg	12353		12/04/02 2146	nnp
	Selenium, Solid*	ND		U	1.5	15.1	1	mg/Kg	12353		12/04/02 2146	nnp
	Silver, Solid*	ND		U	0.28	2.8	1	mg/Kg	12353		12/04/02 2146	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-92 (45-50')
Date Sampled.....: 11/12/2002
Time Sampled.....: 08:00
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-3
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		56.7	525	1.0	ug/Kg	11913		11/19/02 1146	dtn

* In Description = Dry Wgt.

00041

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (8-12')
Date Sampled.....: 11/13/2002
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-4
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		560	6200	10.00000	ug/Kg	11926		11/19/02 1720	pam
	Toluene, High/Med Level*	ND	U		1100	6200	10.00000	ug/Kg	11926		11/19/02 1720	pam
	Ethylbenzene, High/Med Level*	28000			940	6200	10.00000	ug/Kg	11926		11/19/02 1720	pam
	Xylenes (total), High/Med Level*	16000			3200	6200	10.00000	ug/Kg	11926		11/19/02 1720	pam
ASTM D-2216												
	% Solids, Solid	80.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	19.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (8-12')
Date Sampled.....: 11/13/2002
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-4
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	19.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	1600000			78000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	2-Methylnaphthalene, Solid*	80000	J		68000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Acenaphthylene, Solid*	190000	J	M	27000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Acenaphthene, Solid*	1200000			36000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Fluorene, Solid*	890000			49000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Phenanthrene, Solid*	3800000			58000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Anthracene, Solid*	810000			29000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Fluoranthene, Solid*	1900000			53000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Pyrene, Solid*	1500000			46000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Benzo(a)anthracene, Solid*	640000	J		36000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Chrysene, Solid*	450000	J		41000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Benzo(b)fluoranthene, Solid*	460000	J	M	92000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Benzo(k)fluoranthene, Solid*	390000	J	M	95000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Benzo(a)pyrene, Solid*	540000	J		39000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	240000	J		44000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		44000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw
	Benzo(ghi)perylene, Solid*	260000	J		41000	800000	500.0000	ug/Kg	12366		12/03/02 1206	jdw

* In Description = Dry Wgt.

12000

LABORATORY TEST RESULTS

Job Number: 202480

Date:12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (8-12')
Date Sampled.....: 11/13/2002
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-4
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	19.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.057	2.3	1.0000	mg/Kg	12100		11/26/02 0950	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.6		B	1.0	8.2	1	mg/Kg	12353		12/04/02 2152	nnp
	Barium, Solid*	8.7			0.31	2.1	1	mg/Kg	12353		12/04/02 2152	nnp
	Cadmium, Solid*	ND		U	1.0	3.1	1	mg/Kg	12353		12/04/02 2152	nnp
	Chromium, Solid*	14.0			0.51	3.1	1	mg/Kg	12353		12/04/02 2152	nnp
	Lead, Solid*	3.8		B	1.0	9.3	1	mg/Kg	12353		12/04/02 2152	nnp
	Selenium, Solid*	ND		U	1.6	16.5	1	mg/Kg	12353		12/04/02 2152	nnp
	Silver, Solid*	ND		U	0.31	3.1	1	mg/Kg	12353		12/04/02 2152	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (8-12')
Date Sampled.....: 11/13/2002
Time Sampled.....: 09:35
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-4
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	80.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	19.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		65.9	610	1.0	ug/Kg	11913		11/19/02 1149	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (36-40')
Date Sampled.....: 11/13/2002
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-5
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
82608	Volatile Organics											
	Benzene, Solid*	ND	U		0.6	6	1.00000	ug/Kg	11775		11/18/02 2236	pam
	Toluene, Solid*	ND	U		0.4	6	1.00000	ug/Kg	11775		11/18/02 2236	pam
	Ethylbenzene, Solid*	4	J		0.4	6	1.00000	ug/Kg	11775		11/18/02 2236	pam
	Xylenes (total), Solid*	ND	U		1	6	1.00000	ug/Kg	11775		11/18/02 2236	pam

* In Description = Dry Wgt.

00008

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (36-40')
Date Sampled.....: 11/13/2002
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-5
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	320	J		35	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	2-Methylnaphthalene, Solid*	ND	U	H	30	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Acenaphthylene, Solid*	18	J	M	12	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Acenaphthene, Solid*	56	J		16	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Fluorene, Solid*	ND	U		22	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Phenanthrene, Solid*	28	J	M	26	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Anthracene, Solid*	ND	U	M	13	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Fluoranthene, Solid*	ND	U	M	24	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Pyrene, Solid*	ND	U	M	21	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Benzo(a)anthracene, Solid*	ND	U	M	16	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Chrysene, Solid*	ND	U	M	18	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		41	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		42	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Benzo(a)pyrene, Solid*	ND	U		17	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw
	Benzo(ghi)perylene, Solid*	ND	U		18	360	1.00000	ug/Kg	12366		11/22/02 1424	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (36-40')
Date Sampled.....: 11/13/2002
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-5
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.039	1.6	1.0000	mg/Kg	12100		11/26/02 0952	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	6.6		B	0.90	7.2	1	mg/Kg	12353		12/04/02 2246	nnp
	Barium, Solid*	71.3			0.27	1.8	1	mg/Kg	12353		12/04/02 2246	nnp
	Cadmium, Solid*	ND		U	0.90	2.7	1	mg/Kg	12353		12/04/02 2246	nnp
	Chromium, Solid*	83.8			0.45	2.7	1	mg/Kg	12353		12/04/02 2246	nnp
	Lead, Solid*	7.6		B	0.90	8.1	1	mg/Kg	12353		12/04/02 2246	nnp
	Selenium, Solid*	ND		U	1.4	14.5	1	mg/Kg	12353		12/04/02 2246	nnp
	Silver, Solid*	ND		U	0.27	2.7	1	mg/Kg	12353		12/04/02 2246	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-93 (36-40')
Date Sampled.....: 11/13/2002
Time Sampled.....: 11:55
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-5
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	90.7			0.10	0.10	1	%	11990		11/23/02 0000	kaw
	% Moisture, Solid	9.3			0.10	0.10	1	%	11990		11/23/02 0000	kaw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND		U	57.2	530	1.0	ug/Kg	11913		11/19/02 1150	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-10
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics											
	Benzene, High/Med Level*	ND	U		520	5800	10.00000	ug/Kg	11926		11/19/02 1840	pam
	Toluene, High/Med Level*	4900	J		1000	5800	10.00000	ug/Kg	11926		11/19/02 1840	pam
	Ethylbenzene, High/Med Level*	9400			880	5800	10.00000	ug/Kg	11926		11/19/02 1840	pam
	Xylenes (total), High/Med Level*	16000			3000	5800	10.00000	ug/Kg	11926		11/19/02 1840	pam
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	13.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-10
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	13.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	62000			1500	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	2-Methylnaphthalene, Solid*	30000			1300	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Acenaphthylene, Solid*	14000	J		500	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Acenaphthene, Solid*	2800	J		690	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Fluorene, Solid*	9500	J		920	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Phenanthrene, Solid*	25000			1100	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Anthracene, Solid*	7400	J		550	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Fluoranthene, Solid*	9500	J		1000	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Pyrene, Solid*	10000	J		870	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Benzo(a)anthracene, Solid*	3700	J		690	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Chrysene, Solid*	3500	J		780	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		1700	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Benzo(k)fluoranthene, Solid*	3200	J		1800	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Benzo(a)pyrene, Solid*	2900	J	M	730	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	1000	J	M	820	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		820	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw
	Benzo(ghi)perylene, Solid*	1200	J	M	780	15000	40.00000	ug/Kg	12366		12/03/02 1549	jdw

* In Description = Dry Wgt.

92000

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-10
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	13.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND	U		0.046	1.8	1.0000	mg/Kg	12100		11/26/02 0959	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	2.5	B		0.82	6.6	1	mg/Kg	12353		12/04/02 2258	nnp
	Barium, Solid*	48.9			0.25	1.6	1	mg/Kg	12353		12/04/02 2258	nnp
	Cadmium, Solid*	ND	U		0.82	2.5	1	mg/Kg	12353		12/04/02 2258	nnp
	Chromium, Solid*	27.3			0.41	2.5	1	mg/Kg	12353		12/04/02 2258	nnp
	Lead, Solid*	4.6	B		0.82	7.4	1	mg/Kg	12353		12/04/02 2258	nnp
	Selenium, Solid*	ND	U		1.3	13.2	1	mg/Kg	12353		12/04/02 2258	nnp
	Silver, Solid*	ND	U		0.25	2.5	1	mg/Kg	12353		12/04/02 2258	nnp

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (20-24')
Date Sampled.....: 11/14/2002
Time Sampled.....: 10:30
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-10
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	86.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	13.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		60.2	558	1.0	ug/Kg	11913		11/19/02 1155	dtn

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (36-40')
Date Sampled.....: 11/14/2002
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-11
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8260B	Volatile Organics											
	Benzene, Solid*	ND		U		0.6	6	1.00000	ug/Kg	11775		11/18/02 2312	pam
	Toluene, Solid*	ND		U		0.5	6	1.00000	ug/Kg	11775		11/18/02 2312	pam
	Ethylbenzene, Solid*	3		J		0.5	6	1.00000	ug/Kg	11775		11/18/02 2312	pam
	Xylenes (total), Solid*	1		J		1	6	1.00000	ug/Kg	11775		11/18/02 2312	pam

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (36-40')
Date Sampled.....: 11/14/2002
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-11
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
8270C	Semivolatile Organics											
	Naphthalene, Solid*	390			36	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	2-Methylnaphthalene, Solid*	140	J		31	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Acenaphthylene, Solid*	25	J	M	12	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Acenaphthene, Solid*	21	J	M	17	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Fluorene, Solid*	ND	U		22	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Phenanthrene, Solid*	ND	U	M	27	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Anthracene, Solid*	ND	U	M	13	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Fluoranthene, Solid*	ND	U		25	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Pyrene, Solid*	ND	U	M	21	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Benzo(a)anthracene, Solid*	ND	U		17	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Chrysene, Solid*	ND	U		19	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Benzo(b)fluoranthene, Solid*	ND	U		42	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Benzo(k)fluoranthene, Solid*	ND	U		43	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Benzo(a)pyrene, Solid*	ND	U		18	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Indeno(1,2,3-cd)pyrene, Solid*	ND	U		20	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Dibenzo(a,h)anthracene, Solid*	ND	U		20	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw
	Benzo(ghi)perylene, Solid*	ND	U		19	370	1.00000	ug/Kg	12366		11/26/02 0006	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (36-40')
Date Sampled.....: 11/14/2002
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-11
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
7471A	Mercury (CVAA) Solids											
	Mercury, Solid*	ND		U	0.047	1.9	1.0000	mg/Kg	12100		11/26/02 1004	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic, Solid*	7.7		B	1.1	8.4	1	mg/Kg	12353		12/04/02 2304	nnp
	Barium, Solid*	81.6			0.32	2.1	1	mg/Kg	12353		12/04/02 2304	nnp
	Cadmium, Solid*	ND		U	1.1	3.2	1	mg/Kg	12353		12/04/02 2304	nnp
	Chromium, Solid*	91.3			0.53	3.2	1	mg/Kg	12353		12/04/02 2304	nnp
	Lead, Solid*	7.3		B	1.1	9.5	1	mg/Kg	12353		12/04/02 2304	nnp
	Selenium, Solid*	ND		U	1.7	16.8	1	mg/Kg	12353		12/04/02 2304	nnp
	Silver, Solid*	ND		U	0.32	3.2	1	mg/Kg	12353		12/04/02 2304	nnp

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-SB-94 (36-40')
Date Sampled.....: 11/14/2002
Time Sampled.....: 11:10
Sample Matrix.....: Soil

Laboratory Sample ID: 202480-11
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
ASTM D-2216												
	% Solids, Solid	88.8			0.10	0.10	1	%	11990		11/23/02 0000	ksw
	% Moisture, Solid	11.2			0.10	0.10	1	%	11990		11/23/02 0000	ksw
9012	Cyanide (Colorimetric)											
	Cyanide, Total, Solid*	ND	U		57.9	536	1.0	ug/Kg	11913		11/19/02 1155	dtn

* In Description = Dry Wgt.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 990302A

REVIEWER(S): Lorie MacKinnon, GEI Consultants

DATE: July 13, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB15(5-8)	990302A-03	METALS/CN
CF-RW1(17)	990302A-04	METALS/CN
CF-RW1(4-6)	990302A-05	METALS/CN
CF-TP1(3)	990302A-06	METALS/CN
CF-SB20(5-7)	990302A-07	METALS/CN
CF-SB16(5-7)	990302A-08	METALS/CN
CF-SB9(8-10)	990302A-09	METALS/CN
CF-SB9(24-26)	990302A-10	PEST/PCB, TAL METALS/CN
CF-TP3(1)	990302A-11	METALS/CN
CF-SB10(5-6.5)	990302A-12	METALS/CN
CF-SB11(4-6)	990302A-13	METALS/CN
CF-SB13(7-9)	990302A-15	METALS/CN
CF-SB13(18-20)	990302A-16	METALS/CN
CF-SB14(6-8)	990302A-17	METALS/CN
CF-SB19(5-7)	990302A-18	METALS/CN
CF-SB14(24-28)	990302A-19	METALS/CN
CF-RW3(8-10)	990302A-20	METALS/CN

ASSOCIATED QC SAMPLE(S): Field Blanks: None
Field Duplicate: SB13(18-20)/DUP1 and SB14(6-8)/DUP2

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

One soil sample was validated for pesticide/PCBs by Method 8080.

All quality control results were found to be acceptable with the following exceptions:

Spike Blank Results

Heptachlor (124%) was recovered above the control limits 34 - 111% in the blank spike sample PBLK60. The positive Heptachlor results are estimated (J27).

Blank Results

Gamma-chlordane was detected in the instrument blank at 0.044 ug/kg, making an action level of 0.22 ug/kg. No actions were required.

Calibration

The following table lists the compound %Ds found outside of the control limit of 15%. It should be noted that all out of control compounds were reported from the DB-1701 column. The RTX-35 column was used for quantitation, therefore, no actions were

required.

Standard	Compound	%D
INDA3, 3/08/99 DB-1701	**alpha-BHC** **gamma-BHC** **heptachlor** **dieldrin** **4,4'-DDD** **4,4'-DDT** **methoxychlor** **TCX**	**-21%** **19.7%** **-28%** **16.1%** **15.9%** **27.4%** **26.0%** **17.8%**
INDB3, 3/09/99 DB-1701	**endosulfan sulfate** **endrin aldehyde** **DCB**	**44%** **82.1%** **-21%**
AR16603, 3/08/99, DB-1701	**Aroclor-1016** **Aroclor-1260**	**24.6%** **82.3%**

The pesticide/PCB dual column %D was not calculated. The reviewer calculated the results. The following table lists the dual column %D found outside of the control limit of 25%.

Analyte	%D	Action
SB9(24-26) **heptachlor** **gamma-chlordane** **dieldrin** **4,4'-DDT**	**81.9 %** **93.4 %** **51.1 %** **86.7 %**	**Estimate (J31) result for heptachlor, dieldrin, gamma-chlordane, and 4,4'-DDT.**

INORGANIC FRACTIONS

Seventeen soil samples were validated for metals. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.
It should be noted that the wet chemistry report was not submitted for the salinity analysis, therefore, a data review was not performed.

General

The percent solids for sample RW1(17) were found below the control limit of 50% at 29.6%. The positive and non-detected results were estimated (J/UJ23).

Calibration

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Lead	128.8%, 132.7%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg. No actions required.
Selenium	76.6%	Estimate (J/UJ3) + and ND results < 4XCRDL of 4 mg/kg.
Thallium	61.9%	Estimate (J/UJ3) + and ND results < 4XCRDL or 8 mg/kg.

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following table lists the concentration of each metal found in the blanks along with the resultant action levels.

Element	Conc./Units	5X Action Level
Cadmium	0.21 mg/kg	1.1 mg/kg

Nickel	8.6 ug/l, 1.7 mg/kg	8.6 mg/kg
Potassium	21.1 mg/kg	105.5 mg/kg
Sodium	91.4 mg/kg	457 mg/kg
Zinc	1.7 mg/kg	8.5 mg/kg

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the following actions were required: The sodium result for sample SB9(24-26) was qualified as non-detected (U12). The cadmium results for samples TP1(3), SB20(5-7), SB9(24-26), TP3(1), SB13(7-9), SB13(18-20) and SB14(24-28) were qualified as non-detected (U12).

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Cadmium and vanadium were detected above the 2XIDL level. Sample interferent levels were greater than 50% for most samples. Qualifications were not required for Cadmium as the positive sample results were blank qualified (U) and a positive interference was suspected. The Vanadium result for sample SB9(24-26) was estimated (J32) due to the possible positive interference seen.

Matrix Spike Results

Cyanide (48.5%) was recovered below the control limits of 75 - 125% in the matrix spike performed as batch QC. The positive and non-detected Cyanide results for the job are estimated (J/UJ19).

ICP Serial Dilution

The %D for Potassium (16.3%) was found outside of control limits of 10% in the serial dilution performed on SB15(5-8). The positive Potassium result for sample SB9(24-26) was estimated (J4).

Field duplicate Results

The field duplicate pairs of SB13(18-20)/DUP1 and SB14(6-8)/DUP2 were identified. The %RPD for Chromium (107%) was found outside of the control limit of 50% in the pair SB13(18-

20)/DUP1. The %RPD for Lead (115%) was found outside of the control limit of 50% in the pair SB14(6-8)/DUP2. The detected Chromium result for sample SB13(18-20) and the detected Lead result for sample SB14(6-8) were estimated (J5).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1 The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.

J2 The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.

J/UJ3 The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.

J4 The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.

J/UJ5 The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.

J6 The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.

J7/UJ7 **One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**

J8, UR8 **The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**

J10 **The initial %RSD was high; estimate positive results.**

J11,UJ11 **The continuing %D was greater than 25%; estimate positive results and non-detects for %Ds greater than -25% and estimate positive results for %Ds greater than 25%..**

U12 **Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the**

	highest blank contamination seen and therefore, qualified as non-detected.
U13	Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.
J15,UJ15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated from that IS.
J16,UJ16	One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J18,UJ18	One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram .
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J22	Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.

J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J/UJ/R24	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
R26	**The Tentatively Identified Compound (TIC) was detected in the associated sample at less than the blank action level. The results were considered to be laboratory contamination.**
J/UJ27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample.

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

STL Project NO: 990302A, 990302C, 990302D

REVIEWER: Lisa McDonagh

DATE: July 7, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB15(5-8)	990302A-03	BTEX, ABN
CF-RW1(17)	990302A-04	BTEX, ABN
CF-RW1(4-6)	990302A-05	BTEX, ABN
CF-TP1(3)	990302A-06	VOA, ABN
CF-SB20(5-7)	990302A-07	BTEX, ABN
CF-SB16(5-7)	990302A-08	BTEX, ABN
CF-SB9(8-10)	990302A-09	BTEX, ABN
CF-SB9(24-26)	990302A-10	VOA, ABN
CF-TP3(1)	990302A-11	VOA, ABN
CF-SB10(5-6.5)	990302A-12	BTEX, ABN
CF-SB11(4-6)	990302A-13	BTEX, ABN
CF-TB1	990302A-14	BTEX, ABN
CF-SB13(7-9)	990302A-15	BTEX, ABN
CF-SB13(18-20)	990302A-16	BTEX, ABN
CF-SB14(6-8)	990302A-17	BTEX, ABN
CF-SB19(5-7)	990302A-18	BTEX, ABN
CF-SB14(24-28)	990302A-19	BTEX, ABN
CF-RW3(8-10)	990302A-20	BTEX, ABN
CF-SB22(20-21)	990302C-02	BTEX, ABN
CF-HSA-ER1	990302C-03	VOA, ABN
CF-SB17(13-16)	990302C-04	BTEX, ABN
CF-SB22(2-3)	990302C-05	BTEX
CF-SB2I(5-7)	990302C-06	BTEX, ABN
CF-TP10A(3)	990302C-07	VOA, ABN
CF-TB-2	990302C-08	VOA
CF-SB30(7-11)	990302C-09	BTEX, ABN
CF-SB30(19-23)	990302C-10	BTEX, ABN
CF-SB31(15-19)	990302C-11	BTEX, ABN

CF-SB32(11-15)	990302C-12	VOA, ABN
CF-SB32(20-23)	990302C-13	BTEX, ABN
CF-SB31(7-11)	990302C-14	BTEX, ABN
CF-SB33(7-9)	990302C-15	BTEX, ABN
CF-SB34(5-9)	990302C-16	BTEX, ABN
CF-SB34(9-13)	990302C-17	BTEX, ABN
CF-SB33(23-25)	990302C-18	BTEX, ABN
CF-SB35(6-10)	990302C-19	BTEX, ABN
CF-TB3	990302C-20	VOA
CF-SB35(18-22)	990302D-01	BTEX, ABN
CF-RW4(16-20)	990302D-02	BTEX, ABN
CF-RW4(4-8)	990302D-03	BTEX, ABN
CF-SB23(4-8)	990302D-04	BTEX, ABN
CF-SB18(4-7.5)	990302D-05	BTEX, ABN
CF-SB17(76-78)	990302D-06	BTEX, ABN
CF-HSA-ER2	990302D-07	BTEX, ABN

ASSOCIATED QC SAMPLE(S):	Trip Blanks:	CF-TB1, CF-TB2, CF-TB3
	Field Duplicates:	CF-SB13(18-20), DUP1 CF-SB14(6-8), DUP2

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standard areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

Organic Data

Evaluation of the VOA and ABN data was based on the following parameters:

* Data Completeness
* Holding Times
* GC/MS Instrument Performance Check (Tuning)
  Calibration
  Blanks
  Surrogate Recoveries
  Laboratory Control Spike/Spike Duplicate
  Matrix spike/Matrix spike duplicate
  Internal Standard Performance
  Field Duplicates
* Compound identification
* Compound quantitation

* All criteria were met for this parameter.

INTRODUCTION

The analysis for the presence of Volatile and Semivolatile Analytes by low -resolution mass spectrometry was performed by methods 8260B and 8270C . All criteria were met with the following exceptions:

Calibration

Instrument: HP5970K

Compound	ICAL 2/3/99	CCAL 3/2/99	CCAL 3/4/99
Acetone	X		
Carbon disulfide			XX
2-Butanone		XX	XX
Bromoform		XX	
2-Hexanone		XX	XX
4-Methyl-2-pentanone		XX	XX
Vinyl Acetate		XX	XX
Samples Affected:	CF-SB9(24-26)	CF-SB9(24-26)	CF-SB33(23-25)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
\+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

Instrument: HP5970K

Compound	ICAL 2/3/99	CCAL 3/4/99
Acetone	X	XX
Carbon disulfide		XX
2-Butanone		XX
Bromoform		XX
2-Hexanone		XX

4-Methyl-2-pentanone		XX
Vinyl Acetate		XX
Samples Affected:	CF-SB9(24-26)	CF-TB3
X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects. + - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects. XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.		

HP5970K

Compound	ICAL 2/18/99	CCAL 2/25/99	CCAL 3/5/99
Chloromethane			XX
Acetone			
2-Butanone			
Carbon tetrachloride			
2-Hexanone		XX	
4-Methyl-2-pentanone			
1,1,2,2-Tetrachloroethane			
Vinyl Acetate			
Samples Affected:	all samples listed	CF-TP1(3), CF-TP3(1)	CF-TP10A(3), CF-SB30(7-11), CF-SB30(19-23), CF-SB31(15-19), CF-SB32(20-23), CF-SB31(7-11), CF-SB34(9-13), CF-SB35(6-10), CF-SB34(5-9)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
\+ - RRF does not meet minimum RRF for all target compounds and surrogates :J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

HP5970K

Compound	ICAL 2/18/99	CCAL 3/9/99
Chloromethane		
Acetone		XX
2-Butanone		XX
Carbon tetrachloride		XX
2-Hexanone		XX
4-Methyl-2-pentanone		XX
1,1,2,2-Tetrachloroethane		XX
Vinyl Acetate		XX
Samples Affected:	all samples listed	CF-SB32(11-15)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
\+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

HP5971P

Compound	ICAL 3/2/99	CCAL 3/3/99	CCAL 3/4/99
N-Nitrosodiphenylamine	XXX		
Anthracene	XXX		
Di-n-butylphthalate	XXX		
Fluoranthene	XXX		
Carbazole	XXX		
3,3'-Dichlorobenzidine			

Chrysene		XX	XX
bis(2-ethylhexyl)phthalate			XX
Samples Affected:	all samples listed	QC samples	CF-HSA-ER1
X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects. + - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects. XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.			

HP5971P

Compound	ICAL 3/2/99	CCAL 3/5/99	CCAL 3/8/99
N-Nitrosodiphenylamine	XXX		
Anthracene	XXX		
Di-n-butylphthalate	XXX		
Fluoranthene	XXX		
Carbazole	XXX		
3,3'-Dichlorobenzidine			XX
Chrysene		XX	XX
bis(2-ethylhexyl)phthalate			XX
Samples Affected:	all samples listed	CF-SB20(5-7), CF-SB16(5-7), CF-SB19(5-7), CF-SB14(24-28), CF-RW3(8-10), CF-SB15(5-8), CF-TP1(3)	CF-SB9(24-26), CF-SB15(5-8)RE, CF-RW1(17), CF-TP1(3)RE, CF-SB10(5-6.5), CF-SB13(7-9), CF-RW1(4-6)DL
X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects. + - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects. XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.			

HP5971P

Compound	ICAL 3/2/99	CCAL 3/9/99
N-Nitrosodiphenylamine	XXX	
Anthracene	XXX	
Di-n-butylphthalate	XXX	
Fluoranthene	XXX	
Carbazole	XXX	
3,3'-Dichlorobenzidine		XX
Chrysene		
bis(2-ethylhexyl)phthalate		XX
Samples Affected:	all samples listed	CF-SB14(6-8), CF-SB13(7-9)DL, CF-SB13(18-20), CF-SB9(8-10), CF-SB11(4-6), CF-SB10(5-6.5)DL, CF-TP3(1), CF-RW1(4-6), CF-RW1(17)RE

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

HP5971R

Compound	ICAL 3/18/99	CCAL 3/24/99	CCAL 3/28/99
3-Nitroaniline		XX	XX
4-Nitroaniline		XX	
3,3'-Dichlorobenzidine		XX	XX
Samples Affected:	all samples listed	CF-SB31(15-19), CF-SB32(11-15)	CF-SB32(20-23), CF-SB34(9-13), CF-SB35(6-10), CF-SB31(7-11), CF-SB30(19-23)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
\+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

HP5971P

Compound	ICAL 3/29/99
1,2-Dichlorobenzene	XXX
2-Methylnaphthalene	XXX
N-Nitrosodiphenylamine	XXX
Di-n-octylphthalate	XXX
Benzo(k)fluoranthene	XXX
Samples Affected:	CF-SB22(20-21), CF-SB17(13-16), CF-SB2I(5-7), CF-SB33(7-9), CF-SB33(23-25), CF-SB34(5-9), CF-TP10A(3)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
\+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

HP5971P

Compound	ICAL 4/2/99
Benzyl Alcohol	XXX
2,4-Dinitrophenol	XXX
Dibenzofuran	XXX
Di-n-octylphthalate	XXX
Benzo(b)fluoranthene	XXX
Benzo(k)fluoranthene	XXX
Samples Affected:	CF-SB35(18-22), CF-HSAER2, CF-RW4(16-20), CF-RW4(4-8), CF-SB18(4-7.5)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

HP5971P

Compound	ICAL 4/7/99
Benzoic Acid	XXX
4,6-Dinitro-2-methylphenol	XXX
Di-n-octylphthalate	XXX
Benzo(b)fluoranthene	XXX
Benzo(k)fluoranthene	XXX
Samples Affected:	CF-SB17(76-78), CF-SB23(4-8)

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

Blanks

The VOA low level laboratory method blanks and trip blanks contained the following maximum quantities of contaminants: (990302A)

Compound	Max [ ] ug/kg	Action Level ug/kg
Acetone	4	40

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Acetone in samples CF-TP1(3) and CF-TP3(1) should be reported as the concentration followed by U13.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The VOA low level laboratory aqueous method blanks and trip blanks contained the following maximum quantities of contaminants: (990302C)

Compound	Max [ ] ug/l	Action Level ug/l
Methylene Chloride	6	60
Acetone	16	160

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Methylene Chloride in samples CF-HSA-ER1 and CF-TB3 should be reported as the concentration followed by U13.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The VOA low level laboratory soil method blanks and trip blanks contained the following maximum quantities of contaminants: (990302C)

Compound	Max [ ] ug/kg	Action Level ug/kg
Methylene Chloride	8	80
Acetone	7	70

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Acetone in sample CF-TP10A(3) should be reported as the CRQL followed by U12. Methylene Chloride in samples CF-TP10A(3) and CF-CB32(11-15) should be reported as the concentration followed by U13. Acetone in sample CF-SB32(11-15) should be reported as the concentration followed by U13.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The SVOA low level laboratory method blanks contained the following maximum quantities of contaminants: (990302A)

Compound	Max [ ] ug/kg	Action Level ug/kg
Diethylphthalate	7	70
bis(2-ethylhexyl)phthalate	6	60

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended .Diethylphthalate in samples CF-SB20(5-7) , CF-SB16(5-7) and CF-SB19(5-7) should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CF-SB20(5-7) , CF-SB16(5-7), CF-SB19(5-7), CF-SB14(24-28) and CF-RW3(8-10) should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CF-SB15(5-8) and CF-SB15(5-8)RE should be reported as the concentration followed by U13.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The SVOA low level laboratory aqueous method blank contained the following maximum quantities of contaminants: (990302C)

Compound	Max [ ] ug/l	Action Level ug/l
Diethylphthalate	0.1	1
bis(2-ethylhexyl)phthalate	0.4	4
Di-n-octylphthalate	0.2	2

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended .Diethylphthalate in sample CF-HSA-ER1 should be reported as the CRQL followed by U12.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The SVOA low level laboratory soil method blank contained the following maximum quantities of contaminants: (990302C)

Compound	Max [ ] ug/kg	Action Level ug/kg
Naphthalene	9	45
Di-n-butylphthalate	9	90
bis(2-ethylhexyl)phthalate	9	90
Di-n-octylphthalate	5	50

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Naphthalene in samples CF-SB30(7-11), CF-SB30(19-23) and CF-TP10A(3) should be reported as the CRQL followed by U12. Di-n-butylphthalate in samples CF-SB30(7-11), CF-SB35(6-10), CF-SB30(19-23), CF-SB31(15-19), CF-SB32(11-15), CF-SB31(7-11) and CF-SB34(9-13) should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples

CF-SB30(7-11), CF-SB22(20-21), CF-TP10A(3) and CF-SB32(11-15) should be reported as the CRQL followed by U12. Di-n-octylphthalate in samples CF-SB30(7-11), CF-SB31(15-19) and CF-SB32(11-15) should be reported as the CRQL followed by U12.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The SVOA low level laboratory soil method blanks contained the following maximum quantities of contaminants: (990302D)

Compound	Max [ ] ug/kg	Action Level ug/kg
Naphthalene	10	50
bis(2-ethylhexyl)phthalate	11	110

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Naphthalene in samples CF-RW4(16-20), CF-SB23(4-8) and CF-SB35(18-22) should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CF-SB23(4-8), CF-SB18(4-7.5) and CF-SB35(18-22) should be reported as the CRQL followed by U12.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The SVOA low level laboratory aqueous method blank contained the following maximum quantities of contaminants: (990302D)

Compound	Max [ ] ug/l	Action Level ug/l
bis(2-ethylhexyl)phthalate	0.2	2

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Bis(2-ethylhexyl)phthalate in sample HSA-ER2 should be reported as the CRQL followed by U12.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

Surrogate Recoveries

The following table lists the semivolatile surrogates recovered outside of the laboratory established control limits and the resultant actions:

Sample	NBZ	FBP	TPH	PHL	2FP	TBP	Action
CF-SB34(9-13)					126		No action
CF-SB35(6-10)					126		No action
CF-SB31(7-11)					126		No action.
Control Limits	23-120	30-115	18-137	24-113	25-121	19-122	

Laboratory Control Spike/Spike Duplicate

The following table lists the semivolatile laboratory spike compounds recovered outside of the laboratory established control limits and the resultant actions:

QCS Spike Summary K2843

Compounds	% Recovery	Control Limits	Action
Acetone	225	29-156	J24
2-Butanone	195	55-146	J24
4-Methyl-2-pentanone	150	58-141	J24
2-Hexanone	155	47-150	J24
1,1,2,2-Tetrachloroethane	120	76-118	J24
Associated Sample	CF-SB9(24-26)		

QCS Spike Summary (K2897)

Compounds	% Recovery	Control Limits	Action
Chloroethane	75	78-119	J24/UJ24
Methylene Chloride	125	83-114	J24
Acetone	265	29-156	J24
2-Butanone	230	55-146	J24
Trichloroethene	115	82-114	J24
4-Methyl-2-pentanone	145	58-141	J24
2-Hexanone	200	47-150	J24
Tetrachloroethene	120	78-118	J24
1,1,2,2-Tetrachloroethane	120	76-118	J24
Associated Samples	CF-TB2, CF-HSA-ER1, CF-TB3, CF-SB32(11-15), CF-TP10A(3)		

SBLKKP

Compounds	% Recovery	Control Limits	Action
Phenol	123	5-112	J24
2-Chlorophenol	138	23-134	J24
2-Methylphenol	115	37-113	J24
4-Methylphenol	146	32-108	J24
Associated Samples	CF-SB20(5-7), CF-SB16(5-7), CF-SB15(5-8), CF-TP1(3), CF-SB9(24-26), CF-SB15(5-8)RE, CF-RW1(17), CF-TP1(3)RE, CF-SB10(5-6.5), CF-RW1(4-6)DL, CF-SB9(8-10), CF-SB11(4-6), CF-SB10(5-6.5)DL, CF-TP3(1), CF-RW1(4-6), CF-RW1(17)RE		

SBLKNP

Compounds	% Recovery	Control Limits	Action
Hexachlorocyclopentadiene	75	01-74	J24
Di-n-butylphthalate	138	1-118	J24
Associated Samples	CF-SB19(5-7), CF-SB14(24-8), CF-RW3(8-10), CF-SB13(7-9), CF-SB14(6-8), CF-SB13(7-9)DL, CF-SB13(18-20)		

SBLKCR

Compounds	% Recovery	Control Limits	Action
Hexachlorocyclopentadiene	85	01-74	J24
Di-n-octylphthalate	161	4-146	J24
Associated Samples	CF-SB30(7-11), CF-SB31(15-19), CF-SB32(11-15), CF-SB32(20-23), CF-SB34(9-13), CF-SB35(6-10), CF-SB31(7-11), CF-SB30(19-23)		

SBLKCP

Compounds	% Recovery	Control Limits	Action
Benzyl Alcohol	169	8-132	J24
4-Methylphenol	123	32-108	J24
Hexachlorocyclopentadiene	75	01-74	J24
Associated Samples	CF-SB35(18-22)		

SBLKMP

Compounds	% Recovery	Control Limits	Action
Benzyl Alcohol	185	8-132	J24
2-Methylphenol	115	37-113	J24
4-Methylphenol	131	32-108	J24
Hexachlorocyclopentadiene	85	01-74	J24
2-Chloronaphthalene	123	60-118	J24
Dimethylphthalate	123	01-112	J24
4-Nitrophenol	146	01-132	J24
Diethylphthalate	115	01-114	J24
Di-n-butylphthalate	123	1-118	J24
Fluoranthene	138	26-137	J24
Di-n-octylphthalate	154	4-146	J24
Associated Samples	CF-RW4(16-20), CF-RW4(4-8), CF-SB18(4-7.5), CF-SB17(76-78), CF-SB23(4-8)		

SBLKLP

Compounds	% Recovery	Control Limits	Action
Benzyl Alcohol	135	8-132	J24
Benzoic Acid	0	01-474	J24/R24
Associated Samples	CF-HSAER2		

Matrix spike/Matrix spike duplicate

The following tables list the volatile and semivolatile matrix spike compounds recovered outside of the laboratory established control limits and the resultant actions:

Sample: SB9(24-26)

Compound	% Recovery MS	% Recovery MSD	RPD	Control Limits	Action
1,4-Dichlorobenzene	0	0		28-104	R20
N-nitroso-di-n-propylamine	0	0		41-126	R20
1,2,4-Trichlorobenzene	0	0		38-107	R20
4-Chloro-3-methylphenol	0	0		26-103	R20
Acenaphthene	0		200	31-137, <19	J20/J21
4-Nitrophenol	0	0		11-114	R20
2,4-Dinitrotoluene	0	0		28-89	R20
Pentachlorophenol	0	0		17-109	R20
Pyrene	0	909	200	35-142, <36	J19/J20/J21

Sample: SB22(20-21)

Compound	%Recovery MS	%Recovery MSD	RPD	Control Limits	Action
Benzene	135	78-120	23	78-120%, <20%	J19/J21

Internal Standard Performance

The Internal Standards that exceeded the acceptance criteria are summarized in the following table:

Sample Number	IS Outside Area Count	Action
CF-SB15(5-8)	Chrysene-d12	J15/UJ15
CF-TP1(3)	Acenaphthene-d10	J15/UJ15
CF-TP1(3)	Phenanthrene-d10	J15/UJ15
CF-TP1(3)	Chrysene-d12	J15/UJ15
CF-SB15(5-8)RE	Chrysene-d12	J15/UJ15
CF-RW1(17)	Phenanthrene-d10	J15/UJ15
CF-RW1(17)	Chrysene-d12	J15/UJ15
CF-TP1(3)RE	Acenaphthene-d10	J15/UJ15
CF-TP1(3)RE	Phenanthrene-d10	J15/UJ15
CF-TP1(3)RE	Chrysene-d12	J15/UJ15
CF-SB10(5-6.5)	Naphthalene-d8	J15/UJ15
CF-SB10(5-6.5)	Acenaphthene-d10	J15/UJ15
CF-SB10(5-6.5)	Phenanthrene-d10	J15/UJ15
CF-SB10(5-6.5)	Chrysene-d12	J15/UJ15
CF-SB13(7-9)	Naphthalene-d8	J15/UJ15
CF-SB13(7-9)	Acenaphthene-d10	J15/UJ15
CF-SB13(7-9)	Phenanthrene-d10	J15/UJ15
CF-SB13(7-9)	Chrysene-d12	J15/UJ15
CF-RW1(4-6)DL	Acenaphthene-d10	J15/UJ15
CF-RW1(4-6)DL	Phenanthrene-d10	J15/UJ15
CF-RW1(4-6)DL	Chrysene-d12	J15/UJ15
CF-RW1(4-6)DL	Perylene-d12	J15/UJ15
CF-SB13(7-9)DL	Phenanthrene-d10	J15/UJ15
CF-SB10(5-6.5)DL	Phenanthrene-d10	J15/UJ15

CF-RW1(4-6)	Acenaphthene-d10	J15/UJ15
CF-RW1(4-6)	Phenanthrene-d10	J15/UJ15
CF-RW1(4-6)	Perylene-d12	J15/UJ15
CF-RW1(17)RE	Phenanthrene-d10	J15/UJ15
CF-RW1(17)RE	Chrysene-d12	J15/UJ15

Clifton Qualifications

J6	The correlation coefficient <0.990 for a compound: estimate positive results in the associated samples.
J7, R7	The initial or continuing calibration RF was low: estimate positive results and reject non-detects.
J10	The initial %RSD was high; estimate positive results and non-detects.
J11, UJ11	The continuing %D was greater than 25%; estimate positive results and non-detects.
U12	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (U12).
U13	Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by reporting the value followed by "u". (i.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.
J15, UJ15	One or more Internal Standard (IS) areas were not within the CRR: estimate the positive results and non-detects for all compounds quantitated from that IS.
J16, UJ16	One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J18, UJ18	One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram.
J19, UJ19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were greater than or equal to 10%, but less than the lower limit of the QC acceptance criteria for this compound: estimate positive results and non-detects in the unspiked sample.

Clifton Qualifications

J20, R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21, UJ21	The MS/MSD %RPD for this compound was high: estimate positive results and non-detects in the unspiked sample.
J22	Field duplicate %RPD was high for this compound: estimate positive results for this compound in the sample and duplicate.
J23, UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R24	The blank spike (LCS) recovery for an analyte is outside of criteria. The reported results or detection limit is estimated based on the recovery.
J25	The blank spike (LCS) RPD was high for this compound: estimate positive results for this compound in the associated samples.
J26/R26	The TIC result is estimated as a compound specific response factor is not used for the quantitation. The TIC result is rejected as it was reported as a target analyte in another fraction or was detected in a field or laboratory blank.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 990302B

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: July 14, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-TP10(3)	990302B-01	BTEX, SVOA, METALS/CN
CF-SB13(COMP)	990302B-02	BTEX, SVOA, METALS/CN
CF-SB19(34-36)	990302B-03	BTEX, SVOA, METALS/CN
CF-DUP-1	990302B-04	BTEX, SVOA, METALS/CN
CF-DUP-2	990302B-05	BTEX, SVOA, METALS/CN
CF-SB12(4-6)	990302B-06	BTEX, SVOA, METALS/CN
CF-SB11(21-23)	990302B-07	BTEX, SVOA, METALS/CN
CF-SB9(33-34)	990302B-08	BTEX, SVOA, METALS/CN
CF-TP4(3)	990302B-09	BTEX, SVOA, METALS/CN
CF-ER1	990302B-10	BTEX, SVOA, METALS/CN
CF-TP8(2)	990302B-11	TCL VOA, SVOA, PEST/PCB, TAL METALS/CN
CF-SS1	990302B-12	SVOA, METALS/CN
CF-SS2	990302B-13	SVOA, METALS/CN
CF-SS3	990302B-14	SVOA, METALS/CN
CF-SS4	990302B-15	SVOA, METALS/CN
CF-SS6	990302B-16	SVOA, METALS/CN
CF-SS5	990302B-17	SVOA, METALS/CN
CF-ERSS	990302B-18	SVOA, METALS/CN

ASSOCIATED QC SAMPLE(S): Field Blanks: CF-ER1, CF-ERSS
Field Duplicates: SS4/SS6
SB13(18-20)/DUP1
SB14(6-8)/DUP2

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Sixteen soil samples and two aqueous field QC samples were validated for semivolatiles. The semivolatile samples were analyzed by Method 8270. Ten soil samples and two aqueous field QC samples were validated for volatile organics. The volatile samples were analyzed by Method 8260B.

One soil sample was validated for pesticide/PCBs by Method 8080.

All quality control results were found to be acceptable with the following exceptions:

Calibration

The following table lists the compound initial %RSD, linear regression correlation coefficient, and/or continuing %D found outside of control limits:

VOA Instrument HP5970K (Initial calibration 02/18/99):

Compound	02/18	03/02
Chloroethane		XX
2-Butanone		XX

Bromoform		**XX**
2-Hexanone		**XX**
4-methyl-2-pentanone		**XX**
Vinyl Acetate		**XX**

Associated samples: 03/02/99 CF-TP8(2)

VOA Instrument HP5970K (Initial calibration 02/03/99):

Compound	**02/03**	**02/26**
Chloroethane		**XXX**
2-Butanone		**XXX**
Acetone		**XXX**
Bromoform		**XXX**
2-Hexanone		**XXX**
4-methyl-2-pentanone		**XXX**
Vinyl Acetate		**XXX**

No actions - BTEX compounds reported only.

ABN Instrument HP5971P (Initial calibration 03/02/99):

Compound	**03/02**	**03/04**	**03/10**
N-nitrosodiphenyl-amine	**XXX**		
Carbazole	**XXX**		
Anthracene	**XXX**		

Di-n-butylphthalate	**XXX**		
Fluoranthene	**XXX**		
Chrysene		**XX**	
bis(2-ethylhexyl)phthalate		**XX**	**XX**
hexachlorocyclopentadiene			**XX**
Benzo(a)anthracene			**XX**
Dibenzo(ah)anthracene			**XX**
Pyrene			**XX**
3,3'-Dichlorobenzidine			**XX**
Indeno(123-cd)pyrene			**XX**

Associated samples: 03/02 All samples listed below
03/04 ER1, ERSS
03/10 TP8(2)

ABN Instrument HP5971P (Initial calibration 03/16/99):

Compound	03/16	03/18	03/19	03/20
Fluoranthene	**XXX**			
1,2-dichlorobenzene	**XXX**			
Hexachloroethane	**XXX**			
4-methylphenol	**XXX**			
2-methylnaphthalene	**XXX**			
2-fluorobiphenyl	**XXX**			
2,4,5-Trichlorotoluene	**XXX**			
Acenaphthylene	**XXX**			
Acenaphthene	**XXX**			

Dibenzofuran	**XXX**			
Fluorene	**XXX**			
4-Chlorophenyl-phenylether	**XXX**			
Diethylphthalate	**XXX**			
4,6-Dinitro-2-methylphenol	**XXX**			
N-nitrosodiphenylamine	**XXX**			
Phenanthrene	**XXX**			
Carbazole	**XXX**			
Anthracene	**XXX**			
Di-n-butylphthalate	**XXX**			
Fluoranthene	**X**			
Benzo(k)fluoranthene	**XXX**			

Associated samples: **03/16 All samples listed below**
03/18 SB19(34-36)
03/19 SB9(33-34), TP10(3)DL, TP4(3)
03/20 SB12(4-6), DUP-2, SB11(21-23), DUP-1, TP4(3)DL, SB13(COMP), SS-4, TP(10)3, SS2, SS5, SS5RE

ABN Instrument HP5971R (Initial calibration 03/18/99):

Compound	03/18	03/24	03/26	03/27
2,4-Dinitrophenol	**X**			
Cyclohexanone	**XXX**			
3-nitroaniline		**XX**		
2,4-dinitrophenol		**XX**		
4-nitroaniline		**XX**		

3,3'-dichlorobenzidine		XX	XX	

Associated samples: 03/18 All samples listed below
03/24 SB13(COMP)RE, SS4RE, SS1DL, SS2RE
03/26 SS6, SS3
03/27 SS1

X - The initial calibration %RSD was found greater than 30%, (or >20% for CCC compounds); estimate (J10) detected compound results only.

XX - The continuing calibration %D was found greater than 25%, (or >20% for CCC compounds); estimate (J/UJ10) positive and non-detected compound results.

XXX - Linear regression was used for the quatitation of several compounds. For compounds in which the correlation coefficient was less than 0.990, positive results were estimated (J6).

The following table lists the compound Pest/PCB %Ds found outside of the control limit of 15%. It should be noted that all out of control compounds were reported from the DB-1701 column. The RTX-35 column was used for quantitation, therefore, no actions were required.

Standard	Compound	%D
INDA3, 3/08/99 DB-1701	alpha-BHC gamma-bhc heptachlor dieldrin 4,4'-DDD 4,4'-DDT methoxychlor TCX	-21% 19.7% -28% 16.1% 15.9% 27.4% 26.0% 17.8%
INDB3, 3/09/99 DB-1701	endosulfan sulfate endrin aldehyde DCB	44% 82.1% -21%

Surrogate Recoveries

The following table lists the SVOA surrogate recoveries found outside of the control limits and the resultant actions:

Sample	TPH-d14	2-FBP	Actions

SS1	154%	-	One surrogate out, no action.
SS1-RE	146%	-	One surrogate out, no action.
SS4	-	0%	Re-analyzed, no action.
SS4-DL	140%	-	One surrogate out, no action.
SS-5 (5X)	-	0%	Diluted result, no action.
SS-5 RE (5X)	-	0%	Diluted result, no action.
Control limits	18 - 137%	30-115%	

Blank Results

Pesticide compound gamma-chlordane was detected on both columns in the instrument blank PIBLK analyzed on 03/09 at 23:51. No actions were required as sample results were non-detected.

The following tables list the contaminants detected in the method blanks and the actions taken on the associated samples:

Method blank SBLKP2: Associated samples ER1 and ERSS

Compound	Level found	Action Level	Actions
Diethylphthalate	0.1 ug/l	0.5 ug/l	No actions required
bis(2-ethylhexyl)phthalate	0.4 ug/l	4.0 ug/l	No actions required
Di-n-octylphthalate	0.2 ug/l	1.0 ug/l	U12 ER1

Method blank SBLKQP: Associated sample SB9(33-34)

Compound	Level found	Action Level	Actions
bis(2-ethylhexyl)phthalate	8 ug/kg	80 ug/kg	U12 SB9(33-34)
Di-n-octylphthalate	5 ug/kg	25 ug/kg	No actions required

Method blank SBLKQR: Associated samples SB13(Comp)RE, SS4RE, SS1DL, SS2RE, SS6, SS3, SS1

Compound	Level found	Action Level	Actions
Di-n-octylphthalate	14 ug/kg	70 ug/kg	No actions required

Field blank CF-ER1: Associated all samples

Compound	Level found	Action Level	Actions
4-methylphenol	0.7 ug/l	115.5 ug/kg	No actions required
bis(2-ethylhexyl)phthalate	6 ug/l	1980 ug/kg	U12 SB19(34-36)
Naphthalene	0.4 ug/l	66 ug/kg	U12 SB9(33-34)

Field blank ERSS: Associated all SS samples

Compound	Level found	Action Level	Actions
Naphthalene	0.8 ug/l	132 ug/kg	U12 SS1DL, SS3, SS4, SS4RE, SS6
Acenaphthylene	0.4 ug/l	66 ug/kg	No actions required
Phenanthrene	2 ug/l	330 ug/kg	U12 SS1
Pyrene	2 ug/l	330 ug/kg	No actions required

benzo(a)anthracene	0.6 ug/l	99 ug/kg	No actions required
Chrysene	0.6 ug/l	99 ug/kg	No actions required
Benzo(a)pyrene	0.5 ug/l	82 ug/kg	No actions required

It should be noted that the TIC contaminants were reviewed and sample results found less that five times the level detected in the method and field blanks were qualified as non-detected (U12).

Internal Standard Areas

The following table lists the internal standard areas found below the EICP control limit of -50%. The positive and non-detected results quantitated from the affected internal standards are estimated (J15, UJ15).

Sample	Chrysene-d12	Phenanthrene-d10	Perylene-d12
TP4(3)	<50%		
TP10(3)DL	<50%		
TP4(3)DL	<50%		
SB13(COMP)	<50%	<50%	
SS4	<50%		
TP10(3)	<50%		
SS2	<50%	<50%	
SS5	<50%	<50%	
SS5RE		<50%	
Sample	Chyrsene-d12	Phenanthrene-d10	Perylene-d12
SB13(COMP)RE			<50%
SS4RE			<50%
SS1DL	<50%		<50%

SS2RE	<50%		<50%
SS1			<50%

Laboratory Control Sample Results

Volatile compound Tetrachloroethene (144%) was recovered above the control limits of 78 - 118% in the spiked blank sample. No actions were required as the sample compound results were non-detected and a high bias was indicated.

Semivolatile compounds 4-Nitrophenol (82%), Hexachlorocyclopentadiene (77%) and 2-chloronaphthalene (123%) were recovered above control limits in the soil spiked blank sample. No actions were required as all affected compound results were non-detected and a high bias was indicated.

Matrix Spike Results

A matrix spike was performed on sample SB19(34 - 36). The following table lists the compound recoveries found outside of control limits and the resultant actions:

Compound	MS	MSD	Control limits	Actions
2-Butanone	156 %	147 %	55 - 146%	No actions, BTEX only
4-methyl-2-pentanone	153 %	147 %	58 - 141%	No actions, BTEX only
2-hexanone	165 %	162 %	47 - 150%	No actions, BTEX only
Tetrachloroethene	154 %	164 %	78 - 118%	No actions, BTEX only

Sample Quantitation

The pesticide/PCB dual column %D was not calculated. The reviewer calculated the results. The following table lists the dual column %D found outside of the control limit of 25%.

Analyte	%D	Action
CF-TP8(2)		
Heptachlor	74%	Estimate (J31) affected
Epoxide	72%	results
4,4'-DDE	43%	
Endosulfan sulfate	106%	
gamma-chlordane		

Field Duplicate Precision

The field duplicate pair of DUP1/SB13(18-20) was identified. The %RPDs for Naphthalene (114%), 2-methylnaphthalene (103%), Acenaphthene (111%), and Phenanthrene (88.4%) were found outside of the control limit of 50% for soils. The Naphthalene, 2-methylnaphthalene, Acenaphthene, and Phenanthrene results are estimated in the field duplicate pair.

The field duplicate pair of DUP2/SB14(6-8) was identified. The %RPDs for Benzene (102.5%), Ethylbenzene (64.5%) and Xylene (66.7%) were found outside of the control limit of 50% for soils. The Benzene, Ethylbenzene, and Xylene results are estimated in the field duplicate pair.

INORGANIC FRACTIONS

Fifteen soil samples and two aqueous field QC samples were validated for metals. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Calibration

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Calibration associated with soil samples.

Analyte	Recovery	Actions
Lead	145.6%, 150.8%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg.
Arsenic	63.1%	Estimate (J/UJ3) + and ND results < 4XCRDL of 8 mg/kg.
Thallium	-57.6%, 50.5%	Estimate (J/UJ3) + and ND results < 4XCRDL or 8 mg/kg.

Calibration associated with aqueous sample ER1 and ERSS.

Analyte	Recovery	Actions
Selenium	145.4%	Estimate (J3) + results < 4XCRDL or 20 ug/l. No action.

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following table lists the concentration of each metal found in the blanks along with the resultant action levels.

Aqueous Action levels associated with samples ER-1 and ERSS.

Element	Conc./Units	5X Action Level
Aluminum	64.2 ug/l	321 ug/l
Beryllium	-2.3 ug/l	-11.5 ug/l
Copper	1.5 ug/l	7.5 ug/l

Nickel	4.0 ug/l	20 ug/l
Potassium	-496 ug/l	-2481 ug/l
Mercury	0.1 ug/l	0.5 ug/l

Field Blank CF-ERSS associated with samples: SS1, SS2, SS3, SS4, SS5, and SS6.

Element	Conc./Units	5X Action Level
Chromium	2.0 ug/l	2.0 mg/kg

Field Blank CF-ER1 associated with all other soil samples.

Element	Conc./Units	5X Action Level
Barium	25.2 ug/l	25.2 mg/kg
Chromium	10.3 ug/l	10.3 mg/kg
Lead	6.0 ug/l	6.0 mg/kg

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the Barium results for samples DUP-2 and TP8(2) were qualified as non-detected (U12). The Chromium result for sample TP8(2) was qualified as non-detected (U12). The Lead result for sample DUP-1 was qualified as non-detected (U12).

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Cadmium and Lead were detected above the 2XIDL level. Sample interferent levels were greater than 50% for most samples. The following table lists the samples and qualifications based on suspected estimated interferents. It should be noted that in cases where the estimated interference was less than 10% the sample analyte level, no action was taken.

Sample	Analyte	Action
CF-TP10(3)	Cadmium	J32, Possible high bias
CF-DUP-1	Cadmium	J32, Possible high bias
CF-SB19(34-36)	Cadmium	J32, Possible high bias

CF-SB12(4-6)	Cadmium	J32, Possible high bias
CF-SB11(21-23)	Cadmium Lead	J32, Possible high bias J32, Possible high bias
CF-SB9(33-34)	Cadmium Lead	J32, Possible high bias J32, Possible high bias
CF-SS1	Cadmium	J32, Possible high bias
CF-SS2	Cadmium	J32, Possible high bias
CF-SS3	Cadmium	J32, Possible high bias
CF-SS4	Cadmium	J32, Possible high bias
CF-SS6	Cadmium	J32, Possible high bias
CF-SS5	Cadmium	J32, Possible high bias

Matrix Spike Results

A matrix spike was performed on sample SB19(34-36). The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Antimony	73.0%	Estimate (J/UJ19) + and ND soil results.
Manganese	147.8%	Estimate (J19) + soil results.
Vanadium	65.1%	Estimate (J/UJ19) + and ND soil results.

Laboratory Duplicate Results

A laboratory duplicate was performed on sample SB19(34-35). The %RPDs for Manganese (72.1%) and Vanadium (109.8%) were found outside of the control limit of 35%. The positive Manganese and Vanadium soil results were estimated (J2).

ICP Serial Dilution results

A serial dilution was performed on sample SB19(34-36). The %D for Potassium (14.9%) was found outside of the control limit of 10%. The positive Potassium results were estimated (J4).

Field Duplicate Precision Results

The field duplicate pair of SS-4/SS-6 was identified. The %RPD for Cyanide (84.5%) was found outside of the control limit of 50% for soils. The detected Cyanide results for samples SS1, SS2, SS3, SS4, SS5, and SS6 were estimated (J5).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J10	**The initial %RSD was high; estimate positive results.**
J11,UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detects for %Ds greater than -25% and estimate positive results for %Ds greater than 25%..**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.**

U13	Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.
J15,UJ15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated from that IS.
J16,UJ16	One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J18,UJ18	One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram .
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J22	Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.
J23,UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.

J/UJ/R24	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
R26	**The Tentatively Identified Compound (TIC) was detected in the associated sample at less than the blank action level. The results were considered to be laboratory contamination.**
J/UJ27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample.

Tenant	Location	Gates	Aircraft Maint.	GSE Maint.	Storage Tanks
Delta	Concourse A	B 1-4	Yes	RonCari	2 8,000-gallon Glycol tanks within 2nd containment below Gate B2. 3 de-icing pads stored next to blast pad. 300/300 gallon gasoline/deisel cart.
American/America n Eagle/TWA	Concourse A & B	B 5-7A, B 8-9, B 17-18	Yes and Roncari	RonCari	1 5,000-gallon truck and 1 8,000-gallon Glycol AST
Midwest Express/Midway	Concourse A	B 10	Vended out to Delta	Vended out to Signature Flight Support	NA
Air Nova/ Air Canada Jazz	Concourse B	B 16	Vended out to KTI	Vended out to Signature Flight Support	NA
Northwest	Concourse B	B 19-20	Vended out to KTI or American	Vended out to Signature Flight Support	1 9,000-gallon AST stored at Gate B-20
Southwest Airlines	IAB	B 21-22	Vended out to KTI	Vended out to Signature Flight Support	1 10,000-gallon and 1 25,000-gallon AST stored @ de-icng rodeo
America West	IAB	B 23	Vended out to KTI	Vended out to Signature Flight Support	NA
Continental/ Continental Express	Concourse C	A 2	Yes	Vended out to Signature Flight Support	NA
US Airways	Concourse C	A 4 - 10	Yes	RonCari	1 6,000-gallon and 1 12,000-gallon Glycol AST
United/United Express/Atlantic Coast Airlines	Concourse C	A 1 and A 3	Yes	RonCari	1 5,000-gallon and 1 8,000-gallon Glycol AST stored at Concourse

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 990302C

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: July 13, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB22(20-21)	990302C-02	METALS/CN, PHC
CF-HSA-ER1	990302C-03	PEST/PCB, TAL METALS/CN
CF-SB17(13-16)	990302C-04	METALS/CN
CF-SB2I(5-7)	990302C-06	METALS/CN
CF-TP10A(3)	990302C-07	METALS/CN, PHC
CF-SB30(7-11)	990302C-09	METALS/CN
CF-SB30(19-23)	990302C-10	METALS/CN
CF-SB31(15-19)	990302C-11	METALS/CN
CF-SB32(11-15)	990302C-12	PEST/PCB, TAL METALS/CN
CF-SB32(20-23)	990302C-13	METALS/CN
CF-SB31(7-11)	990302C-14	METALS/CN
CF-SB33(7-9)	990302C-15	METALS/CN
CF-SB34(5-9)	990302C-16	METALS/CN
CF-SB34(9-13)	990302C-17	METALS/CN
CF-SB33(23-25)	990302C-18	METALS/CN
CF-SB35(6-10)	990302C-19	METALS/CN

ASSOCIATED QC SAMPLE(S): Field Blanks: HSA-ER1
Field Duplicate: None

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

One soil sample and one aqueous field QC sample were validated for pesticide/PCBs by Method 8080.

All quality control results were found to be acceptable with the following exceptions:

Calibration

The following table lists the compound %Ds found outside of the control limit of 15%. It should be noted that all out of control compounds were reported from the DB-1701 column. The RTX-35 column was used for quantitation, therefore, no actions were required.

Standard	Compound	%D
INDA3, 3/08/99 DB-1701	alpha-BHC gamma-BHC heptachlor dieldrin 4,4'-DDD 4,4'-DDT methoxychlor TCX	-21% 19.7% -28% 16.1% 15.9% 27.4% 26.0% 17.8%
INDB3, 3/09/99 DB-1701	endosulfan	44%

	sulfate endrin aldehyde DCB	**82.1% -21%**
AR16603, 3/08/99, DB-1701	**Aroclor-1016 Aroclor-1260**	**24.6% 82.3%**

The pesticide/PCB dual column %D was not calculated. The reviewer calculated the results. The following table lists the dual column %D found outside of the control limit of 25%.

Analyte	**%D**	**Action**
SB32(11-15) 4,4'-DDT	**62%**	**Estimate (J31) 4,4'-DDT result**

INORGANIC FRACTIONS

Fifteen soil samples were validated for metals. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver. TAL metals were analyzed for sample SB32(11-15).

Calibration

Selenium (87.5%) was under-recovered in the initial calibration verification sample analyzed on 03/12/99. No actions were required as the samples were bracketed by QC within limits.

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Calibration associated with soils samples.

Analyte	Recovery	Actions
Lead	130.7%, 137.3%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg.
Arsenic	71.6%	Estimate (J/UJ3) + and ND results < 4XCRDL of 8 mg/kg.
Zinc	124.3%, 134.5%	Estimate (J3) + results < 4XCRDL or 16 mg/kg.

Calibration associated with aqueous sample ER1.

Analyte	Recovery	Actions
Selenium	132.4%, 57.6%	Estimate (J3/UJ3) + and ND results < 4XCRDL or 20 ug/l.
Thallium	71.5%	Estimate (J/UJ3) + and ND results < 4XCRDL of 40 ug/l.

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following table lists the concentration of each metal found in the blanks along with the resultant action levels.

3/12/99 analysis associated with all soils.

Element	Conc./Units	5X Action Level
Antimony	2.20 mg/kg	11 mg/kg
Cadmium	0.25 mg/kg	1.3 mg/kg
Iron	10.1 mg/kg	50.5 mg/kg
Lead	0.52 mg/kg	2.6 mg/kg
Nickel	0.65 mg/kg	3.3 mg/kg
Potassium	18.5 mg/kg	92.7 mg/kg
Sodium	72.3 mg/kg	361 mg/kg
Zinc	2.1 mg/kg	10.6 mg/kg

3/24 analysis associated with aqueous sample ER-1.

Element	Conc./Units	5X Action Level
Mercury	0.1 ug/l	0.5 ug/l

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the following actions were required:

Analyte	SB22(20-21)	ER1	SB17(13-16)	SB2I(5-7)	TP10A(3)	SB30(7-11)
Cadmium	U12		U12	U12	U12	U12

Mercury		U12			
Analyte	SB30(19-23)	SB31(15-19)	SB32(11-15)	SB32(20-23)	SB31(7-11)
Antimony			U12		
Cadmium	U12	U12	U12	U12	U12
Sodium			U12		
Analyte	SB33(7-9)	SB34(5-9)	SB34(9-13)	SB33(23-25)	SB35(6-10)
Cadmium	U12	U12	U12	U12	

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Selenium was over-recovered in the ICSAB sample at 121.5%. The detected Selenium results for samples with interferent levels greater than 50% that of the ICS standard were estimated (J32) due to a possible high bias: SB22(20-21), SB17(13-16), SB2I(5-7), TP10A(3), SB30(7-11), SB30(19-23), SB31(15-19), SB32(11-15), SB32(20-23), SB32(7-11), SB33(7-9), SB34(5-9), SB33(23-25) and SB35(6-10).

Cadmium and Lead were detected above the 2XIDL level. Sample interferent levels were greater than 50% for most samples. Qualifications were not required for Cadmium as the positive sample results were blank qualified (U) and a positive interference was suspected. The Lead results for samples SB22(20-21), SB31(15-19), SB32(11-15), SB32(20-23), SB31(7-11), SB33(7-9) and SB33(23-25) were estimated (J32) due to the possible positive interference seen. It should be noted that in cases where the estimated interference was less than 10% the sample analyte level, no action was taken.

Matrix Spike Results

A matrix spike was performed on sample SB35(6-10). The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Antimony	55.5%	Estimate (J/UJ19) + and ND soil results.
Cadmium	157.6%	Estimate (J19) + soil results.
Chromium	127.2%	Estimate (J19) + soil results.
Lead	72.0%	Estimate (J/UJ19) + and ND soil results.
Cyanide	35.9%	Estimate (J/UJ19) + and ND soil results.

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J10	**The initial %RSD was high; estimate positive results.**
J11,UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detects for %Ds greater than -25% and estimate positive results for %Ds greater than 25%..**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.**
U13	**Compound was present in the associated blank. Compound is present in the**

	sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	**One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.**
J15,UJ15	**One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated from that IS.**
J16,UJ16	**One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.**
J17	**Compound reported above the calibration range.**
J18,UJ18	**One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram .**
J19	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.**
J20,R20	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.**
J21	**The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.**
J22	**Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.**
J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J/UJ/R24	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
R26	**The Tentatively Identified Compound (TIC) was detected in the associated sample at less than the blank action level. The results were considered to be**

	laboratory contamination.
J/UJ27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 990302D

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: July 14, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
* CF-SB35(18-22)	990302D-01	METALS/CN
CF-RW4(16-20)	990302D-02	METALS/CN
CF-RW4(4-8)	990302D-03	METALS/CN
CF-SB23(4-8)	990302D-04	METALS/CN
CF-SB18(4-7.5)	990302D-05	METALS/CN
CF-SB17(76-78)	990302D-06	METALS/CN
CF-HSA-ER2	990302D-07	METALS/CN
CF-SB23(29-31)	990302D-08	TOC

ASSOCIATED QC SAMPLE(S): Field Blanks: HSA-ER2
Field Duplicate: None

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.

The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

INORGANIC FRACTIONS

Six soil samples and one aqueous field QC sample were validated for metals. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Calibration

Cadmium (111.6% and 111.5%) was over-recovered in the continuing calibration verification samples CCV6 and CCV7 analyzed on 03/18/99. No actions were required as all samples were non-detected and a high bias was indicated.

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Calibration associated with soil samples.

Analyte	Recovery	Actions
Lead	158.3%, 160.0%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg. No actions required.
Chromium	61.6%	Estimate (J/UJ3) + and ND results < 4XCRDL of 8 mg/kg.
Selenium	-46.5%	Estimate (J/UJ3) + and ND results < 4XCRDL of 4 mg/kg.
Silver	69.8%	Estimate (J/UJ3) + and ND results < 4XCRDL or 8 mg/kg.

Calibration associated with aqueous sample ER2.

Analyte	Recovery	Actions
Selenium	132.4%, 57.6%	Estimate (J3/UJ3) + and ND results < 4XCRDL or 20 ug/l.

Interference Check Sample Results

Cadmium and Lead were detected above the 2XIDL level. Sample interferent levels were greater than 50% for most samples. Qualifications were not required for Cadmium as the positive sample results were blank qualified non-detected (U) and a positive interference was suspected. The Lead results for samples SB35(18-22) and RW4(16-20) were estimated (J32) due to the possible positive interference seen. It should be noted that in cases where the estimated interference was less than 10% the sample analyte level, no action was taken.

Matrix Spike Results

A matrix spike was performed as batch QC on various samples. The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Cyanide	35.9%	Estimate (J/UJ19) + and ND soil results.

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J10	**The initial %RSD was high; estimate positive results.**
J11,UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detects for %Ds greater than -25% and estimate positive results for %Ds greater than 25%..**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.**

U13	Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.
J15,UJ15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated from that IS.
J16,UJ16	One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J18,UJ18	One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram .
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J22	Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.
J23,UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R24	The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.
R26	The Tentatively Identified Compound (TIC) was detected in the associated

	sample at less than the blank action level. The results were considered to be laboratory contamination.
J/UJ27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 992348A, Volatiles and Inorganics

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: November 20, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-TB-09/14/99	992348A-01	BTEX
CF-FB-09/14/99	992348A-02	BTEX, RCRA METALS, CN
CFSB-45(13-15)	992348A-03	BTEX, RCRA METALS, CN
CFSB-45(37-39)	992348A-04	BTEX, RCRA METALS, CN
CFSB-45(19-21)	992348A-05	BTEX, RCRA METALS, CN
CFSB-46(39-41)	992348A-06	BTEX, RCRA METALS, CN
CFSB-46(15-17)	992348A-07	BTEX, RCRA METALS, CN
CFSB-09/14/99	992348A-08	BTEX, RCRA METALS, CN
CFSB-47(5-7)	992348A-09	BTEX, RCRA METALS, CN
CFSB-47(39-41)	992348A-10	BTEX, RCRA METALS, CN
CFSB-49(9-11)	992348A-11	BTEX, RCRA METALS, CN
CFSB-49(39-41)	992348A-12	BTEX, RCRA METALS, CN
CFSB-TB-09/15/99	992348A-13	BTEX
CFSB-48(3-5)	992348A-14	BTEX, RCRA METALS, CN
CFSB-48(39-41)	992348A-15	BTEX, RCRA METALS, CN
CFSB-TB-09/20/99	992348A-16	BTEX

ASSOCIATED QC SAMPLE(S): Trip and Field Blanks: TB-09/14/99, TB-09/15/99, TB-09/20/99, FB-09/14/99
Field Duplicates: CFSB-46(39-41)/CFSB-091499

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.

Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Twelve soil samples and four aqueous field QC samples were validated for volatile organics. The volatile samples were analyzed for BTEX compounds by Method 8260B.

All quality control results were found to be acceptable with the following exceptions:

General Comments

The percent solids for sample SB-45(19-21) was found below the control limit of 50% at 41%. Positive and nondetected results were estimated (J/UJ23).

Surrogate Recoveries

The following table lists the surrogate recoveries found outside of the laboratory established control limits and the resultant actions.

Sample	Surrogate	% REC	Control limits	Actions
VOA SB-45(19-21)	TOL-d8	120	81-117	No actions, results nondetected.
VOA SB-46(15-17)	TOL-d8 BFB	135 59	81-117 74-121	Estimate (J/UJ7) + and ND results.
VOA SB-46(15-17)RE	TOL-d8	136	81-117	No action, original analysis reported.

Internal Standard Areas

The following table lists the internal standard areas found outside of the control limits of -50 to +100% and the resultant actions.

Sample	Internal Standard	Area	Actions
VOA SB-45(19-21)	Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5	<50%	J/UJ15 all results.
VOA SB-45(19-21) MS/MSD	Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5	<50%	No further action, interference confirmed.
VOA SB-46(15-17)RE	Chlorobenzene-d5	<50%	No action, original analysis reported.

Blank Results

The following tables list the contaminants detected in the method blanks and the actions taken on the associated samples:

Volatile method blank VBLKMQ: Associated sample SB-48(3-5)

Compound	Level	Action Level	Actions
Xylene	42 ug/kg	210 ug/kg (dry weight)	Report Xylene for SB-48(3-5) nondetected (U12) at the quantitation limit.

Value < Action Level and <CRQL; the value is qualified as non-detected at the CRQL and considered laboratory contamination (U12).
Value < Action Level and >CRQL; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > Action Level; the value is reported unqualified.

Matrix spike results

A matrix spike was performed on soil sample SB-45(19-21). The following table lists the analytes recovered outside of the control limits and the resultant actions.

Analyte	Recovery (%) MS/MSD/%RPD	Control Limits MS/MSD/%RPD	Actions
Toluene	133/217/48	77-126/20	No actions, sample results nondetected.
Benzene	WL/167/29	83-130/20	No actions, sample results nondetected.
Ethylbenzene	WL/183/44	79-131/20	No actions, sample results nondetected.
Xylene	WL/167/40	81-126/20	No actions, sample results nondetected.

WL - Within control limits

Laboratory Control Sample Results

Benzene (135%) was recovered above the control limits of 83-130% in the laboratory control sample associated with the soil samples. The positive benzene result for sample SB-48(3-5) was estimated (J27) due to the possible high bias.

Data Assessment and Usability

Based on the surrogate recoveries and internal standard areas found outside of control limits, the following fractions should be used: For the volatile analyses, the original analysis of sample SB-46(15-17) was reported.

INORGANIC FRACTIONS

Twelve soil samples were validated for RCRA metals and Cyanide. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

General Comments

The percent solids for sample SB-45(19-21) was found below the control limit of 50% at 41%. Positive and nondetected results were estimated (J/UJ23).

Calibration

The following table lists the continuing calibration verification (CCV) standard recoveries found outside of the control limits of 90 - 110% and the resultant actions.

Analyte	Recovery	Actions
Lead (10/05 AQ), CCV2	110.6%	No actions, results nondetected
Lead (10/05 AQ), CCV3	113.0%	No actions, results nondetected
Lead (10/05 AQ), CCV4	111.6%	No actions, results nondetected
Lead (10/06 Soil), CCV3	110.6%	Estimate (J13) + results for samples 2348-06 through 2348-15
Lead (10/06 Soil), CCV4	110.7%	Estimate (J13) + results for samples 2348-06 through 2348-15

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Lead (AQ)	65.6%	Estimate (UJ3) ND result for FB-09/14/99.
Lead (Soil)	68%	Estimate (J/UJ3) + and ND results < 4XCRDL or 2.4 mg/kg. No actions required.

Blanks

The preparation, instrument and field blanks contained several metals above the instrument detection limits (IDL). The following tables list the concentration of each metal found in the blanks along with the resultant action levels.

Analysis date 10/05: associated sample: aqueous sample FB-09/14/99

Analyte	Conc./Units	5X Action Level
Silver	1.5 ug/l	7.5 ug/l

Field blank FB-09/14/99: associated samples, all soils in sample delivery group.

Analyte	Conc./Units	5X Action Level
Barium	2.4 ug/l, 0.48 mg/kg	2.4 mg/kg

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, no actions were required.

Interference Check Sample Results

The interference check samples (ICSA and ICSAB) were analyzed at the proper frequency. It should be noted that the ICSA and ICSAB results were not reported for the soil (10/06) analysis. The raw data was therefore reviewed. Lead was detected above the 2XIDL level in the 10/06 analysis associated with all soil samples . Estimated interferences were calculated for samples in which the interferent level was at least 50% that of the ICSA sample. For samples in which the possible calculated interference was at least 10% that of the sample value, the result was estimated (J32). The positive Lead results for samples SB45(37-39), SB-46(39-41), SB-09/14/99, SB-47(39-41), SB-49(9-11), SB-49(39-41), and SB-48(39-41) were estimated (J32) and should be considered to be biased high due to the positive interference seen.

Matrix Spike Results

A matrix spike was performed on soil sample SB-45(19-21). The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Cadmium	125.6%	Estimate (J1) + soil results.
Mercury	-34.8%	Estimate (J1) + soil and reject (R1) ND soil results.
Selenium	33.7%	Estimate (J/UJ1) + soil and ND soil results.
Cyanide	0%	Estimate (J1) + soil and reject (R1) ND soil results.

Laboratory Control Sample Results

Selenium (123.5%) was recovered above the control limits of 80 - 120% in the laboratory control sample associated with the aqueous sample. No actions were required as the results were nondetected and a high bias was suspected.

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J/UJ9	**The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.**
J10	**The initial %RSD was high; estimate positive results.**
J11,UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detected results.**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the**

	limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J/UJ13	The analyte was recovered outside of the control limits of 90 - 110% in the initial or continuing calibration verification (CCV) analysis. The positive and/or non-detected results were estimated dependant of the recovery.
J/UJ/R15	**One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.**
J17	**Compound reported above the calibration range.**
J19	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.**
J20,R20	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.**
J21	**The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.**
J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J/UJ/R27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.
J33	The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 991811B

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: October 5, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CFSB-1000	991811B-01	BTEX, RCRA METALS, CN
CFSB-50(9-11)	991811B-02	BTEX, RCRA METALS, CN
CFSB-50(3-5)	991811B-03	BTEX
CFSB-54(23-25)	991811B-04	BTEX, RCRA METALS, CN
CFSB-54(9-11)	991811B-05	BTEX, RCRA METALS, CN
CFSB-54(4-6)	991811B-06	BTEX, RCRA METALS, CN
CFSB-53(13.5)	991811B-07	BTEX, RCRA METALS, CN
CFSB-53(7-9)	991811B-08	BTEX, RCRA METALS, CN
CFSB-51(5-7)	991811B-09	BTEX, RCRA METALS, CN
CFSB-51(39-41)	991811B-10	BTEX, RCRA METALS, CN
CFSB-37(14.5-19)	991811B-11	BTEX, RCRA METALS, CN
CFSB-37(4-8)	991811B-12	BTEX, RCRA METALS, CN
CFSB-39(0-4)	991811B-13	BTEX, RCRA METALS, CN
CFSB-39(5.5)	991811B-14	BTEX, RCRA METALS, CN
CFSB-TB-8599	991811B-15	BTEX
CFSB-55(18-20)	991811B-16	BTEX, RCRA METALS, CN
CFSB-55(56-58)	991811B-17	BTEX, RCRA METALS, CN
CFSB-55(73-75)	991811B-18	BTEX, RCRA METALS, CN
CF081099	991811B-19	BTEX, RCRA METALS, CN
CF-TB081099	991811B-20	BTEX

ASSOCIATED QC SAMPLE(S): Trip Blanks: CFTB-8599, CFTB-81099
Field Duplicates: CF081099/CFSB-55(73-75) and CFSB50(39-41)/CFSB-1000

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Eighteen soil samples and two trip blanks were validated for volatile organics. The volatile samples were analyzed for BTEX compounds by Method 8260B.

All quality control results were found to be acceptable with the following exceptions:

Surrogate Recoveries

The following table lists the surrogate recoveries found outside of the laboratory established control limits and the resultant actions.

Sample	Surrogate	% REC	Control limits	Actions
VOA SB-50(3-5)	BFB	123	74-121	No actions, reanalysis within control limits.

Internal Standard Areas

The following table lists the internal standard areas found outside of the control limits of -50 to +100% and the resultant actions.

Sample	Internal Standard	Area	Actions
VOA SB-51(39-41)	Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5	<50%	J/UJ15 all results.
VOA SB-51(39-41)RE	Bromochloromethane 1,4-Difluorobenzene Chlorobenzene-d5	<50%	J/UJ15 all results.

Blank Results

The following tables list the contaminants detected in the method blanks and the actions taken on the associated samples:

Volatile method blank VBLKMN: TB081099

Compound	Level ug/l	Action Level	Actions (U12)
Toluene	0.2	1.0 ug/l	(U12) TB081099
Xylene	0.5	2.5 ug/l	No actions
Ethylbenzene	0.2	1.0 ug/l	No actions

Value < Action Level and <CRQL; the value is qualified as non-detected at the CRQL and considered laboratory contamination (U12).
Value < Action Level and >CRQL; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > Action Level; the value is reported unqualified.

Data Assessment and Usability

Based on the surrogate recoveries and internal standard areas found outside of control limits, the following fractions should be used: For the volatile analyses, fractions SB-50(3-5)RE and the original analysis of SB-51(39-41) were used.

INORGANIC FRACTIONS

Seventeen soil samples were validated for RCRA metals and Cyanide. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

General Comments

The mercury analysis was not performed for sample CF-SB-39(5.5).

Holding Times

The Cyanide analysis for samples SB-51(5-7) and SB-51(39-41) was performed one day outside of the required holding time of fourteen days. The Cyanide results for samples SB-51(5-7) and SB-51(39-41) are estimated (J/UJ13).

Calibration

Silver (67% and 34.6%) was under-recovered in the initial calibration verification standards analyzed on 08/21 and 09/09 respectively. No actions were required as the samples were bracketed by calibration standards within control limits.

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Arsenic (08/21)	78%	Estimate (J3/UJ3) + and ND results < 4XCRDL or 8 mg/kg.
Selenium (08/21)	55.1%	Estimate (J/UJ3) + and ND results < 4XCRDL or 4 mg/kg.
Arsenic (09/09)	54.2%, 129.9%	Estimate (J3/UJ3) + and ND results < 4XCRDL or 8 mg/kg. No actions, QC only.
Lead (09/09)	147.1%, 138.8%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg. No actions, QC only.
Selenium (09/09)	158.9%	Estimate (J3) + results < 4XCRDL or 4 mg/kg. No actions, QC only.

Blanks

The preparation and instrument blanks contained Selenium above the IDL. The following tables list the concentration of each metal found in the blanks along with the resultant action levels.

Analysis date 08/21: All SDG samples associated.

Element	Conc./Units	5X Action Level
Selenium	6.6 ug/l	33 ug/l, 6.6 mg/kg

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the following actions were taken: the Selenium results for samples SB54(23-25), SB54(4-6), SB39(0-4), SB55(56-58), and SB55(73-75) were qualified as non-detected (U12).

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Cadmium was detected above the 2XIDL level in the 08/21 analysis affecting all SDG samples . The positive Cadmium results for samples SB54(9-11), SB54(4-6), SB53(13.5), SB51(5-7), and SB55(18-20) were estimated (J32) and should be considered to be biased high due to the positive interference seen.

Matrix Spike Results

A matrix spike was performed on soil sample SB-55(56-58). The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions. It should be noted that Silver was not marked with the 'N' qualifier on the reporting forms.

Analyte	Recovery	Actions
Selenium	40.5%	Estimate (J/UJ1) + and ND soil results.

Silver	71.0%	Estimate (J/UJ1) + and ND soil results.

Laboratory Control Sample Results

Silver (58.6 mg/kg) was found below the control limits of 64.6 - 109 mg/kg in the laboratory control sample associated with all SDG samples. The nondetected and/or positive Silver results for all samples are estimated (J/UJ9).

Field Duplicate Analysis

The %RPDs for Chromium (102%) and Lead (95%) were found above the control limit of 50% for soils in the field duplicate pair CFSB-50(39-41) and CFSB-1000. The Chromium and Lead results for the samples CFSB-50(39-41) and CFSB-1000 were estimated (J5).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J/UJ9	**The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.**
J10	**The initial %RSD was high; estimate positive results.**
J11,UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detected results.**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the**

	highest blank contamination seen and therefore, qualified as non-detected. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J/UJ/R15	**One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.**
J17	**Compound reported above the calibration range.**
J19	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.**
J20,R20	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.**
J21	**The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.**
J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J/UJ/R27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.
J33	The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 991811A, Inorganics

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: October 5, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CFSB-44(3-5)	991811A-01	RCRA METALS, CN
CFSB-44(29-31)	991811A-02	RCRA METALS, CN
CFSB-40(4-6)	991811A-03	RCRA METALS, CN
CFSB-40(16-18)	991811A-04	RCRA METALS, CN
CFSB-43(6-8)	991811A-07	RCRA METALS, CN
CFSB-43(28-30)	991811A-08	RCRA METALS, CN
CFSB-41(10-12)	991811A-09	RCRA METALS, CN
CFSB-41(18-20)	991811A-10	RCRA METALS, CN
CFSB-41(28-30)	991811A-11	RCRA METALS, CN
CFSB-52(5-7)	991811A-12	RCRA METALS, CN
CFSB-52(11-13)	991811A-13	RCRA METALS, CN
CFSB-52(39-41)	991811A-14	RCRA METALS, CN
CFSB-57(29-31)	991811A-15	RCRA METALS, CN
CFSB-57(5-7)	991811A-16	RCRA METALS, CN
FB073099	991811A-17	RCRA METALS, CN
CFSB-50(39-41)	991811A-19	RCRA METALS, CN
CFSB-50(17-19)	991811A-20	RCRA METALS, CN

ASSOCIATED QC SAMPLE(S): Field Blanks: FB073099
Field Duplicate: CFSB-50(39-41)/CFSB-1000 (In job 991811B)

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

INORGANIC FRACTIONS

Sixteen soil samples and one aqueous field QC sample were validated for RCRA metals and Cyanide. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

General Comments

The percent solids for sample SB-50(17-19) were found below the control limit of 50% at 23.4%. The positive and non-detected analyte results were estimated (J/UJ23).

Calibration

Silver was recovered below the control limits of 90 - 110% at 67.5% in the initial calibration verification analyzed on 08/13/99. All samples were bracketed by QC within control limits, therefore, no actions were required.

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Cadmium (08/10)	137.5%, 138.4%	Estimate (J3) + results < 4XCRDL or 20 ug/l. No actions
Lead (08/10)	873.7%, 903.9%	Estimate (J3) + results < 4XCRDL of 12 ug/l. No actions.
Arsenic (08/13)	121.1%	Estimate (J3) + results < 4XCRDL or 8 mg/kg.
Lead (08/13)	242.2%, 214.5%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg. No actions
Selenium (08/13)	78.2%, 68.3%	Estimate (J/UJ3) + and ND results < 4XCRDL or 4 mg/kg.
Arsenic (08/19)	125.2%	Estimate (J3) + results < 4XCRDL or 8 mg/kg.
Lead (08/19)	122.8%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg. No actions
Selenium (08/19)	225.8%, 181.4%	Estimate (J3) + results < 4XCRDL or 4 mg/kg. No actions

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following tables list the concentration of each metal found in the blanks along with the resultant action levels.

Analysis date 08/10: Associated sample, aqueous field blank FB073099.

Element	Conc./Units	5X Action Level
Arsenic	8.1 ug/l	40.5 ug/l
Selenium	-5.7 ug/l	28.5 ug/l

Analysis date 08/13: Associated samples, all soils with the exception of SB-50(39-41) and SB-50(17-19).

Element	Conc./Units	5X Action Level
Barium	0.225 mg/kg	1.12 mg/kg
Cadmium	0.73 mg/kg	3.5 mg/kg
Selenium	10 ug/l	50 ug/l, 10 mg/kg

Analysis date 08/19: Associated samples, SB-50(39-41) and SB-50(17-19).

Element	Conc./Units	5X Action Level
Barium	0.225 mg/kg	1.12 mg/kg
Cadmium	0.73 mg/kg	3.5 mg/kg
Selenium	11 ug/l	55 ug/l, 11 mg/kg
Chromium	4.5 ug/l	22.5 ug/l, 4.5 mg/kg

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the following actions were taken:

Analyte	44(3-5)	44(29-31)	40(4-6)	40(16-18)	43(6-8)
Cadmium			U12		
Selenium	U12	U12	U12		

Analyte	44(28-30)	41(10-12)	41(18-20)	41(28-30)	52(5-7)
Cadmium			U12		
Selenium		U12	U12	U12	U12

Analyte	52(11-13)	52(39-41)	57(29-31)	57(5-7)	FB073099
Arsenic					U12
Selenium	U12			U12	UJ29
Cadmium			U12		

Analyte	50(39-41)	50(17-19)
Selenium	U12	U12

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Selenium was detected above the 2XIDL level in the 08/19 analysis affecting samples SB-50(39-41) and SB-50(17-19). No actions were required as the Selenium results were qualified as nondetected due to blank results

and a positive interference was suspected.

Cadmium was detected above the 2XIDL level in the 08/10 and 08/13 analysis affecting all samples with the exception of SB-50(39-41) and SB-50(17-19). As the suspected interference was high (7.8 mg/kg), estimated interferences were calculated for all affected samples. The positive Cadmium results for samples SB-44(3-5), SB-44(29-31), SB-40(16-18), SB-43(6-8), SB-43(28-30), SB-41(10-12), SB-41(28-30), SB-52(5-7), SB-52(11-13), SB-52(39-41), and SB-57(5-7) were estimated (J32) and should be considered to be biased high due to the positive interference seen.

Matrix Spike Results

A matrix spike was performed on soil sample SB-57(5-7). The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions. It should be noted that the affected analytes were not marked with the 'N' qualifier on the reporting forms. It should be noted that a Cyanide matrix spike was performed on samples SB-50(17-19) and SB-41(10-12). Based on validation guidelines if one matrix spike recovery is found outside of control limits, the actions are applied to all samples in the SDG.

Analyte	Recovery	Actions
Chromium	64.6%	Estimate (J/UJ1) + and ND soil results.
Cadmium	73.5%	Estimate (J/UJ1) + and ND soil results.
Selenium	157.5%	Estimate (J1) + soil results.
Cyanide SB41(10-12)	73%	Estimate (J/UJ1) + and ND soil results.

Laboratory Duplicate results

A laboratory duplicate was performed on soil sample SB-57(5-7). The %RPD for Chromium (62.7%) was found outside of the validation control limits of 35%. The positive Chromium results for all samples were estimated (J2).

Laboratory Control Sample Results

Silver (50.9 mg/kg) was found below the control limits of 64.6 - 109 mg/kg in the laboratory control sample associated with samples SB-50(39-41) and SB-50(17-19). The nondetected and/or positive Silver results for samples SB-50(39-41) and SB-50(17-19) are estimated (J/UJ9).

Field Duplicate Results

The field duplicate pair of SB-50(39-41) and SB-1000 was identified. The %RPDs for Chromium (102%) and Lead (98%) were found outside of the control limit of 50% for soils. The Chromium and Lead results for the field duplicate samples were estimated (J5).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.
J8, UR8	The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.
J/UJ9	The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.
J10	The initial %RSD was high; estimate positive results.
J11,UJ11	The continuing %D was greater than 25%; estimate positive results and non-detected results.
U12	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected. Compound is present

	in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J/UJ13	The holding time was exceeded. The positive or non-detected results are estimated.
J/UJ/R15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J23,UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R27	The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.
J33	The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 991811A

REVIEWER: Elissa McDonagh, GEI Consultants

DATE: October 18, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CFSB-44(3-5)	991811A-01	VOA, ABN
CFSB-44(29-31)	991811A-02	VOA, ABN
CFSB-40(4-6)	991811A-03	VOA, ABN
CFSB-40(16-18)	991811A-04	ABN
CFSB-40(18-20)	991811A-05	VOA
TB072799	991811A-06	VOA
CFSB-43(6-8)	991811A-07	VOA, ABN
CFSB-43(28-30)	991811A-08	VOA, ABN
CFSB-41(10-12)	991811A-09	VOA, ABN
CFSB-41(18-20)	991811A-10	VOA, ABN
CFSB-41(28-30)	991811A-11	VOA, ABN
* CFSB-52(5-7)	991811A-12	VOA, ABN
* CFSB-52(11-13)	991811A-13	VOA, ABN
* CFSB-52(39-41)	991811A-14	VOA, ABN
* CFSB-57(29-31)	991811A-15	VOA, ABN
* CFSB-57(5-7)	991811A-16	VOA, ABN
FB073099	991811A-17	VOA, ABN
TB073099	991811A-18	VOA
* CFSB-50(39-41)	991811A-19	VOA, ABN
* CFSB-50(17-19)	991811A-20	VOA, ABN

ASSOCIATED QC SAMPLE(S): Field Blanks: FB073099
Trip Blanks: TB072799, TB073099
Field Duplicate: CFSB-50(39-41)/CFSB-1000 (In job 991811B)

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Sixteen soil samples and one aqueous sample were validated for semivolatiles. The semivolatile samples were analyzed by Method 8270. Sixteen soil samples and three aqueous samples were validated for volatile organics. The volatile samples were analyzed for BTEX compounds by Method 8260B.

All quality control results were found to be acceptable with the following exceptions:

Calibration

The following table lists the compound initial %RSD and/or continuing %D found outside of control limits:

SVOA Instrument HP5971R (Initial calibration 08/04/99):

Compound	08/04	08/16
Carbazole	X	XX
4-Chloroaniline		XX
2,4-Dinitrophenol		XX

3,3'-Dichlorobenzidine		XX
Benzo(ghi)perylene		XX
Dibenz(ah)anthracene		XX
Indeno(123-cd)pyrene		XX

Associated samples: 08/04 All samples listed below
08/16 FB073099

SVOA Instrument HP5971R (Initial calibration 08/23/99):

Compound	08/23	08/24	08/25
Benzoic Acid	X		
Carbazole	X	XX	
3-Nitroaniline	X	XX	
Hexachlorocyclopentadiene			XX
2,4-Dinitrophenol	X	XX	
3,3'-Dichlorobenzidine	X	XX	XX
Benzo(ghi)perylene	X		
Dibenz(ah)anthracene	X		
Indeno(123-cd)pyrene	X		

Associated samples: 08/23 All samples listed below
08/24 CFSB44(29-31), CFSB41(10-12), CFSB52(39-41)
08/25 CFSB57(29-31), CFSB50(39-41), CFSB57(5-7), CFSB52(11-13)

SVOA Instrument HP5971R (Initial calibration 08/26/99):

Compound	08/26	08/26
Benzyl Alcohol		XX

Associated samples: 08/26 All samples listed below
08/26 CFSB40(4-6), CFSB43(6-8), CFSB41(28-30), CFSB52(5-7), CFSB50(17-19)

X - The initial calibration %RSD was found greater than 30%, estimate (J10) detected compound detected results only.

XX - The continuing calibration %SD was found greater than 25%, estimate (J/UJ11) positive and non-detected compound results.

+ - The response factor (RF) was found below the validation control limit of 0.050. Positive compound results are estimated and nondetected results rejected (J8, UR8).

Matrix spike/Matrix spike duplicate

The following table lists the volatile and semivolatile matrix spike compounds recovered outside of the laboratory established control limits and the resultant actions:

Sample: CFSB50(17-19)

Compound	% Recovery MS	% Recovery MSD	RPD	Control Limits	Action
Benzene		65	50	83-130, <20	J19, J21
Ethylbenzene		10	170	79-131, <20	J19, J21
Xylene(total)		77	35	81-126, <20	J19, J21

Sample: CFSB50(17-19)

Compound	% Recovery MS	% Recovery MSD	RPD	Control Limits	Action
Phenol	114	114		26-90	J19
2-Chlorophenol	121	114		25-102	J19
4-Chloro-3-methylphenol	128	128		26-103	J19

4-Nitrophenol	128	136		11-114	J19
2,4-Dinitrotoluene	90			28-89	J19
Pyrene	184			35-142	J19
1,4-Dichlorobenzene			72	<27	J21
1,2,4-Trichlorobenzene			59	<23	J21
Acenaphthene			50	<19	J21
Pyrene			59	<36	J21

Blanks

The ABN fraction low level soil method blanks contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/kg	Action Level ug/kg
Benzoic Acid	48	240
Naphthalene	11	55
Diethylphthalate	5	50
Di-n-butylphthalate	23	230
bis(2-ethylhexyl)phthalate	28	280
Di-n-octylphthalate	5	50
Phenol	2	10

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Benzoic Acid in sample CFSB50(17-19) should be reported as the CRQL followed by U12. Naphthalene in samples CFSB44(29-31), CFSB41(10-12), CFSB52(11-13), CFSB52(39-41) and CFSB50(39-41) should be reported as the CRQL followed by U12. Diethylphthalate in sample CFSB44(29-31) should be reported as the CRQL followed by U12. Di-n-butylphthalate in samples CFSB44(3-5), CFSB44(29-31), CFSB41(10-12), CFSB41(18-20), CFSB52(11-13), CFSB52(39-41), CFSB57(29-31),

CFSB50(39-41) and CFSB50(17-19) should be reported as the CRQL followed by U12.Bis(2-ethylhexyl)phthalate in samples CFSB44(3-5), CFSB44(29-31), CFSB40(16-18), CFSB41(10-12),CFSB41(18-20), CFSB52(5-7), CFSB52(11-13), CFSB52(39-41), CFSB57(29-31), CFSB57(5-7), CFSB50(39-41) and CFSB50(17-19) should be reported as the CRQL followed by U12. Di-n-octylphthalate in samples CFSB44(29-31), CFSB41(10-12), CFSB41(18-20), CFSB52(11-13), CFSB52(39-41), CFSB57(29-31) and CFSB50(39-41) should be reported as the CRQL followed by U12. Phenol in sample CFSB50(17-19) should be reported as the CRQL followed by U12.

It should be noted that the TIC contaminants were reviewed and sample results found less that five times the level detected in the method and field blanks were rejected (R33).

Laboratory Control Spike

The following table lists the semivolatile laboratory spike compounds recovered outside of the laboratory established control limits and the resultant actions:

SVOA MSB Date of analysis: 08/25/99 Instrument: HP5971R

Compounds	% Recovery	Control Limits	Action
4-Chloro-3-methylphenol	103	23-97	J27
4-Nitrophenol	112	10-80	J27
2,4-Dinitrotoluene	100	24-96	J27
Pentachlorophenol	106	9-103	J27
Associated samples:	CFSB52(39-41), CFSB57(29-31), CFSB50(39-41), CFSB57(5-7), CFSB52(11-13), CFSB52(5-7), CFSB50(17-19)		

SBLKIR Date of analysis: 8/6/99 Instrument:HP5971R

Compounds	% Recovery	Control Limits	Action
Pentachlorophenol	62	68-124	J27/UJ27
Associated samples:	CFSB52(39-41), CFSB57(29-31), CFSB50(39-41), CFSB57(5-7), CFSB52(11-13), CFSB52(5-7), CFSB50(17-19)		

SBLKER Date of analysis: 8/16/99 Instrument: HP5971R

Compounds	% Recovery	Control Limits	Action
2,4-Dinitrophenol	142	70-139	J27
4-Nitroaniline	165	67-155	J27
Pentachlorophenol	20	63-125	J27/UJ27
Associated samples:	FB073099		

SBLKCR Date of analysis: 8/24/99 Instrument: HP5971R

Compounds	% Recovery	Control Limits	Action
Benzo(k)fluoranthene	52	53-130	J27/UJ27
Associated samples:	CFSB44(29-31), CFSB41(10-12), CFSB40(4-6), CFSB43(6-8), CFSB41(28-30), CFSB43(28-30), CFSB41(18-20)		

Data Assessment and Usability

Due to the lack of compound specific response factors used in the quantitation of the tentatively identified compounds, the results are estimated (J33).

Sample CFSB50(17-19) had a %moisture of 76. Estimate the detected and non-detected results (J23/UJ23).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.
J8, UR8	The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.
J/UJ9	The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.
J10	The initial %RSD was high; estimate positive results.
J11,UJ11	The continuing %D was greater than 25%; estimate positive results and non-detected results.
U12	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank

	contamination seen and therefore, qualified as non-detected. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J/UJ/R15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J23,UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R27	The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.
J33/R33	The TIC results are estimated J33 as there is a lack of specific response factors used for the quantitations. The TIC result are rejected R33 for sample results found less than five times the level detected in the method and/or field blanks.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 991811B

REVIEWER: Elissa McDonagh, GEI Consultants

DATE: October 19, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID		FRACTIONS VALIDATED
CFSB-1000	991811B-01		ABN
CFSB50(9-11)	991811B-02	ABN	
CFSB54(23-25)	991811B-04		ABN
CFSB54(9-11)	991811B-05	ABN	
CFSB54(4-6)	991811B-06		ABN
CFSB53(13.5)	991811B-07	ABN	
CFSB53(7-9)	991811B-08		ABN
CFSB51(5-7)	991811B-09		ABN
CFSB51(39-41)	991811B-10		ABN
CFSB37(14.5-19)	991811B-11		ABN
CFSB37(4-8)	991811B-12		ABN
CFSB39(0-4)	991811B-13		ABN
CFSB39(5.5)	991811B-14		ABN
CFSB55(18-20)	991811B-16		ABN
CFSB55(56-58)	991811B-17		ABN
CFSB55(73-75)	991811B-18		ABN
CF081099	991811B-19		ABN

ASSOCIATED QC SAMPLE(S): Field Blanks: CF081099
Field Duplicate: CFSB-50(39-41)(In job 991811A)/CFSB-1000

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Sixteen soil samples and one aqueous sample were validated for semivolatiles. The semivolatile samples were analyzed by Method 8270.

All quality control results were found to be acceptable with the following exceptions:

Calibration

The following table lists the compound initial %RSD and/or continuing %D found outside of control limits:

SVOA Instrument HP5971P (Initial calibration 08/18/99):

Compound	08/18	08/19
Pyridine	X	XX

Associated samples: 08/04 All samples listed below
08/19 CFSB37(14.5-19)

SVOA Instrument HP5971P (Initial calibration 08/2/99):

Compound	08/2	08/16	08/17	08/20
4-Chloroaniline		XX	XX	
2,4-Dinitrophenol				XX
4-Nitrophenol				XX
3-Nitroaniline			XX	
4-Nitroaniline				XX
3,3'-Dichlorobenzidine		XX	XX	

Associated samples:
- 08/23 All samples listed below
- 08/16 CFSB1000, CFSB51(39-41), CFSB50(9-11)
- 08/17 CFSB39(0-4)
- 08/20 CFSB54(23-25), CFSB54(4-6), CFSB53(13.5), CFSB53(7-9), CFSB37(14.5-19), CFSB37(4-8), CFSB55(56-58),CFSB55(73-75)

X - The initial calibration %RSD was found greater than 30%, estimate (J10) detected compound detected results only.

XX - The continuing calibration %SD was found greater than 25%, estimate (J/UJ11) positive and non-detected compound results.

+ - The response factor (RF) was found below the validation control limit of 0.050. Positive compound results are estimated and nondetected results rejected (J8, UR8).

Matrix spike/Matrix spike duplicate

The following table lists the semivolatile matrix spike compounds recovered outside of the laboratory established control limits and the resultant actions:

Sample: CFSB55(56-58)

Compound	% Recovery MS	% Recovery MSD	RPD	Control Limits	Action
2,4-Dinitrotoluene		90		28-89	J19

Blanks

The ABN fraction low level soil method blanks contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/kg	Action Level ug/kg
Benzoic Acid	13	65
Naphthalene	11	55
Diethylphthalate	10	100
Di-n-butylphthalate	29	290
bis(2-ethylhexyl)phthalate	22	220
Di-n-octylphthalate	13	130

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Naphthalene in samples CFSB1000, CFSB55(56-58), CFSB55(73-75) and CF081099 should be reported as the CRQL followed by U12. Diethylphthalate in samples CFSB55(56-58) and CFSB55(73-75) should be reported as the CRQL followed by U12. Di-n-butylphthalate in samples CFSB1000, CFSB51(39-41), CFSB55(56-58), CFSB55(73-75) and CF081099 should be

reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CFSB1000, CFSB51(39-41), CFSB55(56-58), CFSB55(73-75) and CF081099 should be reported as the CRQL followed by U12.
Di-n-octylphthalate in samples CFSB1000, CFSB51(39-41), CFSB55(56-58), CFSB55(73-75) and CF081099 should be reported as the CRQL followed by U12.

It should be noted that the TIC contaminants were reviewed and sample results found less that five times the level detected in the method and field blanks were rejected (R33).

Laboratory Control Spike

The following table lists the semivolatile laboratory spike compounds recovered outside of the laboratory established control limits and the resultant actions:

SVOA SBLKVP Date of analysis: 8/17/99 Instrument:HP5971P

Compounds	% Recovery	Control Limits	Action
1,2-Dichlorobenzene	138	32-129	J27
4-Methylphenol	121	32-108	J27
Hexachloroethane	121	40-113	J27
2,4-Dichlorophenol	138	44-117	J27
Hexachlorobutadiene	150	24-116	J27
2-Methylnaphthalene	134	36-112	J27
Hexachlorocyclopentadiene	82	1-74	J27
2,4,5-Trichlorophenol	138	45-129	J27
2-Chloronaphthalene	150	60-118	J27
Dimethylphthalate	138	1-112	J27
Dibenzofuran	150	52-123	J27
Diethylphthalate	115	1-114	J27
Fluorene	125	59-121	J27

4-Bromophenylphenylether	150	53-127	J27
Phenanthrene	125	54-120	J27
Di-n-butylphthalate	150	1-118	J27
Fluoranthene	138	26-137	J27
Pyrene	125	52-115	J27
Associated samples:	CFSB39(0-4)		

SVOA MSB(CFSB55(56-58)) Date of analysis: 8/21/99 Instrument:HP5971P

Compounds	% Recovery	Control Limits	Action
4-Nitrophenol	97	10-80	J19
2,4-Dinitrotoluene	100	24-96	J19
Associated samples:	No qualifications were required.		

Data Assessment and Usability

Due to the lack of compound specific response factors used in the quantitation of the tentatively identified compounds, the results are estimated (J33).
Sample CFSB50(9-11) had a %moisture of 69. Estimate the detected and non-detected results (J23/UJ23).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1 The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.

J2 The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.

J/UJ3 The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.

J4 The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.

J/UJ5 The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.

J6 The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.

J7/UJ7 One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.

J8, UR8 The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.

J/UJ9 The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.

J10 The initial %RSD was high; estimate positive results.

J11,UJ11 The continuing %D was greater than 25%; estimate positive results and non-detected results.

U12 Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the

highest blank contamination seen and therefore, qualified as non-detected. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)

J/UJ/R15 One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas ≤10%) for all compounds quantitated from that IS.

J17 Compound reported above the calibration range.

J19 The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.

J20,R20 The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.

J21 The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.

J23,UJ23 The %moisture was greater than 50%; estimate the positive and non-detects.

J/UJ/R27 The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.

J29 The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.

J31 The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.

J/UJ32 The result is estimated due to interference seen in the ICSA sample analysis.

J33/R33 The TIC results are estimated as there is a lack of specific response factors used for the quantitations. The TIC result are rejected R33 for sample results found less

than five times the level detected in the method and/or field blanks.

COVER LETTER

Revised

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 991983A, Inorganics

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: October 20, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CFSB-55A(123-125)	991983A-01	RCRA METALS, CN
CF-FB081699	991983A-02	RCRA METALS, CN
CFSB-56(12.5-13.0)	991983A-03	RCRA METALS, CN
CFSB-56(43-44)	991983A-04	RCRA METALS, CN
CFSB-081899	991983A-05	RCRA METALS, CN
CFSB-56(28-30.0)	991983A-07	RCRA METALS, CN
CFSB-56(63-63.5)	991983A-08	RCRA METALS, CN
CFSB-56(122-123)	991983A-09	RCRA METALS, CN
CF-FB082099	991983A-09	RCRA METALS, CN

ASSOCIATED QC SAMPLE(S): Field Blanks: FB081699, CF-FB082099
Field Duplicates: CFSB-56(12.5-13)/CFSB-081899

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

INORGANIC FRACTIONS

Seven soil samples and two aqueous field blanks were validated for RCRA metals and Cyanide. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Calibration

Silver (36.1%) was under-recovered in the initial calibration verification standard analyzed on 08/31. No actions were required as the samples were bracketed by calibration standards within control limits.

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Arsenic (soils)	122.2%	Estimate (J3) + results < 4XCRDL or 8 mg/kg.
Chromium (soils)	66.3%, 69.6%	Estimate (J/UJ3) + and ND results < 4XCRDL or 8 mg/kg.
Selenium (soils)	41.4%, 120.4%	Estimate (J3/UJ3) + and ND results < 4XCRDL or 4 mg/kg.
Arsenic (AQ only)	79.4%, 122.9%	Estimate (J3/UJ3) + and ND results < 4XCRDL or 40 ug/l.
Selenium (AQ only)	120.4%	Estimate (J3) + results < 4XCRDL or 20 ug/l.

Blanks

The preparation, instrument, and field blanks contained several metals above the IDL. The following tables list the concentration of each metal found in the blanks along with the resultant action levels.

Analysis date 08/31: All soil SDG samples associated.

Element	Conc./Units	5X Action Level
Chromium	-7.0 ug/l	-35 ug/l, -7.0 mg/kg
Mercury	0.2 ug/l	1.0 ug/l, 0.17 mg/kg
Selenium	6.6 ug/l	33 ug/l, 6.6 mg/kg
Barium	4.2 ug/l	21 ug/l, 4.2 mg/kg

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the following actions were taken: the Selenium results for samples SB-55A(123-125), SB-56(12.5-13.0), and SB-56(43-44) were qualified as non-detected (U12).

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Chromium was detected at greater than the negative value of 2XIDL level in the 08/31 analysis affecting all soil SDG samples . However, as the same negative bias was noted for the blank analysis, qualification for interferences was not performed. Selenium (131%) was recovered above the control limit of 80-120% in the interference check sample ICSAB. No qualifications were required as all sample Selenium results were non-detected or qualified as nondetected due to blank contamination and a high bias was seen.

Cadmium and Lead were detected at greater than the value of 2XIDL level in the 08/31 analysis affecting all aqueous field blank samples . No actions were required as sample interferent levels were less than 50% those of the ICSA sample.

Laboratory Control Sample Results

Silver (51.1 mg/kg) was found below the control limits of 64.6 - 109 mg/kg in the laboratory control sample associated with all SDG samples. The nondetected and/or positive Silver results for all soil samples are estimated (J/UJ9). It should be noted that the solid LCS results were not reported in the data package but taken from project job 9902051A which shared the same LCS sample.

Silver (78.0%) was under-recovered in the aqueous LCS. The positive and/or nondetected aqueous Silver results are estimated (J/UJ9).

Matrix Spike Results

A matrix spike was performed on soil sample SB-56(28-30). The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions. It should be noted that the out of control analytes were not marked with the 'N' qualifier on the reporting forms.

Analyte	Recovery	Actions
Arsenic	49.6%	Estimate (J/UJ1) + and ND soil results.
Chromium	68.1%	Estimate (J/UJ1) + and ND soil results.
Lead	46.2%	Estimate (J/UJ1) + and ND soil results.
Selenium	50.0%	Estimate (J/UJ1) + and ND soil results.

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL (35% and +/-2XCRDL for soils). The reported positive results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.
J8, UR8	The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.
J/UJ9	The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.
J10	The initial %RSD was high; estimate positive results.
J11,UJ11	The continuing %D was greater than 25%; estimate positive results and non-detected results.
U12	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected. Compound is present

	in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J/UJ/R15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J23,UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R27	The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.
J33	The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 992348A

REVIEWER: Elissa McDonagh, GEI Consultants

DATE: November 29, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-FB091499	992348A-02	ABN
CFSB45(13-15)	992348A-03	ABN
CFSB45(37-39)	992348A-04	ABN
CFSB45(19-21)	992348A-05	ABN
CFSB46(39-41)	992348A-06	ABN
CFSB46(15-17)	992348A-07	ABN
CFSB09/14/99	992348A-08	ABN
CFSB47(5-7)	992348A-09	ABN
CFSB47(39-41)	992348A-10	ABN
CFSB49(9-11)	992348A-11	ABN
CFSB49(39-41)	992348A-12	ABN
CFSB48(3-5)	992348A-14	ABN
CFSB48(39-41)	992348A-15	ABN

ASSOCIATED QC SAMPLE(S): Field Blanks: CF-FB091499
Field Duplicate: CFSB46(39-41), CFSB09/14/99

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Twelve soil samples and one aqueous sample were validated for semivolatiles. The semivolatile samples were analyzed by Method 8270.

All quality control results were found to be acceptable with the following exceptions:

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 993194C, Inorganics

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: January 25, 2000

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-FB-GP-12/1/99	993194C-03	METALS/CN, TOC
* CF-FB-SS-12/1/99	993194C-04	METALS/CN, TOC
* CF-SS-33	993194C-05	METALS/CN, TOC, Grain Size

ASSOCIATED QC SAMPLE(S): Field Blanks: CF-FB-GP-12/1/99, CF-FB-SS-12/1/99
Field Duplicate: None

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

INORGANIC FRACTIONS

Two aqueous field QC samples and one soil sample were validated for metals, Cyanide, and TOC. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Calibration

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Lead (12/20 soils)	153.3%	Estimate (J3) + results < 4XCRDL or 2.4 mg/kg. No actions.
Arsenic (12/21 AQ)	121.6%	Estimate (J3) + results < 4XCRDL or 40 ug/l. No actions.
Lead (12/21 AQ)	-8%, 74%	Estimate (J/UJ3) + and ND results < 4XCRDL or 12 ug/l.

The following table lists the continuing calibration verification standards found outside of the control limits of 90 - 110% and the resultant actions.

Analyte/CCV	Recovery	Actions
12/20 Lead CCV1, soil	110.7%	Estimate (J11) + results.
12/20 Lead CCV2, soil	111.7%	Estimate (J11) + results.
12/20 Lead CCV3, soil	110.9%	Estimate (J11) + results.
12/21 Lead CCV1, aq	110.6%	No actions, results ND.
12/21 Lead CCV3, aq	110.6%	No actions, results ND.

It should be noted that the mercury analysis for samples FB-GP-12/1/99 and FB-SS-12/1/99 was not bracketed by continuing calibration verification (CCV) samples within two hours of the previous CCV. The mercury results for the samples were estimated (J/UJ14).

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following table lists the highest concentration of each metal found in the blanks along with the resultant action levels.

Analyte	Highest Level	Action Level	Actions (U12)
Chromium-soil	**0.28**	**1.4 mg/kg**	**No actions.**
Lead-soil	**0.80**	**4.0 mg/kg**	**No actions.**
Silver-soil	**0.32**	**1.6 mg/kg**	**No actions.**
Arsenic-aq	**4.0**	**20 ug/l**	**No actions.**
Lead-aq	**3.8**	**19 ug/l**	**No actions.**

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

TOC was detected at 2.43 mg/l in the field blank CF-FB-SS-12/1/99, making an action level of 12.1 mg/l. No actions were required.

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Silver (120.3% and 121.4%) was over-recovered in the analysis of the ICSAB standard. No actions were required as the sample results were nondetected.

Lead was detected above the negative 2XIDL level in the interference sample ICSA. As sample interferent levels were less than 50% in all SDG samples, no actions were required.

Matrix Spike Results

A matrix spike was performed as batch QC on samples SB-4(10.5-11.5), SS-30, SB-2. The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Cadmium (SB-4(10.5-11.5))	130%	Estimate (J1) + soil results. No actions required.
Selenium (SB-4(10.5-11.5))	0%	Estimate (J1) + and reject (R1) ND results.
Cyanide (CF-SS-30)	65.9%	Estimate (J/UJ1) + and ND soil results.

TOC (SB-2)	59.7%	Estimate (J/UJ1) + and ND soil results.

Laboratory Duplicate Analysis

A laboratory duplicate analysis was performed on sample SB-4(10.5-11.5). The %RPD for Lead (55.9%) was found outside of the control limit of 35% for soils. The positive Lead results for the soil samples were estimated (J2).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL for waters and 35% or +/-35% for soils. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J, UJ10	**The initial %RSD was high; estimate positive and nondetected results.**
J11, UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detected results.**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.**
U13	**Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)**
J/UJ14	**A continuing standard was not analyzed within the required time. The results are estimated.**
J15,UJ15	**One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated**

	from that IS.
J16,UJ16	**One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.**
J17	**Compound reported above the calibration range.**
J18,UJ18	**One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram.**
J19	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.**
J20,R20	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.**
J21	**The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.**
J22	**Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.**
J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J24,R24	**The initial and/or continuing RRF < 0.05; qualify positive results (J) and nondetected results as unusable (R).**
J26,R26	**One or more of the surrogate %recoveries was less than 10%; estimate the positive results and reject nondetected results (J26,R26).**
J27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J, UJ28	**The analyte was recovered outside of the control limits of 80 - 120% in the interference check sample. The positive and/or nondetected results are estimated based on the recovery.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.

J33 The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 993194A, 993194B, 993194C

REVIEWER: Elissa McDonagh, GEI Consultants

DATE: January 16, 2000

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB67(0-4)	993194A-01	ABN
CF-SB67(4-6)	993194A-02	ABN
CF-SS-38	993194A-03	ABN
CF-SS-37	993194A-04	ABN
CF-SS-40	993194A-05	ABN
CF-SS-39	993194A-06	ABN
CF-SS-36	993194A-07	ABN
CF-SS-35	993194A-08	ABN
CF-SS-34	993194A-09	ABN
CF-SS-42	993194A-10	ABN
CF-SS-41	993194A-11	ABN
CF-SS-12	993194A-12	ABN
CF-SS-19	993194A-13	ABN
CF-SS-26	993194A-14	ABN
CF-SS-14	993194A-15	ABN
CF-SB62(0-4)	993194A-16	ABN
CF-SB62(4-6)	993194A-17	ABN
CF-SB61(0-4)	993194A-18	ABN
CF-SB61(4-8)	993194A-19	ABN
CF-SB59(0-4)	993194A-20	ABN
CF-SB59(8-10)	993194B-01	VOA, ABN
CF-SB58(0-4)	993194B-02	VOA, ABN
CF-SB58(4-6)	993194B-03	VOA, ABN
CF-SB60(4-8)	993194B-04	VOA, ABN
CF-SB11/30/99	993194B-05	VOA, ABN
CF-SB60(0-4)	993194B-06	VOA, ABN
CF-SB65(0-4)	993194B-07	VOA, ABN

CF-SB65(4-8)	993194B-08	VOA, ABN
CF-SB66(0-2)	993194B-09	VOA, ABN
CF-SB66(12-16)	993194B-10	VOA, ABN
CF-SS-21	993194B-11	VOA, ABN
CF-SS-15	993194B-12	VOA, ABN
CF-SS-22	993194B-13	VOA, ABN
CF-SS-29	993194B-14	VOA, ABN
CF-SS-30	993194B-15	VOA, ABN
CF-SS-23	993194B-16	VOA, ABN
CF-SS-16	993194B-17	VOA, ABN
CF-SS-28	993194B-18	VOA, ABN
CF-SS-69	993194B-19	VOA, ABN
CF-SS-52	993194B-20	VOA, ABN
CF-TB-12/1/99A	993194C-01	VOA
CF-TB-12/1/99	993194C-02	VOA
CF-FB-GP-12/1/99	993194C-03	VOA, ABN
CF-FB-SS-12/1/99	993194C-04	VOA, ABN
CF-SS-33	993194C-05	VOA, ABN

ASSOCIATED QC SAMPLE(S): Field Blanks: CF-FB-GP-12/1/99, CF-FB-SS-12/1/99
Trip Blanks: CF-TB-12/1/99A, CF-TB-12/1/99
Field Duplicate: CF-SB-11/30/99, CF-SB-60(0-4)
CF-SS-39, CF-SS-69
CF-SS-22, CF-SS-52

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Forty-one soil samples and two aqueous sample were validated for semivolatiles. The semivolatile samples were analyzed by Method 8270C.

Twenty-one soil samples and four aqueous samples were validated for volatiles. The volatile samples were analyzed by Method 8260B.

All quality control results were found to be acceptable with the following exceptions:

Surrogate Recovery

The volatile surrogate Toluene-d8 was over-recovered in the sample CF-SS-30. Estimate the detected compounds (J7) associated with the out of control surrogate in the sample.

The volatile surrogate Bromofluorobenzene was under-recovered in the samples CF-SS-30 and CF-SS-30RE. Estimate the detected and the nondetected compounds (J7/UJ7) associated with the out of control surrogate in these samples.

The semivolatile surrogate 2-Fluorobiphenyl was over-recovered in the samples CF-SB58(0-4), CF-SS-69, CF-SS-30 and CF-SB58(0-4)RE. Two or more surrogates are required to be outside of QC limits before qualifications are necessary.

Calibration

The following table lists the compound initial %RSD and/or continuing %D found outside of control limits:

SVOA Instrument HP5971Q (Initial calibration 12/13/99):

Compound	12/13	12/14	12/21
2,2'-oxybis(1-Chloropropane)			XX
4-Methylphenol			XX
2,4-Dinitrophenol	X	XX	XX
Benzo(k)fluoranthene	X		

Associated samples: 12/13 All samples listed below
12/13 CF-SB67(0-4), CF-SB67(4-6), CF-SB62(0-4), CF-SB62(4-6), CF-SB61(0-4), CF-SB61(4-8), CF-SS-39
12/14 CF-SS-34, CF-SS-38, CF-SS-40, CF-SS-37, CF-SS-36, CF-SS-42
12/15 CF-SS-35, CF-SS-12, CF-SS-19, CF-SS-26, CF-SS-14, CF-SB59(0-4), CF-FB-GP12/1/99, CF-FB-SS12/1/99
12/21 CF-SB59(0-4)RE, CF-SS-41RE, CF-SS-33

SVOA Instrument HP5971P (Initial calibration 12/17/99):

Compound	12/17	12/20	12/21	12/22
Hexachlorocyclopentadiene	X	XX	XX	XX
2,4-Dinitrophenol		XX	XX	XX
Indeno(123cd)pyrene	X			
Dibenz(a,h)anthracene	X			
Benzo(g,h,i)perylene	X			

Associated samples:

12/17	**All samples listed below**
12/17	**CF-SB58(4-6), CF-SB60(4-8), CF-SB11/30/99, CF-SB65(4-8), CF-SB66(12-16)**
12/20	**CF-SB59(8-10), CF-SB65(0-4), CF-SS15, CF-SS22, CF-SS29, CF-SS16, CF-SS30DL, CF-SS28, CF-SS69DL, CF-SS52**
12/21	**CF-SB58(0-4), CF-SB60(0-4), CF-SB65(0-4)RE, CF-SB66(0-2), CF-SS21, CF-SS15RE, CF-SS22RE, CF-SS29RE, CF-SS30, CF-SS23, CF-SS16RE, CF-SS28RE, CF-SS69, CF-SS52RE**
12/22	**CF-SB58(0-4)RE, CF-SB66(0-2)RE, CF-SS21RE, CF-SS23RE**

X - The initial calibration %RSD was found greater than 30%, estimate (J10/UJ10) detected and non-detected compound results.

XX - The continuing calibration %D was found greater than 25%, estimate (J/UJ11) detective and non-detected compound results.

+ - The response factor (RF) was found below the validation control limit of 0.050. Positive compound results are estimated and nondetected results rejected (J8, UR8).

Blanks

The ABN fraction low level soil method blanks contained the following maximum quantities of contaminants (3194A):

Compound	Max [ ] ug/kg	Action Level ug/kg
Diethylphthalate	**14**	**140**
Di-n-butylphthalate	**28**	**280**
bis(2-ethylhexyl)phthalate	**37**	**370**
Di-n-octylphthalate	**12**	**120**

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Diethylphthalate in samples CF-SS-37 and CF-SS-35 should be reported as the CRQL followed by U12. Di-n-butylphthalate in samples CF-SB67(0-4), CF-SB67(4-6), CF-SS-38, CF-SS-37, CF-SS-39, CF-SS-36, CF-SS-35, CF-SS-34, CF-SS-42, CF-SS-41, CF-SS-41RE, CF-SS-12, CF-SS-26, CF-SS-14, CF-SB62(0-4), CF-SB62(4-6), CF-SB61(0-4), CF-SB61(4-8), CF-SB59(0-4) and CF-SB59(0-4)RE should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CF-SB67(0-4), CF-SB67(4-6), CF-SS-38, CF-SS-37, CF-SS-40, CF-SS-36, CF-SS-35, CF-SS-34, CF-SS-42, CF-SS-12, CF-SB62(0-4), CF-SB62(4-6), CF-SB61(0-4) and CF-SB61(4-8) should be reported as the CRQL followed by U12. Di-n-octylphthalate in samples CF-SB67(0-4), CF-SB67(4-6), CF-SS-38, CF-SS-36, CF-SS-35, CF-SS-12, CF-SS-19, CF-SS-26, CF-SS-14, CF-SB62(0-4), CF-SB62(4-6), CF-SB61(0-4) and CF-SB61(4-8) should be reported as the CRQL followed by U12.

The VOA fraction low level soil method blanks contained the following maximum quantities of contaminants (3194B):

Compound	Max [ ] ug/kg	Action Level ug/kg
Xylene(total)	0.8	4.0

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended .Xylene in samples CF-SB-11/30/99, CF-SS-22, CF-SS-29 and CF-SS-16 should be reported as the CRQL followed by U12.

The ABN fraction low level soil method blanks contained the following maximum quantities of contaminants (3194B):

Compound	Max [ ] ug/kg	Action Level ug/kg
Di-n-butylphthalate	15	150
bis(2-ethylhexyl)phthalate	8	80
Di-n-octylphthalate	8	80

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Di-n-buytlphthalate in samples CF-SB59(8-10), CF-SB58(0-4), CF-SB58(0-4)RE, CF-SB58(4-6), CF-SB60(4-8), CF-SB-11/30/99, CF-SB65(4-8), CF-SB66(12-16), CF-SS-21, CF-SS-21RE, CF-SS-15, CF-SS-15RE, CF-SS-22,
CF-SS-22RE, CF-SS-29RE, CF-SS-30, CF-SS-16, CF-SS-16RE, CF-SS-28, CF-SS-28RE, CF-SS-69, CF-SS-52 and CF-SS-52RE should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CF-SB58(4-6), CF-SB60(4-8), CF-SB-11/30/99 and CF-SB65(4-8) should be reported as the CRQL followed by U12. Di-n-octylphthalate in samples CF-SB58(4-6), CF-SB60(4-8), CF-SB-11/30/99, CF-SB65(4-8), CF-SB66(12-16) and CF-SS-69 should be reported as the CRQL followed by U12.

The ABN fraction low level aqueous method blanks contained the following maximum quantities of contaminants (3194C):

Compound	Max [ ] ug/l	Action Level ug/l
Di-n-butylphthalate	0.4	4
Di-n-octylphthalate	0.3	3

The action level values were compared to the sample values after application of sample

dilution factors and the following actions are recommended . Di-n-buytlphthalate and Di-n-octylphthalate in samples CF-FB-GP12/1/99 and CF-FB-SS12/1/99 should be reported as the CRQL followed by U12.

The ABN fraction low level soil method blanks contained the following maximum quantities of contaminants (3194C):

Compound	Max [ ] ug/kg	Action Level ug/kg
Di-n-butylphthalate	19	190
bis(2-ethylhexyl)phthalate	31	310
Di-n-octylphthalate	8	80

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Di-n-buytlphthalate , bis(2-ethylhexyl)phthalate and Di-n-octylphthalate in sample CF-SS-33 should be reported as the CRQL followed by U12.

It should be noted that the TIC contaminants were reviewed and sample results found less that five times the level detected in the method and field blanks were rejected (R33).

Laboratory Control Spike

The following table lists the semivolatile laboratory spike compounds recovered outside of the laboratory established control limits and the resultant actions:

SVOA SBLKSQ **Date of analysis: 12/13/99** **Instrument: HP5971Q**

Compounds	% Recovery	Control Limits	Action
Phenol	85	24-57	J27
4-Methylphenol	100	48-95	J27
Benzoic Acid	100	0-25	J27
4-Nitrophenol	108	21-65	J27
Associated samples:	all samples 993194A		

CF-SB60(4-8)MSB **Date of analysis: 12/20/99** **Instrument: HP5971P**

Compound	% Recovery	Control Limits	Action
4-Nitrophenol	103	10-80	J27
Pentachlorophenol	109	9-103	J27
Associated samples:	all samples 993194B		

SVOA SBLKUP **Date of analysis: 12/17/99** **Instrument: HP5971P**

Compound	% Recovery	Control Limits	Action
Hexachlorocyclopentadiene	19	20-114	J27/UJ27
Associated samples:	all samples 993194B		

SVOA SBLKTQ **Date of analysis: 12/15/99** **Instrument: HP5971Q**

Compound	% Recovery	Control Limits	Action
2,4-Dinitrophenol	142	70-139	J27
Associated samples:	CF-FB-GP12/1/99, CF-FB-SS12/1/99		

Internal Standard Performance

The Volatile and Semivolatile Internal Standards that exceeded the acceptance criteria are summarized in the following table:

Sample Number	IS Outside Area Count	Action
CF-SS-30	1,4-Difluorobenzene	J15/UJ15
CF-SS-30	Chlorobenzene-d5	J15/UJ15
CF-SS-30RE	Chlorobenzene-d5	J15/UJ15
CF-SS-42	Perylene-d12	J15/UJ15
CF-SS-41	Perylene-d12	J15/UJ15
CF-SB59(0-4)	Perylene-d12	J15/R15
CF-SB59(0-4)RE	Perylene-d12	J15/R15
CF-SS-41RE	Chrysene-d12	J15/UJ15
CF-SS-41RE	Perylene-d12	J15/R15
CF-SS-30DL	Chrysene-d12	J15/UJ15
CF-SS-30DL	Perylene-d12	J15/UJ15
CF-SB65(0-4)	Chrysene-d12	J15/UJ15
CF-SS-15	Chrysene-d12	J15/UJ15
CF-SS-22	Chrysene-d12	J15/UJ15
CF-SS-69DL	Chrysene-d12	J15/UJ15
CF-SS-28	Chrysene-d12	J15/UJ15
CF-SS-29	Chrysene-d12	J15/UJ15
CF-SS-16	Chrysene-d12	J15/UJ15
CF-SS-52	Chrysene-d12	J15/UJ15
CF-SS-23	Chrysene-d12	J15/UJ15
CF-SB65(0-4)RE	Phenanthrene-d10	J15/UJ15

CF-SB65(0-4)RE	Chrysene-d12	J15/UJ15
CF-SS-15RE	Phenanthrene-d10	J15/UJ15
CF-SS-15RE	Chrysene-d12	J15/UJ15
CF-SS-22RE	Phenanthrene-d10	J15/UJ15
CF-SS-22RE	Chrysene-d12	J15/UJ15
CF-SS-29RE	Chrysene-d12	J15/UJ15
CF-SS-16RE	Phenanthrene-d10	J15/UJ15
CF-SS-16RE	Chrysene-d12	J15/UJ15
CF-SS-28RE	Chrysene-d12	J15/UJ15
CF-SS-52RE	Phenanthrene-d10	J15/UJ15
CF-SS-52RE	Chrysene-d12	J15/UJ15
CF-SB66(0-2)	Phenanthrene-d10	J15/UJ15
CF-SB66(0-2)	Chrysene-d12	J15/UJ15
CF-SB58(0-4)	Phenanthrene-d10	J15/UJ15
CF-SB58(0-4)	Chrysene-d12	J15/UJ15
CF-SS-21	Phenanthrene-d10	J15/UJ15
CF-SS-21	Chrysene-d12	J15/UJ15
CF-SS-69	Anthracene-d10	J15/UJ15
CF-SS-69	Phenanthrene-d10	J15/R15
CF-SS-69	Chrysene-d12	J15/UJ15
CF-SS-30	Phenanthrene-d10	J15/UJ15
CF-SS-30	Chrysene-d12	J15/UJ15
CF-SS-23RE	Chrysene-d12	J15/UJ15
CF-SB58(0-4)RE	Chrysene-d12	J15/UJ15
CF-SB66(0-2)RE	Chrysene-d12	J15/UJ15

CF-SS-21RE	Chrysene-d12	J15/UJ15

Field Duplicate

The semivolatile compounds Phenanathrene, Fluoranthene, Pyrene, Benzo(a)anthracene, Chrysene, Benzo(k)fluoranthene,Benzo(a)pyrene, Indeno(1,2,3-cd)pyrene and Benzo(g,h,i)perylene had %RPDs above the required acceptance limit in the field duplicate pair (CF-SB11/30/99, CF-SB60(0-4)). Estimate the detected results (J5) for these compounds in both samples.

The semivolatile compounds Pyrene and bis(2-ethylhexyl)phthalate had %RPDs above the required acceptance limit in the field duplicate pair (CF-SS-69, CF-SS-39). Estimate the detected results (J5) for these compounds in both samples.

Data Assessment and Usability

Due to the lack of compound specific response factors used in the quantitation of the tentatively identified compounds, the results are estimated (J33).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1 The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.

J2 The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.

J/UJ3 The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.

J4 The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.

J/UJ5 The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.

J6 The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.

J7/UJ7 One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.

J8, UR8 The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.

J/UJ9 The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.

J10, UJ10 The initial %RSD was high; estimate positive and non-detected results.

J11,UJ11 The continuing %D was greater than 25%; estimate positive results and non-detected results.

U12 Compound was present in the associated blank. Compound is present in the

sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)

J/UJ/R15 One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.

J17 Compound reported above the calibration range.

J19 The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.

J20,R20 The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.

J21 The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.

J23,UJ23 The %moisture was greater than 50%; estimate the positive and non-detects.

J/UJ/R27 The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.

J29 The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.

J31 The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.

J/UJ32 The result is estimated due to interference seen in the ICSA sample analysis.

J33/R33 The TIC results are estimated as there is a lack of specific response factors used for the quantitations. The TIC result are rejected R33 for sample results found less than five times the level detected in the method and/or field blanks.

Site: Clifton, NY Site, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 200201
Reviewer: Lorie MacKinnon/GEI Consultants
Date: February 4, 2002

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-68(33-33.5)	200201-01	BTEX, SVOC, Metals/CN
CF-SB-68(54.5-55)	200201-02	BTEX, SVOC, Metals/CN
CF-SB-69(33-33.5)	200201-03	BTEX, SVOC, Metals/CN
CF-SB-69(44.5-45)	200201-04	BTEX, SVOC, Metals/CN
CF-TB-12/6/01	200201-05	BTEX
CF-SB-70A(31.5-32)	200201-06	BTEX, SVOC, Metals/CN
CF-SB-70A(54.5-55)	200201-07	BTEX, SVOC, Metals/CN
CF-SB-76(44-44.5)	200201-08	BTEX, SVOC, Metals/CN
CF-SB-76(58-58.5)	200201-09	BTEX, SVOC, Metals/CN
CF-FB-12/7/01	200201-10	BTEX, SVOC, Metals/CN
CF-TB-12/7/01	200201-11	BTEX
CF-SB-76(54.5-55)	200201-12	Samples were not present on COC; not analyzed.
CF-SB-76(64.5-65)	200201-13	Samples were not present on COC; not analyzed.
CF-SB-71(30-30.5)	200201-14	BTEX, SVOC, Metals/CN
CF-SB-71(44-45)	200201-15	BTEX, SVOC, Metals/CN
CF-SB-75(52-52.5)	200201-16	BTEX, SVOC, Metals/CN
CF-SB-75(70-72)	200201-17	BTEX, SVOC, Metals/CN
CF-SB-74(21-21.5)	200201-18	BTEX, SVOC, Metals/CN
CF-SB-74(34.5-35)	200201-19	BTEX, SVOC, Metals/CN
CF-TB-12/10/01	200201-20	BTEX

Associated QC Samples:	Field Blanks:	CF-TB-12/6/01, CF-FB-12/7/01, CF-TB-12/7/01, CF-TB12/10/01
	Field Duplicate pair:	None associated

The above listed samples were analyzed for BTEX volatile organic compounds by SW-846 method 8260B, semivolatile organic compounds (SVOCs) by SW-846 method 8270C, RCRA metals by SW-846 method 6000/7000 series, and cyanide by SW-846 method 9012. It should be noted that PAH analysis was requested on the chain-of-custody. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

*	·	Holding Times and Sample Preservation
*	·	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	·	Initial and Continuing Calibrations
	·	Blanks
	·	Surrogate Recoveries
*	·	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
*	·	Internal Standards
	·	Laboratory Control Sample (LCS) Results
NA	·	Field Duplicate Results
	·	Reported Quantitation Limits
NA	·	Sample Quantitation and Target Compound Identification

* - All criteria were met.

NA - Not evaluated due to reduced deliverable data package or field duplicate was not associated with this sample group.

All results were found to be usable with the following exceptions: the benzoic acid result for sample FB-12/7/01 and the 2,2-oxybis(1-chloropropane) in samples SB68(33-33.5), SB68(54.5-55), SB69(33-33.5), SB69(44.5-45), SB70A(31.5-32), SB70A(54.5-55), SB76(44-44.5), and SB76(58-58.5).

The organic validation recommendations listed above were based on the following information.

Initial and Continuing Calibrations

Compounds that did not meet criteria in the SVOC initial and continuing calibrations are summarized in the following table.

Instrument ID MSP Compound	IC 12/10/01	CC 12/17/01
benzyl alcohol		XX(44.8%)
Samples Affected	All listed	FB-12/7/01

Instrument ID MSS Compound	IC 12/17/01	CC 12/20/01	CC 12/27/01	CC 12/29/01
hexachlorocyclopentadiene	X (31.0%)	XX (50.7%)		
2,4-dinitrophenol	X(30.3%)		XX (36.6%)	XX (42.1%)
indeno(123-cd)pyrene		XX (26.9%)		

Instrument ID MSS Compound	IC 12/17/01	CC 12/20/01	CC 12/27/01	CC 12/29/01
benzo(ghi)perylene		XX (29.2%)		
4-nitrophenol			XX (25.9%)	XX (30.6%)
4,6-dinitro-2-methylphenol				XX (27.2%)
Samples Affected	All listed	SB71(30-30.5), SB71(44-45), SB75(70-72), SB74(34.5-35)	SB69(44.5-45), SB70A(54.5-55), SB74(21-21.5)	SB70A(31.5-32), SB76(58-58.5), SB75(52-52.5)

X = Initial calibration (IC) relative standard deviation (%RSD) > 30; estimate (J) positive and (UJ) blank-qualified nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 25; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

No actions were required for hexachlorocyclopentadiene and 2,4-dinitrophenol due to initial calibration nonconformances as associated results were nondetect.

Blanks

The following table summarizes the method blank contamination in the VOC analyses.

Compound	Type of Blank	Maximum Concentration (ug/Kg)	Blank Action Level (ug/Kg)
toluene	Low Level Method	0.65	6.5

Blank Actions

If the sample concentration ≤ QL and ≤ blank action level, qualify the result as not detected (U6) at the QL.
If the sample concentration > QL and ≤ blank action level, qualify the result as not detected (U6) at the reported value.
If the sample concentration > blank action level, report the value unqualified.

The positive results for toluene in samples SB71(30-30.5), SB71(44-45), SB75 (70-72), and SB68(33-33.5) were qualified as nondetect (U6) at the quantitation limit due to method blank contamination.

Target analytes were not detected in the VOC field blanks and SVOC method and field blanks.

Surrogate Recoveries

All surrogate recovery criteria were met for the VOC samples.

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The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the SVOC analyses:

Sample ID	Percent Recovery						Action
	2-FP 25-113	Phenol-d5 27-122	TBP 24-150	NBZ 25-120	2-FBP 32-131	TP-d14 35-140	
SB69(33-33.5)	0D	0D	0D	0D	0D	0D	No action required, sample analyzed at 200-fold dilution.
SB70A(31.5-32)	0D	0D	0D	0D	0D	0D	No action required, sample analyzed at 500-fold dilution.
SB76(44-44.5)	0D	0D	0D	0D	0D	0D	No action required, sample analyzed at 1000-fold dilution.
FB-12/7/01	-	15	-	-	-	-	No action required, one surrogate out.
SB75(52-52.5)	-	26	0D	-	138	-	No action required, sample analyzed at 400-fold dilution.
SB74(21-21.5)	-	-	0D	-	-	-	No action required, sample analyzed at 100-fold dilution.

- Within control limits

2-FP - 2-Fluorophenol
TBP - 2,4,6-Tribromophenol
NBZ - Nitrobenzene-d5
2-FBP - 2-Fluorobiphenyl
TP-d14 - Terphenyl-d14

LCS Results

The following table lists the SVOC compound recoveries found outside of the validation control limits of 60 - 140% for the aqueous LCS analyzed on 12/17/01 associated with the field blank sample FB12/7/01 and the resultant actions.

Compound	Recovery (%)	Actions
phenol	49	Estimate (UJ9) nondetect result for FB-12/7/01; possible low bias.

Compound	Recovery (%)	Actions
benzyl alcohol	142	No action required; result nondetect, high bias indicated.
2-methylphenol	49	Estimate (UJ9) nondetect result for FB-12/7/01; possible low bias.
4-methylphenol	52	Estimate (UJ9) nondetect result for FB-12/7/01; possible low bias.
benzoic acid	0	Reject (R9) nondetect result for FB-12/7/01.
2,4-dimethylphenol	45	Estimate (UJ9) nondetect result for FB-12/7/01; possible low bias.
2,4,5-trichlorophenol	59	Estimate (UJ9) nondetect result for FB-12/7/01; possible low bias.
4-nitrophenol	56	Estimate (UJ9) nondetect result for FB-12/7/01; possible low bias.

The following table lists the SVOC compound recoveries found outside of the validation control limits of 60 - 140% for the soil LCS batch 2072 associated with the soil samples SB68(33-33.5), SB68(54.5-55), SB69(33-33.5), SB69(44.5-45), SB70A(31.5-32), SB70A(54.5-55), SB76(44-44.5), and SB76(58-58.5) and the resultant actions.

Compound	Recovery (%)	Actions
1,3-dichlorobenzene	56	Estimate (UJ9) nondetect results for 1,3-dichlorobenzene in associated samples; possible low bias.
2,2-oxybis(1-chloropropane)	0	Reject (R9) nondetect results for 2,2-oxybis(1-chloropropane) in associated samples.
hexachloroethane	53	Estimate (UJ9) nondetect results for hexachloroethane in associated samples; possible low bias.
2,4-dinitrophenol	144	No actions required, results nondetect and a high bias indicated.
4-nitrophenol	151	No actions required, results nondetect and a high bias indicated.
pentachlorophenol	153	No actions required, results nondetect and a high bias indicated.

The following table lists the SVOC compound recoveries found outside of the validation control limits of 60 - 140% for the soil LCS batch 2073 associated with the soil samples SB71(30-30.5), SB71(44-45), SB75(52-52.5), SB75(70-72), SB74(21-21.5), and SB74(34.5-35) and the resultant actions.

Compound	Recovery (%)	Actions
1,3-dichlorobenzene	43	Estimate (UJ9) nondetect results for 1,3-dichlorobenzene in associated samples; possible low bias.

Compound	Recovery (%)	Actions
1,4-dichlorobenzene	47	Estimate (UJ9) nondetect results for 1,4-dichlorobenzene in associated samples; possible low bias.
1,2-dichlorobenzene	50	Estimate (UJ9) nondetect results for 1,2-dichlorobenzene in associated samples; possible low bias.
hexachloroethane	41	Estimate (UJ9) nondetect results for hexachlorobenzene in associated samples; possible low bias.
2,4,5-trichlorophenol	57	Estimate (UJ9) nondetect results for 2,4,5-trichlorophenol in associated samples; possible low bias.
hexachlorocyclopentadiene	37	Estimate (UJ9) nondetect results for hexachlorocyclopentadiene in associated samples; possible low bias.

Field Duplicate Results

A field duplicate pair was not associated with this sample group.

Sample Quantitation and Data Assessment

Results were reported which were below the lowest calibration standard level and quantitation limit in the VOC and SVOC analyses. These results were qualified as estimated (J5) by the laboratory.

The following table lists the sample dilutions performed and reported. Quantitation limits were elevated accordingly.

Sample	Analyses	Dilution Reported
SB68(33-33.5)	VOC	4-fold
SB69(33-33.5)	VOC	Medium Level, 100-fold dilution
SB70A(31.5-32)	VOC	Medium Level, 100-fold dilution
SB76(44-44.5)	VOC	Medium Level, 100-fold dilution
SB75(52-52.5)	VOC	Medium Level, 20-fold dilution
SB74(21-21.5)	VOC	Medium Level, 10-fold dilution
SB69(33-33.5)	SVOC	200-fold
SB76(44-44.5)	SVOC	5000-fold (due to 1000-fold dilution and 5 ml extract volume)
SB75(52-52.5)	SVOC	400-fold

Sample	Analyses	Dilution Reported
SB70A(31.5-32)	SVOC	2500-fold (due to 500-fold dilution and 5 ml extract volume)
SB76(58-58.5)	SVOC	2-fold
SB74(21-21.5)	SVOC	100-fold

The inorganic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation
Instrument Calibration
Contract Required Detection Limit (CRDL) Standard Analysis
Blank Analysis Results
Inductively Coupled Plasma (ICP) Interference Check Sample Results
* Matrix Spike (MS) Results
* Laboratory Duplicate Results
NA Field Duplicate Results
Laboratory Control Sample (LCS) Results
* ICP Serial Dilution Results
Detection Limit Results
* Reported Quantitation Limits
NA Sample Quantitation

* All criteria were met for this parameter.

NA - Not evaluated due to reduced deliverable data package or a field duplicate was not associated with this sample group.

All results were found to be usable.

The validation recommendations listed above were based on the following information.

Instrument Calibration

Selenium was recovered outside the control limits of 90 - 110% in the following continuing calibration verification standards (CCV) analyzed on 12/21/01: CCV6 (112%) and CCV7 (112%). No actions were required as associated selenium results were nondetect and a high bias was indicated. Silver was recovered outside the control limits of 90 - 110% in the continuing calibration verification standard CCV7 (111%) analyzed on 12/21/01. No actions were required as associated

silver results were nondetect and a high bias was indicated.

CRDL Standard Analysis

A CRDL standard was analyzed at 2x the required detection limit for the ICP analyses. The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120%. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated (J/UJ).

Analyte	Recovery (%)	Associated Samples	Actions
Lead	146, 137	FB-12/7/01	No action required; result nondetect.
Selenium	127, 149	FB-12/7/01	No action required; result nondetect.
Lead 01/03	74	All soils	No actions were required. All results were detected above the affected range.

Interference Check Sample Results

Lead (124%, 123%) was recovered above the control limits of 80 - 120% in the interference check sample (ICSAB) analyzed on 12/21/01 and associated with the field blank sample FB-12/7/01. Qualification was not required as the lead result for sample FB-12/7/01 was not detected and a high bias was indicated.

Lead (131%) was recovered above the control limits of 80 - 120% in the interference check sample (ICSAB) analyzed on 01/03/02 and associated with all soil samples. Lead was detected in all soil samples. The positive lead results were qualified as estimated (J16) in all soil samples due to the potential high bias seen.

Blank Results

Selenium and lead were detected in the laboratory method and instrument blanks associated with the analysis of field blank sample FB-12/7/01. No actions were required.

Target analytes were not detected in the method and instrument blanks associated with the soil sample analyses.

Laboratory Control Sample Results

The following table lists the analyte recoveries found outside of the aqueous control limits of 80 - 120% for the LCS associated with the field blank sample FB-12/7/01 and the resultant actions.

Analyte	Recovery	Actions
silver	78.0%	Estimate (UJ9) nondetect silver result for sample FB-12/7/01; low bias indicated.

The following table lists the analyte recoveries found outside of the manufacturer control limits for the LCS associated with the soils and the resultant actions.

Analyte	Rec (%)	Control Limits	Associated samples	Actions
mercury 12/11	123	80-120	68(33-33.5), 68(54.5-55), 69(33-33.5), 69(44.5-45), 70A(31.5-32), 70A(54.5-55), 76(44-44.5), 76(58-58.5)	Estimate (J9) positive mercury results in samples 68(33-33.5), 68(54.5-55), 69(33-33.5), 69(44.5-45), 70A(54.5-55), 76(44-44.5), and 76(58-58.5); possible high bias.
cyanide 12/13 cyanide 12/21	77, 121 80	85-115	All soil samples	Estimate (J/UJ9) positive and nondetect cyanide results for all soils; bias cannot be determined.

Detection Limit Results

Positive results which were ≤2x the MDL were qualified as estimated (J5) due to uncertainty at the low end of calibration. The following results were affected by this qualification: arsenic in samples SB68(33-33.5) and SB75(70-72) and cadmium in samples SB68(54.5-55), SB69(33-33.5), SB69(44.5-45), SB70A(31.5-32), SB70A(54.5-55), SB76(58-58.5), SB71(30-30.5), SB71(44-45), SB74(21-21.5), and SB74(34.5-35).

Site:	Clifton, NY Site, Staten Island, NY
Laboratory:	Severn Trent Laboratories, Shelton, CT
Report No.:	200239
Reviewer:	Lorie MacKinnon/GEI Consultants
Date:	February 4, 2002

Samples Reviewed and Evaluation Summary

	FIELD ID	LAB ID	FRACTIONS VALIDATED
*	CF-SB-72-48-49	200239-01	BTEX, PAH, Metals/CN
*	CF-SB-72-24.5-25	200239-02	BTEX, PAH, Metals/CN
*	CF-SB-73-30-31	200239-03	BTEX, PAH, Metals/CN
*	CF-SB-73-54-55	200239-04	BTEX, PAH, Metals/CN
	CF-SB-78-114-115	200239-05	BTEX, PAH, Metals/CN
	CF-SB-78-49-50	200239-06	BTEX, PAH, Metals/CN
	CF-SB-98-104-105	200239-07	BTEX, PAH, Metals/CN

Associated QC Samples:	Field Blanks:	None associated
	Field Duplicate pair:	SB78(114-115)/SB98(104-105)

The above listed samples were analyzed for BTEX volatile organic compounds by SW-846 method 8260B, polynuclear aromatic hydrocarbon semivolatile organic compounds (PAHs) by SW-846 method 8270C, RCRA metals by SW-846 method 6000/7000 series, and cyanide by SW-846 method 9012. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

*	•	Holding Times and Sample Preservation
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	•	Initial and Continuing Calibrations
	•	Blanks
	•	Surrogate Recoveries
*	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	•	Internal Standards
	•	Laboratory Control Sample (LCS) Results
	•	Field Duplicate Results
	•	Reported Quantitation Limits
NA	•	Sample Quantitation and Target Compound Identification

* - All criteria were met.

NA - Not evaluated due to reduced deliverable data package.

All results were found to be usable.

The organic validation recommendations listed above were based on the following information.

Initial and Continuing Calibrations

Compounds that did not meet criteria in the SVOC initial and continuing calibrations are summarized in the following table.

Instrument ID MSS Compound	IC 12/17/01	CC 12/20/01
indeno(123-cd)pyrene		XX(26.9%)
benzo(ghi)perylene		XX(29.2%)
Samples Affected	All listed	SB72(48-49), SB72(24.5-25), SB73(30-31), SB73(54-55)

X = Initial calibration (IC) relative standard deviation (%RSD) > 30; estimate (J) positive and (UJ) blank-qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 25; estimate (J/UJ) positive and nondetect results.

+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

All criteria were met for the VOA analysis.

Blanks

The following table summarizes the method blank contamination in the VOC analyses.

Compound	Type of Blank	Maximum Concentration (ug/Kg)	Blank Action Level (ug/Kg)
toluene	Method	0.65	6.5

Blank Actions

If the sample concentration ≤ QL and ≤ blank action level, qualify the result as not detected (U6) at the QL.
If the sample concentration > QL and ≤ blank action level, qualify the result as not detected (U6) at the reported value.
If the sample concentration > blank action level, report the value unqualified.

The positive results for toluene in samples SB72(24.5-25), SB73(30-31), SB73(54-55), SB78(114-115), and SB98(104-105) were qualified as nondetect (U6) at the quantitation limit due to method blank contamination.

Target analytes were not detected in the SVOC method blanks.

Surrogate Recoveries

All surrogate recovery criteria were met for the VOC samples.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the SVOC analyses:

Sample ID	Percent Recovery						Action
	2-FP 25-113	Phenol-d5 27-122	TBP 24-150	NBZ 25-120	2-FBP 32-131	TP-d14 35-140	
SB78(114-115)	115	-	-	-	-	-	No action required, one surrogate out.
SB78(49-50)	0D	0D	0D	0D	119D	0D	No action required, sample analyzed at 1000-fold dilution.

- Within control limits

2-FP - 2-Fluorophenol
TBP - 2,4,6-Tribromophenol
NBZ - Nitrobenzene-d5
2-FBP - 2-Fluorobiphenyl
TP-d14 - Terphenyl-d14

Sample Quantitation and Data Assessment

Results were reported which were below the lowest calibration standard level and quantitation limit in the VOC and SVOC analyses. These results were qualified as estimated (J5) by the laboratory.

The following table lists the sample dilutions performed and reported. Quantitation limits were elevated accordingly.

Sample	Analyses	Dilution Reported
SB78(49-50)	PAH	1000-fold
SB78(49-50)	BTEX	20-fold medium level

The inorganic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation
* Instrument Calibration
Contract Required Detection Limit (CRDL) Standard Analysis
* Blank Analysis Results
* Inductively Coupled Plasma (ICP) Interference Check Sample Results
Matrix Spike (MS) Results
Laboratory Duplicate Results
Field Duplicate Results
* Laboratory Control Sample (LCS) Results
* ICP Serial Dilution Results
Detection Limit Results
* Reported Quantitation Limits
NA Sample Quantitation

* All criteria were met for this parameter.

NA - Not evaluated due to reduced deliverable data package.

All results were found to be usable.

The validation recommendations listed above were based on the following information.

CRDL Standard Analysis

A CRDL standard was analyzed at 2x the required detection limit for the ICP analyses. The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120%. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated (J/UJ).

Analyte	Recovery (%)	Associated Samples	Actions
Selenium	127	All soils	No action required; results nondetect and high bias was indicated.
Lead	65	All soils	No actions were required. All results were detected above the affected range.

Matrix Spike Results

A matrix spike analysis was performed on sample SB78(114-115). The following table lists the analyte recoveries found outside of control limits of 75-125% and the resultant actions.

Analyte	Recovery	Actions
Cadmium	68%	Estimate (J/UJ8) the positive and nondetect results for cadmium in all soil samples; possible low bias.

A cyanide and mercury matrix spike was performed as batch QC. All criteria were met.

Laboratory Duplicate Results

A laboratory duplicate analysis was performed on sample SB78(114-115). The following table lists the analyte RPDs found outside of control limits of 35 for soils and the resultant actions.

Analyte	RPD	Actions
Lead	89.7%	Estimate (J17) the positive results for lead in all soil samples.

A cyanide and mercury laboratory duplicate analysis was performed as batch QC. All criteria were met.

Field Duplicate Results

The field duplicate pair of SB78(114-115) and SB98(104-105) was associated with this sample group. The following table lists the analyte RPDs found above 50% for soils and the resultant actions.

Analyte	RPD (%)	Actions
barium	89.9	Estimate (J10) the positive barium results for samples SB78(114-115) and SB98(104-105).
chromium	107.0	Estimate (J10) the positive chromium results for samples SB78(114-115) and SB98(104-105).
lead	189.8	Estimate (J10) the positive lead results for samples SB78(114-115) and SB98(104-105).

Detection Limit Results

Positive results which were ≤2x the IDL were qualified as estimated (J5) due to uncertainty at the low end of calibration. The following results were affected by this qualification: arsenic in samples SB78(115-115) and SB98(104-105) and cadmium in samples SB72(24.5-25), SB73(30-31), and SB78(49-50).

VALIDATION GUIDELINES FOOTNOTES

J/UJ1, R1	Holding times have been exceeded or samples were improperly preserved; estimate positive results and non-detects or reject results if holding times were grossly exceeded.
J2, R2	The initial or continuing calibration RF was low: estimate positive results and reject non-detects.
J3	The initial %RSD was greater than 30% for semivolatile and volatiles or greater than 20% for pesticide/PCB; estimate positive and blank-qualified nondetect results.
J/UJ4	The continuing calibration %D was greater than 25% ; estimate positive results and non-detects. For inorganics, the initial or continuing calibration verification standard was outside of control limits of 90 - 110% for metals, 80 - 120% for Mercury or 85 - 115% for Cyanide; the positive or non-detected results are estimated dependent on the recovery.
J5	The reported concentration was quantitively qualified because the concentration was below the CRQL, or lowest calibration standard, but greater than the MDL. For inorganics, the result was less than 2xIDL. The concentration is considered estimated since the value obtained is at the low end of the instrument performance.
U6	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (U6). For organic results greater than the CRQL but lower than the action level: report the sample concentration followed by "U". For inorganics, the analyte was present in the associated blank. The sample result was less than the action level of 5X the maximum concentration found in any blank and has been qualified as nondetect.
J/UJ7, R7	One or more of the surrogate standard % recoveries was found outside of the Contract Required Recovery Range (CRR): estimate positive and/or non-detected results within that area of the chromatogram dependent on recovery. For surrogate recoveries less than 10%, estimate positive results and reject non-detects within that area of the chromatogram.
J/UJ8, R8	The matrix spike (MS) and/or matrix spike duplicate (MSD) % recoveries or MS/MSD %RPD for this compound were not within control limits for this compound: estimate positive and/or non-detected results in the unspiked sample dependent on the recovery. The MS and/or MSD % recoveries were less than 10% (for organics) or less than 30% (for inorganics) for this analyte: estimate positive results in the unspiked sample and reject non-detects.
J/UJ9, R9	The blank spike (LCS) recovery for this analyte was outside of criteria. The reported result or detection limit is estimated or rejected based on the recovery.
J/UJ10	Field duplicate %RPD was high for this compound: estimate positive results for this compound in the sample and duplicate. For results less than 5XCRDL, a control limit of +/- 4XCRDL was used for inorganics. For results less than 5XCRQL, a control limit of +/- 2XCRQL was used for organics.

J/UJ11, R11	One or more of the Internal standard (IS) areas were not within the CRR: estimate positive results and non-detects for all compounds quantitated from that IS or if one or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J12	The %RSD for this unspiked compound in the sample/MS/MSD set exceeded the advisory criterion of < 30% for aqueous samples or < 50% for soil samples: estimate positive results for that compound in the sample, MS and MSD.
J13	Compound reported above calibration range.
J/UJ14	Linearity was poor near the CRDL (Low levels). Estimate analyte results based on the recovery.
J/UJ15	The associated blank had a value below the negative IDL. The detection limit and/or positive results may by biased low.
J/UJ16, R16	The ICS recovery of an element is outside of criteria. The reported results or detection limit is estimated or rejected based on the recovery.
J17	The RPD for laboratory duplicate sample analysis results exceeded 20% (35% for soils) for this analyte. The reported results are estimated.
J19	The results of the ICP Serial Dilution analysis were outside of criteria. Positive sample results are estimated.
J/UJ20	The sample was less than 50% solids. Analysis using a method intended for soils might not give representative results. The results are estimated.
J/UJ21	In the analysis of the interferent solution, the analyte was detected above 2XIDL or negative 2XIDL. The sample interferent levels were at least 50% those of the ICSA standard and the estimated interference at least 10% of the sample level, therefore the result is estimated.
J/JN22, R22	% Breakdown for DDT exceeded 20%: estimate positive results for DDT (J18), DDD, and DDE (JN18) in all associated samples. If no DDT is present, but DDD and/or DDE are present: reject the CRQL (R18) for DDT.
J/JN23, R23	% Breakdown for endrin exceeded 20%: estimate positive results for endrin (J19) and endrin ketone (JN19) in all associated samples. If no endrin is present, but endrin ketone and/or endrin aldehyde are present: reject the CRQL (R19) for endrin.
J24	Pesticide compounds which have concentration values differing by greater than 25% in its two analyses. Estimate positive results for the compounds.
J/UJ25	Compound recoveries for the pesticide GPC check standard were below the control limits of 80 - 110%: Estimate the detected and non-detected results for this compound.
J26	The %RSD of duplicate injections for GFAA analysis do not agree within +/- 20%, or the laboratory performed a single burn analysis. The sample results are estimated.

J/UJ27,R27	The recovery of analytical spikes for GFAA analysis is outside of control limits. Positive sample results or detection limits are estimated or rejected based on recovery.
J28	The sample required an MSA which was not performed, was performed incorrectly, or the correlation was < 0.995. The positive results are estimated.
J29	The dissolved metals result was greater than the total result by more than 10%. The total and dissolved analyte results are estimated in the pair.
J30	The result is estimated due to high levels detected in the field blank. The dissolved sample results however are comparable to the total results and are therefore not qualified as non-detected.
J31/R31	The TIC result is estimated as a compound specific response factor is not used for the quantitation. The TIC result is rejected as it was detected in a field or laboratory blank.
R32	The TIC result is rejected as it was reported as a target analyte in another fraction.

Site:	Clifton, NY Site, Staten Island, NY
Laboratory:	Severn Trent Laboratories, Shelton, CT
Report No.:	201118
Reviewer:	Lorie MacKinnon/GEI Consultants
Date:	September 5, 2002

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
* CF-SB-81(17-21)	201118-01	BTEX, PAH, RCRA Metals, CN
* CF-SB-81(41-45)	201118-02	BTEX, PAH, RCRA Metals, CN
* CF-SB-82(5-9)	201118-03	BTEX, PAH, RCRA Metals, CN
* CF-SB-82(25-29)	201118-04	BTEX, PAH, RCRA Metals, CN
CF-TB-5/21/02	201118-05	BTEX
CF-FB-5/21/02	201118-06	BTEX, PAH, RCRA Metals, CN
Associated QC Samples:	Field/Trip Blanks:	CF-TB-5/21/02, CF-FB-5/21/02
	Field Duplicate pair:	None associated

The above listed samples were analyzed for BTEX volatile organic compounds by SW-846 method 8260B, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C, RCRA metals by SW-846 method 6000/7000 series, and cyanide by SW-846 method 9012. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

*	·	Holding Times and Sample Preservation
*	·	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
*	·	Initial and Continuing Calibrations
*	·	Blanks
	·	Surrogate Recoveries
	·	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
*	·	Internal Standards
*	·	Laboratory Control Sample (LCS) Results
NA	·	Field Duplicate Results
	·	Quantitation Limits

* - All criteria were met.

NA - field duplicate was not associated with this sample group.

All results were found to be usable.

The organic validation recommendations listed above were based on the following information.

Surrogate Recoveries

All surrogate recovery criteria were met for the VOC samples.

The semivolatile surrogates were diluted out of sample CF-SB-81(17-21) (500-fold dilution). Validation action was not taken on this basis.

MS/MSD Results

MS/MSD analyses were not performed for the organic analyses. Validation action was not taken on this basis as laboratory control sample information was submitted.

Quantitation Limits

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. Although not a requirement of the National Functional Validation Guidelines, these results were qualified as estimated (J5) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions performed and reported. Quantitation limits were elevated accordingly.

Sample	Analyses	Dilution Reported
CF-SB-81(17-21)	BTEX	4-fold
CF-SB-81(17-21)	PAH	500-fold

The inorganic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation
* Instrument Calibration
Contract Required Detection Limit (CRDL) Standard Analysis
* Blank Analysis Results
Inductively Coupled Plasma (ICP) Interference Check Sample Results
Matrix Spike (MS) Results
* Laboratory Duplicate Results
NA Field Duplicate Results

Laboratory Control Sample (LCS) Results
* ICP Serial Dilution Results
* Detection Limit Results

* All criteria were met for this parameter.

NA - A field duplicate was not associated with this sample group.

All results were found to be usable.

The validation recommendations were based on the following information.

CRDL Standard Analysis

A CRDL standard was analyzed at 2x the required detection limit for the ICP analyses. The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120%. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated (J/UJ) dependent on the recovery.

Analyte	Recovery (%)	Associated Samples	Actions
Lead	173, 143	FB-5/21/02	No action required; result nondetect and therefore not affected by potential high bias.
Selenium	125	All soils	No action required; results nondetect and therefore not affected by potential high bias.

Interference Check Sample Results

Lead (79%) was recovered below the control limits of 80 - 120% in the interference check sample (ICSAB) analyzed on 5/30/02 and associated with the field blank sample FB-5/21/02. Qualification was not required as the sample interferent levels were less than 50% those of the ICSAB sample.

MS Results

The laboratory submitted batch QC results for the matrix spike analyses for the RCRA metals. Cadmium and mercury were over-recovered in the MS. Qualification of data on the basis of the MS/MSD nonconformances for the sample in this case number was not required due to differences in sample matrix, type, etc.

The laboratory performed a matrix spike on sample SB-81(41-45) for the cyanide analysis. The following table lists the analyte recovery found outside of the control limits of 75-125% .

Analyte	Recovery	Actions
Cyanide	61.0%	Estimate (J/UJ8) the positive and nondetect cyanide results in all soil samples; possible low bias.

Laboratory Duplicate Results

The laboratory submitted batch QC results for the laboratory duplicate analyses for the RCRA metals. All criteria were met.

The laboratory performed a laboratory duplicate analysis on sample SB-81(41-45) for the cyanide analysis. All criteria were met.

Laboratory Control Sample Results

The following table lists the analyte recoveries found outside of the aqueous control limits of 80 - 120% for the LCS associated with the field blank sample FB-5/21/02 and the resultant actions.

Analyte	Recovery	Actions
Silver	47%	Estimate (UJ9) nondetect silver result for sample FB-5/21/02; potential low bias.

ICP Serial Dilution Results

A serial dilution was performed on sample SB-81(17-21'). All criteria were met.

Site:	Clifton, NY Site, Staten Island, NY
Laboratory:	Severn Trent Laboratories, Shelton, CT
Report No.:	201195
Reviewer:	Lorie MacKinnon/GEI Consultants
Date:	September 5, 2002

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-79A(51-55)	201195-01	BTEX, PAH, RCRA Metals, CN
CF-PZ-9	201195-02	VOC, SVOC
CF-PZ-5	201195-03	VOC, SVOC
CF-TB-6/8/02	201195-04	BTEX
CF-TB-6/8/02	201195-05	VOC
CF-TB-6/12/02	201195-06	BTEX
CF-TB-6/12/02	201195-07	VOC
CF-PZ-7	201195-08	VOC, SVOC
CF-PZ-6	201195-09	VOC, SVOC
CF-PZ-12	201195-10	VOC, SVOC
CF-PZ-11	201195-11	VOC, SVOC
CF-PZ-49	201195-12	VOC, SVOC
* CF-SB-88(28-32)	201195-13	BTEX, PAH, RCRA Metals, CN
* CF-SB-88(44-48)	201195-14	BTEX, PAH, RCRA Metals, CN
CF-SB-88(48-52)	201195-15	BTEX, PAH, RCRA Metals, CN
CF-FB-6/11/02	201195-16	VOC, SVOC

Associated QC Samples:	Field/Trip Blanks:	CF-TB-6/8/02, CF-TB-6/12/02, CF-FB-6/11/02
	Field Duplicate pair:	CF-SB-88(48-52)/CF-SB-88(44-48) and PZ-11/PZ-49

The above listed soil samples were analyzed for BTEX volatile organic compounds by SW-846 method 8260B, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C, RCRA metals by SW-846 method 6000/7000 series, and cyanide by SW-846 method 9012. The above listed aqueous samples were analyzed for volatile organic compounds by SW-846 method 8260B and semivolatile organic compounds by SW-846 method 8270C. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation

* · Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
· Initial and Continuing Calibrations
· Blanks
· Surrogate Recoveries
· Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
* · Internal Standards
· Laboratory Control Sample (LCS) Results
* · Field Duplicate Results
· Quantitation Limits

* - All criteria were met.

All results were found to be usable with the exception of hexachlorocyclopentadiene in samples CF-PZ-9 and CF-PZ-5 due to low LCS recovery.

The organic validation recommendations listed above were based on the following information.

Initial and Continuing Calibrations

Compounds that did not meet criteria in the VOC initial and continuing calibrations are summarized in the following tables. All criteria were met for the SVOC analyses.

Instrument ID MSM Compound	CC 6/11/02	CC 6/14/02	CC 6/15/02
vinyl acetate	XX (35.7%)		
bromomethane		XX (28.3%)	
carbon disulfide			XX (40.2%)
Samples Affected	CF-PZ-9, CF-PZ-5, TB-6/8/02	CF-PZ-6, TB-6/12/02, CF-PZ-11, CF-PZ-49	CF-PZ-7, CF-FB-6/11/02

Instrument ID MST Compound	IC 6/13/02	CC 06/17/02
bromomethane	X(53.6%)	XX (48.0%)
chloroethane		XX (30.9%)
Samples Affected	CF-PZ-12	CF-PZ-12

X = Initial calibration (IC) relative standard deviation (%RSD) > 30; estimate (J3) positive and (UJ3) blank-

qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 25; estimate (J/UJ4) positive and nondetect results.
+ = Response factor (RRF) < 0.05; Estimate (J2) positive results and reject (R2) nondetect results.

The following results were qualified as estimated (J/UJ4) due to continuing calibration nonconformances: vinyl acetate in samples CF-PZ-9, CF-PZ-5, and CF-TB-6/8/02, bromomethane in samples CF-PZ-6, TB-6/12/02, CF-PZ-11, and CF-PZ-49, carbon disulfide in samples CF-PZ-7 and CF-FB-61102, and bromomethane and chloromethane in sample CF-PZ-12. The positive result for bromomethane in sample CF-PZ-12 was qualified as estimated (J3) due to initial calibration nonconformances.

Blanks

Target analytes were not detected in the semivolatile method blanks and field blank sample. Target analytes were not detected in the BTEX soil method blanks or field blank sample. The following table summarizes the method blank contamination in the VOC aqueous analyses.

Compound	Type of Blank	Associated Samples	Maximum Concentration	Blank Action Level
methylene chloride	Aqueous Method Blank	CF-PZ-6, TB-6/12/02, CF-PZ-11, CF-PZ-49	0.32 ug/L	3.2 ug/L
acetone	TB-6/12/02	All samples	6 ug/L	60 ug/L

Blank Actions

If the sample concentration ≤ QL and ≤ blank action level, qualify the result as not detected (U6) at the QL.
If the sample concentration > QL and ≤ blank action level, qualify the result as not detected (U6) at the reported value.
If the sample concentration > blank action level, report the value unqualified.

Based on the action levels determined, the methylene chloride result in sample CF-TB-6/12/02 was qualified as nondetect (U6) at the reported value due to method blank contamination. The acetone results in samples CF-PZ-5 and CF-PZ-49 were qualified as nondetect (U6) at the reported values due to trip blank contamination.

Surrogate Recoveries

All surrogate recovery criteria were met for the VOC and BTEX samples.

Surrogate recoveries were outside of control limits in the PAH method blank and MS/MSD performed on sample CF-PZ-7. Validation actions were not required as surrogate recoveries were within control limits in all field samples.

The semivolatile surrogates were diluted out of the 500-fold dilution analysis of PAH sample CF-SB-

79A(51-55). Validation actions were not required on this basis.

MS/MSD Results

An MS/MSD was performed on sample CF-SB-88(28-32) for the BTEX and PAH analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	MS %R	MSD %R	RPD %	QC Limits	Action
Benzene	168	143	-	66-128/20	Estimate (J8) the positive result for benzene in sample CF-SB-88(28-32); possible high bias.
Acenaphthene	66	69	-	70-108/14	Estimate (UJ8) the nondetect result for acenaphthene in sample CF-SB88(28-32); possible low bias.

-within control limits

An MS/MSD was performed on aqueous sample CF-PZ-7 for the VOC and SVOC analyses. All criteria were met for the SVOC analysis. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits in the VOC analyses.

Compound	MS %R	MSD %R	RPD %	QC Limits	Action
Carbon Disulfide	71	72	-	81-120/20	Estimate (UJ8) the nondetect result for carbon disulfide in sample CF-PZ-7; possible low bias.
1,2-dichloroethane	124	126	-	85-120/20	Validation action was not required as the result for 1,2-dichloroethane was nondetect and therefore not affected by the potential high bias.
Chloromethane	-	120	-	74-116/20	Validation action was not required as the result for chloromethane was nondetect and therefore not affected by the potential high bias.
Acetone	-	178	-	10-164/20	Validation action was not required as the result for acetone was nondetect and therefore not affected by the potential high bias.

-within control limits

LCS Results

All analyte recoveries were found within the validation control limit in the BTEX LCS soil analyses.

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions.

Compound	Recovery	Control Limits	Associated Samples	Actions
acetone	142	60-140	CF-PZ-9, CF-PZ-5, CF-TB-6/8/02	No validation actions were required; results were nondetect and therefore not affected by potential high bias.
acetone	167	60-140	CF-TB-6/12/02, CF-PZ-6, CF-PZ-11, CF-PZ-49	No validation actions were required; results were nondetect and therefore not affected by potential high bias.
styrene	84	85-124	CF-TB-6/12/02, CF-PZ-6, CF-PZ-11, CF-PZ-49	Estimate (UJ9) the nondetect results for styrene in the associated samples; results may be biased low.
1,1-dichloroethene	120	81-117	CF-PZ-7, CF-FB-061102	No validation actions were required; results for 1,1-dichloroethene were nondetect and therefore not affected by potential high bias.
acetone	332	60-140	CF-PZ-7, CF-FB-061102	No validation actions were required; results for acetone were nondetect and therefore not affected by potential high bias.
2-butanone	194	60-140	CF-PZ-7, CF-FB-061102	No validation actions were required; results for 2-butanone were nondetect and therefore not affected by potential high bias.
2-hexanone	183	60-140	CF-PZ-7, CF-FB-061102	No validation actions were required; results for 2-hexanone were nondetect and therefore not affected by potential high bias.
acetone	192	60-140	CF-PZ-12	No validation actions were required; results for acetone were nondetect and therefore not affected by potential high bias.
2-butanone	227	60-140	CF-PZ-12	No validation actions were required; results for 2-butanone

Compound	Recovery	Control Limits	Associated Samples	Actions
				were nondetect and therefore not affected by potential high bias.
carbon disulfide	121	81-120	CF-PZ-12	No validation actions were required; results for carbon disulfide were nondetect and therefore not affected by potential high bias.
4-methyl-2-pentanone	141	60-140	CF-PZ-12	No validation actions were required; results for 4-methyl-2-pentanone were nondetect and therefore not affected by potential high bias.
2-hexanone	237	60-140	CF-PZ-12	No validation actions were required; results for 2-hexanone were nondetect and therefore not affected by potential high bias.
naphthalene	61	66-104	CF-SB-79A(51-55)	Estimate (J9) the positive result for naphthalene in sample CF-SB-79A(51-55); possible low bias.
Phenol	36	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for phenol in the associated samples; possible low bias.
Hexachloroethane	52	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for hexachloroethane in the associated samples; possible low bias.
Benzoic acid	20	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for benzoic acid in the associated samples; possible low bias.
Hexachlorocyclopentadiene	8	60-140	CF-PZ-9, CF-PZ-5	Reject (R9) the nondetect results for hexachlorocyclopentadiene in the associated samples; possible low bias.
2,4-dinitrophenol	12	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for 2,4-dinitrophenol in the associated samples; possible low bias.
4-nitrophenol	33	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for 4-nitrophenol in the associated samples; possible low

Compound	Recovery	Control Limits	Associated Samples	Actions
				bias.
4,6-dinitro-2-methylphenol	17	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for 4,6-dinitro-2-methylphenol in the associated samples; possible low bias.
di-n-octylphthalate	59	60-140	CF-PZ-9, CF-PZ-5	Estimate (UJ9) the nondetect results for di-n-octylphthalate in the associated samples; possible low bias.
phenol	35	60-140	CF-PZ-7, CF-PZ-6, CF-PZ-12, CF-PZ-11, CF-PZ-49, FB-061102	Estimate (UJ9) the nondetect results for phenol in the associated samples; possible low bias.
benzoic acid	24	60-140	CF-PZ-7, CF-PZ-6, CF-PZ-12, CF-PZ-11, CF-PZ-49, FB-061102	Estimate (UJ9) the nondetect results for benzoic acid in the associated samples; possible low bias.
2,4-dinitrophenol	41	60-140	CF-PZ-7, CF-PZ-6, CF-PZ-12, CF-PZ-11, CF-PZ-49, FB-061102	Estimate (UJ9) the nondetect results for 2,4-dinitrophenol in the associated samples; possible low bias.
4-nitrophenol	32	60-140	CF-PZ-7, CF-PZ-6, CF-PZ-12, CF-PZ-11, CF-PZ-49, FB-061102	Estimate (UJ9) the nondetect results for 4-nitrophenol in the associated samples; possible low bias.

Field Duplicate Results

The field duplicate pair of CF-SB-88(48-52) and CF-SB-88(44-48) was submitted with this sample group. All criteria were met.

The field duplicate pair of CF-PZ-49 and CF-PZ-11 was submitted with this sample group. All criteria were met.

Quantitation Limits

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. Although not a requirement of the National Functional Validation Guidelines, these results were qualified as estimated (J5) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions performed and reported. Quantitation limits were elevated accordingly.

Sample	Analyses	Dilution Reported
CF-SB-79A(51-55)	BTEX	20-fold
CF-SB-79A(51-55)	PAH	500-fold

The inorganic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation
* Instrument Calibration
  Contract Required Detection Limit (CRDL) Standard Analysis
* Blank Analysis Results
* Inductively Coupled Plasma (ICP) Interference Check Sample Results
  Matrix Spike (MS) Results
  Laboratory Duplicate Results
* Field Duplicate Results
  Laboratory Control Sample (LCS) Results
* ICP Serial Dilution Results
  Detection Limit Results

* All criteria were met for this parameter.

All results were found to be usable.

The validation recommendations were based on the following information.

CRDL Standard Analysis

A CRDL standard was analyzed at 2x the required detection limit for the ICP analyses. The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120%. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated (J/UJ) dependent on the recovery.

Analyte	Recovery (%)	Associated Samples	Actions
Lead	133	CF-SB-79A(51-55)	Validation actions were not required, analyte levels were greater than affected range.
Lead	67	CF-SB-88(28-32), CF-SB-88(44-48), CF-SB-	Validation actions were not required, analyte levels were greater than affected range.

Analyte	Recovery (%)	Associated Samples	Actions
		88(48-52)	

MS Results

The laboratory performed a matrix spike on sample CF-SB-88(28-32) for the soil metals and cyanide analyses. The following table lists the analyte recovery found outside of the control limits of 75-125% .

Analyte	Recovery	Actions
Arsenic	67	Estimate (J/UJ8) the positive and nondetect arsenic results in all samples; possible low bias.
Cadmium	133	Validation action was not required; cadmium results were nondetect and therefore not affected by the potential high bias.
Chromium	240	Estimate (J8) the positive chromium results in all samples; possible high bias.
Lead	53	Estimate (J/UJ8) the positive and nondetect lead results in all samples; possible low bias.
Selenium	69	Estimate (J/UJ8) the positive and nondetect selenium results in all samples; possible low bias.
Mercury	205	Validation action was not required; mercury results were nondetect and therefore not affected by the potential high bias.
Cyanide	55	Estimate (J/UJ8) the positive and nondetect cyanide results in all samples; possible low bias.

Laboratory Duplicate Results

The laboratory performed a laboratory duplicate analysis on sample CF-SB-88(28-32) for the metals and cyanide analyses. The following table lists the analyte RPDs found above the control limit of 35.

Analyte	RPD (%)	Actions
Chromium	41.6	Estimate (J17) the positive results for chromium in all samples; direction of the bias cannot be determined from this nonconformance.

Field Duplicate Results

The field duplicate pair of CF-SB-88(48-52) and CF-SB-88(44-48) was submitted with this sample group. All criteria were met.

Laboratory Control Sample Results

The following table lists the analyte recoveries found outside of the aqueous control limits of 80 - 120% for the LCS analyses and the resultant actions.

Analyte	Recovery	Associated Samples	Actions
Mercury	121%	CF-SB-79A(51-55)	Validation action was not required; mercury results were nondetect and therefore not affected by the potential high bias.
Cyanide	121%	CF-SB-88(28-32), CF-SB-88(44-48), CF-SB-88(48-52)	Validation action was not required; cyanide results were nondetect and therefore not affected by the potential high bias.

ICP Serial Dilution Results

A serial dilution was performed on sample CF-SB-79A(51-55) and CF-SB-88(28-32). All criteria were met.

Detection Limit Results

Although not a requirement of the National Functional Validation Guidelines, positive inorganic results which were ≤2x the method detection limit (MDL) were qualified as estimated (J5) due to uncertainty at the low end of calibration. The following results were affected by this qualification: silver in sample CF-SB-79A(51-55).

Clifton, NY Project 98248

Site: Clifton, NY Site, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 201275
Reviewer: Lorie MacKinnon/GEI Consultants
Date: September 5, 2002

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-FB-6/21/02	201275-01	BTEX, PAH, RCRA Metals, CN
CF-TB-6/21/02	201275-02	BTEX
CF-SB-86(48-52)	201275-03	BTEX, PAH, RCRA Metals, CN
CF-SB-86(0-4)	201275-04	BTEX, PAH, RCRA Metals, CN
CF-SB-86(40-44)	201275-05	BTEX, PAH, RCRA Metals, CN
CF-SB-85(48-51.5)	201275-06	BTEX, PAH, RCRA Metals, CN
CF-SB-85(40-44)	201275-07	BTEX, PAH, RCRA Metals, CN
CF-SB-84(8-12) 89 kw	201275-08	BTEX, PAH, RCRA Metals, CN
CF-SB-84(35-39) 89 kw	201275-09	BTEX, PAH, RCRA Metals, CN
Associated QC Samples:	Field/Trip Blanks:	CF-TB-6/21/02, CF-FB-6/21/02
	Field Duplicate pair:	CF-SB-86(0-4)/CF-SB(40-44)

The above listed samples were analyzed for BTEX volatile organic compounds by SW-846 method 8260B, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C, RCRA metals by SW-846 method 6000/7000 series, and cyanide by SW-846 method 9012. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

* · Holding Times and Sample Preservation
* · Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
* · Initial and Continuing Calibrations
* · Blanks
· Surrogate Recoveries
· Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
* · Internal Standards
* · Laboratory Control Sample (LCS) Results
* · Field Duplicate Results
· Quantitation Limits and Data Assessment

* - All criteria were met.

All results were found to be usable.

The organic validation recommendations were based on the following information.

Surrogate Recoveries

All surrogate recovery criteria were met for the PAH samples.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

Sample ID	Percent Recovery			Action
	DBFM	TOL	BFB 36-133	
CF-SB-86(40-44)	-	-	137%	Validation action was not required; results were nondetect and therefore not affected by the potential high bias.
CF-SB-86(40-44)RE	-	-	137%	Validation action was not required; results were nondetect and therefore not affected by the potential high bias.

- within control limits

MS/MSD Results

A matrix spike analysis was not associated with the BTEX and PAH analyses. Validation action was not taken on this basis.

Field Duplicate Results

The field duplicate pair of CF-SB-86(0-4)/CF-SB-86(40-44) was submitted with this sample group. All criteria were met.

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. Although not a requirement of the National Functional Validation Guidelines, these results were qualified as estimated (J5) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and reanalyses performed and reported. Quantitation

limits were elevated accordingly.

Sample	Analyses	Dilution Reported
CF-SB-86(40-44)/RE	BTEX	Sample was reanalyzed due to surrogate recovery outlier; original analysis was reported.
CF-SB-84(8-12)	BTEX	Medium level 2-fold
CF-SB-84(8-12)	PAH	4-fold

The inorganic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation
* Instrument Calibration
  Contract Required Detection Limit (CRDL) Standard Analysis
* Blank Analysis Results
* Inductively Coupled Plasma (ICP) Interference Check Sample Results
* Matrix Spike (MS) Results
* Laboratory Duplicate Results
* Field Duplicate Results
  Laboratory Control Sample (LCS) Results
* ICP Serial Dilution Results
  Detection Limit Results

* All criteria were met for this parameter.

NA - A field duplicate was not associated with this sample group.

All results were found to be usable.

The validation recommendations were based on the following information.

CRDL Standard Analysis

A CRDL standard was analyzed at 2x the required detection limit for the ICP analyses. The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120%. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated (J/UJ).

Analyte	Recovery (%)	Associated Samples	Actions

Analyte	Recovery (%)	Associated Samples	Actions
Lead	59	CF-FB-6/21/02	Estimate (UJ14) the nondetect result for lead in sample CF-FB-6/21/02, result may be biased low.
Lead	76, 63	All soil samples	Validation actions were not required, analyte levels greater than affected range.

MS Results

The laboratory performed a matrix spike on sample CF-SB-86(48-52) for the mercury analysis. The laboratory reported batch QC MS results for the metals and cyanide analyses. All criteria were met.

Laboratory Duplicate Results

The laboratory performed a laboratory duplicate on sample CF-SB-86(48-52) for the mercury analysis. The laboratory reported batch QC laboratory duplicate results for the metals and cyanide analyses. All criteria were met.

Laboratory Control Sample Results

The following table lists the analyte recoveries found outside of the aqueous control limits of 80 - 120% for the LCS analyses and the resultant actions.

Analyte	Recovery (%)	Associated Samples	Actions
Silver	50	CF-FB-6/21/02	Estimate (UJ9) the nondetect result for silver in sample CF-FB-6/21/02, result may be biased low.

ICP Serial Dilution Results

A serial dilution was performed on sample CF-SB-84(8-12). All criteria were met.

Field Duplicate Results

The field duplicate pair of CF-SB-86(0-4)/CF-SB-86(40-44) was identified. All criteria were met.

Detection Limit Results

Although not a requirement of the National Functional Validation Guidelines, positive inorganic results which were ≤2x the method detection limit (MDL) were qualified as estimated (J5) due to uncertainty at the low end of calibration. The following results were affected by this qualification:

arsenic in sample CF-SB-85(40-44).

Site:	Clifton, NY Site, Staten Island, NY
Laboratory:	Severn Trent Laboratories, Shelton, CT
Report No.:	202480
Reviewer:	Lorie MacKinnon/GEI Consultants
Date:	December 20, 2002

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
* CF-SB-92(5-9')	202480-01	BTEX, PAH, RCRA Metals, CN
* CF-SB-92(37-41')	202480-02	BTEX, PAH, RCRA Metals, CN
CF-SB-92(45-50')	202480-03	BTEX, PAH, RCRA Metals, CN
* CF-SB-93(8-12')	202480-04	BTEX, PAH, RCRA Metals, CN
* CF-SB-93(36-40')	202480-05	BTEX, PAH, RCRA Metals, CN
CF-TB-11/13/02	202480-06	BTEX
CF-FB-11/13/02	202480-07	BTEX, PAH, RCRA Metals, CN
* CF-SB-90C(32-36')	202480-08	BTEX, PAH, RCRA Metals, CN
* CF-SB-90C(20-24')	202480-09	BTEX, PAH, RCRA Metals, CN
* CF-SB-94(20-24')	202480-10	BTEX, PAH, RCRA Metals, CN
* CF-SB-94(36-40')	202480-11	BTEX, PAH, RCRA Metals, CN
* CF-SB-91(8-12')	202480-12	BTEX, PAH, RCRA Metals, CN
* CF-SB-91A(36-40')	202480-13	BTEX, PAH, RCRA Metals, CN
CF-TB-11/15/02	202480-14	BTEX

Associated QC Samples:	Field/Trip Blanks:	CF-TB-11/13/02, CF-FB-11/13/02, TB-11/15/02
	Field Duplicate pair:	CF-92(45-50')/CF-92(37-41')

The above listed samples were analyzed for BTEX volatile organic compounds by SW-846 method 8260B, polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C, RCRA metals by SW-846 method 6000/7000 series, and cyanide by SW-846 method 9012. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

- * Holding Times and Sample Preservation
- * Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- * Blanks
- Surrogate Recoveries
- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results

*	•	Internal Standards
*	•	Laboratory Control Sample (LCS) Results
*	•	Field Duplicate Results
	•	Reported Quantitation Limits
*	•	Sample Quantitation

* - All criteria were met.

All results were found to be usable.

The organic validation recommendations were based on the following information.

Holding Times and Sample Preservation

All criteria were met.

GC/MS Tunes

All criteria were met.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the continuing calibrations for the PAH analyses are summarized in the following table.

Instrument ID MSP Compound	CC 12/03/02
Chrysene	XX (27.0%)
Samples Affected	CF-SB93(8-12') and CF-SB94(20-24')

X = Initial calibration (IC) percent relative standard deviation (%RSD) > 30; estimate (J) positive results.
XX = Continuing calibration (CC) percent difference (%D) > 25; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for chrysene in samples CF-SB(93(8-12') and CF-SB94(20-24') were qualified as estimated (J4) due to continuing calibration nonconformances. The direction of the bias cannot be determined from this nonconformance.

Blanks

Target analytes were not detected in the method blanks. Target analytes were not detected in the field blank and trip blank samples.

Surrogate Recoveries

All surrogate recovery criteria were met for the VOC and PAH samples which did not required dilutions. The surrogates were diluted out of PAH sample CF-SB93(8-12') due to the dilution (500x) performed on the sample. Validation action was not required on this basis.

MS/MSD Results

Sample CF-SB90C(32-36') was designated for MS/MSD analysis for the BTEX, PAH, and inorganic analyses. The following table lists the analyte MS/MSD recoveries which were outside of the control limits.

Analyte	MS %R	MSD %R	QC Limits	Action
acenaphthylene	67	-	70-105	Estimate (UJ8) the nondetect result for acenaphthylene in sample CF-SB90C(32-36'); the result may be biased low.

-within control limits

Internal Standard Results

All criteria were met.

LCS Results

All criteria were met in the BTEX and PAH analyses.

Field Duplicate Results

Samples CF-SB-92(45-50') and CF-SB-92(37-41') were identified as field duplicate samples in this sample group. All criteria were met.

Sample Quantitation and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) but above the method detection limit (MDL) in the BTEX and PAH analyses. These results were qualified as estimated (J5) due to uncertainty at the low end of calibration. The direction of the bias cannot be determined.

The following table lists the sample dilutions performed and reported. Quantitation limits were elevated accordingly.

Sample	Analyses	Dilution Reported
CF-SB92(5-9')	BTEX	5-fold dilution performed due to non-target compounds.
CF-SB93(8-12')	BTEX	10-fold dilution on medium level analysis due to levels of ethylbenzene and xylene.
CF-SB94(20-24')	BTEX	10-fold dilution on medium level analysis due to levels of ethylbenzene, toluene, and xylene.
CF-SB93(8-12')	PAH	500-fold dilution due to high target compound levels.
CF-SB94(20-24')	PAH	40-fold dilution due to high target compound levels.

The inorganic data were evaluated based on the following parameters:

* Holding Times and Sample Preservation
  Instrument Calibration
  Contract Required Detection Limit (CRDL) Standard Analysis
* Blank Analysis Results
  Inductively Coupled Plasma (ICP) Interference Check Sample Results
  Matrix Spike (MS) Results
* Laboratory Duplicate Results
* Field Duplicate Results
  Laboratory Control Sample (LCS) Results
* ICP Serial Dilution Results
* Detection Limit Results
* Sample Quantitation

* All criteria were met for this parameter.

All results were found to be usable.

The validation recommendations were based on the following information.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

The following table lists the analytes which exhibited recoveries outside of the validation control limits in the continuing calibration verification (CCV) standards.

Analyte	Standard	Recovery (%)	Associated Samples	Actions
Selenium	CCV4 CCV5 CCV6	111 111 111	All soil samples	Validation actions were not required, selenium was not detected in any soil samples and was therefore not affected by the potential high bias.

CRDL Standard Analysis

The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120% in the CRDL standard analyzed. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated (J/UJ) dependant on the recovery.

Analyte	Recovery (%)	Associated Samples	Actions
Lead	121	All soil samples	Validation actions were not required, analyte levels were greater than affected range.
Selenium	129	All soil samples	Validation actions were not required; selenium was not detected in any samples and was therefore not affected by the potential high bias.

Blank Results

Target analytes were not detected in the laboratory blanks and field blank samples.

ICP Interference Check Sample Results

Analyte recoveries were within control limits in the ICSAB sample analysis.

It should be noted that the laboratory did not report the ICSA sample results. The validator reviewed the raw data. Positive results were observed for cadmium in the ICSA solution analysis associated with the soil samples.

The levels of interferents in samples were reviewed. Iron was present in samples CF-SB92(37-41'), CF-SB92(45-50'), CF-SB93(36-40'), CF-SB90C(32-36'). CF-SB90C(20-24'), CF-SB94(20-24'), CF-SB94(36-40'), and CF-SB91A(36-40') at greater than 50% that of the level in the ICSA solution. Validation actions were not required for the samples as cadmium was not detected in any soil

samples and was therefore affected by the potential high bias.

Matrix Spike Results

Sample CF-SB90C(32-36') was designated for matrix spike analysis with this data set. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Arsenic	143	Arsenic was detected in all soil samples. Estimate (J8) the positive results for arsenic in these samples, results may be biased high.
Cadmium	129	Validation actions were not required. Cadmium was not detected in any samples and was therefore not affected by the potential high bias.
Cyanide	65	Estimate (J/UJ8) the positive and/or nondetect results for cyanide in all soil samples, results may be biased low.

Laboratory Duplicate Results

Sample CF-SB90C(32-36') was designated for laboratory duplicate analysis with this data set. All criteria were met.

Laboratory Control Sample Results

The following table lists the analyte recoveries found outside of the control limits for the LCS analyses and the resultant actions.

Analyte	Recovery (%)	Associated Samples	Actions
Silver	122	CF-FB-11/13/02	Validation action was not required; the result for silver was nondetect and therefore not affected by the potential high bias.

ICP Serial Dilution Results

A serial dilution was performed on sample CF-SB93(8-12'). All criteria were met.

Field Duplicate Results

Samples CF-SB-92(45-50') and CF-SB-92(37-41') were identified as the field duplicate samples in this sample group. All criteria were met.

Detection Limit Results

Although not a requirement of the National Functional Validation Guidelines, positive inorganic results which were ≤2x the method detection limit (MDL) were qualified as estimated (J5) due to uncertainty at the low end of calibration. Validation actions were not required as all detected results were greater than 2xMDL.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: META Environmental, Inc., Watertown, MA
Report No.: GI040513, GI040518, GI040521
Reviewer: Lisa McDonagh/GEI Consultants
Date: July 23, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-111(14.5-15)	GI040513-01	EPA8270 mod.
CF-SB-112(13-14)	GI040513-02	EPA8270 mod.
CF-SB-115(14-15)	GI040513-03	EPA8270 mod.
CF-SB-116(15-15.5)	GI040513-04	EPA8270 mod.
CF-SB-117(10-12)	GI040513-05	EPA8270 mod.
CF-SB-118(16-17)	GI040513-06	EPA8270 mod.
CF-SB-118(17-17.5)	GI040513-07	EPA8270 mod.
CF-SB-119(17-18.5)	GI040513-08	EPA8270 mod.
CF-SB-110(10-15)	GI040513-09	EPA8270 mod.
CF-SB-110(15-16)	GI040513-10	EPA8270 mod.
CF-SB-121(19.5-20)	GI040518-01	EPA8270 mod.
CF-SB-121(18-19.5)	GI040518-02	EPA8270 mod.
CF-SB-124(13-15)	GI040518-03	EPA8270 mod.
CF-SB-126(20-22)	GI040518-04	EPA8270 mod.
CF-SB-131(18-19)	GI040521-01	EPA8270 mod.
CF-SB-127(19-20)	GI040521-02	EPA8270 mod.
CF-SB-131(17-18)	GI040521-03	EPA8270 mod.
CF-SB-133(9.5-10)	GI040521-04	EPA8270 mod.
CF-SB-137(22.5-23.5)	GI040521-05	EPA8270 mod.
CF-SB-137(27.5-28)	GI040521-06	EPA8270 mod.
CF-SB-138(13-15)	GI040521-07	EPA8270 mod.
CF-SB-139(13-15)	GI040521-08	EPA8270 mod.
Associated QC Samples:	Field/Trip Blanks:	None
	Lab Duplicate pair:	CF-SB-118(17-17.5) and CF-SB-133(9.5-10)

The above listed samples were collected on May 10, 11, 12, 13, 14, 17, 19, and 20, 2004 and were analyzed method SW-846 method 8270 mod.. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

*	·	Data Completeness
	·	Holding Times and Sample Preservation
*	·	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	·	Initial and Continuing Calibrations
	·	Blanks
	·	Surrogate Recoveries
	·	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	·	Internal Standards
	·	Laboratory Control Sample (LCS) Results
	·	Lab Duplicate Results
*	·	Moisture Content
	·	Quantitation Limits and Data Assessment
	·	Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

EPA8270 mod.

Qualifications applied to the data as a result of analytical error are discussed below.

· Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

· The positive and nondetect results for the compounds in samples CF-SB-118(17-17.5) and CF-SB-118(17-17.5)DUPE were qualified as estimated (J/UJ) due to exceeded holding times. These results may be biased low. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

· The positive and/or nondetect results for the compound anthracene from the analysis of samples CF-SB-111(14.5-15), CF-SB-112(13-14), CF-SB-115(14-15), CF-SB-117(10-12),CF-SB-110(10-15) and CF-SB-110(15-16), the positive and/or nondetect results for the compounds benzene, anthracene and benzo(ghi)perylene from the analysis of samples CF-SB-116(15-15.5), CF-SB-118(16-17) and CF-SB-119(17-18.5), the positive and/or nondetect results for the compounds benzene and

benzo(ghi)perylene from the analysis of samples CF-SB-133(9.5-10) 100X, CF-SB-133(9.5-10)DUPE 100X, CF-SB-131(17-18) 50X, CF-SB-126(20-22) 50X, CF-SB-121(18-19.5) 50X, CF-SB-139(13-15) 20X, CF-SB-121(19.5-20) 20X and CF-SB-127(19-20) 20X and the positive and/or nondetect results for the compound benzo(ghi)perylene from the analysis of samples CF-SB-118(17-17.5) and CF-SB-118(17-17.5)DUPE were qualified as estimated (J/UJ) due to continuing calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results are usable for project objectives as estimated values or quantitation limits which may have a minor impact on data usability.

· The positive results for o-xylene and 1,2,4-trimethylbenzene were qualified as estimated (J) in samples CF-SB-121(19.5-20), CF-SB-121(18.5-19.5), CF-SB-126(20-22), CF-SB-131(18-19), CF-SB-127(19-20), CF-SB-131(17-18), CF-SB-133(9.5-10), CF-SB-133(9.5-10)DUPE, CF-SB-137(22.5-23.5), CF-SB-138(18-20) , CF-SB-139(13-15), CF-SB-118(17-17.5) and CF-SB-118(17-17.5)DUPE and the positive result for 1,2,4-trimethylbenzene was qualified as estimated (J) in sample CF-SB-124(13-15) due to calibration nonconformances. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

· The positive results for toluene and chlorobenzene in samples CF-SB-121(18-19.5), CF-SB-124(13-15), CF-SB-126(20-22), CF-SB-131(18-19), CF-SB-137(27.5-28) and CF-SB-139(13-15) were qualified as nondetect due to blank contamination.

- The positive and/or nondetect results for all compounds in samples CF-SB-116(15-15.5), CF-SB-118(16-17) and CF-SB-119(17-18.5) were qualified as estimated (J/UJ) due to low internal standard recovery. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive results for the compounds naphthalene, 2-methylnaphthalene, 1-methylnaphthalene, acenaphthene, phenanthrene, anthracene, fluoranthene and pyrene in sample CF-SB-131(18-19) were qualified as estiamted (J) due to matrix spike nonconformances. The direction of the bias cannot be determined these nonconformances. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

· The positive results for the compounds benzene, toluene, ethylbenzene, m,p-xylenes, styrene, o-xylene, 1,2,4-trimethylbenzene, 1-methylnaphthalene, acenaphthylene, acenaphthene, dibenzofuran, fluorene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(123cd)pyrene and dibenzo(ah)anthracene in sample CF-SB-110(15-16) were qualified as estiamted (J) due to matrix spike nonconformances. The direction of the bias cannot be determined these nonconformances. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results for benzene were qualified as estimated (J/UJ) in samples CF-SB-111(14.5-15), CF-SB-112(13-14), CF-SB-115(14-15), CF-SB-116(15-15.5), CF-SB-117(10-12), CF-SB-118(16-17), CF-SB-118(17-17.5) and CF-SB-118(17-17.5)DUPE due to low recoveries of these analytes in the LCS. These results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive results for benzene, toluene, ethylbenzene, m/p-xylenes, styrene, o-xylene, 1,2,4-trimethylbenzene, 1-methylnaphthalene, acenaphthylene, acenaphthene, dibenzofuran, fluorene, anthracene, benzo(a)anthracene, benzo(b)fluoranthene and dibenzo(ah)anthracene were qualified as estimated (J) in samples CF-SB-133(9.5-10) and CF-SB-133(9.5-10)DUPE due to RPDs >30% in the laboratory duplicates. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive results for benzo(e)pyrene and perylene were qualified as estimated (J) in all the samples, these compounds were not analyzed in the calibration. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the EPA8270 mod. analyses.

Holding Times and Sample Preservation

Sample CF-SB-118(17-17.5) was analyzed 3 days out of the required holding time and sample CF-SB-118(17-17.5)DUPE was analyzed 5 days outside of the required holding time. Qualify the positive and nondetect results as estimated (J,UJ).

GC/MS Tunes

All criteria were met in the EPA8270 mod. analyses.

Initial and Continuing Calibrations

Compounds that did not meet criteria in the EPA8270 mod. initial and continuing calibrations are summarized in the following tables.

Instrument ID GC2MS59 Compound	IC 5/11/04	CC 5/18/04 13:30	CC 5/18/04 02:35
benzene			XX(23.5%)
anthracene		XX(27.6%)	XX(27.4%)
benzo(ghi)perylene			XX(29.0%)
Samples Affected	all listed	CF-SB-111(14.5-15), CF-SB-112(13-14), CF-SB-115(14-15), CF-SB-117(10-12), CF-SB-110(10-15), CF-SB-110(15-16)	CF-SB-116(15-15.5), CF-SB-118(16-17), CF-SB-119(17-18.5)

Instrument ID GC2MS59 Compound	IC 6/8/04	CC 6/14/04 11:45	CC 6/24/04 01:15
benzene		XX(22.0%)	
o-xylene	X(15.4%)		
1,2,4-trimethylbenzene	X(15.4%)		
benzo(ghi)perylene		XX (20.3%)	XX(23.1%)
Samples Affected	all listed	CF-SB-127(19-20), CF-SB-131(17-18), CF-SB-133(9.5-10), CF-SB-133(9.5-10)DUPE, CF-SB-139(13-15), CF-SB-121(19.5-20), CF-SB-121(18-19.5), CF-SB-126(20-22)	CF-SB-118(17-17.5), CF-SB-118(17-17.5)DUPE

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.
+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for 1,2,4-trimethylbenzene and o-xylene in samples CF-SB-121(19.5-20), CF-SB-121(18.5-19.5), CF-SB-126(20-22), CF-SB-131(18-19), CF-SB-127(19-20), CF-SB-131(17-18), CF-SB-133(9.5-10), CF-SB-133(9.5-10)DUPE, CF-SB-137(22.5-23.5), CF-SB-138(18-20) , CF-SB-139(13-15), CF-SB-118(17-17.5) and CF-SB-118(17-17.5)DUPE and the positive results for 1,2,4-trimethylbenzene in sample CF-SB-124(13-15) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

The following results were qualified as estimated (J/UJ) due to continuing calibration nonconformances: anthracene in samples CF-SB-111(14.5-15), CF-SB-112(13-14), CF-SB-115(14-15), CF-SB-117(10-12), CF-SB-110(10-15) and CF-SB-110(15-16), benzene, anthracene and benzo(ghi)perylene in samples CF-SB-116(15-15.5), CF-SB-118(16-17) and CF-SB-119(17-18.5) ,benzene and benzo(ghi)perylene in samples CF-SB-127(19-20), CF-SB-131(17-18), CF-SB-133(9.5-10), CF-SB-133(9.5-10)DUPE, CF-SB-139(13-15), CF-SB-121(19.5-20), CF-SB-121(18-19.5) and CF-SB-126(20-22) and benzo(ghi)perylene in samples CF-SB-118(17-17.5) and CF-SB-118(17-17.5)DUPE.The direction of the bias cannot be determined from these nonconformances.

Blanks

Target compounds were detected in the EPA8270 mod. method blanks. The following table summarizes the method blank contamination.

Compound	Type of Blank	Associated Samples	Maximum Concentration	Blank Action Level
Toluene	GI040517-SB Method	CF-SB-111(14.5-15), CF-SB-112(13-14), CF-SB-115(14-15), CF-SB-116(15-15.5), CF-SB-117(10-12), CF-SB-118(16-17), CF-SB-118(17-17.5), CF-SB-118(17-17.5)DUPE, CF-SB-119(17-18.5), CF-SB-110(10-15), CF-SB-110(15-16)	0.1 mg/kg	0.5 mg/kg
Chlorobenzene			0.12 mg/kg	0.6 mg/kg
Toluene	GI040519-SB Method	CF-SB-121(19.5-20), CF-SB-121(18-19.5), CF-SB-124(13-15), CF-SB-126(20-22)	0.2 mg/kg	1.0 mg/kg
Chlorobenzene			0.24 mg/kg	1.2 mg/kg
Toluene	GI040521-SB Method	CF-SB-131(18-19), CF-SB-127(19-20), CF-SB-131(17-18), CF-SB-133(9.5-10), CF-SB-133(9.5-10)DUPE, CF-SB-137(22.5-23.5), CF-SB-137(27.5-28), CF-SB-138(18-20),	0.07 mg/kg	0.35 mg/kg
Chlorobenzene			0.09 mg/kg	0.45 mg/kg

Compound	Type of Blank	Associated Samples	Maximum Concentration	Blank Action Level
		CF-SB-139(13-15)		

Blank Actions

If the sample concentration ≤ QL and ≤ blank action level, qualify the result as not detected (U6) at the QL.
If the sample concentration > QL and ≤ blank action level, qualify the result as not detected (U6) at the reported value.
If the sample concentration > blank action level, report the value unqualified.

Based on the action levels determined and the analyses which were reported, the following results were qualified as nondetect (U) due to method blank contamination: toluene and chlorobenzene in samples CF-SB-121(18-19.5), CF-SB-124(13-15), CF-SB-126(20-22), CF-SB-131(18-19), CF-SB-137(27.5-28) and CF-SB-139(13-15).

A field blank sample was not associated with this sample group.

Surrogate Recoveries

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the EPA8270 mod. analyses:

Sample ID	Percent Recovery				Action
	FBZ 50-120	2FBP 50-120	5a-Andr 50-120	Benzo(e)pyrene 50-120	
CF-SB-119(17-18.5)	-	126%	-	-	Not required (NR).

- Within control limits
NR- Validation action not required for one semivolatile surrogate outside of control limits.

FBZ - Fluorobenzene
2FBP -2-Fluorobiphenyl
5a-Andr-5a-Androstane
Benzo(e)pyrene - Benzo(e)pyrene

MS/MSD Results

MS/MSD analyses were performed on sample CF-SB-131(18-19) for the EPA8270 mod. analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	MS/MSD %R	RPD %	QC Limits	Action
naphthalene	3.5, -	-	60-140	Estimate (J) the positive result.
2-methylnaphthalene	42, -	-	60-140	Estimate (J) the positive result.
1-methylnaphthalene	57, -	-	60-140	Estimate (J) the positive result.
acenaphthene	48, -	-	60-140	Estimate (J) the positive result.
phenanthrene	-2.7, -	-	60-140	Estimate (J) the positive result.
anthracene	55, -	-	60-140	Estimate (J) the positive result.
fluoranthene	52, -	-	60-140	Estimate (J) the positive result.
pyrene	50, -	-	60-140	Estimate (J) the positive result.

- Within control limits

MS/MSD analyses were performed on sample CF-SB-110(15-16) for the EPA8270 mod. analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	MS/MSD %R	RPD %	QC Limits	Action
benzene	34, -	-	60-140	Estimate (J) the positive result.
toluene	38, -	-	60-140	Estimate (J) the positive result.
ethylbenzene	42, -	-	60-140	Estimate (J) the positive result.
m,p-xylenes	43, -	-	60-140	Estimate (J) the positive result.
styrene	43, -	-	60-140	Estimate (J) the positive result.
o-xylene	40, -	-	60-140	Estimate (J) the positive result.
1,2,4-trimethylbenzene	45, -	-	60-140	Estimate (J) the positive result.
1-methylnaphthalene	57, -	-	60-140	Estimate (J) the positive result.

Compound	MS/MSD %R	RPD %	QC Limits	Action
acenaphthylene	44, -	-	60-140	Estimate (J) the positive result.
acenaphthene	52, -	-	60-140	Estimate (J) the positive result.
dibenzofuran	43, -	-	60-140	Estimate (J) the positive result.
fluorene	46, -	-	60-140	Estimate (J) the positive result.
anthracene	35, -	-	60-140	Estimate (J) the positive result.
fluoranthene	50, -	-	60-140	Estimate (J) the positive result.
pyrene	51, -	-	60-140	Estimate (J) the positive result.
benzo(a)anthracene	47, -	-	60-140	Estimate (J) the positive result.
chrysene	44, -	-	60-140	Estimate (J) the positive result.
benzo(b)fluoranthene	52, -	-	60-140	Estimate (J) the positive result.
benzo(k)fluoranthene	38, -	-	60-140	Estimate (J) the positive result.
benzo(a)pyrene	48, -	-	60-140	Estimate (J) the positive result.
indeno(1,2,3-cd)pyrene	58, -	-	60-140	Estimate (J) the positive result.
dibenzo(a,h)anthracene	54, -	-	60-140	Estimate (J) the positive result.

Internal Standards

The following table lists the internal standard (IS) areas which were outside of the control limits in the EPA8270 mod. analyses.

Sample	Internal Standard	Area (%)	Validation Action
CF-SB-116(15-15.5)	o-terphenyl	44	Estimate (J/UJ) the positive and nondetect results for all reported compounds .
CF-SB-118(16-17)	o-terphenyl	36	Estimate (J/UJ) the positive and nondetect results for all reported compounds .
CF-SB-119(17-18.5)	2,4-difluorotoluene o-toluene	49 40	Estimate (J/UJ) the positive and nondetect results for all reported compounds .

Affected compounds:
IS o-terphenyl - all compounds reported

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IS 2,4-difluorotoluene - No compounds reported

The area for internal standard 2,4-difluorotoluene was below the control limits in sample CF-SB-119(17-18.5) . Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions in the EPA8270 mod. analyses.

Compound	Recovery	Control Limits	Associated Samples	Actions
benzene	56%	60-140	CF-SB-111(14.5-15), CF-SB-112(13-14), CF-SB-115(14-15), CF-SB-116(15-15.5), CF-SB-117(10-12), CF-SB-118(16-17), CF-SB-118(17-17.5), CF-SB-118(17-17.5)DUPE	Estimate (J/UJ) the positive and/or nondetect results.

Lab Duplicate Results

The lab duplicate of CF-SB-133(9.5-10) was submitted with this sample group. The following table lists the EPA8270 mod. %RPDs found outside of the control limit of 50% or +/-2x quantitation limit (QL) for levels <5xQL. The direction of the bias cannot be determined by these nonconformances.

Compound	CF-SB-133(9.5-10) (mg/kg)	CF-SB-133(9.5-10)DUPE (mg/kg)	RPD (%)
benzene	35.9	19.3	60.1
toluene	34.7	18.6	60.4
ethylbenzene	8.91	5.29	51.0
m/p-xylenes	45.3	26.9	51.0
styrene	9.23	6.47	35.2

Compound	CF-SB-133(9.5-10) (mg/kg)	CF-SB-133(9.5-10)DUPE (mg/kg)	RPD (%)
o-xylene	18.4	11.2	48.6
1,2,4-trimethylbenzene	79.8	48.8	48.2
1-methylnaphthalene	890	570	43.8
acenaphthylene	382	223	52.6
acenaphthene	1700	1220	32.9
dibenzofuran	1580	1060	39.4
fluorene	1860	1240	40.0
anthracene	2450	1650	39.0
benzo(a)anthracene	1790	1250	35.5
benzo(b)fluoranthene	1850	1350	31.3
dibenzo(a,h)anthracene	374	269	32.7

NC = Not calculable

The positive results for benzene, toluene, ethylbenzene, m/p-xylenes, styrene, o-xylene, 1,2,4-trimethylbenzene, 1-methylnaphthalene, acenaphthylene, acenaphthene, dibenzofuran, fluorene,anthracene, benzo(a)anthracene, benzo(b)fluoranthene and dibenzo(a)anthracene were qualified as estimated (J) in sample CF-SB-133(9.5-10) and CF-SB-133(9.5-10)DUPE due to the RPDs which exceeded the acceptance criteria of 50% RPD.

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the EPA8270 mod. analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

The compounds benzo(e)pyrene and perylene were qualified as estimated (J), the standards were not analyzed for these compounds.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206665
Reviewer: Lisa McDonagh/GEI Consultants
Date: June 30, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-139(7.5-10)	206665-01	BTEX, PAH
CF-SB-139(16.5-18)	206665-02	BTEX, PAH
CF-SB-139(13-15)	206665-03	BTEX
FB-052104	206665-04	BTEX, PAH
TB-052104	206665-05	BTEX

Associated QC Samples:	Field/Trip Blanks:	FB-052104, TB-052104
	Field Duplicate pair:	None associated

The above listed samples were collected on May 20 and 21, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

*	• Data Completeness
*	• Holding Times and Sample Preservation
*	• Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	• Initial and Continuing Calibrations
*	• Blanks
	• Surrogate Recoveries
NA	• Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	• Internal Standards
	• Laboratory Control Sample (LCS) Results

NA	•	Field Duplicate Results
*	•	Moisture Content
	•	Quantitation Limits and Data Assessment
	•	Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

VOC

Qualifications were not applied as a result of sampling error.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

SVOC

Qualifications were not applied as a result of sampling error.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The nondetect result for benzo(b)fluoranthene was qualified as estimated (UJ) in sample FB-052104 due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results for indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene were qualified as estimated (J/UJ) in sample CF-SB-139(16.5-18) due to low recoveries of these analytes in the LCS. These results may be biased low. The results can be used for project objectives as estimated values and

nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

All results were found to be usable.

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC initial and continuing calibrations are summarized in the following tables.

Instrument ID MSU Compound	IC 5/18/04	CC 5/25/04
benzo(b)fluoranthene		XX (21.3%)
Samples Affected	All listed	FB-052104

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R4) nondetect results.
+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The following results were qualified as estimated (UJ) due to continuing calibration nonconformances: benzo(b)fluoranthene in sample FB-052104. The direction of the bias cannot be determined from these nonconformances.

Blanks

Target compounds were not detected in the VOC and SVOC method blanks and field blank and VOC trip blank sample.

Surrogate Recoveries

All criteria were met in the VOC analyses.

The semivolatile surrogates were outside of the control limits in the following sample CF-SB-139(7.5-10) due to sample dilution. Qualifications were not required.

MS/MSD Results

An MS/MSD analysis was not associated with the VOC and SVOC analyses. Validation action was not required on this basis.

Internal Standards

All criteria were met in the SVOC analyses

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	nternal Standard	a)	Validation Action
F-SB-139(16.5-18)	4-dichlorobenzene-d4	3	ication not required. Compounds reported were not associated with the internal standard.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene
IS 1,4-dichlorobenzene-d4 - No compounds reported

The areas for internal standard 1,4-dichlorobenzene-d4 were below the control limits in samples CF-SB-139(16.5-18). Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

All criteria were met in the VOC analyses.

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions in the SVOC analyses.

Compound	overy	l Limits	ssociated Samples	Actions
ıdeno(1,2,3-cd)pyrene ibenzo(a,h)anthracene	59% 58%	)-140	CF-SB-139(16.5-18)	nate (J/UJ) the positive and nondetect results.

Field Duplicate Results

A field duplicate pair was not associated with this sample group. Validation action was not required on this basis.

Moisture Content

The percent moisture was within control limits for all samples.

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
CF-SB-139(7.5-10)	NR	xtract volume of 0.5 ml and 4-fold dilution performed. QL elevated by factor of 4.
CF-SB-139(13-15)	n level analysis performed. vated by factor of 100.	NR

NR- Dilution/reanalysis not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206467
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 23, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-FB042804	206467-01	Metals, Cyanide
CF-SB-97(5-10)	206467-03	Metals, Cyanide
CF-SB-97(25-30)	206467-04	Metals, Cyanide
CF-SB-96(5-10)	206467-05	Metals, Cyanide
CF-SB-96A(30-35)	206467-06	Metals, Cyanide
CF-SB-95(25-30)	206467-07	Metals, Cyanide
CF-SB-95(10-15)	206467-08	Metals, Cyanide
CF-SB-XX(0-5)	206467-09	Metals, Cyanide
CF-SB-96(20-25)	206467-10	Metals, Cyanide
CF-SB-98A(25-30)	206467-11	Metals, Cyanide
CF-SB-98A(16.5-17.5)	206467-12	Metals, Cyanide
CF-SB-98A(45-50)	206467-13	Metals, Cyanide
CF-SB-99(45-50)	206467-14	Metals, Cyanide
CF-SB-99(25-27)	206467-15	Metals, Cyanide

Associated QC Samples:	Field/Trip Blanks:	CF-FB042804
	Field Duplicate pair:	CF-SB-95(10-15)/CF-SB-XX(0-5)

The above-listed samples were collected on April 26, 27, 28, and 29, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Instrument Calibration
* • Contract Required Detection Limit (CRDL) Standard Recoveries

* • Blank Analysis Results
  • Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
  • Matrix Spike (MS) Results
  • Laboratory Duplicate Results
  • Field Duplicate Results
* • Laboratory Control Sample (LCS) Results
* • ICP Serial Dilution Analysis Results
* • Moisture Content
  • Detection Limits Results
* • Sample Quantitation Results

* - All criteria were met for this parameter.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error are discussed below.

- The positive and nondetect results for mercury and lead in all samples were qualified as estimated (J/UJ) due to the relative percent differences (RPDs) of these analytes which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- The positive and nondetect results for selenium and cyanide in all soil samples were qualified as estimated (J/UJ) due to recoveries in the MS analyses which were below control limits. The results may be biased low. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor effect on the data usability.

- The positive results for lead in all soil samples and the positive results for arsenic in samples CF-SB-97(5-10), SB-97(25-30), SB-96(5-10), SB-96A(30-35), SB-95(25-30), SB-95(10-15), SB-96(20-25), SB-98A(25-30), SB-98A(16.5-17.6), SB-98A(45-50), and SB-99(45-50) were qualified as estimated (J) due to recoveries in the MS analyses which were above control limits. The results may be biased high. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

- The positive and nondetect results for mercury in samples CF-SB-97(5-10), SB-97(25-30), SB-96(5-10), SB96A(30-35), CF-SB-95(25-30), CF-SB-95(10-15), CF-SB-XX(0-5), CF-SB-

96(20-25), SB-98A(25-30), SB-98A(16.5-17.6), SB-98A(45-50), and SB-99(45-50) were qualified as estimated (J/UJ) due to the RPD in the laboratory duplicate analysis which was above control limits. The direction of the bias cannot be determined from this nonconformance. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

All criteria were met.

CRDL Standard Recoveries

All criteria were met.

Blank Analysis Results

All instrument and method blank results were found to be less than the CRDL or reporting limit (RL).

Target analytes were not detected in the field blank sample.

ICP ICS Results

The following table lists the analytes recovered outside of control limits in the ICSAB analysis.

Analyte	Recovery (%)	Associated Samples	Validation Actions
Selenium	74	FB042804	No actions required; sample interferent levels were less than 50% those of the ICSAB.

Positive results were observed for cadmium, chromium, and lead and negative results were observed for selenium in the ICSA solution analysis associated with sample FB042804. Positive results were observed for cadmium in the ICSA solution analysis associated with samples CF0SB-98A(25-30), CF-SB-98A(16.5-17.5), CF-SB-98A(45-50), CF-SB-99(45-50), and CF-SB-99(25-27) . The levels of interferents in samples were reviewed. Validation actions were not required as sample interferent levels were less than 50% those in the ICSA solution.

MS Results

Batch QC MS results (performed on a non-project sample) were reported for the ICP analyses. The MS performed on sample CF-SB-105(27-30) (reported in 206497) was used for the evaluation of this sample group. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Arsenic	133	Estimate (J) the positive results for arsenic in samples CF-SB-97(5-10), SB-97(25-30), SB-96(5-10), SB96A(30-35), SB-95(25-30), SB-95(10-15), SB-96(20-25), SB-98A(25-30), SB-98A(16.5-17.6), SB-98A(45-50), and SB-99(45-50).
Lead	224	Estimate (J) the positive results for lead in all soil samples.
Selenium	66	Estimate (J/UJ) the positive and nondetect results for selenium in all soil samples.

Professional judgement was taken to estimate (J) the positive results for lead, rather than reject them, as the high recovery was, in part, due to high duplicate precision results.

MS analyses were performed on samples CF-SB-97(5-10) and CF-SB-99(25-27) for the mercury analyses. All criteria were met.

An MS analysis was performed on project sample CF-SB-97(25-30) for the cyanide analyses. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Cyanide	58	Estimate (J/UJ) the positive and nondetect results for cyanide in all soil samples.

Laboratory Duplicate Results

Batch QC laboratory duplicate results (performed on a non-project sample) were reported for the ICP analyses. The laboratory duplicate performed on sample CF-SB-105(27-30) (reported in 206497) was used for the evaluation of this sample group. All criteria were met.

Laboratory duplicate analyses were performed on samples CF-SB-97(5-10) and CF-SB-99(25-27) for the mercury analyses and on samples CF-SB-XX(0-5) and CF-SB-97(25-30) for the cyanide analyses. The following table lists the analytes which exhibited RPDs above the control limit of 100% and the resulting validation actions.

Analyte	Duplicate Sample	RPD (%)	Actions
Mercury	SB-97(5-10)	123	Estimate (J/UJ) the positive and nondetect results for mercury in all soil samples with the exception of CF-SB-99(25-27) which exhibited acceptable duplicate RPD.

Field Duplicate Results

Samples CF-SB-95(10-15) and CF-SB-XX(0-5) were submitted as the field duplicate pair with this sample group. The following table summarizes the RPDs of the detected analytes.

Analyte	CF-SB-95(10-15) (mg/kg)	CF-SB-XX(0-5) (m/kg)	RPD (%)
Arsenic	6.3	11U	NC, within 2xQL
Barium	14.1	5.1	94
Chromium	12.1	6.6	59
Lead	346	51.5	148
Mercury	0.068	0.016U	NC, results not within 2xQL
Cyanide	5160	12,600	84

NC = Not calculable

The positive and nondetect results for lead and mercury were qualified as estimated (J/UJ) in all soil samples due to the RPDs which exceeded the acceptance criteria of 100% RPD.

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

An ICP serial dilution analysis was performed on sample CF-SB-96(20-25). All criteria were met

Moisture Content

All criteria were met.

Detection Limits Results

The laboratory reported the soil cyanide results down to 0.5 ug/L. However, the laboratory reported laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206467
Reviewer: Lisa McDonagh/GEI Consultants
Date: June 25, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-FB042804	206467-01	BTEX, PAH
CF-Trip Blank	206467-02	BTEX
CF-SB-97(5-10)	206467-03	BTEX, PAH
CF-SB-97(25-30)	206467-04	BTEX, PAH
CF-SB-96(5-10)	206467-05	BTEX, PAH
CF-SB-96A(30-35)	206467-06	BTEX, PAH
CF-SB-95(25-30)	206467-07	BTEX, PAH
CF-SB-95(10-15)	206467-08	BTEX, PAH
CF-SB-XX(0-5)	206467-09	BTEX, PAH
CF-SB-96(20-25)	206467-10	BTEX, PAH
CF-SB-98A(25-30)	206467-11	BTEX, PAH
CF-SB-98A(16.5-17.5)	206467-12	BTEX, PAH
CF-SB-98A(45-50)	206467-13	BTEX, PAH
CF-SB-99(45-50)	206467-14	BTEX, PAH
CF-SB-99(25-27)	206467-15	BTEX, PAH
TB-043004	206467-16	BTEX

Associated QC Samples:	Field/Trip Blanks:	CF-Trip Blank, TB-043004, CF-FB042804
	Field Duplicate pair:	CF-SB-95(10-15)/CF-SB-XX(0-5)

The above listed samples were collected on April 26, 27, 28, 29 and 30, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

*	·	Data Completeness
*	·	Holding Times and Sample Preservation
*	·	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	·	Initial and Continuing Calibrations
*	·	Blanks
	·	Surrogate Recoveries
*	·	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	·	Internal Standards
	·	Laboratory Control Sample (LCS) Results
	·	Field Duplicate Results
*	·	Moisture Content
	·	Quantitation Limits and Data Assessment
	·	Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

VOC

Qualifications were not applied as a result of sampling error.

Qualifications applied to the data as a result of analytical error are discussed below.

C Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

SVOC

Qualifications applied to the data as a result of sampling error are discussed below.

· The positive results for fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, and benzo(a)pyrene were qualified as estimated (J) in samples CF-SB-95(10-15) and CF-SB-XX(0-5) due to the relative percent differences (RPDs) of these analytes which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

C Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene were qualified as estimated (J) in samples CF-FB042804, CF-SB-97(5-10), CF-SB-97(25-30), CF-SB-96(5-10), CF-SB-96A(30-35), CF-SB-95(25-30), CF-SB-XX(0-5), CF-SB-96(20-25), CF-SB-98A(25-30), CF-SB-98A(45-50), CF-SB-99(45-50) and CF-SB-99(25-27) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and nondetect results for benzo(b)fluoranthene and benzo(k)fluoranthene were qualified as estimated (J/UJ) in sample CF-SB-95(10-15) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results for2-methylnaphthalene and benzo(k)fluoranthene were qualified as estimated (J/UJ) in samples CF-SB-97(5-10), CF-SB-96(5-10), CF-SB-98A(25-30), CF-SB-98A(45-50), CF-SB-99(45-50) and CF-SB-99(25-27) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results for 2-methylnaphthalene, acenaphthene and fluorene were qualified as estimated (J/UJ) in samples CF-SB-97(5-10), CF-SB-97(25-30), CF-SB-96(5-10), CF-SB-96A(30-35), CF-SB-95(25-30), CF-SB-95(10-15), CF-SB-XX(0-5) and CF-SB-96(20-25) due to low recoveries of these analytes in the LCS. These results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results for naphthalene, 2-methylnaphthalene, phenanthrene, fluoranthene, chrysene and benzo(a)pyrene were qualified as estimated (J/UJ) in sample CF-FB042804 due to low recoveries of these analytes in the LCS. These results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

· The positive results for benzo(b)fluoranthene and nondetect results for benzo(k)fluoranthene were qualified as estimated (J/UJ) in samples CF-SB-95(10-15) and CF-SB-98A(16.5.17.5) as the laboratory could not determine the inflection point between the two compound peaks. The combined compound results were reported as total benzo(b)fluoranthene. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

The validation findings were based on the following information.

All results were found to be usable .

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC initial and continuing calibrations are summarized in the following tables.

nstrument ID **MSQ** **Compound**	**IC** **5/3/04**	**CC** **5/5/04**
-methylnaphthalene		XX (21.6%)
enzo(k)fluoranthene		XX (20.6%)
deno(1,2,3-cd)pyrene	X (15.4%)	
benzo(a,h)anthracene	X (17.5%)	
Samples Affected	CF-FB042804, CF-SB-97(5-10), CF-SB-97(25-30), CF-SB-96(5-10), CF-SB-96A(30-35), CF-SB-95(25-30), CF-SB-XX(0-5), CF-SB-96(20-25), CF-SB-98A(25-30), CF-SB-98A(45-50), CF-SB-99(45-50), CF-SB-99(25-27)	CF-SB-97(5-10), CF-SB-96(5-10), CF-SB-98A(25-30), CF-SB-98A(45-50), CF-SB-99(45-50), CF-SB-99(25-27)

Instrument ID **MSQ** **Compound**	**IC** **5/6/04**
benzo(b)fluoranthene	X (15.4%)
benzo(k)fluoranthene	X (19.5%)
Samples Affected	CF-SB-95(10-15)

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.
XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R4) nondetect results.
+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for indeno(1,2,3-cd)pyrene and dibenzo(a,h)anthracene in samples CF-SB-97(5-10), CF-SB-96(5-10) and CF-SB-XX(0-5) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

The positive results for benzo(b)fluoranthene in sample CF-SB-95(10-15) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

The following results were qualified as estimated (J/UJ) due to continuing calibration nonconformances: 2-methylnaphthalene and benzo(k)fluoranthene in samples CF-SB-97(5-10), CF-SB-96(5-10), CF-SB-98A(25-30), CF-SB-98A(45-50), CF-SB-99(45-50) and CF-SB-99(25-27). The direction of the bias cannot be determined from these nonconformances.

Blanks

Target compounds were not detected in the VOC and SVOC method blanks and and field blank and the VOC trip blank sample.

Surrogate Recoveries

All criteria were met in the SVOC analyses for samples analyzed without dilution.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

ID	Percent Recovery				Action
	d8 37	M 30	B L33	E L34	
-96(5-10)	-	-	58%	-	tion required, results were reported from the reanalysis.
-96(5-10)RE	-	-	44%	-	tion required as results were nondetect.

- Within control limits

Tol-d8 - Toluene-d8
DBFM - Dibromofluoromethane
BFB - Bromofluorobenzene
DCE - 1,2-Dichloroethane-d4

The semivolatile surrogates were outside of the control limits in the following sample CF-SB-98A(16.5-17.5) due to sample dilution. Qualifications were not required .

MS/MSD Results

An MS/MSD analysis was not associated with the SVOC analyses. Validation action was not required on this basis.

All criteria were met in the VOC analyses.

Internal Standards

All criteria were met in the SVOC analyses.

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	nternal Standard	:a)	Validation Action
CF-SB-96(5-10）	chlorobenzene-d5 4-dichlorobenzene-d4	46 26	e (J/UJ) the affected positive and nondetect results.
F-SB-96(5-10)RE	4-dichlorobenzene-d4	29	cation not required. Compounds reported were not associated with the internal standard.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene
IS 1,4-dichlorobenzene-d4 - No compounds reported

The areas for internal standard 1,4-dichlorobenzene-d4 were below the control limits in samples CF-SB-96(5-10) and CF-SB-96(5-10)RE. Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

All criteria were met in the VOC analyses.

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions in the SVOC analyses.

Compound	overy	l Limits	ssociated Samples	Actions
2-methylnaphthalene acenaphthene fluorene	53% 61% 61%	)-140 2-105 5-105	CF-SB-97(5-10), CF-SB-97(25-30), CF-SB-96(5-10), CF-SB-96A(30-35), CF-SB-95(25-30), CF-SB-95(10-15), CF-SB-XX(0-5), CF-SB-96(20-25)	nate (J/UJ) the positive and nondetect results for the affected analytes in all samples.
naphthalene 2-methylnaphthalene phenanthrene fluoranthene chrysene benzo(a)pyrene	56% 54% 67% 68% 69% 66%	2-108 2-114 2-116 2-118)-121 1-116	CF-FB042804	nate (J/UJ) the positive and nondetect results for the affected analytes in all samples.

Field Duplicate Results

The field duplicate pair of CF-SB-95(10-15) and CF-SB-XX(0-5) was submitted with this sample group. All criteria were met in the VOC analyses.

The field duplicate pair of CF-SB-95(10-15) and CF-SB-XX(0-5) was submitted with this sample group. The following table lists the SVOC %RPDs found outside of the control limit of 50% or +/-2x quantitation limit (QL) for levels <5xQL. The direction of the bias cannot be determined by these nonconformances.

Compound	CF-SB-95(10-15) (µg/kg)	CF-SB-XX(0-5) (µg/kg)	RPD (%)
Fluoranthene	11000	990	167
Pyrene	9000	870	165
Benzo(a)anthracene	5500	580	162
Chrysene	4800	680	150
Benzo(b)fluoranthene	7400	470	176
Benzo(a)pyrene	5000	620	156
calculable			

The positive results for fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, and benzo(a)pyrene were qualified as estimated (J) in samples CF-SB-95(10-15) and CF-SB-XX(0-5) due to the RPDs which exceeded the acceptance criteria of 100% RPD.

Moisture Content

All criteria were met for all samples.

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
CF-SB-97(5-10)	NA	xtract volume of 1 ml and 4-fold dilution performed. QLs elevated by factor of 8.
CF-SB-96(5-10)	NA	xtract volume of 2 ml and 4-fold dilution performed. QLs elevated by factor of 16.
CF-SB-95(10-15)	NA	xtract volume of 0.5 ml and 5-fold dilution performed. QLs elevated by factor of 5.
-SB-98A(16-5-17.5)	NA	xtract volume of 2 ml and 100-fold dilution performed. Qls elevated by factor of 400.

NR- Dilution/reanalysis not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

The laboratory was unable to determine the inflection point between benzo(b)fluoranthene and benzo(k)fluoranthene. In cases where both compounds were detected in a sample, the laboratory reported the result as total benzo(b)fluoranthene. The positive results for benzo(b)fluoranthene and nondetect results for benzo(k)fluoranthene were estimated (J/UJ) in the affected samples CF-SB-95(10-15), CF-SB-98A(16.5-17.5).

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206497
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 23, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-100(3-5)	206497-01	Metals, Cyanide
CF-SB-100(8-10)	206497-02	Metals, Cyanide
CF-SB-100(15-17)	206497-03	Metals, Cyanide
CF-SB-101(3-5)	206497-04	Metals, Cyanide
CF-SB-101(10-11)	206497-05	Metals, Cyanide
CF-SB-101(15-16)	206497-06	Metals, Cyanide
CF-SB-102(1-5)	206497-07	Metals, Cyanide
CF-SB-102(10-12)	206497-08	Metals, Cyanide
CF-SB-102(28-30)	206497-09	Metals, Cyanide
FB050404	206497-11	Metals, Cyanide
CF-SB-103(12-13)	206497-12	Metals, Cyanide
CF-SB-103(20-25)	206497-13	Metals, Cyanide
CF-SB-104(12-13)	206497-14	Metals, Cyanide
CF-SB-104(28-30)	206497-15	Metals, Cyanide
CF-SB-XX(10-12)	206497-16	Metals, Cyanide
CF-SB-105(12-13)	206497-17	Metals, Cyanide
CF-SB-105(27-30)	206497-18	Metals, Cyanide
CF-SB-106(12-13)	206497-19	Metals, Cyanide
CF-SB-106(15-17)	206497-20	Metals, Cyanide

Associated QC Samples:	Field/Trip Blanks:	CF-FB050404
	Field Duplicate pair:	CF-SB-104(12-13)/CF-SB-XX (10-12)

The above-listed samples were collected on May 3, 4, 5, and 6, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Instrument Calibration
* • Contract Required Detection Limit (CRDL) Standard Recoveries
* • Blank Analysis Results
  • Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
  • Matrix Spike (MS) Results
* • Laboratory Duplicate Results
  • Field Duplicate Results
* • Laboratory Control Sample (LCS) Results
* • ICP Serial Dilution Analysis Results
  • Moisture Content
  • Detection Limits Results
* • Sample Quantitation Results

* - All criteria were met for this parameter.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error are discussed below.

- The positive and nondetect results for mercury in all soil samples were qualified as estimated (J/UJ) due to the relative percent differences (RPDs) of these analytes which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-103(20-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive results for mercury in samples CF-SB-100(3-5) and CF-SB-102(1-5) were qualified as estimated (J) as the results were above the instrument calibration range. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

- The nondetect results for selenium in samples CF-SB-100(3-5), CF-SB-101(3-5), CF-SB102(1-5), and CF-SB-105(27-30) were qualified as estimated (UJ) due to recovery in the ICSAB standard analyses which was below the control limits and negative interference seen in the ICSA analysis. The results may be biased low. The results can be used for project objectives as nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and nondetect results for selenium in all soil samples were qualified as estimated (J/UJ) due to recoveries in the MS analyses which were below control limits. The results may be biased low. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor effect on the data usability.

- The positive results for lead in all soil samples and arsenic in samples CF-SB-100(3-5), CF-SB-100(8-10), CF-SB-101(3-5), CF-SB-101(10-11), CF-SB-102(1-5), CF-SB-102(10-12), CF-SB-102(28-30), CF-SB-103(12-13), CF-SB-104(12-13), CF-SB-XX(10-12), CF-SB-105(12-13), CF-SB-105(27-30), and CF-SB-106(12-13) were qualified as estimated (J) due to recoveries in the MS analyses which were above control limits. The results may be biased high. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

All criteria were met.

CRDL Standard Recoveries

All criteria were met.

Blank Analysis Results

All instrument and method blank results were found to be less than the CRDL or reporting limit (RL).

Target analytes were not detected in the field blank sample.

ICP ICS Results

The following table lists the analytes recovered outside of control limits in the ICSAB analysis.

Analyte	Recovery (%)	Associated Samples	Validation Actions
Selenium	78	FB050404	No actions required; sample interferent levels were less than 50% those of the ICSAB.
Selenium	72, 76	All soil samples	Estimate (UJ) the nondetect results for selenium in samples CF-SB-100(3-5), CF-SB-101(3-5), CF-SB102(1-5), and CF-SB-105(27-30).

Positive results were observed for cadmium, chromium, and lead in the ICSA solution analysis associated with sample FB050404. Positive results were observed for cadmium and negative results were observed for selenium in the ICSA solution analysis associated with all soil samples. The levels of interferents in samples were reviewed. Iron was present in samples CF-SB-100(3-5) (55%), CF-SB-101(3-5) (139%), CF-SB102(1-5) (137%), and CF-SB-105(27-30) (54%) at greater than 50% that of the level in the ICSA solution. Professional judgement was used to accept results in which the estimated interference was less than 10% of the analyte level or in which the estimated negative interference was less than one-half the QL.

Sample	Analyte	Sample Result (ug/L)	Estimated Interference (ug/L)	Actions
SB-100(3-5)	Cadmium	1.1 U	2.5	No action required; result is nondetect and therefore not affected by high bias.
	Selenium	5.0 U	-5.8	Estimate (UJ) nondetect result.
SB-101(3-5)	Cadmium	1.1 U	6.4	No action required; result is nondetect and therefore not affected by high bias.
	Selenium	5.0 U	-14.6	Estimate (UJ) nondetect result.
SB-102(1-5)	Cadmium	1.1 U	6.3	No action required; result is nondetect and therefore not affected by high bias.
	Selenium	5.0 U	-14.4	Estimate (UJ) nondetect result.
SB-105(27-30)	Cadmium	1.1 U	2.5	No action required; result is nondetect and therefore not affected by high bias.
	Selenium	5.0 U	-5.7	Estimate (UJ) nondetect result.

MS Results

An MS performed on sample CF-SB-105(27-30) for the metals analyses and on sample SB-104(28-30) for the cyanide analyses. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Arsenic	133	Estimate (J) the positive results for arsenic in samples CF-SB-100(3-5), CF-SB-100(8-10), CF-SB-101(3-5), CF-SB-101(10-11), CF-SB-102(1-5), CF-SB-102(10-12), CF-SB-102(28-30), CF-SB-103(12-13), CF-SB-104(12-13), CF-SB-XX(10-12), CF-SB-105(12-13), CF-SB-105(27-30), and CF-SB-106(12-13).
Lead	224	Estimate (J) the positive results for lead in all soil samples.
Selenium	66	Estimate (J/UJ) the positive and nondetect results for selenium in all soil samples.

Professional judgement was taken to estimate (J) the positive results for lead, rather than reject them, as the high recovery was, in part, due to high duplicate precision results.

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on samples CF-SB-105(27-30) for the metals analyses and on sample CF-SB-104(28-30) for the cyanide analyses. All criteria were met.

Field Duplicate Results

Samples CF-SB-104(12-13) and CF-SB-XX(10-12) were submitted as the field duplicate pair with this sample group. The following table summarizes the RPDs of the detected analytes.

Analyte	CF-SB-104(12-13) (mg/kg)	CF-SB-XX(10-12) (m/kg)	RPD (%)
Arsenic	21.5	22.9	6
Barium	69.9	72.8	4
Chromium	43.9	48.2	9
Lead	140	154	9
Mercury	0.25	1.2	131

Analyte	CF-SB-104(12-13) (mg/kg)	CF-SB-XX(10-12) (m/kg)	RPD (%)
Silver	0.55 U	0.57	NC, within 2xQL

NC = Not calculable

The positive and nondetect results for mercury were qualified as estimated (J/UJ) in all samples due to the RPD which exceeded the acceptance criteria of 100% RPD.

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

An ICP serial dilution analysis was performed on sample CF-SB-105(27-30). All criteria were met

Moisture Content

The percent moisture exceeded the control limit of 50% in sample CF-SB-103(20-25) (70.8%). The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-103(20-25).

Detection Limits Results

The laboratory reported the soil cyanide results down to 0.5 ug/L. However, the laboratory reported laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

The positive results for mercury in samples CF-SB-100(3-5) and CF-SB-102(1-5) were qualified as estimated (J) as the results were above the instrument calibration range.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206497
Reviewer: Lisa McDonagh/GEI Consultants
Date: June 27, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-100(3-5)	206497-01	BTEX, PAH
CF-SB-100(8-10)	206497-02	BTEX, PAH
CF-SB-100(15-17)	206497-03	BTEX, PAH
CF-SB-101(3-5)	206497-04	BTEX, PAH
CF-SB-101(10-11)	206497-05	BTEX, PAH
CF-SB-101(15-16)	206497-06	BTEX, PAH
CF-SB-102(1-5)	206497-07	BTEX, PAH
CF-SB-102(10-12)	206497-08	BTEX, PAH
CF-SB-102(28-30)	206497-09	BTEX, PAH
TB050304	206497-10	BTEX
FB050404	206497-11	BTEX, PAH
CF-SB-103(12-13)	206497-12	BTEX, PAH
CF-SB-103(20-25)	206497-13	BTEX, PAH
CF-SB-104(12-13)	206497-14	BTEX, PAH
CF-SB-104(28-30)	206497-15	BTEX, PAH
CF-SB-XX(10-12)	206497-16	BTEX, PAH
CF-SB-105(12-13)	206497-17	BTEX, PAH
CF-SB-105(27-30)	206497-18	BTEX, PAH
CF-SB-106(12-13)	206497-19	BTEX, PAH
CF-SB-106(15-17)	206497-20	BTEX, PAH
TB0506404	206497-21	BTEX

Associated QC Samples:	Field/Trip Blanks:	TB050304, TB0506404, FB050404
	Field Duplicate pair:	CF-SB-104(12-13)/CF-SB-XX(10-12)

The above listed samples were collected on May 3, 4, 5, and 6, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic

Clifton Former MGP, Project 982482-1-1007

Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

*	·	Data Completeness
*	·	Holding Times and Sample Preservation
*	·	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	·	Initial and Continuing Calibrations
*	·	Blanks
	·	Surrogate Recoveries
	·	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	·	Internal Standards
*	·	Laboratory Control Sample (LCS) Results
	·	Field Duplicate Results
	·	Moisture Content
	·	Quantitation Limits and Data Assessment
	·	Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

VOC

Qualifications applied to the data as a result of sampling error are discussed below.

· The positive results for ethylbenzene and total xylenes were qualified as estimated (J) in samples CF-SB-104(12-13) and CF-SB-XX(10-12) due to the relative percent differences (RPDs) of these analytes which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

C Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for ethylbenzene and xylenes in sample CF-SB-103(20-25) were qualified as estimated (J) due to high surrogate recoveries. These results may be biased high.

The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-103(20-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

SVOC

Qualifications were not applied as a result of sampling error.

Qualifications applied to the data as a result of analytical error are discussed below.

C Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for benzo(b)fluoranthene and benzo(k)fluoranthene were qualified as estimated (J) in samples CF-SB-100(3-5) and CF-SB-100(8-10) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and nondetect results for benzo(b)fluoranthene were qualified as estimated (J/UJ) in samples CF-SB-103(12-13) and CF-SB-106(15-17) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive results for the semivolatile compounds, napthalene, 2-methylnaphthalene and fluoranthene for sample CF-SB-101(15-16) were qualified as estimated (J) due to matrix spike nonconformances. The direction of the bias cannot be determined from these nonconformances. The results are usable for project objectives as estimated values or quantitation limits which may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-103(20-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive results for benzo(b)fluoranthene and nondetect results for benzo(k)fluoranthene were qualified as estimated (J/UJ) in samples CF-SB-100(8-10), CF-SB-101(3-5), CF-SB-101(15-16), CF-SB-103(12-13), CF-SB-105(12-13) and CF-SB-106(12-13) as the laboratory could not determine the inflection point between the two compound peaks. The combined compound results were reported as total benzo(b)fluoranthene. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC initial and continuing calibrations are summarized in the following tables.

Instrument ID MSQ Compound	IC 5/6/04
enzo(b)fluoranthene	X (15.4%)
enzo(k)fluoranthene	X (19.5%)
Samples Affected	CF-SB-100(3-5), CF-SB-100(8-10), CF-SB-100(15-17), FB050404

Instrument ID MSR Compound	IC 4/18/04	CC 5/12/04
benzo(b)fluoranthene		XX (25.0%)
Samples Affected	all listed	F-SB-103(12-13), F-SB-106(15-17)

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R4) nondetect results.

+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for benzo(b)fluoranthene in samples CF-SB-100(3-5) and CF-SB-100(8-10) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

The following results were qualified as estimated (J/UJ) due to continuing calibration nonconformances: benzo(b)fluoranthene in samples CF-SB-103(12-13) and CF-SB-106(15-17). The direction of the bias cannot be determined from these nonconformances.

Blanks

Target compounds were not detected in the VOC and SVOC method blanks and field blank and VOC trip blank samples.

Surrogate Recoveries

All criteria were met in the SVOC analyses for samples analyzed without dilution.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

ID	Percent Recovery				Action
	d8 37	M 30	B L33	E L34	
-102(10-12)	-	-	58%	-	ction required as results were nondetect.
-102(10-12)RE	-	-	38%	-	ction required, results were reported from the original analysis.
-103(20-25)	-	-	43%	-	te (J) the positive results for ethylbenzene and xylenes.
-103(20-25)RE	-	-	53%	-	ction required, results were reported from the original analysis.
-106(15-17)	-	-	45%	-	ction required as results were nondetect.

- Within control limits

Tol-d8 - Toluene-d8
DBFM - Dibromofluoromethane
BFB - Bromofluorobenzene
DCE - 1,2-Dichloroethane-d4

The semivolatile surrogates were outside of the control limits in the following samples CF-SB-100(3-5), CF-SB-101(3-5), CF-SB-101(10-11), CF-SB-102(1-5), CF-SB-104(12-13) and CF-SB-XX(10-12) due to sample dilution. Qualifications were not required .

MS/MSD Results

All criteria were met in the VOC analyses.

MS/MSD analyses were performed on sample CF-SB-101(15-16) for the SVOC analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	S/MSD %R	D	Limits	Action
naphthalene	56, -	-	0-140	Estimate (J) the positive result.
2-methylnaphthalene	58, -	-	0-140	Estimate (J) the positive result.
fluoranthene	-, 117	-	7-114	Estimate (J) the positive result.

- Within control limits

Internal Standards

All criteria were met in the SVOC analyses

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	nternal Standard	a)	Validation Action
F-SB-102(10-12)	4-dichlorobenzene-d4	8	ication not required. Compounds reported were not associated with the internal standard.
F-SB-103(20-25)	4-dichlorobenzene-d4	6	ication not required. Compounds reported were not associated with the internal standard.
F-SB-106(15-17)	4-dichlorobenzene-d4	3	ication not required. Compounds reported were not associated with the internal standard.
-SB-103(20-25)RE	chlorobenzene-d5 4-dichlorobenzene-d4	2 4	ction required, results were reported from the original analysis.
-SB-106(15-17)RE	4-dichlorobenzene-d4	7	ication not required. Compounds reported were not associated with the internal standard.
-SB-102(10-12)RE	chlorobenzene-d5 4-dichlorobenzene-d4	6 1	ction required, results were reported from the original analysis.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene

IS 1,4-dichlorobenzene-d4 - No compounds reported

The areas for internal standard 1,4-dichlorobenzene-d4 were below the control limits in samples CF-SB-102(10-12), CF-SB-103(20-25), CF-SB-106(15-17), CF-SB-102(10-12)RE, CF-SB-103(20-25)RE and CF-SB-106(15-17)RE . Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

All criteria were met in the VOC and SVOC analyses.

Field Duplicate Results

The field duplicate pair of CF-SB-104(12-13) and CF-SB-XX(10-12) was submitted with this sample group. All criteria were met in the SVOC analyses.

The field duplicate pair of CF-SB-104(12-13) and CF-SB-XX(10-12) was submitted with this sample group. The following table lists the VOC %RPDs found outside of the control limit of 50% or +/-2x quantitation limit (QL) for levels <5xQL. The direction of the bias cannot be determined by these nonconformances.

Compound	F-SB-104(12-13) (µg/kg)	CF-SB-XX(10-12) (µg/kg)	RPD (%)
Ethylbenzene	4400	11000	86
Xylenes(total)	4500	14000	103

calculable

The positive results for ethylbenzene and xylenes(total) were qualified as estimated (J) in samples CF-SB-104(12-13) and CF-SB-XX(10-12) due to the RPDs which exceeded the acceptance criteria of 50% RPD.

Moisture Content

The percent moisture exceeded the control limit of 50% in the following sample: CF-SB-103(20-25) (29.2%). The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-103(20-25).

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
CF-SB-100(3-5)	n Level analysis and 10-fold dilution was performed. QLs elevated by factor of 1000.	extract volume of 2 ml and 25-fold dilution performed. QLs elevated by factor of 100.
CF-SB-100(8-10)	n Level analysis and 10-fold dilution was performed. QLs elevated by factor of 1000.	NA
CF-SB-101(3-5)	n Level analysis and 20-fold dilution was performed. QLs elevated by factor of 2000.	extract volume of 5ml and 50-fold dilution performed. QLs elevated by factor of 500.
CF-SB-101(10-11)	n Level analysis and 50-fold dilution was performed. QLs elevated by factor of 5000.	extract volume of 2ml and 100-fold dilution performed. QLs elevated by factor of 400.
CF-SB-102(1-5)	n Level analysis and 20-fold dilution was performed. QLs elevated by factor of 2000.	extract volume of 5ml and 20-fold dilution performed. QLs elevated by factor of 200.
CF-SB-102(10-12)	le was reanalyzed due to poor surrogate and internal standard areas; report original analysis.	extract volume of 2 ml and 10-fold dilution performed. QLs elevated by factor of 40.
CF-SB-103(12-13)	Medium Level analysis performed.	xtract volume of 0.5 ml and 20-fold dilution performed. QLs elevated by factor of 20.
CF-SB-103(20-25)	le was reanalyzed due to poor surrogate and internal standard areas; report original analysis.	NA
CF-SB-104(12-13)	m Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	extract volume of 1ml and 50-fold dilution performed. QLs elevated by factor of 100.
CF-SB-XX(10-12)	m Level analysis and 5-fold dilution was performed. QLs elevated by factor of	extract volume of 2ml and 50-fold dilution performed. QLs elevated by factor of 200.

Sample	VOC Analysis Reported	SVOC Analysis Reported
	500.	
CF-SB-105(12-13)	Medium Level analysis performed.	extract volume of 2 ml and 20-fold dilution performed. QLs elevated by factor of 80.
CF-SB-106(12-13)	Medium Level analysis performed.	extract volume of 1 ml and 20-fold dilution performed. QLs elevated by factor of 40.
CF-SB-106(15-17)	le was reanalyzed due to poor surrogate recoveries; report original analysis.	NA

NR- Dilution/reanalysis not required
NA- Not applicable

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

The laboratory was unable to determine the inflection point between benzo(b)fluoranthene and benzo(k)fluoranthene. In cases where both compounds were detected in a sample, the laboratory reported the result as total benzo(b)fluoranthene. The positive results for benzo(b)fluoranthene and nondetect results for benzo(k)fluoranthene were estimated (J/UJ) in the affected samples CF-SB-100(8-10), CF-SB-101(3-5), CF-SB-101(15-16), CF-SB-103(12-13), CF-SB-105(12-13) and CF-SB-106(12-13).

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206537
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-107(9-10)	206537-01	Metals, Cyanide
CF-SB-107(12-13)	206537-02	Metals, Cyanide
CF-SB-107(15-18)	206537-03	Metals, Cyanide
CF-SB-108(13-15)	206537-05	Metals, Cyanide
CF-SB-108(20-25)	206537-06	Metals, Cyanide
CF-SB-109A(12-15)	206537-07	Metals, Cyanide
CF-SB-109A(20-25)	206537-08	Metals, Cyanide
CF-SB-110(10-15)	206537-09	Metals, Cyanide
CF-SB-110(15-16)	206537-10	Metals, Cyanide
CF-SB-110(23-25)	206537-12	Metals, Cyanide
CF-SB-109A(15-20)	206537-13	Metals, Cyanide
CF-SB-111(15-17.5)	206537-14	Metals, Cyanide
CF-SB-112(16-20)	206537-16	Metals, Cyanide
CF-SB-113(15-15.5)	206537-18	Metals, Cyanide
CF-SB-113(20-25)	206537-19	Metals, Cyanide
CF-SB-114A(13-14)	206537-20	Metals, Cyanide

Associated QC Samples:	Field/Trip Blanks:	None associated
	Field Duplicate pair:	None associated

The above-listed samples were collected on May 6, 7, 10, and 11, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation

*	• Instrument Calibration
	• Contract Required Detection Limit (CRDL) Standard Recoveries
	• Blank Analysis Results
	• Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
*	• Matrix Spike (MS) Results
*	• Laboratory Duplicate Results
NA	• Field Duplicate Results
*	• Laboratory Control Sample (LCS) Results
*	• ICP Serial Dilution Analysis Results
	• Moisture Content
	• Detection Limits Results
	• Sample Quantitation Results

* - All criteria were met for this parameter.
NA - A field duplicate pair was not submitted with this sample set.

Overall Evaluation of Data and Potential Usability Issues

The direction of bias cannot be determined due to the conflicting low recoveries in the MS/MSD analyses.

All results are usable for project objectives. Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-107(15-18), CF-SB-109A(20-25), and CF-SB-113(20-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive result for mercury in sample CF-SB-108(13-15) was qualified as estimated (J) as the result was above the instrument calibration range. This result is usable for project objectives as an estimated value which may have a minor effect on the data usability.

- The positive and nondetect results for arsenic in samples CF-SB-107(15-18), CF-SB-109A(20-25), CF-SB-110(23-25), CF-SB-109A(15-20), CF-SB-111(15-17.5), CF-SB-112(16-20), CF-SB-113(15-15.5), and CF-SB-113(20-25) were qualified as estimated (J/UJ) due to recovery in the CRDL standard analyses which was below the control limits. The results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive results for lead in samples CF-SB-107(15-18), CF-SB-108(20-25), CF-SB-

110(23-25), CF-SB-111(15-17.5), and CF-SB-113(20-25) were qualified as estimated (J) due to recovery in the CRDL standard analyses which was above the control limits. The results may be biased high. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The results for silver in samples CF-SB-107(9-10), CF-SB-108(13-15), CF-SB-109A(12-15), and CF-SB-110(10-15) were qualified as nondetect (U) due to laboratory contamination detected below the reporting limit (RL). The results can be used for project objectives as elevated quantitation limits. This qualification may have a minor impact on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

All criteria were met.

CRDL Standard Recoveries

The following table lists the recoveries which were outside the control limits in the low level standard and the resulting validation actions. Based on Region II validation guidelines, the affected analyte level range is determined by the true value of the low level standard ± 2x the standard.

Analyte	Recovery (%)	Associated Samples	Actions
Arsenic	70	All samples	Estimate (J/UJ) the positive and nondetect results for arsenic in samples CF-SB-107(15-18), CF-SB-109A(20-25), CF-SB-110(23-25), CF-SB-109A(15-20), CF-SB-111(15-17.5), CF-SB-112(16-20), CF-SB-113(15-15.5), and CF-SB-113(20-25).
Lead	123	All samples	Estimate (J) the positive results for lead in samples CF-SB-107(15-18), CF-SB-108(20-25), CF-SB-110(23-25), CF-SB-111(15-17.5), and CF-SB-113(20-25).

Blank Analysis Results

A field blank was not submitted with this sample set; no validation action was taken on this basis.

All total metals instrument and method blank results were found to be less than the CRDL or reporting limit (RL).

Sample results were reported down to the method detection limit. As low level contamination was detected in method and instrument blanks, technical judgement was used to evaluate the possible laboratory contamination as follows:

For positive contamination,
If the positive sample value was > the IDL and < the Action Level, qualify the result as a nondetect (U) at the reported concentration.
If the positive sample value was > the IDL and > the Action Level, report the value unqualified.

The following table summarizes the blank contaminants detected in the laboratory blanks and associated action levels.

Analyte	Maximum Concentration	Action Level (mg/kg)	Validation Actions
Silver	(1.5 ug/L) 0.375mg/kg	1.875	(U) CF-SB-107(9-10), CF-SB-108(13-15), CF-SB-109A(12-15), and CF-SB-110(10-15)

ICP ICS Results

The following table lists the analytes recovered outside of control limits in the ICSAB analysis.

Analyte	Recovery (%)	Associated Samples	Validation Actions
Selenium	75, 78	All samples	No actions required; sample interferent levels were less than 50% those of the ICSAB.

Positive results were observed for cadmium and negative results were observed for selenium in the ICSA solution analysis associated with all samples The levels of interferents in samples were reviewed. Validation actions were not required as sample interferent levels were less than 50% those in the ICSA solution.

MS Results

Batch QC MS results (performed on a non-project sample) were reported for the ICP analyses.

Arsenic (129%) was recovered above the control limits; however validation action was not taken due to differences in sample type, matrix, etc. The MS performed on sample CF-SB-120(10-15) (reported in 206586) was used for the MS evaluation of this sample group. Lead was recovered outside of control limits; however as the sample level was greater than 4xspike level validation action was not required.

An MS analysis was performed on project sample CF-SB105(27-30) (reported in 206497) for the mercury analyses. All criteria were met. An MS analysis was performed on project sample CF-SB-107(9-10) for the cyanide analyses. Cyanide was recovered outside of control limits; however as the sample level was greater than 4xspike level, validation action was not required.

Laboratory Duplicate Results

Batch QC laboratory duplicate results (performed on a non-project sample) were reported for the ICP analyses. All criteria were met. The laboratory duplicate performed on sample CF-SB-120(10-15) (reported in 206586) was used for the evaluation of this sample group. A laboratory duplicate analysis was performed on project sample CF-SB105(27-30) (reported in 206497) for the mercury analyses. A laboratory duplicate was performed on project sample CF-SB-107(9-10) for the cyanide analyses. Criteria were met in all duplicate analyses.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

Batch QC ISD results (performed on a non-project sample) were reported for the ICP analyses. All criteria were met. The ISD performed on sample CF-SB-120(10-15) (reported in 206586) was used for the evaluation of this sample group. All criteria were met.

Moisture Content

The percent moisture exceeded the control limit of 50% in the following samples: CF-SB-107(15-18) (67.9%), CF-SB-109A(20-25) (66%), and CF-SB-113(20-25) (56.9%). The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-107(15-18), CF-SB-109A(20-25), and CF-SB-113(20-25).

Detection Limits Results

All detection limits were found to be less than or equal to the project-required quantitation limits. The laboratory reported the cyanide results down to 0.5 ug/L. However, the laboratory reported laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

The positive result for mercury in sample CF-SB-108(13-15) was qualified as estimated (J) as the result was above the instrument calibration range.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206537
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-107(9-10)	206537-01	BTEX, PAH
CF-SB-107(12-13)	206537-02	BTEX, PAH
CF-SB-107(15-18)	206537-03	BTEX, PAH
TB-050704	206537-04	BTEX
CF-SB-108(13-15)	206537-05	BTEX, PAH
CF-SB-108(20-25)	206537-06	BTEX, PAH
CF-SB-109A(12-15)	206537-07	BTEX, PAH
CF-SB-109A(20-25)	206537-08	BTEX, PAH
CF-SB-110(10-15)	206537-09	BTEX
CF-SB-110(15-16)	206537-10	BTEX
CF-SB-110(19.5-20)	206537-11	BTEX
CF-SB-110(23-25)	206537-12	BTEX, PAH
CF-SB-109A(15-20)	206537-13	BTEX, PAH
CF-SB-111(15-17.5)	206537-14	BTEX, PAH
CF-SB-112(13-14)	206537-15	BTEX
CF-SB-112(16-20)	206537-16	BTEX, PAH
CF-SB-113(14.5-15)	206537-17	BTEX
CF-SB-113(20-25)	206537-19	BTEX, PAH
CF-SB-114A(13-14)	206537-20	BTEX, PAH
Associated QC Samples:	Field/Trip Blanks:	TB-050704
	Field Duplicate pair:	None associated

The above listed samples were collected on May 6, 7, 10, and 11, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.
The organic data were evaluated based on the following parameters:

*	•	Data Completeness
*	•	Holding Times and Sample Preservation
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	•	Initial and Continuing Calibrations
*	•	Blanks
	•	Surrogate Recoveries
	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	•	Internal Standards
*	•	Laboratory Control Sample (LCS) Results
NA	•	Field Duplicate Results
	•	Moisture Content
	•	Quantitation Limits and Data Assessment
*	•	Sample Quantitation and Compound Identification

* - All criteria were met.

NA - A field duplicate was not associated with this sample group.

All results are usable for project objectives.

VOC

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for ethylbenzene and xylenes in samples CF-SB-107(9-10) and CF-SB-109A(20-25) and toluene, ethylbenzene, and xylenes in samples CF-SB-108(20-25) and benzene, toluene, ethylbenzene, and xylenes in samples CF-SB-107(15-18) were qualified as estimated (J) due to high surrogate recoveries. These results may be biased high. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and nondetect results for toluene, ethylbenzene, and xylenes were qualified as estimated (J/UJ) in sample CF-SB-107(15-18) due to low internal standard area. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-107(15-18), CF-SB-109A(20-25), and CF-SB-113(20-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

SVOC

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for benzo(k)fluoranthene were qualified as estimated (J) in samples CF-SB-107(9-10), CF-SB-107(15-18), CF-SB-108(13-15), and CF-SB-109A(15-20) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-107(15-18), CF-SB-109A(20-25), and CF-SB-113(20-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC initial calibrations are summarized in the following tables.

Instrument ID MSP Compound	IC 5/18/04
enzo(k)fluoranthene	X (17.8%)
Samples Affected	B-107(9-10), 107(15-18), 108(13-15), 110(23-25), 109A(15-20), 113(20-25)

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.

+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for benzo(k)fluoranthene in samples CF-SB-107(9-10), CF-SB-107(15-18), CF-SB-108(13-15), and CF-SB-109A(15-20) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

Blanks

Target compounds were not detected in the VOC and SVOC method blanks and VOC trip blank sample.

A field blank sample was not associated with this sample group.

Surrogate Recoveries

All criteria were met in the SVOC analyses for samples analyzed without dilution.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

ID	Percent Recovery				Action
	d8 37	FM 30	FB L33	CE L34	
107(9-10)	-	-	58%	-	ction required, results were reported from the diluted analysis.
107(9-10)DL	-	-	43%	-	te (J) the positive results for ethylbenzene and xylenes.
107(15-18)	-	-	59%		nate (J) the positive results for benzene, toluene, ethylbenzene, and xylenes.
107(15018)RE	2%	-	60%	-	ction required, results were reported from the original analysis.
108(20-25)	-	-	77%	-	mate (J) the positive results for toluene, ethylbenzene, and xylenes.
108(20-25)RE	7%	-	75%	-	ction required, results were reported from the original analysis.
109A(20-25)	-	-	38%	-	te (J) the positive results for ethylbenzene and xylenes.
111(15-17.5)	-	-	35%	-	ction required, results were reported from the reanalysis which had acceptable surrogate recoveries.
113(20-25)	-	-	54%	-	ction required, results were reported from the reanalysis which had acceptable surrogate recoveries.

- Within control limits

Tol-d8 - Toluene-d8
DBFM - Dibromofluoromethane
BFB - Bromofluorobenzene
DCE - 1,2-Dichloroethane-d4

MS/MSD Results

An MS/MSD analysis was not associated with the VOC analyses. Validation action was not required on this basis.

The laboratory reported batch MS/MSD results performed on a non-project sample for the SVOC analyses. All criteria were met.

Internal Standards

All criteria were met in the SVOC analyses

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	ernal Standard	ea)	Validation Action
F-SB-107(15-18)	chlorobenzene 4-dichlorobenzene	48 0.2	ate (J/UJ) the affected positive and nondetect results.
-SB-107(15-18)RE	chlorobenzene 4-dichlorobenzene	3.8 3.4	erence was confirmed in the reanalyses. Report initial analysis results due to better IS areas.
-SB-108(20-25)RE	chlorobenzene 4-dichlorobenzene	4.1 7.7	erence was confirmed in the reanalyses. Report initial analysis results due to better IS areas.
F-SB-107(9-10)	chlorobenzene 4-dichlorobenzene	2.4 7.5	ation action was not required. Report diluted sample results due to better IS areas.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene
IS 1,4-dichlorobenzene-d4 - No compounds reported

The areas for internal standard 1,4-dichlorobenzene-d4 were below the control limits in samples CF-SB-108(20-25), CF-SB-109A(20-25), CF-SB-110(23-25), CF-SB-107(9-10), CF-SB-111(15-17.5), CF-SB-113(20-25), CF-SB-111(15-17.5)RE, and CF-SB-113(20-25)RE. Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

All criteria were met in the VOC and SVOC analyses.

Field Duplicate Results

A field duplicate pair was not associated with this sample group. Validation action was not required on this basis.

Moisture Content

The percent moisture exceeded the control limit of 50% in the following samples: CF-SB-107(15-

18) (67.9%), CF-SB-109A(20-25) (66%), and CF-SB-113(20-25) (56.9%). The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-107(15-18), CF-SB-109A(20-25), and CF-SB-113(20-25).

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
CF-SB-107(9-10)	was analyzed straight and at 2-fold dilution; 2-fold dilution analysis was reported due to better IS areas.	xtract volume of 2 ml and 2-fold dilution performed. QLs elevated by factor of 8.
CF-SB-107(12-13)	n Level analysis and 5-fold dilution was performed. QLs elevated by factor of 500.	xtract volume of 2 ml and 100-fold dilution performed. QLs elevated by factor of 400.
CF-SB-107(15-18)	was reanalyzed due to poor surrogate and IS areas; report initial analysis.	xtract volume of 1ml. QLs elevated by factor of 2.
CF-SB-108(13-15)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	ld dilution performed.
CF-SB-108(20-25)	was reanalyzed due to poor surrogate and IS areas; report initial analysis.	xtract volume of 2 ml. QLs elevated by factor of 4.
F-SB-109A(12-15)	n Level analysis and 10-fold dilution was performed. QLs elevated by factor of 1000.	xtract volume of 1 ml and 4-fold dilution performed. QLs elevated by factor of 8.
CF-SB-110(10-15)	d dilution was performed.	NR
CF-SB-110(15-16)	n Level analysis and 5-fold dilution was performed. QLs elevated by factor of 500.	xtract volume of 2 ml. QLs elevated by factor of 4.
F-SB-110(19.5-20)	n Level analysis and 10-fold dilution was performed. QLs elevated by factor of 1000.	NR
F-SB-109A(15-20)	n Level analysis was performed. QLs	xtract volume of 2 ml and 10-fold dilution

Sample	VOC Analysis Reported	SVOC Analysis Reported
	elevated by factor of 100.	performed. QLs elevated by factor of 40.
F-SB-111(15-17.5)	was reanalyzed due to poor surrogate and IS areas; report reanalysis.	xtract volume of 1 ml. QLs elevated by factor of 2.
CF-SB-112(13-14)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	NR
F-SB-113(14.4-15)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	NR
CF-SB-113(20-25)	was reanalyzed due to poor surrogate and IS areas; report reanalysis.	xtract volume of 2 ml and 10-fold dilution performed. QLs elevated by factor of 40.
F-SB-114A(13-14)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	xtract volume of 2 ml and 2-fold dilution performed. QLs elevated by factor of 8.
F-SB-109A(20-25)	NR	xtract volume of 2 ml. QLs elevated by factor of 4.
CF-SB-110(23-25)	NR	xtract volume of 2 ml and 5-fold dilution performed. QLs elevated by factor of 20.

NR- Dilution/reanalysis not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206586
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 23, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-114B(15-20)	206586-01	Metals, Cyanide
CF-SB-115(14-15)	206586-02	Metals, Cyanide
CF-SB-115(18-20)	206586-03	Metals, Cyanide
CF-SB-116(12.5-15)	206586-04	Metals, Cyanide
CF-SB-116(19-20)	206586-05	Metals, Cyanide
CF-SB-117(10-12)	206586-06	Metals, Cyanide
CF-SB-117(24-25)	206586-07	Metals, Cyanide
CF-SB-118(32.5-35)	206586-08	Metals, Cyanide
CF-SB-119(17-18.5)	206586-10	Metals, Cyanide
CF-SB-119(25-27.5)	206586-11	Metals, Cyanide
CF-SB-120(10-15)	206586-12	Metals, Cyanide
CF-SB-120(17-18)	206586-13	Metals, Cyanide
CF-SB-120(32.5-35)	206586-14	Metals, Cyanide
CF-SB-XX(18-20)	206586-15	Metals, Cyanide
CF-SB-121(18.0-19.5)	206586-16	Metals, Cyanide
CF-SB-121(33-35)	206586-17	Metals, Cyanide
CF-SB-122(17.5-20)	206586-18	Metals, Cyanide
CF-SB-122(25-27.5)	206586-19	Metals, Cyanide
CF-SB-123(15-17)	206586-20	Metals, Cyanide

Associated QC Samples:	Field/Trip Blanks:	None associated
	Field Duplicate pair:	CF-SB-120(17-18)/CF-SB-XX (18-20)

The above-listed samples were collected on May 11, 12, 13, and 14, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
• Instrument Calibration
• Contract Required Detection Limit (CRDL) Standard Recoveries
* • Blank Analysis Results
• Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
• Matrix Spike (MS) Results
* • Laboratory Duplicate Results
• Field Duplicate Results
* • Laboratory Control Sample (LCS) Results
* • ICP Serial Dilution Analysis Results
• Moisture Content
• Detection Limits Results
* • Sample Quantitation Results

* - All criteria were met for this parameter.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications applied to the data as a result of sampling error are discussed below.

- The positive and nondetect results for mercury in all soil samples were qualified as estimated (J/UJ) due to the relative percent difference (RPD) of this analyte which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-120(17-18) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive results for lead in samples CF-SB-114B(15-20), CF-SB-115(18-20), CF-SB-116(19-20), and CF-SB-119(25-27.5) were qualified as estimated (J) due to recovery in the CRDL standard analyses which was above the control limits. The results may be biased high. These results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The nondetect result for selenium in sample CF-SB-118(32.5-35) was qualified as estimated (UJ) due to low recovery of this analyte in the ICSAB sample. The result may be biased low. This result is usable for project objectives as a nondetect with estimated quantitation limit. This qualification may have a minor impact on the data usability.

- The nondetect results for cyanide in all soil samples were qualified as estimated (UJ) due to recovery in the MS analysis which was below control limits. The results may be biased low. These results are usable for project objectives as nondetects with estimated quantitation limits which may have a minor effect on the data usability.

- The positive results for mercury in samples CF-SB-115(14-15), CF-SB-116(12.5-15), CF-SB-117(10-12), CF-SB-119(17-18.5), CF-SB-120(10-15), CF-SB-120(17-18), CF-SB-XX(18-20), CF-SB-121(18.0-19.5), CF-SB-122(17.5-20), and CF-SB-123(15-17) were qualified as estimated (J) due to recovery in the MS analysis which was above control limits. The results may be biased high. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

Arsenic (112%) was recovered above the control limits of 90-110% in the continuing calibration verification sample CCV8. Validation action was not required as project samples were not bracketed by this QC sample.

CRDL Standard Recoveries

The following table lists the recoveries which were outside the control limits in the low level standard and the resulting validation actions. Based on Region II validation guidelines, the affected analyte level range is determined by the true value of the low level standard ± 2x the standard.

Analyte	Recovery (%)	Associated Samples	Actions

Analyte	Recovery (%)	Associated Samples	Actions
Lead	131	All soil samples	Estimate (J) the positive result for lead in samples CF-SB-114B(15-20), CF-SB-115(18-20), CF-SB-116(19-20), and CF-SB-119(25-27.5).

Blank Analysis Results

All instrument and method blank results were found to be less than the CRDL or reporting limit (RL).

A field blank sample was not associated with this sample group.

ICP ICS Results

The following table lists the analytes recovered outside of control limits in the ICSAB analysis.

Analyte	Recovery (%)	Associated Samples	Validation Actions
Selenium	74	All soil samples	Estimate (UJ) the nondetect results for selenium in sample CF-SB-118(32.5-35) as sample interferent levels were >50% those of the ICSAB.

All ICSA results were found to be less than 2x instrument detection limit (IDL).

MS Results

An MS performed on sample CF-SB-120(10-15) for the metals analyses and on sample SB-115(18-20) for the cyanide analyses. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Mercury	220	Estimate (J) the positive results for mercury in samples CF-SB-115(14-15), CF-SB-116(12.5-15), CF-SB-117(10-12), CF-SB-119(17-18.5), CF-SB-120(10-15), CF-SB-120(17-18), CF-SB-XX(18-20), CF-SB-121(18.0-19.5), CF-SB-122(17.5-20), and CF-SB-123(15-17).
Cyanide	0	Cyanide was recovered within control limits in the post-spike analysis performed on sample CF-SB-115(18-20). Estimate (UJ) the nondetect results for cyanide in all samples.

Professional judgement was used to incorporate the more current USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA 540-R-01-008, July 2002 in order to evaluate the cyanide matrix spike and post-distillation spike recovery. As the post-distillation spike performed exhibited acceptable recovery, the nondetect results for cyanide were estimated (UJ), rather than rejected.

Professional judgement was taken to estimate (J) the positive results for mercury, rather than reject them, as the high recovery was, in part, due to high duplicate precision results.

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on samples CF-SB-120(10-15) for the metals analyses and on sample CF-SB-115(18-20) for the cyanide analyses. All criteria were met.

Field Duplicate Results

Samples CF-SB-120(17-18) and CF-SB-XX(18-20) were submitted as the field duplicate pair with this sample group. The following table summarizes the RPDs of the detected analytes. It should be noted that as the percent solids differed greatly between the two samples, results were evaluated on a wet weight basis.

Analyte	CF-SB-120(17-18)	CF-SB-XX(18-20)	RPD (%)
Arsenic	84	55	41
Barium	344	322	7
Chromium	119	80	40
Lead	1023	1325	26
Mercury	0.53	13.5	186
Silver	1.9	0.9 U	NC, within 2xQL

NC = Not calculable

The positive and nondetect results for mercury were qualified as estimated (J/UJ) in all samples due to the RPD which exceeded the acceptance criteria of 100% RPD.

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

An ICP serial dilution analysis was performed on sample CF-SB-120(10-15). All criteria were met

Moisture Content

The percent moisture exceeded the control limit of 50% in sample CF-SB-120(17-18) (60%). The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-120(17-18).

Detection Limits Results

The laboratory reported the soil cyanide results down to 0.5 ug/L. However, the laboratory reported laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206586
Reviewer: Lisa McDonagh/GEI Consultants
Date: June 29, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-114B(15-20)	206586-01	BTEX, PAH
CF-SB-115(14-15)	206586-02	BTEX
CF-SB-115(18-20)	206586-03	BTEX, PAH
CF-SB-116(12.5-15)	206586-04	BTEX, PAH
CF-SB-116(19-20)	206586-05	BTEX, PAH
CF-SB-117(10-12)	206586-06	BTEX
CF-SB-117(24-25)	206586-07	BTEX, PAH
CF-SB-118(32.5-35)	206586-08	BTEX, PAH
TB051204	206586-09	BTEX
CF-SB-119(17-18.5)	206586-10	BTEX, PAH
CF-SB-119(25-27.5)	206586-11	BTEX, PAH
CF-SB-120(10-15)	206586-12	BTEX, PAH
CF-SB-120(17-18)	206586-13	BTEX, PAH
CF-SB-120(32.5-35)	206586-14	BTEX, PAH
CF-SB-XX(18-20)	206586-15	BTEX, PAH
CF-SB-121(18.0-19.5)	206586-16	BTEX
CF-SB-121(33-35)	206586-17	BTEX, PAH
CF-SB-122(17.5-20)	206586-18	BTEX, PAH
CF-SB-122(25-27.5)	206586-19	BTEX, PAH
CF-SB-123(15-17)	206586-20	BTEX, PAH

Associated QC Samples:	Field/Trip Blanks:	TB051204
	Field Duplicate pair:	CF-SB-120(17-18)/CF-SB-XX(18-20)

The above listed samples were collected on May 11, 12, 13 and 14, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic

Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
  • Initial and Continuing Calibrations
  • Blanks
  • Surrogate Recoveries
  • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
  • Internal Standards
  • Laboratory Control Sample (LCS) Results
  • Field Duplicate Results
  • Moisture Content
  • Quantitation Limits and Data Assessment
  • Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

VOC

Qualifications applied to the data as a result of sampling error are discussed below.

- The positive results for benzene, toluene, ethylbenzene and xylenes(total) were qualified as estimated (J) in samples CF-SB-120(17-18) and CF-SB-XX(18-20) due to the relative percent differences (RPDs) of these analytes which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for ethylbenzene and xylenes in sample CF-SB-116(19-20) and benzene, toluene, ethylbenzene, and xylenes in sample CF-SB-122(25-27.5) were qualified as estimated (J) due to high surrogate recoveries. These results may be biased high. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive results for the volatile compounds, ethylbenzene and xylenes(total) for sample CF-SB-120(10-15) were qualified as estimated (J) due to matrix spike nonconformances. The direction of the bias cannot be determined from these nonconformances. The results are usable for project objectives as estimated values or quantitation limits which may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-120(17-18) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

SVOC

Qualifications applied to the data as a result of sampling error are discussed below.

- The positive results for naphthalene, 2-methylnaphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were qualified as estimated (J) in samples CF-SB-120(17-18) and CF-SB-XX(18-20) due to the relative percent differences (RPDs) of these analytes which exceeded the acceptance criteria in the evaluation of the field duplicate pair. The direction of the bias cannot be determined from this nonconformance. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene were qualified as estimated (J) in samples CF-SB-120(10-15), CF-SB-121(33-35) and CF-SB-122(17.5-20) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated

values. This qualification may have a minor impact on the data usability.

- The positive results for naphthalene in samples CF-SB-120(32.5-35), CF-SB-121(33-35) and CF-SB-119(25-27.5), phenanthrene in samples CF-SB-120(32.5-35) and CF-SB-122(25-27.5) and fluoranthene in sample CF-SB-122(25-27.5) were qualified as nondetect (U) due to method blank contamination.

- The positive results for the semivolatile compounds, naphthalene, 2-methylnaphthalene, acenaphthene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene for sample CF-SB-120(10-15) were qualified as estimated (J) due to matrix spike nonconformances. The direction of the bias cannot be determined from these nonconformances. The results are usable for project objectives as estimated values or quantitation limits which may have a minor impact on the data usability.

- The positive and/or nondetect results for naphthalene were qualified as estimated (J/UJ) in the samples CF-SB-114B(15-20), CF-SB-115(18-20), CF-SB-116(12.5-15), CF-SB-116(19-20), CF-SB-117(24-25) and CF-SB-118(32.5-35) due to low recoveries of these analytes in the LCS. These results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive result for anthracene was qualified as estimated (J) in the samples CF-SB-122(27-27.5), CF-SB-120(10-15), CF-SB-120(17-18), CF-SB-XX(18-20) and CF-SB-123(15-17) due to high recoveries of the analyte in the LCS. These results may be biased high. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-120(17-18) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

All results were found to be usable.

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC initial and continuing calibrations are summarized in the following tables.

Instrument ID MSP Compound	IC 5/20/04
ndeno(1,2,3-cd)pyrene	X (19.2%)
libenzo(a,h)anthracene	X (18.9%)
benzo(g,h,i)perylene	X (16.2%)
Samples Affected	F-SB-119(25-27.5), CF-SB-120(10-15), F-SB-120(32.5-35), CF-SB-121(33-35) F-SB-122(17.5-20), F-SB-122(25-27.5)

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R4) nondetect results.

+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive results for indeno(1,2,3-cd)pyrene, dibenzo(a,h)anthracene and benzo(g,h,i)perylene in samples CF-SB-120(10-15), CF-SB-121(33-35) and CF-SB-122(17.5-20) were estimated (J) due to initial calibration nonconformances. Validation actions were not required for the remaining samples due to initial calibration nonconformances as the results were nondetect.

Blanks

Target compounds were not detected in the VOC method blanks and trip blank sample.

A field blank sample was not associated with this sample group.

The following table summarizes the SVOC method blank contamination.

nd	e of Blank	Associated Samples	aximum Concentratio n	ıction Level
alene threne thene	Method blank	F-SB-120(10-15), CF-SB-120(32.5-35), CF-SB-122(25-27.5)	34 ug/Kg 14 ug/Kg 35 ug/Kg	70 ug/Kg 20 ug/Kg 75 ug/Kg
alene threne thene	Method blank	F-SB-120(17-18), CF-SB-XX(18-20), CF-SB-123(15-17)	34 ug/kg 39 ug/kg 33 ug/kg	70 ug/kg 95 ug/kg 65 ug/kg
alene	Method blank	F-SB-119(25-27.5), CF-SB-121(33-35), CF-SB-122(17.5-20)	03 ug/kg	20 ug/kg
alene	Method blank	CF-SB-119(17-18.5)	55 ug/kg	75 ug/kg

Blank Actions

If the sample concentration ≤ QL and ≤ blank action level, qualify the result as not detected (U) at the QL.
If the sample concentration > QL and ≤ blank action level, qualify the result as not detected (U) at the reported value.
If the sample concentration > blank action level, report the value unqualified.

Based on the action levels determined and the analyses which were reported, the following results were qualified as nondetect (U) due to method blank contamination: naphthalene in samples CF-SB-120(32.5-35), CF-SB-121(33-35) and CF-SB-119(25-27.5), phenanthrene in samples CF-SB-120(32.5-35) and CF-SB-122(25-27.5) and fluoranthene in sample CF-SB-122(25-27.5).

Surrogate Recoveries

All criteria were met in the SVOC analyses for samples analyzed without dilution.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

ID	Percent Recovery				Action
	d8 37	:M 30	:B L33	:E L34	
-116(19-20)	-	-	40%	-	te (J) the positive results for ethylbenzene and xylenes.
-122(25-27.5)	-	-	36%	-	nate (J) the positive results for benzene, toluene, ethylbenzene and xylenes.

- Within control limits

Tol-d8 - Toluene-d8
DBFM - Dibromofluoromethane
BFB - Bromofluorobenzene
DCE - 1,2-Dichloroethane-d4

MS/MSD Results

MS/MSD analyses were performed on sample CF-SB-120(10-15) for the VOC and SVOC analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	S/MSD %R	D	Limits	Action
ethylbenzene	70, 123	23	4-117, <20	Estimate (J) the positive results.
xylenes(total)	153, -	27	3-116, <20	
naphthalene	-55, 1	-	60-140	Estimate (J) the positive results.
2-methylnaphthalene	21, 49	-	60-140	
acenaphthene	38, 164	44	2-105, <40	
phenanthrene	204, 117	45	7-110, <40	
anthracene	3, 170	41	0-140, <40	
fluoranthene	29, 167	-	60-140	
pyrene	88, 205	44	0-140, <40	
benzo(a)anthracene	30, 153	-	60-140	
chrysene	45, 168	-	69-114	
benzo(b)fluoranthene	52, -	-	60-140	
benzo(k)fluoranthene	43, 159	65	1-129, <40	
benzo(a)pyrene	33, 149	42	9-111, <40	
fluorene	-, 126	-	65-105	Estimate (J) the positive results.
ndeno(1,2,3-cd)pyrene	-, 140	-	58-118	
libenzo(a,h)anthracene	-, 120	-	58-119	
benzo(g,h,i)perylene	-, 138	-	58-118	

- Within control limits-

Internal Standards

All criteria were met in the SVOC analyses

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	nternal Standard	:a)	Validation Action
CF-SB-116(19-20)	4-dichlorobenzene-d4	29	cation not required. Compounds reported were not associated with the internal standard.
CF-SB-122(25-27.5)	4-dichlorobenzene-d4	28	cation not required. Compounds reported were not associated with the internal standard.
CF-SB-120(10-15)	4-dichlorobenzene-d4	42	cation not required. Compounds reported were not associated with the internal standard.
F-SB-120(10-15)MS	4-dichlorobenzene-d4	42	cation not required. Compounds reported were not associated with the internal standard.
-SB-120(10-15)MSD	chlorobenzene-d5	49	Qualification not required. QC sample.
-SB-120(10-15)MSD	4-dichlorobenzene-d4	37	cation not required. Compounds reported were not associated with the internal standard.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene
IS 1,4-dichlorobenzene-d4 - No compounds reported

The areas for internal standard 1,4-dichlorobenzene-d4 were below the control limits in samples CF-SB-116(19-20), CF-SB-122(25-27.5), CF-SB-120(10-15), CF-SB-120(10-15)MS and CF-SB-120(10-15)MSD. Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

All criteria were met in the VOC analyses.

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions in the SVOC analyses.

Compound	overy	l Limits	ssociated Samples	Actions
naphthalene	59%	)-140	CF-SB-114B(15-20), CF-SB-115(18-20), CF-SB-116(12.5-15), CF-SB-116(19-20), CF-SB-117(24-25), CF-SB-118(32.5-35)	nate (J/UJ) the positive and nondetect results.
anthracene	10%	7-107	CF-SB-122(27-27.5), CF-SB-120(10-15), CF-SB-120(17-18), CF-SB-XX(18-20), CF-SB-123(15-17)	nate (J) the positive results.

* Validation action was not required; reanalysis results were reported.

Field Duplicate Results

The field duplicate pair of CF-SB-120(17-18) and CF-SB-XX(18-20) was submitted with this sample group. It should be noted that as the percent solids differed greatly between the two samples.

The field duplicate pair of CF-SB-120(17-18) and CF-SB-XX(18-20) was submitted with this sample group. The following table lists the VOC and SVOC %RPDs found outside of the control limit of 50% or +/-2x quantitation limit (QL) for levels <5xQL. The direction of the bias cannot be determined by these nonconformances.

Compound	F-SB-120(17-18) (µg/kg)	CF-SB-XX(18-20) (µg/kg)	RPD (%)
Benzene	6,800	2,600	89
Toluene	18,000	6,100	99
Ethylbenzene	38,000	11,000	110
Xylenes(total)	89,000	27,000	106
Naphthalene	1,400,000	1,300,000	166
2-Methylnaphthalene	2,700,000	650,000	122
Acenaphthylene	960,000	110,000	159
Acenaphthene	2,200,000	410,000	137
Fluorene	2,000,000	280,000	151
Phenanthrene	7,400,000	990,000	153
Anthracene	2,600,000	300,000	159
Fluoranthene	4,500,000	390,000	168
Pyrene	3,800,000	480,000	155
Benzo(a)anthracene	1,700,000	200,000	158
Chrysene	1,800,000	210,000	158
Benzo(b)fluoranthene	1,200,000	110,000	166
Benzo(k)fluoranthene	1,000,000	100,000	164
Benzo(a)pyrene	1,500,000	140,000	166
Indeno(123-cd)pyrene	790,000	690,000	168
Benzo(g,h,i)perylene	780,000	67,000	168
Incalculable			

The positive results for benzene, toluene, ethylbenzene, xylenes(total), naphthalene, 2-methylnaphthalene, acenaphthylene, acenaphthene, fluorene, phenanthrene, anthracene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene,

benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene and benzo(g,h,i)perylene were qualified as estimated (J) in samples CF-SB-120(17-18) and CF-SB-XX(18-20) due to the RPDs which exceeded the acceptance criteria of 50%RPD.

Moisture Content

The percent moisture exceeded the control limit of 50% in the following samples: CF-SB-120(17-18) (60%). The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-120(17-18).

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
CF-SB-115(14-15)	n level analysis performed. vated by factor of 100.	NR
116(12.5-15)	n level analysis performed. vated by factor of 100.	xtract volume of 0.5 ml and 8-fold dilution performed. QL elevated by factor of 8.
CF-SB-117(10-12)	n level analysis performed. vated by factor of 100.	NR
119(17-18.5)	n level analysis and 10-fold dilution was performed. QL elevated by factor of 1000.	xtract volume of 1.0 ml and 25-fold dilution performed. QL elevated by factor of 50.
CF-SB-120(10-15)	NR	xtract volume of 1.0 ml and 2-fold dilution performed. QL elevated by factor of 4.
CF-SB-120(17-18)	n level analysis and 10-fold dilution was performed. QL elevated by factor of 1000.	xtract volume of 2 ml and 1000-fold dilution performed. QLs elevated by factor of 4000.
CF-SB-XX(18-20)	n level analysis and 10-fold dilution was performed. QL elevated by factor of 1000.	extract volume of 1 ml and 250-fold dilution performed. QL elevated by factor of 500.

Sample	VOC Analysis Reported	SVOC Analysis Reported
F-SB-121(18-19.5)	n level analysis and 10-fold dilution was performed. QL elevated by factor of 1000.	NR
122(17.5-20)	n level analysis performed. vated by factor of 100.	xtract volume of 2 ml and 200-fold dilution performed. QL elevated by factor of 800.
CF-SB-123(15-17)	n level analysis and 5-fold dilution was performed. QLs elevated by factor of 500.	xtract volume of 1 ml and 25-fold dilution performed. QL elevated by factor of 50.

NR- Dilution/reanalysis not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206618
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-123(27-30)	206618-01	Metals, Cyanide
FB-051304	206618-02	Metals, Cyanide
CF-SB-124(13-15)	206618-04	Metals, Cyanide
CF-SB-124(35-40)	206618-05	Metals, Cyanide
CF-SB-125(20-21)	206618-06	Metals, Cyanide
CF-SB-125(30-35)	206618-07	Metals, Cyanide
CF-SB-126(20-22)	206618-08	Metals, Cyanide
CF-SB-126A(33-34)	206618-09	Metals, Cyanide
CF-SB-126A(43-44)	206618-10	Metals, Cyanide
CF-SB-127(19-20)	206618-11	Metals, Cyanide
CF-SB-127(40-45)	206618-12	Metals, Cyanide
CF-SB-128(17-18)	206618-13	Metals, Cyanide
CF-SB-128(33-35)	206618-14	Metals, Cyanide
CF-SB-129(18-20)	206618-15	Metals, Cyanide
CF-SB-129(25-30)	206618-16	Metals, Cyanide

Associated QC Samples:	Field/Trip Blanks:	FB-051304
	Field Duplicate pair:	None associated

The above-listed samples were collected on May 13, 14, 17, and 18, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Instrument Calibration

- Contract Required Detection Limit (CRDL) Standard Recoveries
* • Blank Analysis Results
- Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
- Matrix Spike (MS) Results
* • Laboratory Duplicate Results
NA • Field Duplicate Results
* • Laboratory Control Sample (LCS) Results
* • ICP Serial Dilution Analysis Results
- Moisture Content
- Detection Limits Results
- Sample Quantitation Results

* - All criteria were met for this parameter.
NA - A field duplicate pair was not submitted with this sample set.

Overall Evaluation of Data and Potential Usability Issues

The direction of bias cannot be determined due to the conflicting low recoveries in the MS/MSD analyses.

All results are usable for project objectives. Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-125(30-35) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive result for mercury in sample CF-SB-126(20-22) was qualified as estimated (J) as the result was above the instrument calibration range. This result is usable for project objectives as an estimated value which may have a minor effect on the data usability.

- The positive result for lead in sample CF-SB-127(40-45) was qualified as estimated (J) due to recovery in the CRDL standard analyses which was above the control limits. The result may be biased high. The result can be used for project objectives as an estimated value. This qualification may have a minor impact on the data usability.

- The nondetect result for selenium in sample CF-SB-124(13-15) was qualified as estimated (UJ) due to low recovery of this analyte in the ICSAB sample. The result may be biased low. This result is usable for project objectives as a nondetect with estimated quantitation limit. This qualification may have a minor impact on the data usability.
- The positive and nondetect results for arsenic and chromium in all soil samples were qualified as estimated (J/UJ) due to recoveries in the MS analyses which were below control limits.

The results may be biased low. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor effect on the data usability.

- The positive results for mercury in samples CF-SB-124(13-15), CF-SB-126(20-22), CF-SB-127(19-20), CF-SB-128(17-18), and CF-SB-129(18-20) and the lead results in all soil samples were qualified as estimated (J) due to recoveries in the MS analyses which were above control limits. The results may be biased high. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

Arsenic (112%) was recovered above the control limits of 90-110% in the continuing calibration verification sample, CCV8. Validation action was not required as project samples were not bracketed by this QC sample.

CRDL Standard Recoveries

The following table lists the recoveries which were outside the control limits in the low level standard and the resulting validation actions. Based on Region II validation guidelines, the affected analyte level range is determined by the true value of the low level standard ± 2x the standard.

Analyte	Recovery (%)	Associated Samples	Actions
Lead	131	All soil samples	Estimate (J) the positive result for lead in sample CF-SB-127(40-45).

Blank Analysis Results

All instrument and method blank results were found to be less than the CRDL or quantitation limit (QL).

Target analytes were not detected in the field blank sample.

ICP ICS Results

The following table lists the analytes recovered outside of control limits in the ICSAB analysis.

Analyte	Recovery (%)	Associated Samples	Validation Actions
Selenium	79	FB-051304	No actions required; sample interferent levels were less than 50% those of the ICSAB.
Selenium	74	All soil samples	Estimate (UJ) the nondetect result for selenium sample CF-SB-124(13-15) due to sample interferent level >50.

Positive results were observed for cadmium, chromium, and lead in the ICSA solution analysis associated with sample FB-051304. The levels of interferents in samples were reviewed. Validation actions were not required as sample interferent levels were less than 50% those in the ICSA solution.

MS Results

Batch QC MS results (performed on a non-project samples) were reported for the cyanide analyses. All criteria were met.

Batch QC MS results (performed on a non-project sample) were reported for the mercury analyses. The MS performed on sample CF-SB-120(10-15) (reported in 206586) was used for the evaluation of this sample group. Mercury (220%) was recovered above the control limits in this MS analysis. Professional judgement was taken to estimate (J) the positive results for mercury in samples CF-SB-124(13-15), CF-SB-126(20-22), CF-SB-127(19-20), CF-SB-128(17-18), and CF-SB-129(18-20), rather than reject them, as the high recovery was due, in part, due to high duplicate precision results.

The laboratory performed an MS on sample CF-SB-123(27-30) for the ICP metals analyses. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Arsenic	73	Estimate (J/UJ) the positive and nondetect results for arsenic in all soil samples.
		Estimate (J/UJ) the positive and nondetect results for chromium in all soil

Analyte	Recovery (%)	Actions
Chromium	68	samples.
Lead	148	Estimate (J) the positive results for lead in all soil samples.

Laboratory Duplicate Results

Batch QC laboratory duplicate results (performed on a non-project samples) were reported for the cyanide analyses. Batch QC laboratory duplicate results (performed on a non-project sample) were reported for the mercury analyses. The duplicate performed on sample CF-SB-120(10-15) (reported in 206586) was used for the evaluation of this sample group. The laboratory performed a laboratory duplicate on sample CF-SB-123(27-30) for the ICP metals analyses. Criteria were met in all duplicate analyses.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

An ICP serial dilution analysis was performed on sample CF-SB-123(27-30). All criteria were met.

Moisture Content

The percent moisture exceeded the control limit of 50% in sample CF-SB-125(30-35) (57.7%). The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-125(30-35).

Detection Limits Results

All detection limits were found to be less than or equal to the project-required quantitation limits. The laboratory reported the cyanide results down to 0.5 ug/L. However, the laboratory reported laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

The positive result for mercury in sample CF-SB-126(20-22) was qualified as estimated (J) as the result was above the instrument calibration range.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206618
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-123(27-30)	206618-01	BTEX, PAH
FB-051304	206618-02	BTEX, PAH
TB-051404	206618-03	BTEX
CF-SB-124(13-15)	206618-04	BTEX
CF-SB-124(35-40)	206618-05	BTEX, PAH
CF-SB-125(20-21)	206618-06	BTEX
CF-SB-125(30-35)	206618-07	BTEX, PAH
CF-SB-126(20-22)	206618-08	BTEX
CF-SB-126A(33-34)	206618-09	BTEX, PAH
CF-SB-126A(43-44)	206618-10	BTEX, PAH
CF-SB-127(19-20)	206618-11	BTEX
CF-SB-127(40-45)	206618-12	BTEX, PAH
CF-SB-128(17-18)	206618-13	BTEX, PAH
CF-SB-128(33-35)	206618-14	BTEX, PAH
CF-SB-129(18-20)	206618-15	BTEX, PAH
CF-SB-129(25-30)	206618-16	BTEX, PAH
TB-051804	206618-17	BTEX

Associated QC Samples:	Field/Trip Blanks:	FB-051304, TB-051404, TB-051804
	Field Duplicate pair:	None associated

The above listed samples were collected on May 13, 14, 17, and 18, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

*	•	Data Completeness
	•	Holding Times and Sample Preservation
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
*	•	Initial and Continuing Calibrations
*	•	Blanks
	•	Surrogate Recoveries
	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	•	Internal Standards
	•	Laboratory Control Sample (LCS) Results
NA	•	Field Duplicate Results
	•	Moisture Content
	•	Quantitation Limits and Data Assessment
	•	Sample Quantitation and Compound Identification

* - All criteria were met.
NA - A field duplicate was not associated with this sample set.

All results are usable for project objectives.

VOC

Qualifications applied to the data as a result of sampling error are discussed below.

- The nondetect results for sample TB-051404 were qualified as estimated (UJ) due to sample headspace. The results may be biased low. The results can be used for project objectives as nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for toluene, ethylbenzene, and xylenes in samples CF-SB-124(13-15), CF-SB-125(30-35), and CF-SB-129(25-30) were qualified as estimated (J) due to high surrogate recoveries. These results may be biased high. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive result for toluene in sample CF-SB-129(25-30) was qualified as estimated (J) due to high LCS recovery. This result may be biased high. The result can be used for project objectives as an estimated value. This qualification may have a minor impact on the data usability.

- The positive and nondetect results for toluene, ethylbenzene, and xylenes were qualified as estimated (J/UJ) in samples CF-SB-124(13-15) and CF-SB-125(30-35) due to low internal standard area. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-125(30-35) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

SVOC

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-125(30-35) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive result for benzo(b)fluoranthene and nondetect result for benzo(k)fluoranthene were qualified as estimated (J/UJ) in sample CF-SB-129(18-20) as the laboratory could not determine the inflection point between the two compound peaks. The combined compound results were reported as total benzo(b)fluoranthene. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

All results were found to be usable.

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

The cooler temperature upon receipt at the laboratory was 10 degrees Celsius. Validation action was not required as the cooler temperature did not exceed 10 degrees.

The laboratory noted that a headspace was present in VOC sample TB-051404. The nondetect results for sample TB-051404 were estimated (UJ).

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC and SVOC analyses.

Blanks

Target compounds were not detected in the VOC and SVOC method blanks.

Target compounds were not detected in the field and trip blank samples.

Surrogate Recoveries

All criteria were met in the SVOC analyses for samples analyzed without dilution.

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

ID	Percent Recovery				Action
	d8 37	-M 30	-B L33	:E L34	
-124(13-15)	-	-	94%	-	mate (J) the positive results for toluene, ethylbenzene, and xylenes.

-125(30-35)	-	-	52%	-	mate (J) the positive results for toluene, ethylbenzene, and xylenes.
29(25-30)	-	-	39%	-	mate (J) the positive results for toluene, ethylbenzene, and xylenes.

- Within control limits

Tol-d8 - Toluene-d8
DBFM - Dibromofluoromethane
BFB - Bromofluorobenzene
DCE - 1,2-Dichloroethane-d4

MS/MSD Results

An MS/MSD analysis was not associated with the VOC analyses. Validation action was not required on this basis.

The laboratory reported batch MS/MSD results performed on a non-project sample for the SVOC analyses. All criteria were met.

Internal Standards

All criteria were met in the SVOC analyses

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	ernal Standard	ea)	Validation Action
F-SB-124(13-15)	chlorobenzene 4-dichlorobenzene	5.3 4.6	ate (J/UJ) the affected positive and nondetect results.
F-SB-125(30-35)	chlorobenzene 4-dichlorobenzene	4.3 1.1	ate (J/UJ) the affected positive and nondetect results.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene
IS 1,4-dichlorobenzene-d4 - No compounds reported

The area for internal standard 1,4-dichlorobenzene-d4 was below the control limits in sample CF-SB-129(25-30). Validation action was not required on this basis, as no reported compounds were quantitated from this internal standard.

LCS Results

All criteria were met in the SVOC analyses.

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions in the VOC analyses.

ompound	overy %)	l Limits	ociated Samples	Actions
toluene	114	2-113	-126A(33-34), CF-SB-126A(43-44), CD-SB-127(40-45), CF-SB-128(33-35), CF-SB-129(25-30)	mate (J) the positive result for toluene in sample CF-SB-129(25-30); validation action was not required for the remaining samples as results were nondetect and therefore not affected by the potential high bias.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

Moisture Content

The percent moisture exceeded the control limit of 50% in sample CF-SB-125(30-35) (57.7%). The positive and nondetect results were qualified as estimated (J/UJ) in sample CF-SB-125(30-35).

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
F-SB-125(20-21)	n Level analysis. QLs elevated by factor of 100.	NR
F-SB-126(20-22)	n Level analysis and 5-fold dilution was	NR

Sample	VOC Analysis Reported	SVOC Analysis Reported
	performed. QLs elevated by factor of 500.	
CF-SB-127(19-20)	n Level analysis and 5-fold dilution was performed. QLs elevated by factor of 500.	NR
CF-SB-128(17-18)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	xtract volume of 1 ml and 50-fold dilution performed. QLs elevated by factor of 100.
CF-SB-129(18-20)	n Level analysis. QLs elevated by factor of 100.	dilution performed.
B-125(30-35)	NR	xtract volume of 1 ml. QLs elevated by factor of 2.
CF-SB-129(25-30)	NR	xtract volume of 1 ml. QLs elevated by factor of 2.

NR- Dilution/reanalysis not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

The laboratory was unable to determine the inflection point between benzo(b)fluoranthene and benzo(k)fluoranthene. In cases where both compounds were detected in a sample, the laboratory reported the result as total benzo(b)fluoranthene. The positive results for benzo(b)fluoranthene and nondetect results for benzo(k)fluoranthene were estimated (J/UJ) in the affected sample CF-SB-129(18-20).

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206654
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-132(15-18)	206654-01	Metals, Cyanide
CF-SB-133(16-18)	206654-02	Metals, Cyanide
CF-SB-XX(18-20)	206654-05	Metals, Cyanide
CF-SB-134(17-18)	206654-06	Metals, Cyanide
CF-SB-134(11-11.5)	206654-07	Metals, Cyanide
CF-SB-135(14.5-15)	206654-08	Metals, Cyanide
CF-SB-135(21-25)	206654-09	Metals, Cyanide
CF-SB-136(23-25)	206654-10	Metals, Cyanide
CF-SB-136(13-14)	206654-11	Metals, Cyanide
CF-SB-137(22.5-23.5)	206654-12	Metals, Cyanide
CF-SB-137(18.5-20)	206654-13	Metals, Cyanide
CF-SB-137(32-34)	206654-14	Metals, Cyanide
CF-SB-138(18-20)	206654-15	Metals, Cyanide
CF-SB-138(30-35)	206654-16	Metals, Cyanide
CF-SB-130(25-30)	206654-17	Metals, Cyanide
CF-SB-131(17-18)	206654-18	Metals, Cyanide
CF-SB-130(22-25)	206654-19	Metals, Cyanide
CF-SB-131(25-30)	206654-20	Metals, Cyanide

Associated QC Samples:	Field/Trip Blanks:	FB-052104 (reported in 206665)
	Field Duplicate pair:	CF-SB-132(15-18)/CF-SB-XX(18-20)

The above-listed samples were collected on May 18, 19, and 20, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness

* • Holding Times and Sample Preservation
* • Instrument Calibration
* • Contract Required Detection Limit (CRDL) Standard Recoveries
* • Blank Analysis Results
* • Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
  • Matrix Spike (MS) Results
* • Laboratory Duplicate Results
* • Field Duplicate Results
* • Laboratory Control Sample (LCS) Results
* • ICP Serial Dilution Analysis Results
  • Moisture Content
  • Detection Limits Results
  • Sample Quantitation Results

* - All criteria were met for this parameter.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- The positive result for mercury in sample CF-SB-135 (14.5-15) was qualified as estimated (J) as the result was above the instrument calibration range. This result is usable for project objectives as an estimated value which may have a minor effect on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-132(15-18), CF-SB-XX(18-20), and CF-SB-135(21-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive results for chromium and lead were qualified as estimated (J) in all samples due to recoveries in the MS analysis which were above control limits. The results may be biased high. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

- The positive and/or nondetect results for mercury and cyanide were qualified as estimated (J/UJ) due to recoveries in the MS analysis which were below control limits. The results may be biased low. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits which may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

All criteria were met.

CRDL Standard Recoveries

All criteria were met.

Blank Analysis Results

All instrument and method blank results were found to be less than the CRDL or quantitation limit (QL).

A field blank sample was not associated with this sample group. The field blank FB-052104 was reported in 206665 and used to evaluate the samples in this data set. Target analytes were not detected in this sample

ICP ICS Results

Analyte recoveries were within control limits in the ICSAB sample analysis.

All ICSA results were found to be less than 2x instrument detection limit (IDL).

MS Results

MS analyses were performed on sample CF-SB-131(25-30) for the metals and cyanide analyses. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	Recovery (%)	Actions
Chromium	129	Estimate (J) the positive results for chromium in all samples.
Lead	152	Estimate (J) the positive results for lead in all samples.
Mercury	72	Estimate (J/UJ) the positive and nondetect results for mercury in all samples.
Cyanide	3	Cyanide was recovered within control limits in the post-spike analysis performed on sample CF-SB-131(25-30). Estimate (UJ) the nondetect results for cyanide in all samples.

Professional judgement was used to incorporate the more current USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA 540-R-01-008, July 2002 in order to evaluate the cyanide matrix spike and post-distillation spike recovery. As the post-distillation spike performed exhibited acceptable recovery, the nondetect results for cyanide were estimated (UJ), rather than rejected.

Laboratory Duplicate Results

Laboratory duplicate analyses were performed on sample CF-SB-131(25-30) for the metals and cyanide analyses. All criteria were met.

Field Duplicate Results

Samples CF-SB-132(15-18) and CF-SB-XX(18-20) were submitted as the field duplicate pair with this sample group. The following table summarizes the RPDs of the detected analytes. Validation actions were not required.

Compound	CF-SB-132(15-18) (mg/kg)	CF-SB-XX(18-20) (mg/kg)	RPD (%)
Arsenic	11.9	7.1	50.5
Barium	169	206	19.7
Chromium	30.4	31.4	3.2
Lead	6.7	7.2	7.2

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

An ICP serial dilution analysis was performed on sample CF-SB-131(25-30). All criteria were met.

Moisture Content

The percent moisture exceeded the control limit of 50% in the following samples: CF-SB-132(15-18) (60.5%), CF-SB-XX(18-20) (63.3%), and CF-SB-135(21-25) (50.3%). The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-132(15-18), CF-SB-XX(18-20), and CF-SB-135(21-25).

Detection Limits Results

All detection limits were found to be less than or equal to the project-required quantitation limits.

The laboratory reported the soil cyanide results down to 0.5 ug/L. However, the laboratory reported laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

The positive result for mercury in sample CF-SB-135(14.5-15) was qualified as estimated (J) as the result was above the instrument calibration range.

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206654
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-132(15-18)	206654-01	BTEX, PAH
CF-SB-133(16-18)	206654-02	BTEX, PAH
CF-SB-133(9.5-10)	206654-03	BTEX
CF-SB-132(10-11)	206654-04	BTEX
CF-SB-XX(18-20)	206654-05	BTEX, PAH
CF-SB-134(17-18)	206654-06	BTEX, PAH
CF-SB-134(11-11.5)	206654-07	BTEX, PAH
CF-SB-135(14.5-15)	206654-08	BTEX, PAH
CF-SB-135(21-25)	206654-09	BTEX, PAH
CF-SB-136(23-25)	206654-10	BTEX, PAH
CF-SB-136(13-14)	206654-11	BTEX, PAH
CF-SB-137(22.5-23.5)	206654-12	BTEX
CF-SB-137(18.5-20)	206654-13	BTEX, PAH
CF-SB-137(32-34)	206654-14	BTEX, PAH
CF-SB-138(18-20)	206654-15	BTEX
CF-SB-138(30-35)	206654-16	BTEX, PAH
CF-SB-130(25-30)	206654-17	BTEX, PAH
CF-SB-131(17-18)	206654-18	BTEX
CF-SB-130(22-25)	206654-19	BTEX, PAH
CF-SB-131(25-30)	206654-20	BTEX, PAH

Associated QC Samples:	Field/Trip Blanks:	FB-052104, TB-052104(reported in 206665)
	Field Duplicate pair:	CF-SB-132(15-18)/CF-SB-XX(18-20)

The above listed samples were collected on May 18, 19, and 20, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

*	•	Data Completeness
*	•	Holding Times and Sample Preservation
*	•	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
	•	Initial and Continuing Calibrations
*	•	Blanks
	•	Surrogate Recoveries
	•	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
	•	Internal Standards
	•	Laboratory Control Sample (LCS) Results
*	•	Field Duplicate Results
	•	Moisture Content
	•	Quantitation Limits and Data Assessment
	•	Sample Quantitation and Compound Identification

* - All criteria were met.

VOC

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select VOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive results for ethylbenzene and xylenes in samples CF-SB-131(25-30) and CF-SB-136(13-14), toluene, ethylbenzene, and xylenes in samples CF-SB-XX(18-20) and CF-SB-135(21-25) and benzene, toluene, ethylbenzene, and xylenes in sample CF-SB-130(25-30) were qualified as estimated (J) due to high surrogate recoveries. These results may be biased high. The results can be used for project objectives as estimated values. This qualification may have a minor impact on the data usability.

- The positive and nondetect results for toluene, ethylbenzene, and xylenes were qualified as estimated (J/UJ) in sample CF-SB-132(15-18) due to low internal standard area. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-132(15-18), CF-SB-XX(18-20), and CF-SB-135(21-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

SVOC

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select SVOC results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

- The positive and/or nondetect results for pyrene in samples CF-SB-133(16-18), CF-SB-134(17-18), CF-SB-136(23-25), CF-SB-137(32-34), CF-SB-138(30-35), CF-SB-130(25-30), and CF-SB-131(25-30) were qualified as estimated (J/UJ) due to calibration nonconformances. The direction of the bias cannot be determined from this nonconformance. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results for 2-methylnaphthalene, phenanthrene, fluoranthene, pyrene, benzo(a)anthracene, chrysene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(123-cd)pyrene, and dibenzo(ah)anthracene were qualified as estimated (J/UJ) in samples CF-SB-133(16-18), CF-SB-134(17-18), CF-SB-134(11-11.5), CF-SB-135(14.5-15), CF-SB-135(21-25), CF-SB-136(23-25), CF-SB-136(13-14), CF-SB-137(18.5-20), CF-SB-137(32-34)CF-SB-138(30-35), CF-SB-130(25-30), and CF-SB-131(25-30) due to low recoveries of these analytes in the LCS. These results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and/or nondetect results were qualified as estimated (J/UJ) in sample CF-SB-131(25-30) due to low recoveries for all compounds in the MS/MSD performed on this sample. These results may be biased low. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-132(15-18), CF-SB-XX(18-20), and CF-SB-135(21-25) due to high percent moisture. The results can be used for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The positive result for benzo(b)fluoranthene and nondetect result for benzo(k)fluoranthene were qualified as estimated (J/UJ) in sample CF-SB-135(14.5-15) as the laboratory could not determine the inflection point between the two compound peaks. The combined compound results were reported as total benzo(b)fluoranthene. These results are usable for project objectives as estimated values and nondetects with estimated quantitation limits. This qualification may have a minor impact on the data usability.

- The nondetect results were rejected (R) in samples CF-SB-132(15-18) and CF-SB-XX(18-20) due to surrogate recoveries less than 10 percent. These results are not usable for project objectives. This qualification may have a major impact on the data usability.

All results were found to be usable with the exception of the nondetect SVOC results for samples CF-SB-132(15-18) and CF-SB-XX(18-20), which were rejected (R) due to surrogate recoveries less than 10 percent.

The organic validation recommendations were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the VOC and SVOC analyses.

GC/MS Tunes

All criteria were met in the VOC and SVOC analyses.

Initial and Continuing Calibrations

All criteria were met in the VOC analyses.

Compounds that did not meet criteria in the SVOC continuing calibrations are summarized in the following tables.

Instrument ID MSQ Compound	CC 5/25/04
pyrene	X (20.7%)
Samples Affected	3-133(16-18), 134(17-18), 136(23-25), 137(32-34), 138(30-35), 130(25-30), 131(25-30)

X = Initial calibration (IC) relative standard deviation (%RSD) > 15; estimate (J) positive and (UJ) blank-qualified nondetect results.

XX = Continuing calibration (CC) percent difference (%D) > 20; estimate (J/UJ) positive and nondetect results.

XXX = Continuing calibration (CC) percent difference (%D) > 90; estimate (J) positive results and reject (R) nondetect results.

+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The following results were qualified as estimated (J/UJ) due to continuing calibration nonconformances: pyrene in samples CF-SB-133(16-18), CF-SB-134(17-18), CF-SB-136(23-25), CF-SB-137(32-34), CF-SB-138(30-35), CF-SB-130(25-30), and CF-SB-131(25-30).

Blanks

Target compounds were not detected in the VOC and SVOC method blanks.

Field blank and trip blank samples were not associated with this sample group. The field blank FB-052104 and trip blank TB-052104 were reported in 206665 and used to evaluate the samples in this data set. Target compounds were not detected in these field and trip blank samples.

Surrogate Recoveries

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the VOC analyses:

ID	Percent Recovery				Action
	d8 37	M 30	B L33	E L34	
-132(15-18)	-	-	56%	-	dation action was not required. Results

					were nondetect and therefore not affected by the potential high bias.
-XX(18-20)	-	-	74%	-	mate (J) the positive results for toluene, ethylbenzene, and xylenes.
-135(21-25)	-	-	61%	-	mate (J) the positive results for toluene, ethylbenzene, and xylenes.
-137(18.5-20)	-	-	69%	-	dation action was not required. Results were nondetect and therefore not affected by the potential high bias.
-130(25-30)	-	-	69%	-	nate (J) the positive results for benzene, toluene, ethylbenzene, and xylenes.
-131(25-30)	-	-	62%	-	te (J) the positive results for ethylbenzene and xylenes.
36(13-14)	-	-	71%	-	te (J) the positive results for ethylbenzene and xylenes.

- Within control limits

Tol-d8 - Toluene-d8
DBFM - Dibromofluoromethane
BFB - Bromofluorobenzene
DCE - 1,2-Dichloroethane-d4

The following table summarizes the surrogate recoveries that failed to meet the acceptance criteria in the SVOC analyses analyzed without dilution:

ID	Percent Recovery						alidation action
	-P l13	ol-d5 -122	P 50	Z 20	-BP 131	l14 .40	
-132(15-18)	7%	7%	%	%	7%	%	ct (R) the nondetect results.
-XX(18-20)	4%	4%	%	%	4%	%	ct (R) the nondetect results.

- Within control limits

2-FP - 2-Fluorophenol
TBP - 2,4,6-Tribromophenol
NBZ - Nitrobenzene-d5
2-FBP - 2-Fluorobiphenyl
TP-d14 - Terphenyl-d14

MS/MSD Results

MS/MSD analyses were performed on sample CF-SB-131(25-30) for the VOC analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	/MSD %R	D %	Limits	Action
toluene	MS 116	-	-113/20	ion action was not required as the result for toluene was nondetect and therefore not affected by the potential high bias.

- Within control limits

MS/MSD analyses were performed on sample CF-SB-131(25-30) for the SVOC analyses. The following table lists the analyte MS/MSD recoveries and/or %RPDs which were outside of the laboratory established control limits.

Compound	S/MSD %R	D	Limits	Action
naphthalene	31, 30	-	48-101/40	Estimate (J) the positive result.
2-methylnaphthalene	33, 31	-	51-99/40	Estimate (UJ) the nondetect result.
acenaphthylene	37, 34	-	56-105/40	Estimate (UJ) the nondetect result.
acenaphthene	36, 35	-	55-101/19	Estimate (UJ) the nondetect result.
fluorene	37, 37	-	57-105/40	Estimate (UJ) the nondetect result.
phenanthrene	41, 35	-	58-110/40	Estimate (UJ) the nondetect result.
anthracene	40, 33	-	57-112/40	Estimate (UJ) the nondetect result.
fluoranthene	39, 32	-	55-118/40	Estimate (UJ) the nondetect result.
pyrene	46, 46	-	55-118/36	Estimate (UJ) the nondetect result.
benzo(a)anthracene	35, 34	-	57-116/40	Estimate (UJ) the nondetect result.
chrysene	34, 33	-	59-113/40	Estimate (UJ) the nondetect result.
benzo(b)fluoranthene	33, 25	-	52-115/40	Estimate (UJ) the nondetect result.
benzo(k)fluoranthene	31, 27	-	53-122/40	Estimate (UJ) the nondetect result.
benzo(a)pyrene	33, 30	-	55-112/40	Estimate (UJ) the nondetect result.
indeno(123-cd)pyrene	34, 29	-	46-112/40	Estimate (UJ) the nondetect result.

Compound	S/MSD %R	D	C Limits	Action
dibenzo(ah)anthracene	31, 26	-	46-113/40	Estimate (UJ) the nondetect result.
benzo(ghi)perylene	35, 32	-	43-114/40	Estimate (UJ) the nondetect result.

- Within control limits

Internal Standards

All criteria were met in the SVOC analyses

The following table lists the internal standard (IS) areas which were outside of the control limits in the VOC analyses.

Sample	ernal Standard	ea)	Validation Action
F-SB-132(15-18)	chlorobenzene 4-dichlorobenzene	9.4 5.6	nate (J/UJ) the affected positive and nondetect results.

Affected compounds:
IS chlorobenzene - toluene, ethylbenzene, xylene
IS 1,4-dichlorobenzene-d4 - No compounds reported

The areas for internal standard 1,4-dichlorobenzene-d4 were below the control limits in samples CF-SB-XX(18-20), CF-SB-135(21-25), CF-SB-137(18.5-20), CF-SB-131(25-30), CF-SB-130(25-30), and CF-SB-136(13-14). Validation action was not required on this basis, as reported compounds were not quantitated from this internal standard.

LCS Results

All criteria were met in the VOC analyses.

The following table lists the compound recoveries found outside of the validation control limits of 60 - 140% or laboratory established control limit (if tighter) in the LCS analyses and the resultant actions in the SVOC analyses.

Compound	overy %)	l Limits	ssociated Samples	Actions
2-methylnaphthalene	58	0-140	mples, with the exception of	nate (J/UJ) the positive and
phenanthrene	59	0-140	CF-SB-130(22-25)	nondetect results for the
fluoranthene	58	0-140		affected analytes in all
pyrene	53	0-140		samples with the exception
benzo(a)anthracene	59	0-140		of CF-SB-130(22-25), and

Compound	overy %)	l Limits	ssociated Samples	Actions
chrysene	56	)-140		CF-SB-132(15-18) and CF-SB-XX(18-20) (which were previously rejected due to low surrogate recoveries).
benzo(b)fluoranthene	58	)-140		
benzo(a)pyrene	58	)-140		
ndeno(123-cd)pyrene	59	)-140		
ibenzo(ah)anthracene	57	)-140		

Field Duplicate Results

Samples CF-SB-132(15-18) and SP-SB-XX(18-20) were submitted as the field duplicate pair with this sample group. The following table summarizes the RPDs of the detected analytes. Validation actions were not required.

Compound	P-SB-132(15-18) (μg/kg)	SP-SB-XX(18-20) (μg/kg)	RPD (%)
toluene	13U	5	NC, within 2xQL
ethylbenzene	13U	5	NC, within 2xQL
xylenes	13U	15	NC, within 2xQL
calculable			

Moisture Content

The percent moisture exceeded the control limit of 50% in the following samples: CF-SB-132(15-18) (60.5%), CF-SB-XX(18-20) (63.3%), and CF-SB-135(21-25) (50.3%). The positive and nondetect results were qualified as estimated (J/UJ) in samples CF-SB-132(15-18), CF-SB-XX(18-20), and CF-SB-135(21-25).

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the VOC and SVOC analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

The following table lists the sample dilutions and/or reanalyses which were performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Analysis Reported	SVOC Analysis Reported
CF-SB-133(9.5-10)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	NR
CF-SB-132(10-11)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	NR
F-SB-134(11-11.5)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	xtract volume of 1 ml and 8-fold dilution performed. QLs elevated by factor of 16.
F-SB-135(14.5-15)	n Level analysis was performed. QLs elevated by factor of 100.	xtract volume of 1 ml and 10-fold dilution performed. QLs elevated by factor of 20.
CF-SB-136(13-14)	d dilution was performed.	xtract volume of 1 ml and 10-fold dilution performed. QLs elevated by factor of 20.
137(22.5-23.5)	n Level analysis and 5-fold dilution was performed. QLs elevated by factor of 500.	NR
CF-SB-138(18-20)	n Level analysis and 4-fold dilution was performed. QLs elevated by factor of 400.	NR
CF-SB-131(17-18)	n Level analysis and 5-fold dilution was performed. QLs elevated by factor of 500.	NR
CF-SB-130(22-25)	n Level analysis and 2-fold dilution was performed. QLs elevated by factor of 200.	xtract volume of 1 ml and 25-fold dilution performed. QLs elevated by factor of 50.
CF-SB-130(25-30)	NR	xtract volume of 1ml. QLs elevated by factor of 2.
CF-SB-132(15-18)	NR	xtract volume of 1ml. QLs elevated by factor of 2.
CF-SB-XX(18-20)	NR	xtract volume of 1ml. QLs elevated by factor of 2.
CF-SB-135(21-25)	NR	xtract volume of 1 ml and 8-fold dilution performed. QLs elevated by factor of 16.
F-SB-137(18.5-20)	NR	xtract volume of 1 ml and 100-fold dilution performed. QLs elevated by factor of 200..
CF-SB-131(25-30)	NR	xtract volume of 1ml. QLs elevated by factor

Sample	VOC Analysis Reported	SVOC Analysis Reported
		of 2.

NR- Dilution/reanalysis not required

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

The laboratory was unable to determine the inflection point between benzo(b)fluoranthene and benzo(k)fluoranthene. In cases where both compounds were detected in a sample, the laboratory reported the result as total benzo(b)fluoranthene. The positive results for benzo(b)fluoranthene and nondetect results for benzo(k)fluoranthene were estimated (J/UJ) in the affected sample CF-SB-135(14.5-15).

Data Usability Summary Report

Project: Clifton Supplemental RI Soil Borings, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206665
Reviewer: Lorie MacKinnon/GEI Consultants
Date: June 22, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SB-139(7.5-10)	206665-01	Metals, Cyanide
CF-SB-139(16.5-18)	206665-02	Metals, Cyanide
FB-052104	206665-04	Metals, Cyanide
Associated QC Samples:	Field/Trip Blanks:	FB-052104
	Field Duplicate pair:	None associated

The above-listed samples were collected on May 20 and 21, 2004 and were analyzed for RCRA metals (arsenic, barium, cadmium, chromium, lead, selenium, silver, and mercury) by SW-846 methods 6010B/7471A and cyanide by SW-846 method 9012. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Evaluation of Metals Data for the Contract Laboratory Program, SOP No. HW-2, Revision 11, January 1992.

The inorganic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Instrument Calibration
* • Contract Required Detection Limit (CRDL) Standard Recoveries
• Blank Analysis Results
• Inductively Coupled Plasma (ICP) Interference Check Sample (ICS) Results
• Matrix Spike (MS) Results
* • Laboratory Duplicate Results
NA • Field Duplicate Results
* • Laboratory Control Sample (LCS) Results
* • ICP Serial Dilution Analysis Results
* • Moisture Content
• Detection Limits Results
* • Sample Quantitation Results

* - All criteria were met for this parameter.

NA - A field duplicate pair was not submitted with this sample set.

Overall Evaluation of Data and Potential Usability Issues

All results are usable for project objectives. Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- The positive result for lead in samples CF-SB-139(7.5-10) and CF-SB-139(16.5-18) were qualified as estimated (J) due to recovery in the MS analysis which was above control limits. The results may be biased high. These results are usable for project objectives as estimated values which may have a minor effect on the data usability.

- The positive and/or nondetect results for mercury and cyanide in samples CF-SB-139(7.5-10) and CF-SB-139(16.5-18) were qualified as estimated (J/UJ) due to recoveries in the MS analyses which were below control limits. The results may be biased low. These results are usable for project objectives as estimated values or nondetects with estimated quantitation limits which may have a minor effect on the data usability.

The validation recommendations listed above were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables.

Holding Times and Sample Preservation

All criteria were met.

Instrument Calibration

All criteria were met.

CRDL Standard Recoveries

All criteria were met.

Blank Analysis Results

All instrument and method blank results were found to be less than the CRDL or quantitation limit (QL).

The following table summarizes the blank contaminants detected in the field blank, FB-052104,

associated with all soil samples and the associated action levels.

Analyte	Maximum Concentration	Blank Action Level (mg/kg)	Validation Actions
Chromium	(2.5 ug/L) 0.62 mg/kg	3.1	No actions required.

ICP ICS Results

Analyte recoveries were within control limits in the ICSAB sample analysis.

Positive results were observed for cadmium, chromium, and lead in the ICSA solution analysis associated with the field blank sample. The levels of interferents in samples were reviewed. Validation actions were not required as the sample interferent levels were less than 50% those in the ICSA solution.

MS Results

An MS analysis was performed on project sample CF-SB-139(7.5-10) for the ICP metals. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	**Recovery (%)**	**Actions**
Lead	507	Estimate (J) the positive results for lead in all soil samples.

An MS analysis was performed on project sample CF-SB-131(25-30) (reported in 206654) for the mercury and cyanide analyses. The following table lists the analytes which exhibited recoveries outside of the control limits of 75 - 125% and the resulting validation actions.

Analyte	**Recovery (%)**	**Actions**
Mercury	72	Estimate (J/UJ) the positive and nondetect results for mercury in all soil samples.
Cyanide	3	Cyanide was recovered within control limits in the post-spike analysis performed on sample CF-SB-131(25-30). Estimate (UJ) the nondetect results for cyanide in all samples.

Professional judgement was used to incorporate the more current USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Data Review, EPA 540-R-01-008, July 2002 in order to evaluate the cyanide matrix spike and post-distillation spike recovery. As the post-

distillation spike performed exhibited acceptable recovery, the nondetect results for cyanide were estimated (UJ), rather than rejected.

Laboratory Duplicate Results

A laboratory duplicate analysis was performed on project sample CF-SB-139(7.5-10) for the ICP metals. A laboratory duplicate analysis was performed on project sample CF-SB-131(25-30) (reported in 206654) for the mercury and cyanide analyses. All criteria were met.

Field Duplicate Results

A field duplicate pair was not associated with this sample set. Validation action was not required on this basis.

LCS Results

All criteria were met.

ICP Serial Dilution (ISD) Analysis Results

An ICP serial dilution analysis was performed on sample CF-SB-139(7.5-10). All criteria were met.

Moisture Content

All criteria were met.

Detection Limits Results

The laboratory reported the soil cyanide results down to 0.5 ug/L. However, the laboratory reported aqueous results and laboratory blanks down to 7 ug/L. The lowest calibration standard was 10 ug/L. The validator calculated the cyanide results down to 7 ug/L (equivalent to 350 mg/kg wet weight) for all samples.

Sample Quantitation Results

Sample calculations were spot-checked; no discrepancies were noted.

Appendix F

Chain-of-Custody Forms, Validated Form I Reports, and Data Usability Summary Reports - Groundwater

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

Committed To *Your* Success

CHAIN OF CUSTODY RECORD

PAGE OF | NO.

STL JOB #:

CLIENT: GEI/ATLANTIC

PROJECT ID: A70070 - Staten Isl.

STL PROJECT MGR: Steph. Plunkett

RUSH ☐ YES ☐ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	FIELD FILTERED - CIRCLE Y or N								SAMPLE REMARKS
						Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	
	CFRW04-01	3/31/99 #1330	GW			6	3	3	3	6	3			MS/MSD volume
	CFRW14-01	3/31/99 1400	GW			2	1	1	1	2	1			
	CFOW05-01	3/30/99	GW			2	1	1	1	2	1			
	CFOW06-01	3/31/99	GW			2	1	1	1	2	1			
	CFRW01-01	3/31/99 1545	GW			2	1	1	1	2	1			
	TRIP BLANK		AQ							2				

TESTS

BNA	Total CN	TDS	TAL Metals	VOC	PCB		

BOTTLE TYPE AND PRESERVATION

1L Amber	500 mL NaOH	1000 PL NP	PL 500 HNO_3	40mL Glass NP	1L Amber		

GENERAL REMARKS

See Work plan for methods

Contact: Anna Sullivan @ GEI

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY — DATE / TIME
SIGNATURE

BOTTLES RECD BY — DATE / TIME
SIGNATURE

SAMPLES COLLECTED BY — DATE / TIME
A. Brey — 3/30 - 3/31/99
SIGNATURE
R. By

RECEIVED IN LAB BY — DATE / TIME
SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

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CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI/Atlantic

PROJECT ID: A70070 - Staten Isl.

STL PROJECT MGR: Steph. Plunkett

RUSH ☐ YES ☐ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: BNA	Total CN	TDS	TAL Mets	VOC	PCB			GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 1L Amber	500mL Plastic NaOH/HCl	PL 1000 NP	PL 500 HNO_3	40ML Glass NP	1L Amber			See Work plan for Methods; Contact: John Ripp... @ GEI/Atlantic
						FIELD FILTERED - CIRCLE Y or N: Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
	~~GEI~~ CFOW07-01	3/29/99	AQ			2	1	1	1	2	1			
	CFRW02-01	3/29/99 16:20	AQ			2	1	1	1	2	1			
	CFRW03-01	3/30/99	AQ			2	1	1	1	2	1			
	CFRW06-01	3/30/99, 10:15	AQ			2	1	1	1	2	1			
	TRIB BLANK	—	AQ							2				

MATRIX CODES

A - AIR; AQ - AQUEOUS; C - COMPLEX; D - DRUM WASTE; OI - OIL; S - SOIL; SL - SLUDGE; W - WIPE; O - OTHER; FB - FIELD BLANK; TB - TRIP BLANK

BOTTLES PREPARED BY / DATE / TIME	BOTTLES REC'D BY / DATE / TIME
SIGNATURE	SIGNATURE
SAMPLES COLLECTED BY / DATE / TIME: Relinqd by / 14:10	RECEIVED IN LAB BY / DATE / TIME
SIGNATURE: CE - Brey / 3/30/99	SIGNATURE

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS ☐ PRESERVED ☐ SEALS INTACT ☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

№ 3468

CHAIN OF CUSTODY RECORD

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

PROJECT NAME: Keyspan 98248-1005

PROJECT NUMBER: 98248

ANALYSIS

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC (STEV) PRSV.	SVOC EPA METHOD 8270 PRSV.	TCLP PRSV.	PCBs-EPA PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-TB-10/4/99	10/4	-	✓		2	GW	✓											
CF-RW-06	10/4	1740	✓		4	GW	✓	✓	✓	✓								
CF-RW-03	10/4	1645	✓		4	GW	✓	✓	✓	✓								
CF-RW-0E	10/5	1345	✓		4	GW	✓	✓	✓	✓								
~~CF-RW-06~~																		
CF-OW-07	10/5	1545	✓		4	GW	✓	✓	✓	✓								

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn C. Wilk	10/6/99 1238				[illegible]
Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:

Method of Shipment:	Shipping Waybill No.:	Remarks:
		Contact David Terry for any questions or comments. 860-537-0751

SAMPLED BY: Lynn Wilk (Print Name) Lynn C. Wilk (Signature)

Bruce Machus (Print Name) _____ (Signature)

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

№ 3469

CHAIN OF CUSTODY RECORD

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

PROJECT NAME: Keyspan 98248 - 1005

PROJECT NUMBER: 98248 - 1005

ANALYSIS

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC (BTEX)	PRSV.	SVOC EPA Method 8270 PRSV.	RCRA-8 metals (UNPRSV)	PRSV.	Total Cyanide (UNPRSV)	PRSV.	Flashpoint (UNPRSV)	PRSV.	NaOH (UNPRSV)	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-RW-15	10/6/99	18:30	✓		6	GW	✓	✓	✓	✓												
CF-RW-13	10/6/99	17:45	✓		6	GW	✓	✓	✓	✓												
CF-RW-02	10/6/99	17:00	✓		6	GW	✓	✓	✓	✓												
CF-TB-10/6/99	10/6/99	—	✓		2	LABH2O	✓															

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn C. Willey	10/7/99 9:20				
Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:
				10/7/99 9:30	Rick Chandler

Method of Shipment:

Shipping Waybill No.:

Remarks: Any questions or comments, Please contact David Terry @ GEI Atlantic # 860-537-0751 Thanks.

SAMPLED BY:
Lynn Willey (Print Name) — Signature: Lynn C. Willey
Bruce Moebius (Print Name) — Signature: Lynn C. Willey for Bruce Moebius

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

№ 3469

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Keyspan 98248-1005

PROJECT NUMBER: 98248-1005

ANALYSIS

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC BTEX / PRSV.	SVOC EPA Method 8270 / PRSV. (UNP (ice))	RCRA-8 metals / PRSV. (HNO3 (ice))	Total Cyanide / PRSV. (NaOH (ice))	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-RW-5	10/6/99	18:30	✓		6	GH2O	✓	✓	✓	✓						
CF-RW-13	10/6/99	17:45	✓		6	GH2O	✓	✓	✓	✓						
CF-RW-02	10/6/99	17:00	✓		6	GH2O	✓	✓	✓	✓						
CF-TB-10/6/99	10/6/99	—	✓		2	LABH2O	✓									

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn E. Willey (signature)	10/7/99 9:20				
Relinquished by:	**Date/Time**	**Received by:**	**Relinquished by:**	**Date/Time**	**Received for Laboratory by:**
				10/7/99 9:30	Rick Chandler (signature)

Method of Shipment:

Shipping Waybill No.:

Remarks: Any questions or comments, please contact David Terry @ GEI Atlantic # 860-537-0751 Thanks.

SAMPLED BY: Lynn Willey (Print Name) Signature: Lynn E. Willey (signature)

Bruce Moebus (Print Name) Signature: Lynn E. Willey (signature) for Bruce Moebus

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

STL - MONROE, CT

№ 3470

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Keyspan 9824E

PROJECT NUMBER: 9824E - 1005

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	ANALYSIS: VOC EPA Method 8260B	PRSV. (ISTEM)	SVOC - 20 TICs (5) PRSV.	PRSV.	TAL Metals PRSV.	PRSV.	Total Cyanide PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-RW-01	10/7	1600	✓		6	GW/SG	✓	✓	✓	✓										
CF-RW-09	10/8	1510	✓		6	GW/SG	✓	✓	✓	✓										
CF-OW-06	10/8	1500	✓		6	GW/SG	✓	✓	✓	✓										
CF-RW-10	10/8	1210	✓		6	GW/SG	✓	✓	✓	✓										
CF-FB-101899	10/8	1300	✓		6	GW/SG	✓	✓	✓	✓										
CF-TB-101899	10/8	—	✓		2	LAB H2O	✓													

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn E. Walley	10/9 1530				
Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received for Laboratory by:

Method of Shipment:

Shipping Waybill No.:

Remarks:
Any questions or comments contact David Terry at 860-537-0751.
NOTE Sorry about short notice of Colchester Pick up. Thanks.

SAMPLED BY: Lynn Walley (Print Name) Lynn E. Walley Signature

Bruce Machius (Print Name) Signature

PT 1:ORIGINAL PT 2:Laboratory Project Manager-yellow PT 3:Field Copy-pink

SP-3479 8/97

№ 3471

GEI CONSULTANTS, INC., ATLANTIC ENVIRONMENTAL DIVISION
188 Norwich Avenue, P.O. Box 297, Colchester, CT 06415
PHONE: (860) 537-0751 FAX: (860) 537-6347

CHAIN OF CUSTODY RECORD

PROJECT NAME: Keyspan 98246 CLIFTON FORMER MGP

PROJECT NUMBER: 98246

ANALYSIS

SAMPLE NO.	DATE	TIME	GRAB	COMP	NO. OF CONT.	SAMPLE MATRIX	VOC (BTEX) EPA METHOD 8260B PRSV.	SVOC + 20 TICS EPA METHOD 8270 PRSV. UNP ICE	Total Cyanide EPA method 9012 PRSV. UNP ICE	RCRA 8 metals EPA method PRSV. NaOH ICE / HNO3 ICE	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	PRSV.	COMMENTS
CF-FB-10/12/99	10/12	1335	✓		6	LAB H2O	✓	✓	✓	✓							
CF-RW-04	10/11	1845	✓		6	H2O	✓	✓	✓	✓							
CF-RW-11	10/11	1555	✓		6	H2O	✓	✓	✓	✓							
CF-OW-05	10/12	1700	✓		6	H2O	✓	✓	✓	✓							pass prod. impacts
CF-RW-12	10/11	1700	✓		6	H2O	✓	✓	✓	✓							
CF-TB-10/11/99	10/11/99	-	✓		2	LAB H2O	✓										

Relinquished by:	Date/Time	Received by:	Relinquished by:	Date/Time	Received by:
Lynn E. Willey	10/13 11:59				[signature]
Relinquished by:	**Date/Time**	**Received by:**	**Relinquished by:**	**Date/Time**	**Received for Laboratory by:**

Method of Shipment:

Shipping Waybill No.:

Remarks: Standard Turnaround Time. Any questions or comments call Dave Terry @ GEI Consultants 860-537-0751

SAMPLED BY: Lynn E. Willey (Print Name) — Signature: Lynn E. Willey

Bruce Machus (Print Name) — Signature:

Severn Trent Laboratories
200 Monroe Turnpike
Monroe CT 06468
Tel: (203) 261-4458
Fax: (203) 268-5346

Committed To *Your* Success

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO. 10/14/99

STL JOB #:

CLIENT: GEI/Atlantic Consultants Inc

PROJECT ID: Keyspan Clifton Former MGP 98248

STL PROJECT MGR:

RUSH ☐ YES ☒ NO | DUE DATE Standard

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC (Y) / N	TESTS: VOC (BTEX) EPA method 8260B	TESTS: SVOC 8270 20 TICs	TESTS: RCRA + 8 mtls 6010/7000	TESTS: Total Cyanide EPA method 9012	TESTS	TESTS	TESTS	TESTS	GENERAL REMARKS	SAMPLE REMARKS
						BOTTLE TYPE AND PRESERVATION: (2) 40ml vial Ice/UNP	(2) 1L Amber Unpres Ice	(1) 500ml plastic HNO3/Ice	(1) 500ml plastic NaOH						
						FIELD FILTERED - CIRCLE Y or N: Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N	Y / N		
	CF-RW-16	10/12/99 1830	GW		MS MSD	✓	✓	✓	✓						
	CF-RW-14	10/13/99 1355	GW			✓	✓	✓	✓						
	CF-RW-10/12/99	10/12/99 800	GW			✓	✓	✓	✓						

Any questions or comments call Dave T. @ GEI/Atlantic 860-537-0751

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY	DATE / TIME	RECEIVED IN LAB BY	DATE / TIME
Lynn Willey / Bruce Moebius	10/12/99 10/13/99		
SIGNATURE		SIGNATURE	10/14/99 16:30

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

CLIENT COPY

SEVERN TRENT SERVICES

STL Connecticut
128 Long Hill Cross Road
Shelton CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: CET Consultants, Inc

PROJECT ID: CLIFTON FORMER MGP - 98048 - 1004

STL PROJECT MGR: Cerce KUDEJ

RUSH ☐ YES ☒ NO | DUE DATE SEE CONTRACT

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: EPA METHOD 8260 [BTEX ONLY]	EPA METHOD 8270 [PAH ONLY]	EPA METHOD 6000/7000 SERIES RCRA 8 METALS	EPA 9012 Total CYANIDE	PH	HARDNESS			GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 2:40mL VOA HCL/ICE	2:1L AMBER NON PRES/ICE	500 mL PLASTIC HNO3 ICE	500 mL PLASTIC NAOH/ICE					SEE LAB QUOTE FOR DETECTION LIMIT SPECS. CALL IF ANY QUESTION OR COMMENTS. NYS CATEGORY B Data Deliverables + DATA IN ACCORD W/NYSDEC
						FIELD FILTERED - CIRCLE Y or N: Y (N)	Y (N)	Y (N)	Y / N	Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
	CF-RW-17	11/17/02 / 1420	AQ			X	X	X	X					* Potential Petroleum-like Impacts
	CF-RW-17 MS	11/17/02 / 1420				X	X	X	X					*
	CF-RW-17 MSD	11/17/02 / 1420				X	X	X	X					*
	CF-RW-18	11/17/02 / 1515				X	X	X	X					*
	CF-RW-21	11/17/02 / 1645				X	X	X	X					*
	CF-TB-11/17/02	11/17/02				X								
	CF-FB-11/18/02	11/18/02 / 1515				X	X	X	X	X				
	CF-STRM-01	11/18/02 / 0830				X	X	X	X	X	X			
	CF-STRM-02	11/18/02 / 0945				X	X	X	X	X	X			
	CF-STRM-03	11/18/02 / 1110				X	X	X	X	X	X			

MATRIX CODES

A – AIR
AQ – AQUEOUS
C – COMPLEX
D – DRUM WASTE
OI – OIL
S – SOIL
SL – SLUDGE
W – WIPE
O – OTHER
FB – FIELD BLANK
TB – TRIP BLANK

BOTTLES PREPARED BY	DATE / TIME	BOTTLES REC'D BY	DATE / TIME
SIGNATURE		SIGNATURE	
SAMPLES COLLECTED BY: Lynn Willey, Chris Hayward	DATE / TIME: 11/18/02 1200	RECEIVED IN LAB: J Widomski	DATE / TIME: 11-18-02
SIGNATURE		SIGNATURE: J WIDOMSKI 2010	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122 (0700)

CLIENT COPY

SEVERN TRENT SERVICES

STL Connecticut
128 Long Hill Cross Road
Shelton CT 06484
Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI Consultants, Inc.

PROJECT ID: 962446 Clifton Former MGP

STL PROJECT MGR: Cerey Kudej

RUSH ☐ YES ☒ NO | DUE DATE

BOTTLE SET #	CLIENT SAMPLE ID	DATE / TIME SAMPLED	MATRIX	LAB ID	QC Y / N	TESTS: PAH	TESTS: Cyanide	TESTS: Metals	TESTS: BTEX	TESTS:	TESTS:	TESTS:	TESTS:	GENERAL REMARKS
						BOTTLE TYPE AND PRESERVATION: 1 L Amber, No Pres	500 mL Plastic, NaOH	500 mL Plastic, HNO3	40 mL VOA, HCl					
						FIELD FILTERED – CIRCLE Y or N: Y / (N)	Y / (N)	Y / (N)	Y / (N)	Y / N	Y / N	Y / N	Y / N	SAMPLE REMARKS
	962446 CF – RW17	1/17/02 / 1420	Aq			✓	✓	✓	✓					
	962446 CF – RW18	1/17/02 / 1545	Aq			✓	✓	✓	✓					
	962446 CF – RW61	1/17/02 / 1645	Aq			✓	✓	✓	✓					

MATRIX CODES

A – AIR
AQ – AQUEOUS
C – COMPLEX
D – DRUM WASTE
OI – OIL
S – SOIL
SL – SLUDGE
W – WIPE
O – OTHER
FB – FIELD BLANK
TB – TRIP BLANK

BOTTLES PREPARED BY | DATE / TIME
SIGNATURE

BOTTLES REC'D BY: [signature] | DATE / TIME: 1-18-02 1700
SIGNATURE

SAMPLES COLLECTED BY: Chris Hayward | DATE / TIME: 1/17/02 1700
SIGNATURE: Chris Hayward

RECEIVED IN LAB: T WIDOMSKI | DATE / TIME: 1-18-02
SIGNATURE: T Widomski 1810 2010

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122 (0700)

CLIENT COPY

SEVERN TRENT **STL**

STL Connecticut
128 Long Hill Cross Road
Shelton, CT 06484

Tel: (203) 929-8140
Fax: (203) 929-8142

CHAIN OF CUSTODY RECORD

1 EDGEWATER STREET

PAGE 1 OF 1 | NO.

STL JOB #:

CLIENT: GEI Consultants Inc.

PROJECT ID: Clifton Farmer MGP

STL PROJECT MGR: Paul Hobart

RUSH ☐ YES ☒ NO | DUE DATE See Contract

BOTTLE SET #	CLIENT SAMPLE ID	DATE/TIME SAMPLED	MATRIX	LAB ID	QC Y/N	EPA Method 8260 (BTEX Only) HCl/Ice	EPA Method 8270 (PAH Only) Unpres/Ice	EPA Method 6010 RCRA-8 (MH) NHO3/Ice	EPA Method 9012A NaOH/Ice					SAMPLE REMARKS
						FIELD FILTERED – CIRCLE Y or N								
						Y / (N)	Y / (N)	Y / (N)	Y / (N)	Y / N	Y / N	Y / N	Y / N	
	CF-RW-22	6/22/04 1030	AQ		Y	✓	✓	✓	✓					MS/MSD
	CF-RW-21	6/22/04 1330	AQ		Y	✓	✓	✓	✓					
	CF-RW-20	6/23/04 700	AQ		Y	✓	✓	✓	✓					
	CF-RW-200	6/22/04 700	AQ		Y	✓	✓	✓	✓	duplicate of RW-20				
	CF-FB-06/23/04	6/23/04 745	AQ		Y	✓	✓	✓	✓					
	CF-TB-06/23/04	6/23/04	AQ		Y	✓								
	206972	Verified login on MyST 6/28/04 all OK (AS)												

GENERAL REMARKS

Please provide Form I's to Lori M. for Validation.

Call 860-537-0711 if you have Q's

MATRIX CODES

A - AIR
AQ - AQUEOUS
C - COMPLEX
D - DRUM WASTE
OI - OIL
S - SOIL
SL - SLUDGE
W - WIPE
O - OTHER
FB - FIELD BLANK
TB - TRIP BLANK

BOTTLES PREPARED BY	DATE/TIME
SIGNATURE	
SAMPLES COLLECTED BY	DATE/TIME
Lynn Willey	6/22/6/23 1200
SIGNATURE	

BOTTLES REC'D BY	DATE/TIME
Ruth MacKenzie	6/25/04
SIGNATURE	10:36
RECEIVED IN LAB BY	DATE/TIME
SIGNATURE	

REMARKS ON SAMPLE RECEIPT

☐ BOTTLES INTACT ☐ CUSTODY SEALS
☐ PRESERVED ☐ SEALS INTACT
☐ CHILLED ☐ SEE REMARKS

STL-8122

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFOW05-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644 109

Matrix: (soil/water) WATER Lab Sample ID: 990644A-08

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3040

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	200	U	
74-83-9	Bromomethane	200	U	
75-01-4	Vinyl Chloride	200	U	
75-00-3	Chloroethane	200	U	
75-09-2	Methylene Chloride	38	J	200 U 12
67-64-1	Acetone	210	B	210 U 12, UJ 11
75-15-0	Carbon Disulfide	100	U	
108-05-4	Vinyl Acetate	200	U	
75-35-4	1,1-Dichloroethene	100	U	
75-34-3	1,1-Dichloroethane	21	J	
540-59-0	1,2-Dichloroethene (total)	100	U	
67-66-3	Chloroform	100	U	
107-06-2	1,2-Dichloroethane	100	U	
78-93-3	2-Butanone	33	J	200 U 12
71-55-6	1,1,1-Trichloroethane	100	U	
56-23-5	Carbon Tetrachloride	100	U	
75-27-4	Bromodichloromethane	10	J	
78-87-5	1,2-Dichloropropane	100	U	
10061-01-5	cis-1,3-Dichloropropene	10	J	
79-01-6	Trichloroethene	100	U	
124-48-1	Dibromochloromethane	11	J	
79-00-5	1,1,2-Trichloroethane	18	J	
71-43-2	Benzene	850		
10061-02-6	trans-1,3-Dichloropropene	12	J	
75-25-2	Bromoform	10	J	
108-10-1	4-Methyl-2-Pentanone	19	J	200 U 12
591-78-6	2-Hexanone	200	U	
127-18-4	Tetrachloroethene	12	J	
108-88-3	Toluene	2400		
79-34-5	1,1,2,2-Tetrachloroethane	19	J	100 U 12
108-90-7	Chlorobenzene	100	U	
100-41-4	Ethylbenzene	330		
100-42-5	Styrene	100	U	
1330-20-7	Xylene (total)	2000		

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

CFOW05-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

110

Matrix: (soil/water) WATER Lab Sample ID: 990644A-08

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3040

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 20.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 7

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.		UNKNOWN C9H10 ISOMER	20.80	280	J
02.		UNKNOWN C3 ALKYLBENZENE	20.54	230	J
03.		UNKNOWN C3 ALKYLBENZENE	20.00	230	J
04.	1634-04-4	PROPANE, 2-METHOXY-2-METHYL-	5.98	180	JN
05.		UNKNOWN C3 ALKYLBENZENE	19.34	160	J
06.		UNKNOWN C5H10 ISOMER	4.34	160	J
07.		UNKNOWN C6H10 ISOMER	8.58	130	J
08.					
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFOW05-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-08

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3501 481

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	51		
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	4	J	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	4	J	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	8	J	
65-85-0	Benzoic acid	11	J	Ja4
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	66		
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	13		
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	2	J	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFOW05-01

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-08 485

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3501

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	11		J24
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	UJ11
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	2	J	
100-01-6	4-Nitroaniline	20	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10		
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	2	J	
84-74-2	Di-n-butylphthalate	10	U	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	3	J	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB	10 U
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	UJ24
207-08-9	Benzo(k)fluoranthene	10	U	R24
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFOW05-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-0486

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3501

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:_____

Number TICs Found: 20 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	UNKNOWN	2.85	170	J
02.	UNKNOWN C9H10 ISOMER	8.84	68	J
03.	UNKNOWN C3 ALKYL BENZENE	8.01	44	J
04.	UNKNOWN C3 ALKYL BENZENE	7.39	35	J
05.90-12-0	NAPHTHALENE, 1-METHYL-	13.24	31	JN
06.	UNKNOWN C9H8 ISOMER	9.00	23	J
07.	UNKNOWN C3 ALKYL BENZENE	8.57	22	J
08.	UNKNOWN C4 ALKYL BENZENE	10.79	19	J
09.	UNKNOWN C12H12 PAH	14.58	16	J
10.120-72-9	INDOLE	12.96	15	JN
11.	UNKNOWN C4 ALKYL BENZENE	7.52	14	J
12.	UNKNOWN	25.56	14	J
13.84-65-1	9,10-ANTHRACENEDIONE	20.14	13	JN
14.	UNKNOWN C4 ALKYL BENZENE	9.66	12	J
15.	UNKNOWN C10H14O ISOMER	13.74	11	J
16.	UNKNOWN DIMETHYL PHENOL ISOM	10.99	11	J
17.	UNKNOWN C12H12 PAH	14.39	10	J
18.	UNKNOWN C10H10 ISOMER	10.88	10	J
19.	UNKNOWN	11.52	10	J
20.	UNKNOWN DIMETHYL BENZOIC ACI	13.66	10	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

TABLE AS-1.2
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CFOW05-01	CFOW06-01	CFRW01-01	CFRW07-01
Lab Sample I.D.	990644A-08	990644A-09	990644A-10	990644A-12
Aluminum	450.	41.4B	124.B	62.5B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	25.0 U J12	6.0U	6.0U	8.8B U J12
Barium	23.7B	526.	148.B	105.B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.3B U J12	1.4B U J12	1.0B U J12	1.3B U J12
Calcium	46900	54100	75800	60300
Chromium	1.0U	1.0U	1.0U	1.0U
Cobalt	2.0U	2.0U	2.0U	2.0U
Copper	1.0U	2.5B	1.0U	1.0U
Iron	279.	8810	6490	264.
Lead	3.9 U J12	3.8 U J12	7.1 U J12	3.4 U J12
Magnesium	2030B	30200	27300	28400
Manganese	3.6B	191.	981.	635.
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	15.8B U J12	11.5B U J12	7.7B U J12	5.8B U J12
Potassium	25400E J4	12500E J4	4720BE J4	2660BE J4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	113000	96100	60700	14600
Thallium	7.0U UJ3	7.0U UJ3	7.0U UJ3	7.0U UJ3
Vanadium	6.8B	2.0U	2.0U	2.0U
Zinc	14.0B U J12	34.6 U J12	8.0U	8.0U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFOW05-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-08

% Solids: 0 Date Received: 04/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.434		mg/L		L
	TDS	741.		mg/L		G
	Salinity	0.640				D

Comments:

FORM I - WC

6/9/99

TABLE GC-1.5
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CFOW05-01	CFOW06-01	Quant. Limits with no Dilution
Lab Sample I.D.	040599-S10	990644A-08	990644A-09	
Method Blank I.D.	PCBLK58	PCBLK58	PCBLK58	
Quant. Factor	1.00	1.05	1.05	
Aroclor-1016	U	U UJ1B	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	U	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U UJ1B	U	1.0
Date Received		04/01/99	04/01/99	
Date Extracted	04/05/99	04/05/99	04/05/99	
Date Analyzed	04/17/99	04/17/99	04/17/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1A

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

CFOW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-09133

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3019

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	1	JB	10U 12
67-64-1	Acetone	3	JB	10U 12 UJ 11
75-15-0	Carbon Disulfide	5	U	
108-05-4	Vinyl Acetate	10	U	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	4	J	10U 12
71-55-6	1,1,1-Trichloroethane	.3	J	
56-23-5	Carbon Tetrachloride	5	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	1	J	
10061-02-6	trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	1	J	10U 12
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	5	U	
108-88-3	Toluene	.5	J	
79-34-5	1,1,2,2-Tetrachloroethane	.4	J	5U 12
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	2	J	
100-42-5	Styrene	5	U	
1330-20-7	Xylene (total)	52		

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

CFOW06-01

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-09 134

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3019

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 7 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.		UNKNOWN C9H10 ISOMER	20.78	190	J
02.	1634-04-4	PROPANE, 2-METHOXY-2-METHYL-	5.98	21	JN
03.		UNKNOWN C3 ALKYLBENZENE	20.54	17	J
04.		UNKNOWN C3 ALKYLBENZENE	19.75	16	J
05.		UNKNOWN C9H8 ISOMER	21.04	10	J
06.		UNKNOWN C10H10 ISOMER	22.53	10	J
07.		UNKNOWN C3 ALKYLBENZENE	19.99	8	J
08.					
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFOW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644 525

Matrix: (soil/water) WATER Lab Sample ID: 990644A-09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3502

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	2	J	
65-85-0	Benzoic acid	50	U	R24
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	4	J	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFOW06-01

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3502

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

526

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	.5	J	J24
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	UJ11
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.5	JB	10U12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	2	JB	10U12
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	UJ24
207-08-9	Benzo(k)fluoranthene	10	U	R24
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFOW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-09

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3502

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

527

Number TICs Found: 20 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	UNKNOWN C9H10 ISOMER	8.84	110	J
02.	UNKNOWN C3 ALKYL BENZENE	14.25	23	J
03. 83-33-0	1H-INDEN-1-ONE, 2,3-DIHYDRO-	12.81	23	JN
04.	UNKNOWN	13.73	23	J
05.	UNKNOWN	23.60	12	J
06.	UNKNOWN C3 ALKYL BENZENE	14.42	12	J
07.	UNKNOWN C10H10O ISOMER	23.04	12	J
08.	UNKNOWN C3 ALKYL BENZENE	8.01	11	J
09.	UNKNOWN	13.13	11	J
10.	UNKNOWN C3 ALKYL BENZENE	8.57	10	J
11.	UNKNOWN	13.29	10	J
12.	UNKNOWN C10H10 ISOMER	10.87	10	J
13.	UNKNOWN C9H8 ISOMER	9.00	9	J
14.	UNKNOWN C9H7NO ISOMER	17.67	8	J
15. 90-12-0	NAPHTHALENE, 1-METHYL-	13.24	8	JN
16.	UNKNOWN	9.67	7	J
17.	UNKNOWN C4 ALKYL BENZENE	10.77	6	J
18.	UNKNOWN C9H10O ISOMER	12.05	5	J
19.	UNKNOWN C8H7NO ISOMER	16.23	4	J
20.	UNKNOWN C9H10O ISOMER	13.51	4	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

TABLE AS-1.2
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CFOW05-01	CFOW06-01	CFRW01-01	CFRW07-01
Lab Sample I.D.	990644A-08	990644A-09	990644A-10	990644A-12
Aluminum	450.	41.4B	124.B	62.5B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	25.0 U J12	5.0U	6.0U	8.8B U J12
Barium	23.7B	526.	148.B	105.B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.3B U J12	1.4B U J12	1.0B U J12	1.3B U J12
Calcium	46900	54100	75800	60300
Chromium	1.0U	1.0U	1.0U	1.0U
Cobalt	2.0U	2.0U	2.0U	2.0U
Copper	1.0U	2.5B	1.0U	1.0U
Iron	279.	8810	6490	264.
Lead	3.9 U J12	3.8 U J12	7.1 U J12	3.4 U J12
Magnesium	2030B	30200	27300	28400
Manganese	3.6B	191.	981.	635.
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	15.8B U J12	11.5B U J12	7.7B U J12	5.8B U J12
Potassium	25400E J4	12500E J4	4720BE J4	2660BE J4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	113000	96100	60700	14600
Thallium	7.0U UJ3	7.0U UJ3	7.0U UJ3	7.0U UJ3
Vanadium	6.8B	2.0U	2.0U	2.0U
Zinc	14.0B U J12	34.6 U J12	8.0U	8.0U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFOW06-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-09

% Solids: 0 Date Received: 04/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0960		mg/L		L
	TDS	705.		mg/L		G
	Salinity	0.670				D

Comments:

FORM I - WC

6/9/99

TABLE GC-1.5
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CFOW05-01	CFOW06-01	Quant. Limits with no Dilution
Lab Sample I.D.	040599-S10	990644A-08	990644A-09	
Method Blank I.D.	PCBLK58	PCBLK58	PCBLK58	
Quant. Factor	1.00	1.05	1.05	
Aroclor-1016	U	U UJ18	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	U	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U UJ18	U	1.0
Date Received		04/01/99	04/01/99	
Date Extracted	04/05/99	04/05/99	04/05/99	
Date Analyzed	04/17/99	04/17/99	04/17/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFOW07-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-01 053

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2879

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	1	J	10U 12
67-64-1	Acetone	10	B	10U 12 UJ 11
75-15-0	Carbon Disulfide	5	U	
108-05-4	Vinyl Acetate	10	U	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	5	J	10U 12
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	5	U	
108-88-3	Toluene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Xylene (total)	.8	JB	5U 12

1E

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFOW07-01

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-01

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2879 054

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 1 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	UNKNOWN C9H10 ISOMER	20.79	7	J
02.				
03.				
04.				
05.				
06.				
07.				
08.				
09.				
10.				
11.				
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFOW07-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

356

Matrix: (soil/water) WATER Lab Sample ID: 990644A-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3482

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	R24
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	.3	J	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFOW07-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644 357

Matrix: (soil/water) WATER Lab Sample ID: 990644A-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3482

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	.9	J	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ 11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	.2	JB	10U
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.8	JB	10U 12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	.4	JB	10U 15 UJ 11
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFOW07-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

359

Matrix: (soil/water) WATER Lab Sample ID: 990644A-01

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3482

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

Number TICs Found: 17 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN	26.09	7	JB	R26
02.	UNKNOWN	24.89	6	J	
03.	UNKNOWN	23.19	6	J	
04.	UNKNOWN	26.13	5	J	
05.	UNKNOWN	24.52	5	J	
06.	UNKNOWN ALKANE	25.96	4	JB	R26
07.	UNKNOWN ALKANE	24.79	4	JB	R26
08.	UNKNOWN	23.24	4	J	
09.	UNKNOWN ALKANE	25.39	3	JB	R26
10.	UNKNOWN C9H10 ISOMER	8.91	3	J	
11.	UNKNOWN	22.83	3	J	
12.	UNKNOWN ALKANE	26.52	3	J	
13.	UNKNOWN ALKANE	22.87	3	J	
14.	UNKNOWN ALKANE	24.18	2	J	
15. 85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.05	2	JN	
16.	UNKNOWN	24.58	2	J	
17.	UNKNOWN	27.79	2	J	
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.0
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CFOW07-01	CFRW02-01	CFRW03-01	CFRW06-01
Lab Sample I.D.	990644A-01	990644A-02	990644A-03	990644A-04
Aluminum	27.9B	528.	1250	69.8B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	13.8 U|12	6.0U	8.8B U|12	6.1B U|12
Barium	159.B	114.B	71.8B	74.7B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.5B U|12	1.0B U|12	1.0U	1.3B U|12
Calcium	111000	48100	69000	41000
Chromium	1.0U	3.8B	9.0B	1.4B
Cobalt	6.6B	2.0U	3.4B	2.0U
Copper	1.0U	3.2B	4.9B	1.4B
Iron	4530	1580	3330	238.
Lead	2.2B U|12	8.6 U|12	6.4 U|12	2.3B U|12
Magnesium	51200	44900	33200	35700
Manganese	2330	292.	421.	13.3B
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	16.4B U|12	34.6B	68.1	11.6B U|12
Potassium	11900E J4	3690BE J4	4980BE J4	7100E J4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	93900	13700	27000	101000
Thallium	7.0U UJ3	7.0U UJ3	7.0U UJ3	7.0U UJ3
Vanadium	4.3B	2.0U	2.8B	2.0U
Zinc	8.0U	11.0B U|12	22.9 U|12	8.0U

See Appendix for qualifier definitions

Note: All U6 recalb - changed to U12

6/9/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFOW07-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-01

% Solids: 0 Date Received: 03/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.274		mg/L		L
	TDS	882.		mg/L		G
	Salinity	0.840				D

Comments:

FORM I - WC

TABLE GC-1.0 Aqueous
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

All values are ug/L.

Client Sample I.D.	Method Blank	PBLK53 QC	CFOW07-01	Quant. Limits with no Dilution
Lab Sample I.D.	040199-B08	040199-B08QC	990644A-01	
Method Blank I.D.	PBLK53	PBLK53	PBLK53	
Quant. Factor	1.00	1.00	1.00	
Aroclor-1016	U	U	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	15.X	U	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	8.7X	U	1.0
Date Received			03/30/99	
Date Extracted	04/01/99	04/01/99	04/01/99	
Date Analyzed	04/08/99	04/08/99	04/08/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

6/4/99

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFRW01-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

154

Matrix: (soil/water) WATER Lab Sample ID: 990644A-10

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3020

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	1	JB	ID ولاد
67-64-1	Acetone	11	B	ID ولاد JJ11
75-15-0	Carbon Disulfide	5	U	
108-05-4	Vinyl Acetate	10	U	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	3	J	ID ولاد
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	5	U	
108-88-3	Toluene	5		
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Xylene (total)	.8	J	5U ولاد

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

CFRW01-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

155

Matrix: (soil/water) WATER Lab Sample ID: 990644A-10

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3020

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.					
02.					
03.					
04.					
05.					
06.					
07.					
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09.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFRW01-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3503

562

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

R24

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFRW01-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3503

563

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	.9	J	J24
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	UJ11
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.5	JB	10 U12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	3	J	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB	10U12
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	UJ24
207-08-9	Benzo(k)fluoranthene	10	U	R24
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFRW01-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3503

564

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs Found: 20 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	UNKNOWN	28.10	14	J
02.	UNKNOWN	27.47	8	J
03.	UNKNOWN	19.67	6	J
04.	UNKNOWN	19.88	6	J
05.	UNKNOWN C18H18 PAH	21.99	6	J
06.	UNKNOWN ALKANE	17.26	6	J
07.	UNKNOWN	14.61	5	J
08.	UNKNOWN C17H16 PAH	21.54	5	J
09.	UNKNOWN	28.43	4	J
10.	UNKNOWN C16H14 PAH	20.60	4	J
11.	UNKNOWN	15.04	4	J
12.	UNKNOWN	26.04	4	J
13.	UNKNOWN	27.53	4	J
14.	UNKNOWN	29.81	4	J
15.	UNKNOWN C16H14 PAH	20.36	4	J
16.	UNKNOWN	21.84	4	J
17.	UNKNOWN C16H14 PAH	20.44	3	J
18.	UNKNOWN C17H16 PAH	21.46	3	J
19.	UNKNOWN C14H12 PAH	17.68	3	J
20.	UNKNOWN	26.64	3	J
21.				
22.				
23.				
24.				
25.				
26.				
27.				
28.				
29.				
30.				

TABLE AS-1.2
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CFOW05-01	CFOW06-01	CFRW01-01	CFRW07-01
Lab Sample I.D.	990644A-08	990644A-09	990644A-10	990644A-12
Aluminum	450.	41.4B	124.B	62.5B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	25.0 U J 12	6.0U	6.0U	8.8B U J 12
Barium	23.7B	526.	148.B	105.B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.3B U J 12	1.4B U J 12	1.0B U J 12	1.3B U J 12
Calcium	46900	54100	75800	60300
Chromium	1.0U	1.0U	1.0U	1.0U
Cobalt	2.0U	2.0U	2.0U	2.0U
Copper	1.0U	2.5B	1.0U	1.0U
Iron	279.	8810	6490	264.
Lead	3.9 U J 12	3.8 U J 12	7.1 U J 12	3.4 U J 12
Magnesium	2030B	30200	27300	28400
Manganese	3.6B	191.	981.	635.
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	15.8B U J 12	11.5B U J 12	7.7B U J 12	5.8B U J 12
Potassium	25400E J 4	12500E J 4	4720BE J 4	2660BE J 4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	113000	96100	60700	14600
Thallium	7.0U UJ 3	7.0U UJ 3	7.0U UJ 3	7.0U UJ 3
Vanadium	6.8B	2.0U	2.0U	2.0U
Zinc	14.0B U J 12	34.6 U J 12	8.0U	8.0U

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFRW01-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-10

% Solids: 0 Date Received: 04/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.514		mg/L		L
	TDS	510.		mg/L		G
	Salinity	0.480				D

Comments:

FORM I - WC

4/9/99

Aqueous

TABLE GC-1.4
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

All values are ug/L.

Client Sample I.D.	CFRW01-01	CFER04		Quant. Limits with no Dilution
Lab Sample I.D.	990644A-10	990644A-13		
Method Blank I.D.	PBLK58	PBLK58		
Quant. Factor	1.05	1.05		
Aroclor-1016	U	U		1.0
Aroclor-1221	U	U		2.0
Aroclor-1232	U	U		1.0
Aroclor-1242	U	U		1.0
Aroclor-1248	U	U		1.0
Aroclor-1254	U	U		1.0
Aroclor-1260	U	U		1.0
Date Received	04/01/99	04/01/99		
Date Extracted	04/05/99	04/05/99		
Date Analyzed	04/07/99	04/07/99		

See Appendix for qualifier definitions
te: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

6/9/99

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

CFRW02-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-02065

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2880

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	3	J	10 U 12
67-64-1	Acetone	3	JB	10 U 12, UJ 11
75-15-0	Carbon Disulfide	.3	J	
108-05-4	Vinyl Acetate	10	U	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	5	U	
108-88-3	Toluene	5	U	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-90-7	Chlorobenzene	3	J	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Xylene (total)	.6	JB	5 U 12

1E

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFRW02-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-02 066

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2880

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.				
02.				
03.				
04.				
05.				
06.				
07.				
08.				
09.				
10.				
11.				
12.				
13.				
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27.				
28.				
29.				
30.				

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFRW02-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

390

Matrix: (soil/water) WATER Lab Sample ID: 990644A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3483

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	R24
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFRW02-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-0391

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3483

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ 11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	.2	JB	10U
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	1	JB	10U 12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	.2	J	J 24
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	3	JB	10U 12 J UJ 11
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFRW02-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

392

Matrix: (soil/water) WATER Lab Sample ID: 990644A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3483

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs Found: 13 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN	26.10	4	JB	R2b
02.	UNKNOWN ALKANE	25.97	4	JB	R2b
03.	UNKNOWN	23.18	4	J	
04.	UNKNOWN	24.52	3	J	
05.	UNKNOWN ALKANE	24.79	3	JB	R2b
06.	UNKNOWN ALKANE	25.38	3	JB	R2b
07.	UNKNOWN	9.75	3	J	
08.	UNKNOWN	23.15	2	J	
09.	UNKNOWN	26.08	2	J	
10.	UNKNOWN	22.82	2	J	
11.	UNKNOWN	24.55	2	J	
12.	UNKNOWN ALKANE	26.52	2	J	
13.	UNKNOWN ALKANE	24.17	2	J	
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.0
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CFOW07-01	CFRW02-01	CFRW03-01	CFRW06-01
Lab Sample I.D.	990644A-01	990644A-02	990644A-03	990644A-04
Aluminum	27.9B	528.	1250	69.8B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	13.8 U|12	6.0U	8.8B U|12	6.1B U|12
Barium	159.B	114.B	71.8B	74.7B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.5B U|12	1.0B U|12	1.0U	1.3B U|12
Calcium	111000	48100	69000	41000
Chromium	1.0U	3.8B	9.0B	1.4B
Cobalt	6.6B	2.0U	3.4B	2.0U
Copper	1.0U	3.2B	4.9B	1.4B
Iron	4530	1580	3330	238.
Lead	2.2B U|12	8.6 U|12	6.4 U|12	2.3B U|12
Magnesium	51200	44900	33200	35700
Manganese	2330	292.	421.	13.3B
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	16.4B U|12	34.6B	68.1	11.6B U|12
Potassium	11900E J4	3690BE J4	4980BE J4	7100E J4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	93900	13700	27000	101000
Thallium	7.0U U|3	7.0U U|3	7.0U U|3	7.0U U|3
Vanadium	4.3B	2.0U	2.8B	2.0U
Zinc	8.0U	11.0B U|12	22.9 U|12	8.0U

See Appendix for qualifier definitions

Note: All U6 recalb - changed to U12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFRW02-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-02

% Solids: 0 Date Received: 03/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0159		mg/L		L
	TDS	361.		mg/L		G
	Salinity	0.310				D

Comments:

FORM I - WC

JM 6/9/99

TABLE GC-1.1
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

Aqueous

All values are ug/L.

Client Sample I.D.	CFRW02-01	CFRW03-01	CFRW06-01	Quant. Limits with no Dilution
Lab Sample I.D.	990644A-02	990644A-03	990644A-04	
Method Blank I.D.	PBLK53	PBLK53	PBLK53	
Quant. Factor	1.00	1.00	1.00	
Aroclor-1016	U	U	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	U	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U	U	1.0
Date Received	03/30/99	03/30/99	03/30/99	
Date Extracted	04/01/99	04/01/99	04/01/99	
Date Analyzed	04/08/99	04/08/99	04/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFRW03-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-072

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2881

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	3	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
108-05-4	Vinyl Acetate	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	.4	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

10 U 12
U J 11

1E

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFRW03-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-0073

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2881

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.				
02.				
03.				
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05.				
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO. 419

CFRW03-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3484

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	R24
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFRW03-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

420

Matrix: (soil/water) WATER Lab Sample ID: 990644A-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3484

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.8	JB	10 U12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	.5	JB	10 U12 UJ11
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

CFRW03-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

421

Matrix: (soil/water) WATER Lab Sample ID: 990644A-03

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3484

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs Found: 8 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN	23.19	9	J	
02.	UNKNOWN	24.56	4	J	
03.	UNKNOWN	24.51	3	J	
04.	UNKNOWN	26.07	3	JB	R2L
05.	UNKNOWN	26.10	2	J	
06.	UNKNOWN ALKANE	27.80	2	J	
07.	UNKNOWN ALKANE	24.80	2	JB	R2L
08.	UNKNOWN ALKANE	25.96	2	JB	R2L
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
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TABLE AS-1.0 Aqueous
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

All values are ug/L.

Client Sample I.D.	CFOW07-01	CFRW02-01	CFRW03-01	CFRW06-01
Lab Sample I.D.	990644A-01	990644A-02	990644A-03	990644A-04
Aluminum	27.9B	528.	1250	69.8B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	13.8 U412	6.0U	8.8B U412	6.1B U412
Barium	159.B	114.B	71.8B	74.7B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.5B U412	1.0B U412	1.0U	1.3B U412
Calcium	111000	48100	69000	41000
Chromium	1.0U	3.8B	9.0B	1.4B
Cobalt	6.6B	2.0U	3.4B	2.0U
Copper	1.0U	3.2B	4.9B	1.4B
Iron	4530	1580	3330	238.
Lead	2.2B U412	8.6 U412	6.4 U412	2.3B U412
Magnesium	51200	44900	33200	35700
Manganese	2330	292.	421.	13.3B
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	16.4B U412	34.6B	68.1	11.6B U412
Potassium	11900E J4	3690BE J4	4980BE J4	7100E J4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	93900	13700	27000	101000
Thallium	7.0U U13	7.0U U13	7.0U U13	7.0U U13
Vanadium	4.3B	2.0U	2.8B	2.0U
Zinc	8.0U	11.0B U412	22.9 U412	8.0U

See Appendix for qualifier definitions

Note: All U6 recalb - changed to U12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFRW03-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-03

% Solids: 0 Date Received: 03/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L
	TDS	460.		mg/L		G
	Salinity	0.390				D

Comments:

FORM I - WC

6/9/99

TABLE GC-1.1
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

Aqueous

All values are ug/L.

Client Sample I.D.	CFRW02-01	CFRW03-01	CFRW06-01	Quant. Limits with no Dilution
Lab Sample I.D.	990644A-02	990644A-03	990644A-04	
Method Blank I.D.	PBLK53	PBLK53	PBLK53	
Quant. Factor	1.00	1.00	1.00	
Aroclor-1016	U	U	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	U	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U	U	1.0
Date Received	03/30/99	03/30/99	03/30/99	
Date Extracted	04/01/99	04/01/99	04/01/99	
Date Analyzed	04/08/99	04/08/99	04/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

6/9/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFRW04-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-06092

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3012

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	JB
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	5	U
108-05-4	Vinyl Acetate	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

10 JB
100 U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

CFRW04-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

093

Matrix: (soil/water) WATER Lab Sample ID: 990644A-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3012

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.					
02.					
03.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFRW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-0078

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2882

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
74-87-3	Chloromethane	10	U	
74-83-9	Bromomethane	10	U	
75-01-4	Vinyl Chloride	10	U	
75-00-3	Chloroethane	10	U	
75-09-2	Methylene Chloride	3	J	100 UJ
67-64-1	Acetone	1	JB	100 UJ
75-15-0	Carbon Disulfide	5	U	
108-05-4	Vinyl Acetate	10	U	
75-35-4	1,1-Dichloroethene	5	U	
75-34-3	1,1-Dichloroethane	5	U	
540-59-0	1,2-Dichloroethene (total)	5	U	
67-66-3	Chloroform	5	U	
107-06-2	1,2-Dichloroethane	5	U	
78-93-3	2-Butanone	10	U	
71-55-6	1,1,1-Trichloroethane	5	U	
56-23-5	Carbon Tetrachloride	5	U	
75-27-4	Bromodichloromethane	5	U	
78-87-5	1,2-Dichloropropane	5	U	
10061-01-5	cis-1,3-Dichloropropene	5	U	
79-01-6	Trichloroethene	5	U	
124-48-1	Dibromochloromethane	5	U	
79-00-5	1,1,2-Trichloroethane	5	U	
71-43-2	Benzene	5	U	
10061-02-6	trans-1,3-Dichloropropene	5	U	
75-25-2	Bromoform	5	U	
108-10-1	4-Methyl-2-Pentanone	10	U	
591-78-6	2-Hexanone	10	U	
127-18-4	Tetrachloroethene	5	U	
108-88-3	Toluene	.3	J	
79-34-5	1,1,2,2-Tetrachloroethane	5	U	
108-90-7	Chlorobenzene	5	U	
100-41-4	Ethylbenzene	5	U	
100-42-5	Styrene	5	U	
1330-20-7	Xylene (total)	5	U	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

CFRW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-04 079

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2882

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.					
02.					
03.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFRW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644 441

Matrix: (soil/water) WATER Lab Sample ID: 990644A-04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3485

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	R24
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFRW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3485

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	1	JB	10U12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	.5	JB	10U12, UJ11
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFRW06-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644 443

Matrix: (soil/water) WATER Lab Sample ID: 990644A-04

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3485

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

Number TICs Found: 5 (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.		UNKNOWN C8H18O ISOMER	6.97	7	J
02.		UNKNOWN	24.52	4	J
03.		UNKNOWN	26.12	3	J
04.		UNKNOWN	23.16	2	J
05.		UNKNOWN	23.20	2	J
06.					
07.					
08.					
09.					
10.					
11.					
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TABLE AS-1.0
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CFOW07-01	CFRW02-01	CFRW03-01	CFRW06-01
Lab Sample I.D.	990644A-01	990644A-02	990644A-03	990644A-04
Aluminium	27.9B	528.	1250	69.8B
Antimony	10.0U	10.0U	10.0U	10.0U
Arsenic	13.8 U̸12	6.0U	8.8B U̸12	6.1B U̸12
Barium	159.B	114.B	71.8B	74.7B
Beryllium	1.0U	1.0U	1.0U	1.0U
Cadmium	1.5B U̸12	1.0B U̸12	1.0U	1.3B U̸12
Calcium	111000	48100	69000	41000
Chromium	1.0U	3.8B	9.0B	1.4B
Cobalt	6.6B	2.0U	3.4B	2.0U
Copper	1.0U	3.2B	4.9B	1.4B
Iron	4530	1580	3330	238.
Lead	2.2B U̸12	8.6 U̸12	6.4 U̸12	2.3B U̸12
Magnesium	51200	44900	33200	35700
Manganese	2330	292.	421.	13.3B
Mercury	0.10U	0.10U	0.10U	0.10U
Nickel	16.4B U̸12	34.6B	68.1	11.6B U̸12
Potassium	11900E J4	3690BE J4	4980BE J4	7100E J4
Selenium	4.0U	4.0U	4.0U	4.0U
Silver	2.0U	2.0U	2.0U	2.0U
Sodium	93900	13700	27000	101000
Thallium	7.0U UJ3	7.0U UJ3	7.0U UJ3	7.0U UJ3
Vanadium	4.3B	2.0U	2.8B	2.0U
Zinc	8.0U	11.0B U̸12	22.9 U̸12	8.0U

See Appendix for qualifier definitions

Note: All U̸ recalb - changed to U12

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFRW06-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-04

% Solids: 0 Date Received: 03/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L
	TDS	622.		mg/L		G
	Salinity	0.590				D

Comments:

FORM I - WC

6/9/99

TABLE GC-1.1
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

Aqueous

All values are ug/L.

Client Sample I.D.	CFRW02-01	CFRW03-01	CFRW06-01	Quant. Limits with no Dilution
Lab Sample I.D.	990644A-02	990644A-03	990644A-04	
Method Blank I.D.	PBLK53	PBLK53	PBLK53	
Quant. Factor	1.00	1.00	1.00	
Aroclor-1016	U	U	U	1.0
Aroclor-1221	U	U	U	2.0
Aroclor-1232	U	U	U	1.0
Aroclor-1242	U	U	U	1.0
Aroclor-1248	U	U	U	1.0
Aroclor-1254	U	U	U	1.0
Aroclor-1260	U	U	U	1.0
Date Received	03/30/99	03/30/99	03/30/99	
Date Extracted	04/01/99	04/01/99	04/01/99	
Date Analyzed	04/08/99	04/08/99	04/09/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

6/4/99

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

CFRW07-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-12

Sample wt/vol: 5 (g/mL) ML Lab File ID: >03018

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 200.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	2000	U
74-83-9	Bromomethane	2000	U
75-01-4	Vinyl Chloride	2000	U
75-00-3	Chloroethane	2000	U
75-09-2	Methylene Chloride	1000	U
67-64-1	Acetone	2000	U
75-15-0	Carbon Disulfide	1000	U
108-05-4	Vinyl Acetate	2000	U
75-35-4	1,1-Dichloroethene	1000	U
75-34-3	1,1-Dichloroethane	1000	U
540-59-0	1,2-Dichloroethene (total)	1000	U
67-66-3	Chloroform	1000	U
107-06-2	1,2-Dichloroethane	1000	U
78-93-3	2-Butanone	2000	U
71-55-6	1,1,1-Trichloroethane	1000	U
56-23-5	Carbon Tetrachloride	1000	U
75-27-4	Bromodichloromethane	1000	U
78-87-5	1,2-Dichloropropane	1000	U
10061-01-5	cis-1,3-Dichloropropene	1000	U
79-01-6	Trichloroethene	1000	U
124-48-1	Dibromochloromethane	1000	U
79-00-5	1,1,2-Trichloroethane	1000	U
71-43-2	Benzene	20000	
10061-02-6	trans-1,3-Dichloropropene	1000	U
75-25-2	Bromoform	1000	U
108-10-1	4-Methyl-2-Pentanone	2000	U
591-78-6	2-Hexanone	2000	U
127-18-4	Tetrachloroethene	1000	U
108-88-3	Toluene	9800	
79-34-5	1,1,2,2-Tetrachloroethane	1000	U
108-90-7	Chlorobenzene	1000	U
100-41-4	Ethylbenzene	290	J
100-42-5	Styrene	1800	
1330-20-7	Xylene (total)	2200	

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

CFRW07-01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-1 168

Sample wt/vol: 5 (g/mL) ML Lab File ID: >03018

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 200.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs Found: 4 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.	64-19-7	ACETIC ACID	13.03	7100	JN
02.		UNKNOWN C9H8 ISOMER	23.72	6900	J
03.		UNKNOWN ISOMER OF METHYL NAP	20.98	1700	J
04.		UNKNOWN ISOMER OF METHYL NAP	19.90	1500	J
05.					
06.					
07.					
08.					
09.					
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TABLE VO-1.7 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-OW-05		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMX	992618A-19		
Method Blank I.D.	VBLKMX	VBLKMX		
Quant. Factor	1.00	10.0		
Benzene	U	440		5.0
Toluene	U	820		5.0
Ethylbenzene	U	210		5.0
Xylene (total)	U	680		5.0
Date Received		10/13/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/15/99	10/15/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-05	CF-RW-12		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-19	992618A-20		
Method Blank I.D.	SBLKC1	SBLKC1		
Quant. Factor	2.00	1.00		
Phenol	87	U		10
bis(2-Chloroethyl)ether	U	U		10
2-Chlorophenol	U	U		10
1,3-Dichlorobenzene	U	U		10
1,4-Dichlorobenzene	U	U		10
Benzyl alcohol	3J	U		10
1,2-Dichlorobenzene	U	U		10
2-Methylphenol	8J	U		10
2,2'-oxybis(1-Chloropropane)	U	U		10
4-Methylphenol	19J	U		10
N-Nitroso-di-n-propylamine	U UJ11	U		10
Hexachloroethane	U	U		10
Nitrobenzene	U	U		10
Isophorone	U	U		10
2-Nitrophenol	U	U		10
2,4-Dimethylphenol	17J	U		10
Benzoic acid	13J	U		50
bis(2-Chloroethoxy)methane	U	U		10
2,4-Dichlorophenol	U	U		10
1,2,4-Trichlorobenzene	U	U		10
Naphthalene	140	U		10
4-Chloroaniline	U	U		10
Hexachlorobutadiene	U	U		10
4-Chloro-3-methylphenol	U	U		10
2-Methylnaphthalene	34	U		10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11		10
2,4,6-Trichlorophenol	U	U		10
2,4,5-Trichlorophenol	U	U		50
2-Chloronaphthalene	U	U		10
2-Nitroaniline	U	U		50
Dimethylphthalate	U	U		10
Acenaphthylene	6J	U		10
2,6-Dinitrotoluene	U	U		10
3-Nitroaniline	U	U		50
Acenaphthene	19J	U		10
Date Received	10/13/99	10/13/99		
Date Extracted	10/15/99	10/15/99		
Date Analyzed	10/26/99	10/25/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-1.6
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	CF-OW-05	CF-RW-12		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-19	992618A-20		
Method Blank I.D.	SBLKC1	SBLKC1		
Quant. Factor	2.00	1.00		
2,4-Dinitrophenol	U	U		50
4-Nitrophenol	U	U		50
Dibenzofuran	8J	U		10
2,4-Dinitrotoluene	U	U		10
Diethylphthalate	U	U		10
4-Chlorophenyl-phenylether	U	U		10
Fluorene	17J	U		10
4-Nitroaniline	U	U		20
4,6-Dinitro-2-methylphenol	U	U		50
N-Nitrosodiphenylamine (1)	U	U		10
4-Bromophenyl-phenylether	U	U		10
Hexachlorobenzene	U	U		10
Pentachlorophenol	U UJ27	U UJ27		50
Phenanthrene	19J	U		10
Anthracene	8J	U		10
Carbazole	17J	U		10
Di-n-butylphthalate	.6JB 20U 12	.3JB 10U 12		10
Fluoranthene	5J	U		10
Pyrene	4J	U		10
Butylbenzylphthalate	U	U		10
3,3'-Dichlorobenzidine	U	U		20
Benzo(a)anthracene	1J	U		10
Chrysene	1J	U		10
bis(2-Ethylhexyl)phthalate	1JB 20U 12	.4JB 10U 12		10
Di-n-octylphthalate	.5JB 20U 12	.6JB 10U 12		10
Benzo(b)fluoranthene	.2J	U		10
Benzo(k)fluoranthene	.3J J10	U UJ10		10
Benzo(a)pyrene	.3J	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
Date Received	10/13/99	10/13/99		
Date Extracted	10/15/99	10/15/99		
Date Analyzed	10/26/99	10/25/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EM 1/16/00

TABLE SV-2.9 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-18 Client Sample Id: CF-RW-11 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ACID	6.13	13J J33

Lab Sample Id: 992618A-19 Client Sample Id: CF-OW-05

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.46	110J J33
	UNKNOWN C3 ALKYL BENZENE	8.63	96J J33
103-82-2	BENZENEACETIC ACID	12.93	71JN J33
	UNKNOWN C3 ALKYL BENZENE	8.01	70J J33
90-12-0	NAPHTHALENE, 1-METHYL-	13.82	55JN J33
	UNKNOWN C3 ALKYL BENZENE	9.18	49J J33
	UNKNOWN C9H8 ISOMER	9.62	44J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.46	41JBN R33
	UNKNOWN C3 ALKYL BENZENE	8.38	41J J33
	UNKNOWN C8H7N ISOMER	13.54	36J J33
	UNKNOWN	26.13	35J J33
	UNKNOWN C3 ALKYL BENZENE	8.14	32J J33
	UNKNOWN	11.39	30J J33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.40	30J J33
	UNKNOWN ALKANE	24.55	25JB R33
	UNKNOWN ALKANE	25.75	24JB R33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.14	23J J33
	UNKNOWN ALKANE	23.92	22JB R33
	UNKNOWN DIMETHYL-PHENOL	11.60	22J J33
	UNKNOWN ALKANE	25.16	22JB R33

Lab Sample Id: 992618A-20 Client Sample Id: CF-RW-12

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	26.50	19JB R33
	UNKNOWN	23.63	16JB R33
	UNKNOWN	23.57	15JB R33
	UNKNOWN	21.69	11JB R33
	UNKNOWN	25.30	11JB R33
	UNKNOWN ALKANE	25.22	9JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	8JBN R33
	UNKNOWN	23.25	8JB R33
	UNKNOWN	21.71	8J J33
	UNKNOWN	23.20	7J J33
	UNKNOWN ALKANE	23.31	7JB R33

See Appendix for qualifier definitions

EMM 1/16/10

Aqueous

TABLE AS-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	CF-OW-05
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	992618A-19
Arsenic	4.0U	4.0U	7.4B	12.2
Barium	5.1B	492.	181.B	36.4B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.0U	6.3 J3	3.4 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.0UN UJ1	8.2N J1	5.9N J1	8.0N J1
Silver	1.4B U12	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-OW-05

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-19

% Solids: 0 Date Received: 10/13/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.568		J1 mg/L		L

Comments:

FORM I - WC

JKS 1/13/00

Aqueous

TABLE VO-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-TB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-15	
Method Blank I.D.	VBLKMR	VBLKMR	VBLKMR	
Quant. Factor	1.00	1.00	1.00	
Benzene	120	U	U	5.0
Toluene	7	U	U	5.0
Ethylbenzene	33	U	U	5.0
Xylene (total)	27	U	U	5.0
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/13/99	10/13/99	10/12/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

jm
1/10/00

TABLE SV-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-FB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-14	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.05	1.06	1.00	
Phenol	4J	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	.4J	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorbbenzene	U	U	U	10
Naphthalene	2J	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	.7J	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	.9J	U	U	10
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00 KS

TABLE SV-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-FB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-14	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.05	1.06	1.00	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	.2JB 11U 12	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	.5J	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ27	U UJ27	U UJ27	50
Phenanthrene	U	U	U	10
Anthracene	.6J	U	U	10
Carbazole	1J	U	U	10
Di-n-butylphthalate	.5JB 10U 12	.7JB 11U 12	.5JB 10U 12	10
Fluoranthene	.3J	U	U	10
Pyrene	.4J	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.4JB 10U 12	.4JB 11U 12	.5JB 10U 12	10
Di-n-octylphthalate	.6JB 10U 12	.5JB 11U 12	.3JB 10U 12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ10	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	.3J	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	.3J	U	U	10
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-2.5 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-10 Client Sample Id: CF-RW-01 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	23.93	6J J35

Lab Sample Id: 992618A-11 Client Sample Id: CF-RW-09

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	11JBN R33
	UNKNOWN	27.74	8JB R33
	UNKNOWN	27.85	7JB R33
	UNKNOWN	24.31	7JB R33
	UNKNOWN ALKANE	25.22	6JB R33
	UNKNOWN ALKANE	26.38	6JB R33
	UNKNOWN ALKANE	25.80	6JB R33
	UNKNOWN ALKANE	24.60	5JB R33
	UNKNOWN ALKANE	26.97	5JB R33
	UNKNOWN	23.62	4JB R33
	UNKNOWN ALKANE	23.31	4JB R33
	UNKNOWN ALKANE	23.97	4JB R33
	UNKNOWN	23.26	3JB R33
	UNKNOWN ALKANE	24.99	3J J33
	UNKNOWN ALKANE	28.38	3J J33
	UNKNOWN ALKANE	27.63	3J J33
	UNKNOWN	24.94	3JB J33
	UNKNOWN	21.73	2JB J33
	UNKNOWN	23.19	2J J33
	UNKNOWN	21.70	2JB R33

Lab Sample Id: 992618A-12 Client Sample Id: CF-OW-06

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.52	96J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.52	25JBN R33
	UNKNOWN C9H10 ISOMER	14.86	18J J33
	UNKNOWN	24.20	16J J33
	UNKNOWN	23.64	14J J33
	UNKNOWN	24.31	14JB R33
	UNKNOWN	14.35	13J J33
	UNKNOWN	27.75	13JB R33
	UNKNOWN	27.86	12JB R33
	UNKNOWN C9H8 ISOMER	9.68	12J J33
	UNKNOWN	13.92	10J J33

See Appendix for qualifier definitions

EMH 11/16/00

TABLE SV-2.6 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-12 Client Sample Id: CF-OW-06 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.80	9JB R33
	UNKNOWN C10H10 ISOMER	11.55	9J J33
	UNKNOWN C3 ALKYL BENZENE	8.43	9J J33
	UNKNOWN C8H7NO ISOMER	16.90	9J J33
	UNKNOWN ALKANE	25.22	9JB R33
	UNKNOWN	26.17	8J J33
	UNKNOWN C9H10 ISOMER	15.03	8J J33
	UNKNOWN C9H10O ISOMER	12.72	8J J33
	UNKNOWN C9H7NO ISOMER	24.96	7J J33

Lab Sample Id: 992618A-13 Client Sample Id: CF-RW-10

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	4JBN R33
	UNKNOWN ALKANE	25.21	3JB R33
	UNKNOWN ALKANE	25.80	3JB R33
	UNKNOWN ALKANE	26.38	3JB R33
	UNKNOWN	27.73	2JB R33
	UNKNOWN ALKANE	21.69	2JB R33
	UNKNOWN SILOXANE	24.31	2J J33
	UNKNOWN	27.86	2JB R33
	UNKNOWN ALKANE	24.60	2JB R33
	UNKNOWN ALKANE	23.58	2JB R33
	UNKNOWN ALKANE	23.31	2JB R33

Lab Sample Id: 992618A-14 Client Sample Id: CF-FB-10/8/99

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	13JBN R33
	UNKNOWN	24.31	8JB R33
	UNKNOWN	23.64	7JB R33
	UNKNOWN	27.86	7JB R33
	UNKNOWN	27.74	7JB R33
	UNKNOWN ALKANE	25.22	7JB R33
	UNKNOWN	24.94	6JB R33
	UNKNOWN	21.69	6JB R33
	UNKNOWN ALKANE	26.38	6JB R33
	UNKNOWN ALKANE	25.81	6JB R33
	UNKNOWN	23.59	5JB R33
	UNKNOWN	25.31	5JB R33

See Appendix for qualifier definitions

EMM 1/16/00

Aqueous

TABLE AS-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-09	CF-OW-06	CF-RW-10	CF-FB-10/8/99
Lab Sample I.D.	992618A-11	992618A-12	992618A-13	992618A-14
Arsenic	5.4B	5.5B	4.0U	4.0U
Barium	186.B	567.	468.	6.0B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	35.6	4.4 J3	3.0U	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	14.1N J1	11.7N J1	8.5N J1	5.0UN UJ1
Silver	1.0U	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-OW-06

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-12

% Solids: 0 Date Received: 10/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.118		mg/L		L

Comments:

FORM I - WC

Aqueous

TABLE VO-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-TB-10/4/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-05	
Method Blank I.D.	VBLKKO	VBLKKO	VBLKKO	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received	10/06/99	10/06/99	10/06/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/11/99	10/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS
1/10/00

TABLE SV-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-RW-15	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-06	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.09	1.09	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	.5J	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U UJ1	U UJ1	U UJ1	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	.2J	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U UJ1	U UJ1	U UJ1	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	.3J	U	10
Date Received	10/06/99	10/06/99	10/07/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM
KJ 11/16/99

TABLE SV-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-RW-15	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-06	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.09	1.09	
2,4-Dinitrophenol	U UJ11	U UJ11	U UJ11	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	.2JB 11 U12	.2JB 11 U12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	.2J	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ27	U UJ27	U UJ27	50
Phenanthrene	U	.2J	U	10
Anthracene	U	.2J	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.5JB 10 U12	.8JB 11 U12	1JB 11 U12	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	.2J	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.9JB 10 U12	.9JB 11 U12	1JB 11 U12	10
Di-n-octylphthalate	.8JB 10 U12	.9JB 11 U12	1JB 11 U12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ10	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/06/99	10/06/99	10/07/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-2.2 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-04 Client Sample Id: CF-OW-07

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN DICHLORO-BENZOIC ACI	16.31	6J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	5JBN R33
	UNKNOWN ALKANE	25.93	4JB R33
	UNKNOWN ALKANE	25.35	4JB R33
	UNKNOWN	27.93	3JB R33
	UNKNOWN ALKANE	24.73	3JB R33
	UNKNOWN ALKANE	26.51	3JB R33
	UNKNOWN	28.04	2JB R33
	UNKNOWN ALKANE	27.13	2JB R33
	UNKNOWN SILOXANE	24.44	2J J33
	UNKNOWN ALKANE	23.44	2JB R33

Lab Sample Id: 992618A-06 Client Sample Id: CF-RW-15

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.94	4JB R33
	UNKNOWN ALKANE	26.51	4JB R33
	UNKNOWN ALKANE	25.35	4JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	3JBN R33
	UNKNOWN ALKANE	24.74	3JB R33
	UNKNOWN ALKANE	27.12	3JB R33
	UNKNOWN	19.43	3JB R33
	UNKNOWN ALKANE	24.10	2JB R33
	UNKNOWN ALKANE	27.81	2JB R33

Lab Sample Id: 992618A-07 Client Sample Id: CF-RW-13

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.51	46J J33
90-12-0	NAPHTHALENE, 1-METHYL-	13.87	33JN J33
	UNKNOWN C3 ALKYL BENZENE	8.07	16J J33
	UNKNOWN C10H10 ISOMER	11.55	13J J33
	UNKNOWN C10H10 ISOMER	11.45	10J J33
	UNKNOWN C3 ALKYL BENZENE	8.69	10J J33
	UNKNOWN C9H8 ISOMER	9.68	8J J33
	UNKNOWN C4 ALKYL BENZENE	9.25	6J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	5JBN R33
	UNKNOWN	30.20	5J J33
	UNKNOWN ALKANE	25.21	5JB R33
	UNKNOWN C10H12 ISOMER	11.27	5J J33

See Appendix for qualifier definitions

EMM 1/16/00

Aqueous

TABLE AS-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-06	CF-RW-03	CF-RW-08	CF-OW-07
Lab Sample I.D.	992618A-01	992618A-02	992618A-03	992618A-04
Arsenic	4.0U	6.3B	14.8	4.0U
Barium	241.	94.2B	177.B	228.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	3.2B U12	2.0U	2.0U
Lead	3.0U	13.9	28.8	4.9 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	10.7N J1	5.6N J1	21.2N J1	20.3N J1
Silver	1.0U	1.3B U12	1.2B U12	1.3B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-OW-07

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-04

% Solids: 0 Date Received: 10/06/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.444		J mg/L		L

Comments:

FORM I - WC

JKS 1/10/00

TABLE VO-1.2 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMR VBLKMR 1.00	CF-RW-01 992618A-10 VBLKMR 1.00	CF-RW-09 992618A-11 VBLKMR 1.00	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		10/11/99	10/11/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/12/99	10/13/99	10/13/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-01	CF-RW-09	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKC1	992618A-10	992618A-11	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.00	1.00	1.00	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	.2J	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	.5J	U	10
Date Received		10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/22/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKH EMM 1/16/00

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKC1 SBLKC1 1.00	CF-RW-01 992618A-10 SBLKC1 1.00	CF-RW-09 992618A-11 SBLKC1 1.00	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2J	.2JB 10U 12	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	1J	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U UJ27	U UJ27	50
Phenanthrene	U	U	.4J	10
Anthracene	U	.4J	.1J	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.8J	.6JB 10U 12	.4JB 10U 12	10
Fluoranthene	U	.3J	.4J	10
Pyrene	U	1J	.4J	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	.2J	.2J	10
Chrysene	U	.4J	.3J	10
bis(2-Ethylhexyl)phthalate	.4J	.7JB 10U 12	.4JB 10U 12	10
Di-n-octylphthalate	.3J	.3JB 10U 12	.4JB 10U 12	10
Benzo(b)fluoranthene	U	U	.2J	10
Benzo(k)fluoranthene	U	U UJ10	.3J J10	10
Benzo(a)pyrene	U	.2J	.3J	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	.4J	.2J	10
Date Received		10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/22/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-2.4 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: SBLKC1 Client Sample Id: Method Blank

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	23.67	28J
	UNKNOWN	23.33	15J
	UNKNOWN	25.37	12J
	UNKNOWN	25.00	12J
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.56	11JN
	UNKNOWN	21.77	11J
	UNKNOWN	26.58	11J
	UNKNOWN ALKANE	25.05	10J
	UNKNOWN ALKANE	25.28	10J
	UNKNOWN ALKANE	26.44	8J
	UNKNOWN ALKANE	25.86	8J
	UNKNOWN ALKANE	24.66	8J
	UNKNOWN ALKANE	23.38	8J
	UNKNOWN	24.37	7J
	UNKNOWN	26.64	6J
	UNKNOWN	27.82	6J
	UNKNOWN ALKANE	27.04	6J
	UNKNOWN	21.38	5J
	UNKNOWN	27.94	5J
	UNKNOWN ALKANE	24.03	5J

Lab Sample Id: 992618A-10 Client Sample Id: CF-RW-01

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	26JBN R33
	UNKNOWN	27.75	17JB R33
	UNKNOWN	24.31	17JB R33
	UNKNOWN	27.86	16JB R33
	UNKNOWN	23.26	14JB R33
	UNKNOWN ALKANE	25.22	12JB R33
	UNKNOWN	23.61	11JB R33
	UNKNOWN ALKANE	25.81	11JB R33
	UNKNOWN ALKANE	23.31	10JB R33
	UNKNOWN ALKANE	26.38	10JB R33
	UNKNOWN ALKANE	24.61	10JB R33
	UNKNOWN	28.26	9J J33
	UNKNOWN ALKANE	26.97	9JB R33
	UNKNOWN ALKANE	23.97	9JB R33
	UNKNOWN	28.98	8J J33
	UNKNOWN	24.94	8JB R33
	UNKNOWN	29.91	7J J33
	UNKNOWN	23.83	7JB R33
	UNKNOWN	23.67	6J J33

See Appendix for qualifier definitions

EMA 1/16/00

TABLE SV-2.5 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-10 Client Sample Id: CF-RW-01 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	23.93	6J J33

Lab Sample Id: 992618A-11 Client Sample Id: CF-RW-09

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	11JBN R33
	UNKNOWN	27.74	8JB R33
	UNKNOWN	27.85	7JB R33
	UNKNOWN	24.31	7JB R33
	UNKNOWN ALKANE	25.22	6JB R33
	UNKNOWN ALKANE	26.38	6JB R33
	UNKNOWN ALKANE	25.80	6JB R33
	UNKNOWN ALKANE	24.60	5JB R33
	UNKNOWN ALKANE	26.97	5JB R33
	UNKNOWN	23.62	4JB R33
	UNKNOWN ALKANE	23.31	4JB R33
	UNKNOWN ALKANE	23.97	4JB R33
	UNKNOWN	23.26	3JB R33
	UNKNOWN ALKANE	24.99	3J J33
	UNKNOWN ALKANE	28.38	3J J33
	UNKNOWN ALKANE	27.63	3J J33
	UNKNOWN	24.94	3JB J33
	UNKNOWN	21.73	2JB J33
	UNKNOWN	23.19	2J J33
	UNKNOWN	21.70	2JB R33

Lab Sample Id: 992618A-12 Client Sample Id: CF-OW-06

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.52	96J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.52	25JBN R33
	UNKNOWN C9H10 ISOMER	14.86	18J J33
	UNKNOWN	24.20	16J J33
	UNKNOWN	23.64	14J J33
	UNKNOWN	24.31	14JB R33
	UNKNOWN	14.35	13J J33
	UNKNOWN	27.75	13JB R33
	UNKNOWN	27.86	12JB R33
	UNKNOWN C9H8 ISOMER	9.68	12J J33
	UNKNOWN	13.92	10J J33

See Appendix for qualifier definitions

EMM 11/16/00

Aqueous

TABLE AS-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-15	CF-RW-13	CF-RW-02	CF-RW-01
Lab Sample I.D.	992618A-06	992618A-07	992618A-08	992618A-10
Arsenic	9.8B	4.0U	4.0U	4.0U
Barium	294.	730.	150.B	238.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.2 J3	5.1 J3	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.5N J1	8.9N J1	5.8N J1	14.2N J1
Silver	1.2B U12	1.0U	1.2B U12	1.1B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-01

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-10

% Solids: 0 Date Received: 10/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.270		J(mg/L		L

Comments:

FORM I - WC

1/10/00

Aqueous

TABLE VO-1.6
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-02	CF-TB-10/6/99		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-08	992618A-09		
Method Blank I.D.	VBLKKP	VBLKKP		
Quant. Factor	1.00	1.00		
Benzene	3J	U		5.0
Toluene	U	U		5.0
Ethylbenzene	1J	U		5.0
Xylene (total)	U	U		5.0
Date Received	10/07/99	10/07/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/12/99	10/11/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-13	CF-RW-02		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-07	992618A-08		
Method Blank I.D.	SBLKRQ	SBLKRQ		
Quant. Factor	2.00	1.15		
Phenol	1J	U		10
bis(2-Chloroethyl)ether	U	U		10
2-Chlorophenol	U	U		10
1,3-Dichlorobenzene	U	U		10
1,4-Dichlorobenzene	U	U		10
Benzyl alcohol	U	U		10
1,2-Dichlorobenzene	U	U		10
2-Methylphenol	U	U		10
2,2'-oxybis(1-Chloropropane)	U	U		10
4-Methylphenol	U	U		10
N-Nitroso-di-n-propylamine	U	U		10
Hexachloroethane	U	U		10
Nitrobenzene	U	U		10
Isophorone	U	U		10
2-Nitrophenol	U	U		10
2,4-Dimethylphenol	U	U		10
Benzoic acid	U	U UJ11		50
bis(2-Chloroethoxy)methane	U	U		10
2,4-Dichlorophenol	U	U		10
1,2,4-Trichlorobenzene	U	U		10
Naphthalene	150	.2J		10
4-Chloroaniline	U	U		10
Hexachlorobutadiene	U	U		10
4-Chloro-3-methylphenol	U	U		10
2-Methylnaphthalene	41	U		10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ11		10
2,4,6-Trichlorophenol	U	U		10
2,4,5-Trichlorophenol	U	U		50
2-Chloronaphthalene	U	U		10
2-Nitroaniline	U	U		50
Dimethylphthalate	U	U		10
Acenaphthylene	.6J	.3J		10
2,6-Dinitrotoluene	U	U		10
3-Nitroaniline	U	U		50
Acenaphthene	16J	U		10
Date Received	10/07/99	10/07/99		
Date Extracted	10/08/99	10/08/99		
Date Analyzed	10/25/99	10/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM
JKB 1/16/00

All values are ug/L.

Client Sample I.D.	CF-RW-13	CF-RW-02		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-07	992618A-08		
Method Blank I.D.	SBLKRQ	SBLKRQ		
Quant. Factor	2.00	1.15		
2,4-Dinitrophenol	U	U UJ11		50
4-Nitrophenol	U	U		50
Dibenzofuran	U	U		10
2,4-Dinitrotoluene	U	U		10
Diethylphthalate	U	.2JB 12U12		10
4-Chlorophenyl-phenylether	U	U		10
Fluorene	6J	U		10
4-Nitroaniline	U	U		20
4,6-Dinitro-2-methylphenol	U	U		50
N-Nitrosodiphenylamine (1)	U	U		10
4-Bromophenyl-phenylether	U	U		10
Hexachlorobenzene	U	U		10
Pentachlorophenol	U UJ27	U UJ27		50
Phenanthrene	4J	U		10
Anthracene	.7J	U		10
Carbazole	U	U		10
Di-n-butylphthalate	1JB 20U12	1JB 12U12		10
luoranthene	U	.2J		10
yrene	.3J	.2J		10
Butylbenzylphthalate	U	U		10
3,3'-Dichlorobenzidine	U	U		20
Benzo(a)anthracene	U	.2J		10
Chrysene	U	.3J		10
bis(2-Ethylhexyl)phthalate	1JB 20U12	2JB 12U12		10
Di-n-octylphthalate	1JB 20U12	1JB 12U12		10
Benzo(b)fluoranthene	U	.2J		10
Benzo(k)fluoranthene	U UJ10	.3J UJ10		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	.1J		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	.2J		10
Date Received	10/07/99	10/07/99		
Date Extracted	10/08/99	10/08/99		
Date Analyzed	10/25/99	10/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-2.3 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-07 Client Sample Id: CF-RW-13 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.80	5JB R33
	UNKNOWN	19.99	4J J33
	UNKNOWN ALKANE	26.38	4JB R33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.20	4J J33
	UNKNOWN ALKANE	24.61	4JB R33

Lab Sample Id: 992618A-08 Client Sample Id: CF-RW-02

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	15JBN R33
	UNKNOWN ALKANE	25.35	10JB R33
	UNKNOWN ALKANE	25.94	10JB R33
	UNKNOWN	24.44	9J J33
	UNKNOWN	27.92	9JB R33
	UNKNOWN ALKANE	26.52	9JB R33
	UNKNOWN	28.05	8JB R33
	UNKNOWN ALKANE	24.74	8JB R33
	UNKNOWN ALKANE	27.12	7JB R33
105-60-2	CAPROLACTAM	13.11	6JN J33
	UNKNOWN DICHLORO-BENZOIC ACI	16.32	6J J33
	UNKNOWN ALKANE	24.10	6JB R33
	UNKNOWN ALKANE	23.44	6JB R33
	UNKNOWN ALKANE	27.81	5JB R33
617-94-7	BENZENEMETHANOL, .ALPHA.,.AL	10.48	4JN J33
	UNKNOWN C9H10 ISOMER	9.66	4J J33
	UNKNOWN	24.06	3J J33
	UNKNOWN ALKANE	28.59	3J J33
	UNKNOWN C9H8 ISOMER	9.83	3J J33
	UNKNOWN ALKANE	22.76	3J J33

See Appendix for qualifier definitions

EMM 1/16/00

Aqueous

TABLE AS-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-15	CF-RW-13	CF-RW-02	CF-RW-01
Lab Sample I.D.	992618A-06	992618A-07	992618A-08	992618A-10
Arsenic	9.8B	4.0U	4.0U	4.0U
Barium	294.	730.	150.B	238.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.2 J3	5.1 J3	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.5N J1	8.9N J1	5.8N J1	14.2N J1
Silver	1.2B U12	1.0U	1.2B U12	1.1B U12

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-02

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-08

% Solids: 0 Date Received: 10/07/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	RI mg/L		L

Comments:

FORM I - WC

JPS
Jan
11/3/99

TABLE VO-1.0 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKO VBLKKO 1.00	CF-RW-06 992618A-01 VBLKKO 1.00	CF-RW-03 992618A-02 VBLKKO 1.00	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		10/06/99	10/06/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/11/99	10/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1/10/00

TABLE SV-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-06	CF-RW-03	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKRQ	992618A-01	992618A-02	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.00	1.00	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U UJ1	U UJ1	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U UJ1	U UJ1	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	U	10
Date Received		10/06/99	10/06/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JKS EMH 1/16/00

TABLE SV-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-06	CF-RW-03	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKRQ	992618A-01	992618A-02	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.00	1.00	
2,4-Dinitrophenol	U	U UJ11	U UJ11	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2J	U	.1JB 10U12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U UJ27	U UJ27	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.4J	.7JB 10U12	1JB 10U12	10
luoranthene	U	U	U	10
yrene	U	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.5J	.6JB 10U12	.7JB 10U12	10
Di-n-octylphthalate	.2J	.5JB 10U12	.6JB 10U12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		10/06/99	10/06/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-2.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Aqueous

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-02 Client Sample Id: CF-RW-03

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	9JBN R33
	UNKNOWN	23.76	7J J33
	UNKNOWN ALKANE	25.35	7JB R33
	UNKNOWN ALKANE	25.94	6JB R33
	UNKNOWN ALKANE	26.51	6JB R33
	UNKNOWN	23.69	5J J33
	UNKNOWN	24.45	5J J33
	UNKNOWN ALKANE	24.74	5JB R33
	UNKNOWN	27.93	5JB R33
	UNKNOWN	26.64	5J J33
	UNKNOWN ALKANE	23.44	5JB R33
	UNKNOWN	28.05	4JB R33
	UNKNOWN	21.82	4J J33
	UNKNOWN	25.43	4J J33
	UNKNOWN ALKANE	24.10	4JB R33
	UNKNOWN ALKANE	27.12	4JB R33
	UNKNOWN	25.07	3J J33
	UNKNOWN	23.38	3J J33
	UNKNOWN ALKANE	27.81	3JB R33
	UNKNOWN	23.33	2J J33

Lab Sample Id: 992618A-03 Client Sample Id: CF-RW-08

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN DICHLORO-BENZOIC ACI	16.34	13J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	4JBN R33
	UNKNOWN .	18.23	3J J33
	UNKNOWN	17.98	3J J33
	UNKNOWN ALKANE	26.52	3JB R33
	UNKNOWN ALKANE	25.94	3JB R33
	UNKNOWN ALKANE	25.36	3JB R33
	UNKNOWN	27.93	2JB R33
	UNKNOWN ALKANE	27.12	2JB R33

See Appendix for qualifier definitions

EHM 1/16/98

Aqueous

TABLE AS-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-06	CF-RW-03	CF-RW-08	CF-OW-07
Lab Sample I.D.	992618A-01	992618A-02	992618A-03	992618A-04
Arsenic	4.0U	6.3B	14.8	4.0U
Barium	241.	94.2B	177.B	228.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	3.2B U12	2.0U	2.0U
Lead	3.0U	13.9	28.8	4.9 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	10.7N J1	5.6N J1	21.2N J1	20.3N J1
Silver	1.0U	1.3B U12	1.2B U12	1.3B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-03

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-02

% Solids: 0 Date Received: 10/06/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	R1 mg/L		L

Comments:

FORM I - WC

Aqueous

TABLE VO-1.8
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-FB-1 0/12/99	CF-RW-04	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKU	992618A-16	992618A-17	
Method Blank I.D.	VBLKKU	VBLKKU	VBLKKU	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	5.0
Toluene	U	U	.2J	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		10/13/99	10/13/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/14/99	10/15/99	10/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1/10/00

TABLE SV-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-FB-1 0/12/99 992618A-16 SBLKC1 1.00	CF-RW-04 992618A-17 SBLKC1 1.00	CF-RW-11 992618A-18 SBLKC1 1.08	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	.4J	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2JB 10 U 12	.2JB 10 U 12	.4JB 11 U 12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	2J	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ 27	U UJ 27	U UJ 27	50
Phenanthrene	U	U	U	10
Anthracene	U	U	.4J	10
Carbazole	U	U	.5J	10
Di-n-butylphthalate	.5JB 10 U 12	.8JB 10 U 12	.9JB 11 U 12	10
Fluoranthene	U	U	.8J	10
Pyrene	U	U	.7J	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	.2J	10
Chrysene	U	U	.2J	10
bis(2-Ethylhexyl)phthalate	.7JB 10 U 12	1JB 10 U 12	1JB 11 U 12	10
Di-n-octylphthalate	.5JB 10 U 12	.7JB 10 U 12	1JB 11 U 12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ 10	U UJ 10	U UJ 10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/13/99	10/13/99	10/13/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00 VRS

TABLE SV-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.00	1.00	1.08	
Phenol	.3J	U	38	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	1J	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	12	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	28J	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	3J	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	7J	10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	.2J	.6J	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	1J	10
Date Received	10/13/99	10/13/99	10/13/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMON 1/16/00

TABLE SV-2.8 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-17 Client Sample Id: CF-RW-04

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.53	44JBN R33
	UNKNOWN	21.70	39JB R33
	UNKNOWN	23.64	37JB R33
	UNKNOWN	23.58	33JB R33
	UNKNOWN	27.77	32JB J33
	UNKNOWN ALKANE	26.52	30JB R33
	UNKNOWN	27.88	28JB R33
	UNKNOWN	25.32	23JB R33
	UNKNOWN ALKANE	25.23	23JB R33
	UNKNOWN ALKANE	26.39	22JB R33
	UNKNOWN ALKANE	23.32	19JB R33
	UNKNOWN	26.56	18J J33
	UNKNOWN ALKANE	24.62	18JB R33
	UNKNOWN ALKANE	25.81	18JB R33
	UNKNOWN	23.26	17JB R33
	UNKNOWN ALKANE	26.98	17JB R33
	UNKNOWN	23.21	16J J33
	UNKNOWN ALKANE	23.98	13JB R33
	UNKNOWN	28.24	12J J33
	UNKNOWN ALKANE	28.40	12J J33

Lab Sample Id: 992618A-18 Client Sample Id: CF-RW-11

CAS#	Compound	RT	Estimated Conc., ug/L
103-82-2	BENZENEACETIC ACID	13.10	160JN J33
	UNKNOWN	21.71	32JB R33
	UNKNOWN	23.66	30J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.53	28JBN R33
	UNKNOWN	23.59	22JB R33
	UNKNOWN ACID	6.27	20J J33
	UNKNOWN	27.75	19JB R33
	UNKNOWN DICHLORO-BENZOIC ACI	16.26	19J J33
	UNKNOWN ALKANE	25.22	19JB R33
	UNKNOWN	24.32	17JB R33
	UNKNOWN	27.87	17JB R33
	UNKNOWN ACID	14.09	16J J33
	UNKNOWN	25.31	15JB R33
	UNKNOWN	24.94	15JB R33
	UNKNOWN ALKANE	26.39	14JB R33
	UNKNOWN C8H7N ISOMER	13.61	14J J33
	UNKNOWN C3 ALKYL BENZENE	9.25	14J J33
	UNKNOWN	23.26	13JB R33
	UNKNOWN	23.21	13J J33

See Appendix for qualifier definitions

EMM 1/16/00

Aqueous

TABLE AS-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	CF-OW-05
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	992618A-19
Arsenic	4.0U	4.0U	7.4B	12.2
Barium	5.1B	492.	181.B	36.4B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.0U	6.3 J3	3.4 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.0UN J1	8.2N J1	5.9N J1	8.0N J1
Silver	1.4B U12	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-04

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-17

% Solids: 0 Date Received: 10/13/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	R mg/L		L

Comments:

FORM I - WC

11/10/00

Aqueous

TABLE VO-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKO VBLKKO 1.00	CF-RW-06 992618A-01 VBLKKO 1.00	CF-RW-03 992618A-02 VBLKKO 1.00	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		10/06/99	10/06/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/11/99	10/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-06	CF-RW-03	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKRQ	992618A-01	992618A-02	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.00	1.00	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U UJ11	U UJ11	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U UJ11	U UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	U	10
Date Received		10/06/99	10/06/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-06	CF-RW-03	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKRQ	992618A-01	992618A-02	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.00	1.00	
2,4-Dinitrophenol	U	U UJ11	U UJ11	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2J	U	.1JB 10U 12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U UJ27	U UJ27	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.4J	.7JB 10U 12	1JB 10U 12	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.5J	.6JB 10U 12	.7JB 10U 12	10
Di-n-octylphthalate	.2J	.5JB 10U 12	.6JB 10U 12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		10/06/99	10/06/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-2.0 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKRQ

Lab Sample Id: SBLKRQ Client Sample Id: Method Blank

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	5JN
	UNKNOWN ALKANE	25.94	4J
	UNKNOWN ALKANE	26.51	4J
	UNKNOWN ALKANE	25.35	4J
	UNKNOWN ALKANE	24.73	3J
	UNKNOWN ALKANE	27.12	3J
119-61-9	BENZOPHENONE	17.60	2JN
	UNKNOWN	27.92	2J
	UNKNOWN ALKANE	24.10	2J
	UNKNOWN ALKANE	27.81	2J
	UNKNOWN ALKANE	23.44	2J
	UNKNOWN	28.04	2J
	UNKNOWN	19.43	2J

Lab Sample Id: 992618A-01 Client Sample Id: CF-RW-06

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.94	5JB R33
	UNKNOWN ALKANE	25.35	4JB R33
	UNKNOWN	23.76	3J J35
	UNKNOWN ALKANE	24.73	3JB R33
	UNKNOWN ALKANE	26.51	3JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	2JBN R33
	UNKNOWN ALKANE	23.44	2JB R33
	UNKNOWN C24H14 PAH	25.56	2J J33
	UNKNOWN ALKANE	27.12	2JB R33
	UNKNOWN ALKANE	24.10	2JB R33
	UNKNOWN ALKANE	27.81	2JB R32
	UNKNOWN	28.04	2JB R33
	UNKNOWN	21.82	2J J33

See Appendix for qualifier definitions

1/16/00

TABLE AS-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-06	CF-RW-03	CF-RW-08	CF-OW-07
Lab Sample I.D.	992618A-01	992618A-02	992618A-03	992618A-04
Arsenic	4.0U	6.3B	14.8	4.0U
Barium	241.	94.2B	177.B	228.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	3.2B U12	2.0U	2.0U
Lead	3.0U	13.9	28.8	4.9 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	10.7N J1	5.6N J1	21.2N J1	20.3N J1
Silver	1.0U	1.3B U12	1.2B U12	1.3B U12

See Appendix for qualifier definitions

1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-06

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-01

% Solids: 0 Date Received: 10/06/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0220		mg/L	J	L

Comments:

FORM I - WC

TABLE VO-1.1 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-TB-10/4/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-05	
Method Blank I.D.	VBLKKO	VBLKKO	VBLKKO	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received	10/06/99	10/06/99	10/06/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/11/99	10/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

1/10/00

TABLE SV-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-RW-15	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-06	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.09	1.09	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	.5J	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U UJ1	U UJ1	U UJ1	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	.2J	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U UJ1	U UJ1	U UJ1	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	.3J	U	10
Date Received	10/06/99	10/06/99	10/07/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00
JKS

TABLE SV-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-RW-15	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-06	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.09	1.09	
2,4-Dinitrophenol	U UJ11	U UJ11	U UJ11	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	.2JB 11 U12	.2JB 11 U12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	.2J	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ27	U UJ27	U UJ27	50
Phenanthrene	U	.2J	U	10
Anthracene	U	.2J	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.5JB 10 U12	.8JB 11 U12	1JB 11 U12	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	.2J	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.9JB 10 U12	.9JB 11 U12	1JB 11 U12	10
Di-n-octylphthalate	.8JB 10 U12	.9JB 11 U12	1JB 11 U12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ10	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/06/99	10/06/99	10/07/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-2.1 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-02 Client Sample Id: CF-RW-03

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	9JBN R33
	UNKNOWN	23.76	7J J33
	UNKNOWN ALKANE	25.35	7JB R33
	UNKNOWN ALKANE	25.94	6JB R33
	UNKNOWN ALKANE	26.51	6JB R33
	UNKNOWN	23.69	5J J33
	UNKNOWN	24.45	5J J33
	UNKNOWN ALKANE	24.74	5JB R33
	UNKNOWN	27.93	5JB R33
	UNKNOWN	26.64	5J J33
	UNKNOWN ALKANE	23.44	5JB R33
	UNKNOWN	28.05	4JB R33
	UNKNOWN	21.82	4J J33
	UNKNOWN	25.43	4J J33
	UNKNOWN ALKANE	24.10	4JB R33
	UNKNOWN ALKANE	27.12	4JB R33
	UNKNOWN	25.07	3J J33
	UNKNOWN	23.38	3J J33
	UNKNOWN ALKANE	27.81	3JB R33
	UNKNOWN	23.33	2J J33

Lab Sample Id: 992618A-03 Client Sample Id: CF-RW-08

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN DICHLORO-BENZOIC ACI	16.34	13J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	4JBN R33
	UNKNOWN	18.23	3J J33
	UNKNOWN	17.98	3J J33
	UNKNOWN ALKANE	26.52	3JB R33
	UNKNOWN ALKANE	25.94	3JB R33
	UNKNOWN ALKANE	25.36	3JB R33
	UNKNOWN	27.93	2JB R33
	UNKNOWN ALKANE	27.12	2JB R33

See Appendix for qualifier definitions

EHM 1/16/20

Aqueous

TABLE AS-1.0
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-06	CF-RW-03	CF-RW-08	CF-OW-07
Lab Sample I.D.	992618A-01	992618A-02	992618A-03	992618A-04
Arsenic	4.0U	6.3B	14.8	4.0U
Barium	241.	94.2B	177.B	228.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	3.2B U12	2.0U	2.0U
Lead	3.0U	13.9	28.8	4.9 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	10.7N J1	5.6N J1	21.2N J1	20.3N J1
Silver	1.0U	1.3B U12	1.2B U12	1.3B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-08

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-03

% Solids: 0 Date Received: 10/06/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	RI mg/L		L

Comments:

FORM I - WC

Aqueous

TABLE VO-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMR VBLKMR 1.00	CF-RW-01 992618A-10 VBLKMR 1.00	CF-RW-09 992618A-11 VBLKMR 1.00	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received Date Extracted Date Analyzed	 N/A 10/12/99	10/11/99 N/A 10/13/99	10/11/99 N/A 10/13/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

from 1/10/00

TABLE SV-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKC1 SBLKC1 1.00	CF-RW-01 992618A-10 SBLKC1 1.00	CF-RW-09 992618A-11 SBLKC1 1.00	Quant. Limits with no Dilution
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	.2J	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	.5J	U	10
Date Received		10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/22/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00 / KS

TABLE SV-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-01	CF-RW-09	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKC1	992618A-10	992618A-11	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.00	1.00	1.00	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2J	.2JB U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	1J	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U UJ	U UJ	50
Phenanthrene	U	U	.4J	10
Anthracene	U	.4J	.1J	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.8J	.6JB U	.4JB U	10
Fluoranthene	U	.3J	.4J	10
Pyrene	U	1J	.4J	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	.2J	.2J	10
Chrysene	U	.4J	.3J	10
bis(2-Ethylhexyl)phthalate	.4J	.7JB U	.4JB U	10
Di-n-octylphthalate	.3J	.3JB U	.4JB U	10
Benzo(b)fluoranthene	U	U	.2J	10
Benzo(k)fluoranthene	U	U UJ	.3J J	10
Benzo(a)pyrene	U	.2J	.3J	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	.4J	.2J	10
Date Received		10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/22/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00
JMS

TABLE SV-2.5 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-10 Client Sample Id: CF-RW-01 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	23.93	6J J33

Lab Sample Id: 992618A-11 Client Sample Id: CF-RW-09

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	11JBN R33
	UNKNOWN	27.74	8JB R33
	UNKNOWN	27.85	7JB R33
	UNKNOWN	24.31	7JB R33
	UNKNOWN ALKANE	25.22	6JB R33
	UNKNOWN ALKANE	26.38	6JB R33
	UNKNOWN ALKANE	25.80	6JB R33
	UNKNOWN ALKANE	24.60	5JB R33
	UNKNOWN ALKANE	26.97	5JB R33
	UNKNOWN	23.62	4JB R33
	UNKNOWN ALKANE	23.31	4JB R33
	UNKNOWN ALKANE	23.97	4JB R33
	UNKNOWN	23.26	3JB R33
	UNKNOWN ALKANE	24.99	3J J33
	UNKNOWN ALKANE	28.38	3J J33
	UNKNOWN ALKANE	27.63	3J J33
	UNKNOWN	24.94	3JB J33
	UNKNOWN	21.73	2JB J33
	UNKNOWN	23.19	2J J33
	UNKNOWN	21.70	2JB R33

Lab Sample Id: 992618A-12 Client Sample Id: CF-OW-06

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.52	96J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.52	25JBN R33
	UNKNOWN C9H10 ISOMER	14.86	18J J33
	UNKNOWN	24.20	16J J33
	UNKNOWN	23.64	14J J33
	UNKNOWN	24.31	14JB R33
	UNKNOWN	14.35	13J J33
	UNKNOWN	27.75	13JB R33
	UNKNOWN	27.86	12JB R33
	UNKNOWN C9H8 ISOMER	9.68	12J J33
	UNKNOWN	13.92	10J J33

See Appendix for qualifier definitions

EMM 11/16/00

Aqueous

TABLE AS-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-09	CF-OW-06	CF-RW-10	CF-FB-10/8/99
Lab Sample I.D.	992618A-11	992618A-12	992618A-13	992618A-14
Arsenic	5.4B	5.5B	4.0U	4.0U
Barium	186.B	567.	468.	6.0B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	35.6	4.4 J3	3.0U	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	14.1N J1	11.7N J1	8.5N J1	5.0UN UJ1
Silver	1.0U	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-09

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-11

% Solids: 0 Date Received: 10/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	R1 mg/L		L

Comments:

FORM I - WC

1/KS 1/20/00

Aqueous

TABLE VO-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-TB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-15	
Method Blank I.D.	VBLKMR	VBLKMR	VBLKMR	
Quant. Factor	1.00	1.00	1.00	
Benzene	120	U	U	5.0
Toluene	7	U	U	5.0
Ethylbenzene	33	U	U	5.0
Xylene (total)	27	U	U	5.0
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/13/99	10/13/99	10/12/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-FB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-14	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.05	1.06	1.00	
Phenol	4J	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	.4J	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	2J	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	.7J	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	.9J	U	U	10
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-FB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-14	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.05	1.06	1.00	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	.2JB 11 U 12	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	.5J	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ 27	U UJ 27	U UJ 27	50
Phenanthrene	U	U	U	10
Anthracene	.6J	U	U	10
Carbazole	1J	U	U	10
Di-n-butylphthalate	.5JB 10 U 12	.7JB 11 U 12	.5JB 10 U 12	10
Fluoranthene	.3J	U	U	10
Pyrene	.4J	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.4JB 10 U 12	.4JB 11 U 12	.5JB 10 U 12	10
Di-n-octylphthalate	.6JB 10 U 12	.5JB 11 U 12	.3JB 10 U 12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ 10	U UJ 10	U UJ 10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	.3J	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	.3J	U	U	10
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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TABLE SV-2.6 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-12 Client Sample Id: CF-OW-06 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.80	9JB R33
	UNKNOWN C10H10 ISOMER	11.55	9J J33
	UNKNOWN C3 ALKYL BENZENE	8.43	9J J33
	UNKNOWN C8H7NO ISOMER	16.90	9J J33
	UNKNOWN ALKANE	25.22	9JB R33
	UNKNOWN	26.17	8J J33
	UNKNOWN C9H10 ISOMER	15.03	8J J33
	UNKNOWN C9H10O ISOMER	12.72	8J J33
	UNKNOWN C9H7NO ISOMER	24.96	7J J33

Lab Sample Id: 992618A-13 Client Sample Id: CF-RW-10

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	4JBN R33
	UNKNOWN ALKANE	25.21	3JB R33
	UNKNOWN ALKANE	25.80	3JB R33
	UNKNOWN ALKANE	26.38	3JB R33
	UNKNOWN	27.73	2JB R33
	UNKNOWN ALKANE	21.69	2JB R33
	UNKNOWN SILOXANE	24.31	2J J33
	UNKNOWN	27.86	2JB R33
	UNKNOWN ALKANE	24.60	2JB R33
	UNKNOWN ALKANE	23.58	2JB R33
	UNKNOWN ALKANE	23.31	2JB R33

Lab Sample Id: 992618A-14 Client Sample Id: CF-FB-10/8/99

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	13JBN R33
	UNKNOWN	24.31	8JB R33
	UNKNOWN	23.64	7JB R33
	UNKNOWN	27.86	7JB R33
	UNKNOWN	27.74	7JB R33
	UNKNOWN ALKANE	25.22	7JB R33
	UNKNOWN	24.94	6JB R33
	UNKNOWN	21.69	6JB R33
	UNKNOWN ALKANE	26.38	6JB R33
	UNKNOWN ALKANE	25.81	6JB R33
	UNKNOWN	23.59	5JB R33
	UNKNOWN	25.31	5JB R33

See Appendix for qualifier definitions

EM 1/16/00

Aqueous

TABLE AS-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-09	CF-OW-06	CF-RW-10	CF-FB-10/8/99
Lab Sample I.D.	992618A-11	992618A-12	992618A-13	992618A-14
Arsenic	5.4B	5.5B	4.0U	4.0U
Barium	186.B	567.	468.	6.0B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	35.6	4.4 J3	3.0U	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	14.1N J1	11.7N J1	8.5N J1	5.0UN UJ1
Silver	1.0U	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

TABLE SV-2.6 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-12 Client Sample Id: CF-OW-06 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.80	9JB R33
	UNKNOWN C10H10 ISOMER	11.55	9J J33
	UNKNOWN C3 ALKYL BENZENE	8.43	9J J33
	UNKNOWN C8H7NO ISOMER	16.90	9J J33
	UNKNOWN ALKANE	25.22	9JB R33
	UNKNOWN	26.17	8J J33
	UNKNOWN C9H10 ISOMER	15.03	8J J33
	UNKNOWN C9H10O ISOMER	12.72	8J J33
	UNKNOWN C9H7NO ISOMER	24.96	7J J33

Lab Sample Id: 992618A-13 Client Sample Id: CF-RW-10

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	4JBN R33
	UNKNOWN ALKANE	25.21	3JB R33
	UNKNOWN ALKANE	25.80	3JB R33
	UNKNOWN ALKANE	26.38	3JB R33
	UNKNOWN	27.73	2JB R33
	UNKNOWN ALKANE	21.69	2JB R33
	UNKNOWN SILOXANE	24.31	2J J33
	UNKNOWN	27.86	2JB R33
	UNKNOWN ALKANE	24.60	2JB R33
	UNKNOWN ALKANE	23.58	2JB R33
	UNKNOWN ALKANE	23.31	2JB R33

Lab Sample Id: 992618A-14 Client Sample Id: CF-FB-10/8/99

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.51	13JBN R33
	UNKNOWN	24.31	8JB R33
	UNKNOWN	23.64	7JB R33
	UNKNOWN	27.86	7JB R33
	UNKNOWN	27.74	7JB R33
	UNKNOWN ALKANE	25.22	7JB R33
	UNKNOWN	24.94	6JB R33
	UNKNOWN	21.69	6JB R33
	UNKNOWN ALKANE	26.38	6JB R33
	UNKNOWN ALKANE	25.81	6JB R33
	UNKNOWN	23.59	5JB R33
	UNKNOWN	25.31	5JB R33

See Appendix for qualifier definitions

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TABLE SV-2.7
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Aqueous

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-14 Client Sample Id: CF-FB-10/8/99 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	26.50	5JB
	UNKNOWN ALKANE	24.61	5JB
	UNKNOWN	26.09	5J
	UNKNOWN ALKANE	26.98	4JB
	UNKNOWN ALKANE	23.31	4JB
	UNKNOWN ALKANE	23.97	4JB
	UNKNOWN	26.15	3J
	UNKNOWN	23.25	3JB

Lab Sample Id: 992618A-16 Client Sample Id: CF-FB-10/12/99

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	11JBN
	UNKNOWN	24.31	6JB
	UNKNOWN	27.74	6JB
	UNKNOWN	27.86	6JB
	UNKNOWN	23.64	5JB
	UNKNOWN ALKANE	25.22	5JB
	UNKNOWN ALKANE	26.38	5JB
	UNKNOWN	19.30	4J
	UNKNOWN ALKANE	24.61	4JB
	UNKNOWN ALKANE	25.81	4JB
	UNKNOWN ALKANE	26.98	4JB
	UNKNOWN	24.94	4JB
119-61-9	BENZOPHENONE	17.46	3JN
	UNKNOWN	23.58	3JB
	UNKNOWN ALKANE	23.97	3JB
	UNKNOWN ALKANE	23.31	3JB
	UNKNOWN	26.51	3J
80-05-7	PHENOL, 4,4'-(1-METHYLETHYLI	22.13	3JN
	UNKNOWN	23.25	2JB
	UNKNOWN ALKANE	27.64	2J

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB-10/8/99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-14

% Solids: 0 Date Received: 10/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	RI mg/L		L

Comments:

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1/10/99

Aqueous

TABLE AS-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-09	CF-OW-06	CF-RW-10	CF-FB-10/8/99
Lab Sample I.D.	992618A-11	992618A-12	992618A-13	992618A-14
Arsenic	5.4B	5.5B	4.0U	4.0U
Barium	186.B	567.	468.	6.0B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	35.6	4.4 J3	3.0U	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	14.1NJ1	11.7NJ1	8.5NJ1	5.0UN UJ1
Silver	1.0U	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

TABLE SV-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	/1.00	1.00	1.08	
Phenol	.3J	U	38	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	1J	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	12	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	28J	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	3J	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	7J	10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	.2J	.6J	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	1J	10
Date Received	10/13/99	10/13/99	10/13/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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Aqueous

TABLE VO-1.8
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKKU VBLKKU 1.00	CF-FB-1 0/12/99 992618A-16 VBLKKU 1.00	CF-RW-04 992618A-17 VBLKKU 1.00	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	.2J	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		10/13/99	10/13/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/14/99	10/15/99	10/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE AS-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	CF-OW-05
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	992618A-19
Arsenic	4.0U	4.0U	7.4B	12.2
Barium	5.1B	492.	181.B	36.4B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.0U	6.3 J3	3.4 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.0UN UJ1	8.2N J1	5.9N J1	8.0N J1
Silver	1.4B U12	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

Rm 1/6/00

TABLE SV-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.00	1.00	1.08	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	.4J	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2JB 10U 12	.2JB 10U 12	.4JB 11U 12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	2J	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ27	U UJ27	U UJ27	50
Phenanthrene	U	U	U	10
Anthracene	U	U	.4J	10
Carbazole	U	U	.5J	10
Di-n-butylphthalate	.5JB 10U 12	.8JB 10U 12	.9JB 11U 12	10
Fluoranthene	U	U	.8J	10
Pyrene	U	U	.7J	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	.2J	10
Chrysene	U	U	.2J	10
bis(2-Ethylhexyl)phthalate	.7JB 10U 12	1JB 10U 12	1JB 11U 12	10
Di-n-octylphthalate	.5JB 10U 12	.7JB 10U 12	1JB 11U 12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ10	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/13/99	10/13/99	10/13/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB-10/12/99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-16

% Solids: 0 Date Received: 10/13/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	R1 mg/L		L

Comments:

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-10

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-13

% Solids: 0 Date Received: 10/11/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	R1 mg/L		L

Comments:

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11/10/99

Aqueous

TABLE VO-1.9
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-11	CF-RW-12		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-18	992618A-20		
Method Blank I.D.	VBLKKU	VBLKKU		
Quant. Factor	1.00	1.00		
Benzene	U	U		5.0
Toluene	.4J	U		5.0
Ethylbenzene	1J	U		5.0
Xylene (total)	2J	U		5.0
Date Received	10/13/99	10/13/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/15/99	10/15/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.00	1.00	1.08	
Phenol	.3J	U	38	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	1J	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	12	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	28J	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	3J	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	7J	10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	.2J	.6J	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	1J	10
Date Received	10/13/99	10/13/99	10/13/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMON 1/16/00

TABLE SV-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.00	1.00	1.08	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	.4J	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	.2JB 10 U 12	.2JB 10 U 12	.4JB 11 U 12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	2J	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ 27	U UJ 27	U UJ 27	50
Phenanthrene	U	U	U	10
Anthracene	U	U	.4J	10
Carbazole	U	U	.5J	10
Di-n-butylphthalate	.5JB 10 U 12	.8JB 10 U 12	.9JB 11 U 12	10
Fluoranthene	U	U	.8J	10
Pyrene	U	U	.7J	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	.2J	10
Chrysene	U	U	.2J	10
bis(2-Ethylhexyl)phthalate	.7JB 10 U 12	1JB 10 U 12	1JB 11 U 12	10
Di-n-octylphthalate	.5JB 10 U 12	.7JB 10 U 12	1JB 11 U 12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ 10	U UJ 10	U UJ 10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/13/99	10/13/99	10/13/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-2.8 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-17 Client Sample Id: CF-RW-04

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.53	44JBN R33
	UNKNOWN	21.70	39JB R33
	UNKNOWN	23.64	37JB R33
	UNKNOWN	23.58	33JB R33
	UNKNOWN	27.77	32JB J33
	UNKNOWN ALKANE	26.52	30JB R33
	UNKNOWN	27.88	28JB R33
	UNKNOWN	25.32	23JB R33
	UNKNOWN ALKANE	25.23	23JB R33
	UNKNOWN ALKANE	26.39	22JB R33
	UNKNOWN ALKANE	23.32	19JB R33
	UNKNOWN	26.56	18J J33
	UNKNOWN ALKANE	24.62	18JB R33
	UNKNOWN ALKANE	25.81	18JB R33
	UNKNOWN	23.26	17JB R33
	UNKNOWN ALKANE	26.98	17JB R33
	UNKNOWN	23.21	16J J33
	UNKNOWN ALKANE	23.98	13JB R33
	UNKNOWN	28.24	12J J33
	UNKNOWN ALKANE	28.40	12J J33

Lab Sample Id: 992618A-18 Client Sample Id: CF-RW-11

CAS#	Compound	RT	Estimated Conc., ug/L
103-82-2	BENZENEACETIC ACID	13.10	160JN J33
	UNKNOWN	21.71	32JB R33
	UNKNOWN	23.66	30J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.53	28JBN R33
	UNKNOWN	23.59	22JB R33
	UNKNOWN ACID	6.27	20J J33
	UNKNOWN	27.75	19JB R33
	UNKNOWN DICHLORO-BENZOIC ACI	16.26	19J J33
	UNKNOWN ALKANE	25.22	19JB R33
	UNKNOWN	24.32	17JB R33
	UNKNOWN	27.87	17JB R33
	UNKNOWN ACID	14.09	16J J33
	UNKNOWN	25.31	15JB R33
	UNKNOWN	24.94	15JB R33
	UNKNOWN ALKANE	26.39	14JB R33
	UNKNOWN C8H7N ISOMER	13.61	14J J33
	UNKNOWN C3 ALKYL BENZENE	9.25	14J J33
	UNKNOWN	23.26	13JB R33
	UNKNOWN	23.21	13J J33

See Appendix for qualifier definitions

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TABLE SV-2.9 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-18 Client Sample Id: CF-RW-11 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ACID	6.13	13J J33

Lab Sample Id: 992618A-19 Client Sample Id: CF-OW-05

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.46	110J J33
	UNKNOWN C3 ALKYL BENZENE	8.63	96J J33
103-82-2	BENZENEACETIC ACID	12.93	71JN J33
	UNKNOWN C3 ALKYL BENZENE	8.01	70J J33
90-12-0	NAPHTHALENE, 1-METHYL-	13.82	55JN J33
	UNKNOWN C3 ALKYL BENZENE	9.18	49J J33
	UNKNOWN C9H8 ISOMER	9.62	44J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.46	41JBN R33
	UNKNOWN C3 ALKYL BENZENE	8.38	41J J33
	UNKNOWN C8H7N ISOMER	13.54	36J J33
	UNKNOWN	26.13	35J J33
	UNKNOWN C3 ALKYL BENZENE	8.14	32J J33
	UNKNOWN	11.39	30J J33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.40	30J J33
	UNKNOWN ALKANE	24.55	25JB R33
	UNKNOWN ALKANE	25.75	24JB R33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.14	23J J33
	UNKNOWN ALKANE	23.92	22JB R33
	UNKNOWN DIMETHYL-PHENOL	11.60	22J J33
	UNKNOWN ALKANE	25.16	22JB R33

Lab Sample Id: 992618A-20 Client Sample Id: CF-RW-12

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	26.50	19JB R33
	UNKNOWN	23.63	16JB R33
	UNKNOWN	23.57	15JB R33
	UNKNOWN	21.69	11JB R33
	UNKNOWN	25.30	11JB R33
	UNKNOWN ALKANE	25.22	9JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	8JBN R33
	UNKNOWN	23.25	8JB R33
	UNKNOWN	21.71	8J J33
	UNKNOWN	23.20	7J J33
	UNKNOWN ALKANE	23.31	7JB R33

See Appendix for qualifier definitions

EMM 1/16/10

Aqueous

TABLE AS-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-FB-1 0/12/99	CF-RW-04	CF-RW-11	CF-OW-05
Lab Sample I.D.	992618A-16	992618A-17	992618A-18	992618A-19
Arsenic	4.0U	4.0U	7.4B	12.2
Barium	5.1B	492.	181.B	36.4B
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.0U	6.3 J3	3.4 J3
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.0UN UJ1	8.2N J1	5.9N J1	8.0N J1
Silver	1.4B U12	1.0U	1.0U	1.2B U12

See Appendix for qualifier definitions

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SAMPLE NO.

CF-RW-11

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-18

% Solids: 0 Date Received: 10/13/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0388		mg/L		L

Comments:

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JKS 1/16/00

TABLE VO-1.9 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-11	CF-RW-12		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-18	992618A-20		
Method Blank I.D.	VBLKKU	VBLKKU		
Quant. Factor	1.00	1.00		
Benzene	U	U		5.0
Toluene	.4J	U		5.0
Ethylbenzene	1J	U		5.0
Xylene (total)	2J	U		5.0
Date Received	10/13/99	10/13/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/15/99	10/15/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.6
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-05	CF-RW-12		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-19	992618A-20		
Method Blank I.D.	SBLKC1	SBLKC1		
Quant. Factor	2.00	1.00		
Phenol	87	U		10
bis(2-Chloroethyl)ether	U	U		10
2-Chlorophenol	U	U		10
1,3-Dichlorobenzene	U	U		10
1,4-Dichlorobenzene	U	U		10
Benzyl alcohol	3J	U		10
1,2-Dichlorobenzene	U	U		10
2-Methylphenol	8J	U		10
2,2'-oxybis(1-Chloropropane)	U	U		10
4-Methylphenol	19J	U		10
N-Nitroso-di-n-propylamine	U UJ11	U		10
Hexachloroethane	U	U		10
Nitrobenzene	U	U		10
Isophorone	U	U		10
2-Nitrophenol	U	U		10
2,4-Dimethylphenol	17J	U		10
Benzoic acid	13J	U		50
bis(2-Chloroethoxy)methane	U	U		10
2,4-Dichlorophenol	U	U		10
1,2,4-Trichlorobenzene	U	U		10
Naphthalene	140	U		10
4-Chloroaniline	U	U		10
Hexachlorobutadiene	U	U		10
4-Chloro-3-methylphenol	U	U		10
2-Methylnaphthalene	34	U		10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11		10
2,4,6-Trichlorophenol	U	U		10
2,4,5-Trichlorophenol	U	U		50
2-Chloronaphthalene	U	U		10
2-Nitroaniline	U	U		50
Dimethylphthalate	U	U		10
Acenaphthylene	6J	U		10
2,6-Dinitrotoluene	U	U		10
3-Nitroaniline	U	U		50
Acenaphthene	19J	U		10
Date Received	10/13/99	10/13/99		
Date Extracted	10/15/99	10/15/99		
Date Analyzed	10/26/99	10/25/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMH 1/16/01 JKS

All values are ug/L.

Client Sample I.D.	CF-OW-05	CF-RW-12		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-19	992618A-20		
Method Blank I.D.	SBLKC1	SBLKC1		
Quant. Factor	2.00	1.00		
2,4-Dinitrophenol	U	U		50
4-Nitrophenol	U	U		50
Dibenzofuran	8J	U		10
2,4-Dinitrotoluene	U	U		10
Diethylphthalate	U	U		10
4-Chlorophenyl-phenylether	U	U		10
Fluorene	17J	U		10
4-Nitroaniline	U	U		20
4,6-Dinitro-2-methylphenol	U	U		50
N-Nitrosodiphenylamine (1)	U	U		10
4-Bromophenyl-phenylether	U	U		10
Hexachlorobenzene	U	U		10
Pentachlorophenol	U UJ27	U UJ27		50
Phenanthrene	19J	U		10
Anthracene	8J	U		10
Carbazole	17J	U		10
Di-n-butylphthalate	.6JB 20U12	.3JB 10U12		10
Fluoranthene	5J	U		10
Pyrene	4J	U		10
Butylbenzylphthalate	U	U		10
3,3'-Dichlorobenzidine	U	U		20
Benzo(a)anthracene	1J	U		10
Chrysene	1J	U		10
bis(2-Ethylhexyl)phthalate	1JB 20U12	.4JB 10U12		10
Di-n-octylphthalate	.5JB 20U12	.6JB 10U12		10
Benzo(b)fluoranthene	.2J	U		10
Benzo(k)fluoranthene	.3J UJ10	U UJ10		10
Benzo(a)pyrene	.3J	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
Date Received	10/13/99	10/13/99		
Date Extracted	10/15/99	10/15/99		
Date Analyzed	10/26/99	10/25/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00 JKG

TABLE SV-2.9
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Aqueous

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-18 Client Sample Id: [redacted]

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ACID	6.13	13J J33

Lab Sample Id: 992618A-19 Client Sample Id: CF-OW-05

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.46	110J J33
	UNKNOWN C3 ALKYL BENZENE	8.63	96J J33
103-82-2	BENZENEACETIC ACID	12.93	71JN J33
	UNKNOWN C3 ALKYL BENZENE	8.01	70J J33
90-12-0	NAPHTHALENE, 1-METHYL-	13.82	55JN J33
	UNKNOWN C3 ALKYL BENZENE	9.18	49J J33
	UNKNOWN C9H8 ISOMER	9.62	44J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.46	41JBN R33
	UNKNOWN C3 ALKYL BENZENE	8.38	41J J33
	UNKNOWN C8H7N ISOMER	13.54	36J J33
	UNKNOWN	26.13	35J J33
	UNKNOWN C3 ALKYL BENZENE	8.14	32J J33
	UNKNOWN	11.39	30J J33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.40	30J J33
	UNKNOWN ALKANE	24.55	25JB R33
	UNKNOWN ALKANE	25.75	24JB R33
	UNKNOWN DIMETHYL-NAPHTHALENE	15.14	23J J33
	UNKNOWN ALKANE	23.92	22JB R33
	UNKNOWN DIMETHYL-PHENOL	11.60	22J J33
	UNKNOWN ALKANE	25.16	22JB R33

Lab Sample Id: 992618A-20 Client Sample Id: CF-RW-12

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	26.50	19JB R33
	UNKNOWN	23.63	16JB R33
	UNKNOWN	23.57	15JB R33
	UNKNOWN	21.69	11JB R33
	UNKNOWN	25.30	11JB R33
	UNKNOWN ALKANE	25.22	9JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	8JBN R33
	UNKNOWN	23.25	8JB R33
	UNKNOWN	21.71	8J J33
	UNKNOWN	23.20	7J J33
	UNKNOWN ALKANE	23.31	7JB R33

See Appendix for qualifier definitions

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TABLE SV-2.10 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKC1

Lab Sample Id: 992618A-20 Client Sample Id: CF-RW-12 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	26.38	7JB R33
	UNKNOWN	24.94	7JB R33
	UNKNOWN	24.31	6JB R33
	UNKNOWN	27.75	5JB R33
	UNKNOWN	27.86	5JB R33
	UNKNOWN ALKANE	26.97	5JB R33
	UNKNOWN ALKANE	24.61	5JB R33
	UNKNOWN ALKANE	25.81	5J J33
	UNKNOWN	24.99	4JB R33

See Appendix for qualifier definitions

EMM
1/16/00

TABLE AS-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-12			
Lab Sample I.D.	992618A-20			
Arsenic	4.5B			
Barium	128.B			
Cadmium	1.0U			
Chromium	2.0U			
Lead	3.0U			
Mercury	0.10U			
Selenium	8.6N J			
Silver	1.0U			

See Appendix for qualifier definitions

1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-12

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-20

% Solids: 0 Date Received: 10/13/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	R1 mg/L		L

Comments:

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JKS 11/3/00

Aqueous

TABLE VO-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-15	CF-RW-13	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKP	992618A-06	992618A-07	
Method Blank I.D.	VBLKKP	VBLKKP	VBLKKP	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	81	5.0
Toluene	U	.7J	.5J	5.0
Ethylbenzene	U	U	17	5.0
Xylene (total)	U	U	12	5.0
Date Received		10/07/99	10/07/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/12/99	10/12/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.2
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-13	CF-RW-02		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-07	992618A-08		
Method Blank I.D.	SBLKRQ	SBLKRQ		
Quant. Factor	2.00	1.15		
Phenol	1J	U		10
bis(2-Chloroethyl)ether	U	U		10
2-Chlorophenol	U	U		10
1,3-Dichlorobenzene	U	U		10
1,4-Dichlorobenzene	U	U		10
Benzyl alcohol	U	U		10
1,2-Dichlorobenzene	U	U		10
2-Methylphenol	U	U		10
2,2'-oxybis(1-Chloropropane)	U	U		10
4-Methylphenol	U	U		10
N-Nitroso-di-n-propylamine	U	U		10
Hexachloroethane	U	U		10
Nitrobenzene	U	U		10
Isophorone	U	U		10
2-Nitrophenol	U	U		10
2,4-Dimethylphenol	U	U		10
Benzoic acid	U	U UJ11		50
bis(2-Chloroethoxy)methane	U	U		10
2,4-Dichlorophenol	U	U		10
1,2,4-Trichlorobenzene	U	U		10
Naphthalene	150	.2J		10
4-Chloroaniline	U	U		10
Hexachlorobutadiene	U	U		10
4-Chloro-3-methylphenol	U	U		10
2-Methylnaphthalene	41	U		10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ11		10
2,4,6-Trichlorophenol	U	U		10
2,4,5-Trichlorophenol	U	U		50
2-Chloronaphthalene	U	U		10
2-Nitroaniline	U	U		50
Dimethylphthalate	U	U		10
Acenaphthylene	.6J	.3J		10
2,6-Dinitrotoluene	U	U		10
3-Nitroaniline	U	U		50
Acenaphthene	16J	U		10
Date Received	10/07/99	10/07/99		
Date Extracted	10/08/99	10/08/99		
Date Analyzed	10/25/99	10/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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All values are ug/L.

Client Sample I.D.	CF-RW-13	CF-RW-02		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-07	992618A-08		
Method Blank I.D.	SBLKRQ	SBLKRQ		
Quant. Factor	2.00	1.15		
2,4-Dinitrophenol	U	U UJ11		50
4-Nitrophenol	U	U		50
Dibenzofuran	U	U		10
2,4-Dinitrotoluene	U	U		10
Diethylphthalate	U	.2JB 12U12		10
4-Chlorophenyl-phenylether	U	U		10
Fluorene	6J	U		10
4-Nitroaniline	U	U		20
4,6-Dinitro-2-methylphenol	U	U		50
N-Nitrosodiphenylamine (1)	U	U		10
4-Bromophenyl-phenylether	U	U		10
Hexachlorobenzene	U	U		10
Pentachlorophenol	U UJ27	U UJ27		50
Phenanthrene	4J	U		10
Anthracene	.7J	U		10
Carbazole	U	U		10
Di-n-butylphthalate	1JB 20U12	1JB 12U12		10
uoranthene	U	.2J		10
yrene	.3J	.2J		10
Butylbenzylphthalate	U	U		10
3,3'-Dichlorobenzidine	U	U		20
Benzo(a)anthracene	U	.2J		10
Chrysene	U	.3J		10
bis(2-Ethylhexyl)phthalate	1JB 20U12	2JB 12U12		10
Di-n-octylphthalate	1JB 20U12	1JB 12U12		10
Benzo(b)fluoranthene	U	.2J		10
Benzo(k)fluoranthene	U UJ10	.3J UJ10		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	.1J		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	.2J		10
Date Received	10/07/99	10/07/99		
Date Extracted	10/08/99	10/08/99		
Date Analyzed	10/25/99	10/21/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

TABLE SV-2.2 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-04 Client Sample Id: CF-OW-07

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN DICHLORO-BENZOIC ACI	16.31	6J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	5JBN R33
	UNKNOWN ALKANE	25.93	4JB R33
	UNKNOWN ALKANE	25.35	4JB R33
	UNKNOWN	27.93	3JB R33
	UNKNOWN ALKANE	24.73	3JB R33
	UNKNOWN ALKANE	26.51	3JB R33
	UNKNOWN	28.04	2JB R33
	UNKNOWN ALKANE	27.13	2JB R33
	UNKNOWN SILOXANE	24.44	2J J33
	UNKNOWN ALKANE	23.44	2JB R33

Lab Sample Id: 992618A-06 Client Sample Id: CF-RW-15

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.94	4JB R33
	UNKNOWN ALKANE	26.51	4JB R33
	UNKNOWN ALKANE	25.35	4JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	3JBN R33
	UNKNOWN ALKANE	24.74	3JB R33
	UNKNOWN ALKANE	27.12	3JB R33
	UNKNOWN	19.43	3JB R33
	UNKNOWN ALKANE	24.10	2JB R33
	UNKNOWN ALKANE	27.81	2JB R33

Lab Sample Id: 992618A-07 Client Sample Id: CF-RW-13

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.51	46J J33
90-12-0	NAPHTHALENE, 1-METHYL-	13.87	33JN J33
	UNKNOWN C3 ALKYL BENZENE	8.07	16J J33
	UNKNOWN C10H10 ISOMER	11.55	13J J33
	UNKNOWN C10H10 ISOMER	11.45	10J J33
	UNKNOWN C3 ALKYL BENZENE	8.69	10J J33
	UNKNOWN C9H8 ISOMER	9.68	8J J33
	UNKNOWN C4 ALKYL BENZENE	9.25	6J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	5JBN R33
	UNKNOWN	30.20	5J J33
	UNKNOWN ALKANE	25.21	5JB R33
	UNKNOWN C10H12 ISOMER	11.27	5J J33

See Appendix for qualifier definitions

EMM 1/16/00

TABLE SV-2.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Aqueous

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-07 Client Sample Id: CF-RW-13 (Cont.)

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.80	5JB RJ3
	UNKNOWN	19.99	4J JJ3
	UNKNOWN ALKANE	26.38	4JB RJ3
	UNKNOWN DIMETHYL-NAPHTHALENE	15.20	4J JJ3
	UNKNOWN ALKANE	24.61	4JB RJ3

Lab Sample Id: 992618A-08 Client Sample Id: CF-RW-02

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	15JBN RJ3
	UNKNOWN ALKANE	25.35	10JB RJ3
	UNKNOWN ALKANE	25.94	10JB RJ3
	UNKNOWN	24.44	9J JJ3
	UNKNOWN	27.92	9JB RJ3
	UNKNOWN ALKANE	26.52	9JB RJ3
	UNKNOWN	28.05	8JB RJ3
	UNKNOWN ALKANE	24.74	8JB RJ3
	UNKNOWN ALKANE	27.12	7JB RJ3
105-60-2	CAPROLACTAM	13.11	6JN JJ3
	UNKNOWN DICHLORO-BENZOIC ACI	16.32	6J JJ3
	UNKNOWN ALKANE	24.10	6JB RJ3
	UNKNOWN ALKANE	23.44	6JB RJ3
	UNKNOWN ALKANE	27.81	5JB RJ3
617-94-7	BENZENEMETHANOL, .ALPHA.,.AL	10.48	4JN JJ3
	UNKNOWN C9H10 ISOMER	9.66	4J JJ3
	UNKNOWN	24.06	3J JJ3
	UNKNOWN ALKANE	28.59	3J JJ3
	UNKNOWN C9H8 ISOMER	9.83	3J JJ3
	UNKNOWN ALKANE	22.76	3J JJ3

See Appendix for qualifier definitions

EMM 1/16/00

Aqueous

TABLE AS-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D.	CF-RW-15	CF-RW-13	CF-RW-02	CF-RW-01
Lab Sample I.D.	992618A-06	992618A-07	992618A-08	992618A-10
Arsenic	9.8B	4.0U	4.0U	4.0U
Barium	294.	730.	150.B	238.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.2 J3	5.1 J3	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.5N J1	8.9N J1	5.8N J1	14.2N J1
Silver	1.2B U12	1.0U	1.2B U12	1.1B U12

See Appendix for qualifier definitions

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-13

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-07

% Solids: 0 Date Received: 10/07/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	RJ mg/L		L

Comments:

FORM I - WC

1/19/00

TABLE VO-1.0 Aqueous
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB-1 0/11/99	CF-RW-14	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKU	992618B-01	992618B-03	
Method Blank I.D.	VBLKKU	VBLKKU	VBLKKU	
Quant. Factor	1.00	1.00	20.0	
Benzene	U	U	2400	5.0
Toluene	U	U	870 J5	5.0
Ethylbenzene	U	U	190	5.0
Xylene (total)	U	U	780	5.0
Date Received		10/13/99	10/14/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/14/99	10/15/99	10/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.1
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-RW-16 MSD 992618B-02 MSD SBLKEQ 1.00	CF-RW-14 992618B-03 SBLKEQ 50.0	CF-RW-10/12/99 992618B-04 SBLKEQ 50.0	Quant. Limits with no Dilution
Phenol	32X	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	63X	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	31X	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	56X	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	1J	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	.7J	U	U	10
1,2,4-Trichlorobenzene	39X	U	U	10
Naphthalene	U	2400	2100	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	70X	U	U	10
2-Methylnaphthalene	U	840	750	10
Hexachlorocyclopentadiene	U	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	220J	200J	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	34X	70J	64J	10
Date Received	10/14/99	10/14/99	10/14/99	
Date Extracted	10/16/99	10/16/99	10/16/99	
Date Analyzed	11/05/99	11/05/99	11/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

JKR

TABLE SV-1.1
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-RW-16 MSD 992618B-02 MSD SBLKEQ 1.00	CF-RW-14 992618B-03 SBLKEQ 50.0	CF-RW-10/12/99 992618B-04 SBLKEQ 50.0	Quant. Limits with no Dilution
2,4-Dinitrophenol	U	U UJ1	U UJ1	50
4-Nitrophenol	49JX	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	40X	U	U	10
Diethylphthalate	.1JB	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	56J	51J	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U UJ1	U UJ1	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	110EX	U	U	50
Phenanthrene	U	41J	38J	10
Anthracene	U	7J	6J	10
Carbazole	U	16J	15J	10
Di-n-butylphthalate	.6JB	U	U	10
Fluoranthene	U	U	U	10
Pyrene	41X	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.8JB	U	U	10
Di-n-octylphthalate	.4JB	U	U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/14/99	10/14/99	10/14/99	
Date Extracted	10/16/99	10/16/99	10/16/99	
Date Analyzed	11/05/99	11/05/99	11/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/15/00
JMS

TABLE SV-2.1 Aqueous
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKEQ

Lab Sample Id: 992618B-03 Client Sample Id: CF-RW-14

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H8 ISOMER	8.88	930J J33
	UNKNOWN METHYL NAPHTHALENE	13.10	670J J35
	UNKNOWN C10H10 ISOMER	10.75	360J J33
	UNKNOWN C10H10 ISOMER	10.65	340J J35
	UNKNOWN C9H10 ISOMER	7.92	320J J35
	UNKNOWN	9.57	180J J35
	UNKNOWN C8H6S ISOMER	11.39	160J J33
	UNKNOWN	2.05	120J J35
	UNKNOWN TRIMETHYLBENZENE	8.46	120J J33
	UNKNOWN C9H10 ISOMER	8.73	100J J33
	UNKNOWN C9H10 ISOMER	8.00	100J J33

Lab Sample Id: 992618B-04 Client Sample Id: CF-RW-10/12/99
duplicate of RW14

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H8 ISOMER	8.89	830J J35
	UNKNOWN METHYL NAPHTHALENE	13.10	520J J33
	UNKNOWN C10H10 ISOMER	10.75	300J J33
	UNKNOWN C9H10 ISOMER	7.92	290J J53
	UNKNOWN C10H10 ISOMER	10.65	270J J33
617-94-7	BENZENEMETHANOL, .ALPHA.,.AL	9.57	170JN J33
	UNKNOWN C8H6S ISOMER	11.39	140J J33
	UNKNOWN TRIMETHYL BENZENE IS	8.47	120J J25
	UNKNOWN C9H10 ISOMER	8.72	100J J23

See Appendix for qualifier definitions

EHM 1/15/

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-RW-14

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618B SAS No.: _____ SDG No.: B2618

Matrix (soil/water): WATER Lab Sample ID: 992618B-03

Level (low/med): LOW Date Received: 10/14/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.0	U		P
7440-39-3	Barium	118.	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U	*N UJ	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.2	B	N J1	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

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1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-14

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618B SAS No.: _____ SDG No.: B2618

Matrix (soil/water): WATER Lab Sample ID: 992618B-03

% Solids: 0 Date Received: 10/14/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.328		mg/L		L

Comments:

FORM I - WC

1/10/00

TABLE VO-1.2 Aqueous
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	~~CF-RW-16~~ FMSD	CF-RW-1 0/12/99 dupe of RW-14		Quant. Limits with no Dilution
Lab Sample I.D.	992618B-02 FMSD	992618B-04		
Method Blank I.D.	VBLKMX	VBLKMX		
Quant. Factor	1.00	20.0		
Benzene	52X	2000		5.0
Toluene	48X	530 J5		5.0
Ethylbenzene	52X	220		5.0
Xylene (total)	160X	840		5.0
Date Received	10/14/99	10/14/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/15/99	10/15/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.1
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	CF-RW-16 MSD 992618B-02 MSD SBLKEQ 1.00	CF-RW-14 992618B-03 SBLKEQ 50.0	dupe of RW14 CF-RW-1 0/12/99 992618B-04 SBLKEQ 50.0	Quant. Limits with no Dilution
Phenol	32X	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	63X	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	31X	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	56X	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	1J	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	.7J	U	U	10
1,2,4-Trichlorobenzene	39X	U	U	10
Naphthalene	U	2400	2100	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	70X	U	U	10
2-Methylnaphthalene	U	840	750	10
Hexachlorocyclopentadiene	U	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	220J	200J	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	34X	70J	64J	10
Date Received	10/14/99	10/14/99	10/14/99	
Date Extracted	10/16/99	10/16/99	10/16/99	
Date Analyzed	11/05/99	11/05/99	11/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMH 1/15/00

JKB

TABLE SV-1.1
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-16 MSD	CF-RW-14	CF-RW-10/12/99 dupe of RW14	Quant. Limits with no Dilution
Lab Sample I.D.	992618B-02 MSD	992618B-03	992618B-04	
Method Blank I.D.	SBLKEQ	SBLKEQ	SBLKEQ	
Quant. Factor	1.00	50.0	50.0	
2,4-Dinitrophenol	U	U UJ	U UJ	50
4-Nitrophenol	49JX	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	40X	U	U	10
Diethylphthalate	.1JB	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	56J	51J	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U UJ	U UJ	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	110EX	U	U	50
Phenanthrene	U	41J	38J	10
Anthracene	U	7J	6J	10
Carbazole	U	16J	15J	10
Di-n-butylphthalate	.6JB	U	U	10
Fluoranthene	U	U	U	10
Pyrene	41X	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.8JB	U	U	10
Di-n-octylphthalate	.4JB	U	U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/14/99	10/14/99	10/14/99	
Date Extracted	10/16/99	10/16/99	10/16/99	
Date Analyzed	11/05/99	11/05/99	11/05/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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VK

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-RW-10/12/99

dupe of RW14

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618B SAS No.: _____ SDG No.: B2618

Matrix (soil/water): WATER Lab Sample ID: 992618B-04

Level (low/med): LOW Date Received: 10/14/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.0	U		P
7440-39-3	Barium	115.	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U	*N UJ	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.0	U	N UJ	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-10/12/99
dupe of RW14

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618B SAS No.: _____ SDG No.: B2618

Matrix (soil/water): WATER Lab Sample ID: 992618B-04

% Solids: 0 Date Received: 10/14/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total.	0.340		mg/L		L

Comments:

FORM I - WC

Form
11/0/00

Aqueous

TABLE VO-1.5
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-15	CF-RW-13	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKP	992618A-06	992618A-07	
Method Blank I.D.	VBLKKP	VBLKKP	VBLKKP	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	81	5.0
Toluene	U	.7J	.5J	5.0
Ethylbenzene	U	U	17	5.0
Xylene (total)	U	U	12	5.0
Date Received		10/07/99	10/07/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/12/99	10/12/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

JAS
1/K 10.0

TABLE SV-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-RW-15	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-06	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.09	1.09	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	.5J	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U UJ1	U UJ1	U UJ1	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	.2J	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U UJ1	U UJ1	U UJ1	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	.3J	U	10
Date Received	10/06/99	10/06/99	10/07/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 11/16/99 JKJ

TABLE SV-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-RW-15	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-06	
Method Blank I.D.	SBLKRQ	SBLKRQ	SBLKRQ	
Quant. Factor	1.00	1.09	1.09	
2,4-Dinitrophenol	U UJ11	U UJ11	U UJ11	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	.2JB 11 U12	.2JB 11 U12	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	.2J	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ27	U UJ27	U UJ27	50
Phenanthrene	U	.2J	U	10
Anthracene	U	.2J	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.5JB 10 U12	.8JB 11 U12	1JB 11 U12	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	U	.2J	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.9JB 10 U12	.9JB 11 U12	1JB 11 U12	10
Di-n-octylphthalate	.8JB 10 U12	.9JB 11 U12	1JB 11 U12	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ10	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received	10/06/99	10/06/99	10/07/99	
Date Extracted	10/08/99	10/08/99	10/08/99	
Date Analyzed	10/21/99	10/21/99	10/21/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-2.2 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKRQ

Lab Sample Id: 992618A-04 Client Sample Id: CF-OW-07

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN DICHLORO-BENZOIC ACI	16.31	6J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	5JBN R33
	UNKNOWN ALKANE	25.93	4JB R33
	UNKNOWN ALKANE	25.35	4JB R33
	UNKNOWN	27.93	3JB R33
	UNKNOWN ALKANE	24.73	3JB R33
	UNKNOWN ALKANE	26.51	3JB R33
	UNKNOWN	28.04	2JB R33
	UNKNOWN ALKANE	27.13	2JB R33
	UNKNOWN SILOXANE	24.44	2J J33
	UNKNOWN ALKANE	23.44	2JB R33

Lab Sample Id: 992618A-06 Client Sample Id: CF-RW-15

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN ALKANE	25.94	4JB R33
	UNKNOWN ALKANE	26.51	4JB R33
	UNKNOWN ALKANE	25.35	4JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.64	3JBN R33
	UNKNOWN ALKANE	24.74	3JB R33
	UNKNOWN ALKANE	27.12	3JB R33
	UNKNOWN	19.43	3JB R33
	UNKNOWN ALKANE	24.10	2JB R33
	UNKNOWN ALKANE	27.81	2JB R33

Lab Sample Id: 992618A-07 Client Sample Id: CF-RW-13

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN C9H10 ISOMER	9.51	46J J33
90-12-0	NAPHTHALENE, 1-METHYL-	13.87	33JN J33
	UNKNOWN C3 ALKYL BENZENE	8.07	16J J33
	UNKNOWN C10H10 ISOMER	11.55	13J J33
	UNKNOWN C10H10 ISOMER	11.45	10J J33
	UNKNOWN C3 ALKYL BENZENE	8.69	10J J33
	UNKNOWN C9H8 ISOMER	9.68	8J J33
	UNKNOWN C4 ALKYL BENZENE	9.25	6J J33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	25.50	5JBN R33
	UNKNOWN	30.20	5J J33
	UNKNOWN ALKANE	25.21	5JB R33
	UNKNOWN C10H12 ISOMER	11.27	5J J33

See Appendix for qualifier definitions

EMM 1/16/00

Aqueous

TABLE AS-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

All values are ug/L.

Client Sample I.D. / Lab Sample I.D.	CF-RW-15 992618A-06	CF-RW-13 992618A-07	CF-RW-02 992618A-08	CF-RW-01 992618A-10
Arsenic	9.8B	4.0U	4.0U	4.0U
Barium	294.	730.	150.B	238.
Cadmium	1.0U	1.0U	1.0U	1.0U
Chromium	2.0U	2.0U	2.0U	2.0U
Lead	3.0U	3.2 J3	5.1 J3	3.0U
Mercury	0.10U	0.10U	0.10U	0.10U
Selenium	5.5N J1	8.9N J1	5.8N J1	14.2N J1
Silver	1.2B U12	1.0U	1.2B U12	1.1B U12

See Appendix for qualifier definitions

1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-15

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618A SAS No.: _____ SDG No.: A2618

Matrix (soil/water): WATER Lab Sample ID: 992618A-06

% Solids: 0 Date Received: 10/07/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	RJ mg/L		L

Comments:

FORM I - WC

1/10/00

TABLE VO-1.1 Aqueous
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-16	CF-RW-16 FMS	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMX	992618B-02	992618B-02 FMS	
Method Blank I.D.	VBLKMX	VBLKMX	VBLKMX	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	52X	5.0
Toluene	U	.6J	49X	5.0
Ethylbenzene	U	U	52X	5.0
Xylene (total)	U	U	160X	5.0
Date Received		10/14/99	10/14/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/15/99	10/15/99	10/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

BMM 11/15/00

TABLE SV-1.0
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKEQ SBLKEQ 1.00	CF-RW-16 992618B-02 SBLKEQ 1.00	CF-RW-16 MS 992618B-02MS SBLKEQ 1.00	Quant. Limits with no Dilution
Phenol	U	U	29X	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	57X	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	26X	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	51X	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	.5J	10
1,2,4-Trichlorobenzene	U	U	34X	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	66X	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U U710, U711	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	33X	10
Date Received		10/14/99	10/14/99	
Date Extracted	10/16/99	10/16/99	10/16/99	
Date Analyzed	11/04/99	11/04/99	11/04/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 11/15/00

TABLE SV-1.0
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-RW-16	CF-RW-16 MS	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKEQ	992618B-02	992618B-02MS	
Method Blank I.D.	SBLKEQ	SBLKEQ	SBLKEQ	
Quant. Factor	1.00	1.00	1.00	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	43JX	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	37X	10
Diethylphthalate	.2J	.1JB	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	92EX	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	1J	.6JB	.5JB	10
Fluoranthene	U	U	U	10
Pyrene	U	U	37X	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	1J	.7JB	.7JB	10
Di-n-octylphthalate	.6J	.3JB	.3JB	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U	U	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		10/14/99	10/14/99	
Date Extracted	10/16/99	10/16/99	10/16/99	
Date Analyzed	11/04/99	11/04/99	11/04/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/10

TABLE SV-2.0 Aqueous
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKEQ

Lab Sample Id: SBLKEQ Client Sample Id: Method Blank

CAS#	Compound	RT	Estimated Conc., ug/L
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	24.88	4JN
	UNKNOWN ALKANE	25.78	4J
	UNKNOWN ALKANE	25.21	4J
13287-24-6	NONADECANE, 9-METHYL-	24.63	3JN
	UNKNOWN ALKANE	26.33	3J
	UNKNOWN	6.25	3J
	UNKNOWN	29.31	2J
	UNKNOWN	27.05	2J
	UNKNOWN ALKANE	26.89	2J
	UNKNOWN	26.94	2J

Lab Sample Id: 992618B-02 Client Sample Id: CF-RW-16

CAS#	Compound	RT	Estimated Conc., ug/L
149-30-4	2-MERCAPTOBENZOTHIAZOLE	19.92	8JN J33
	UNKNOWN ALKANE	22.72	6J J33
	UNKNOWN ALKANE	25.20	6JB R33
	UNKNOWN ALKANE	23.38	6J J33
	UNKNOWN ALKANE	24.00	6J J33
	UNKNOWN	9.38	5J J33
	UNKNOWN ALKANE	24.62	5JB R33
	UNKNOWN	29.28	4JB R33
	UNKNOWN ALKANE	25.77	4JB R33
	UNKNOWN	25.48	3J J33
	UNKNOWN ALKANE	27.53	3J J33
	UNKNOWN ALKANE	22.03	3J J33
	UNKNOWN ALKANE	26.33	3JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	24.86	2JBN R33
	UNKNOWN ALKANE	26.90	2JB R33
	UNKNOWN ALKANE	21.31	2J J33
	UNKNOWN	20.94	2J J33
	UNKNOWN ACID ESTER	21.41	2J J33

See Appendix for qualifier definitions

EMM 1/15/10

U.S. EPA - CLP

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-RW-16

La Name: STL Contract: _____

Lab Code: STL Case No.: 2618B SAS No.: _____ SDG No.: B2618

Matrix (soil/water): WATER Lab Sample ID: 992618B-02

Level (low/med): LOW Date Received: 10/14/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	4.0	U		P
7440-39-3	Barium	161.	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.6		*N J1	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	W	P
7440-22-4	Silver	1.0	U	N UJ1	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

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_____

JMD Jan 1/10/00

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-RW-16

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2618B SAS No.: _____ SDG No.: B2618

Matrix (soil/water): WATER Lab Sample ID: 992618B-02

% Solids: 0 Date Received: 10/14/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

JKB 1/10/00

Aqueous

TABLE VO-1.1
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-08	CF-OW-07	CF-TB-10/4/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-03	992618A-04	992618A-05	
Method Blank I.D.	VBLKKO	VBLKKO	VBLKKO	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received	10/06/99	10/06/99	10/06/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/11/99	10/11/99	10/11/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/10/00

TABLE VO-1.6 Aqueous
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-RW-02	CF-TB-10/6/99		Quant. Limits with no Dilution
Lab Sample I.D.	992618A-08	992618A-09		
Method Blank I.D.	VBLKKP	VBLKKP		
Quant. Factor	1.00	1.00		
Benzene	3J	U		5.0
Toluene	U	U		5.0
Ethylbenzene	1J	U		5.0
Xylene (total)	U	U		5.0
Date Received	10/07/99	10/07/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/12/99	10/11/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Aqueous

TABLE VO-1.3
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-TB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-15	
Method Blank I.D.	VBLKMR	VBLKMR	VBLKMR	
Quant. Factor	1.00	1.00	1.00	
Benzene	120	U	U	5.0
Toluene	7	U	U	5.0
Ethylbenzene	33	U	U	5.0
Xylene (total)	27	U	U	5.0
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/13/99	10/13/99	10/12/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

jm
11/16/99

TABLE VO-1.0 Aqueous
7099-2618B
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB-1 0/11/99	CF-RW-14	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKU	992618B-01	992618B-03	
Method Blank I.D.	VBLKKU	VBLKKU	VBLKKU	
Quant. Factor	1.00	1.00	20.0	
Benzene	U	U	2400	5.0
Toluene	U	U	870 J5	5.0
Ethylbenzene	U	U	190	5.0
Xylene (total)	U	U	780	5.0
Date Received		10/13/99	10/14/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	10/14/99	10/15/99	10/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

Aqueous

TABLE VO-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMT VBLKMT 1.00	CF-FB-10/8/99 992618A-14 VBLKMT 1.00		Quant. Limits with no Dilution
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		10/11/99		
Date Extracted	N/A	N/A		
Date Analyzed	10/13/99	10/13/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-FB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-14	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.05	1.06	1.00	
Phenol	4J	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	.4J	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobbenzene	U	U	U	10
Naphthalene	2J	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U UJ10, UJ11	U UJ10, UJ11	U UJ10, UJ11	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	.7J	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	.9J	U	U	10
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EHM 1/16/00

TABLE SV-1.4
7099-2618A
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-OW-06	CF-RW-10	CF-FB-10/8/99	Quant. Limits with no Dilution
Lab Sample I.D.	992618A-12	992618A-13	992618A-14	
Method Blank I.D.	SBLKC1	SBLKC1	SBLKC1	
Quant. Factor	1.05	1.06	1.00	
2,4-Dinitrophenol	U	U	U	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	.2JB [11] U[12]	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	.5J	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U UJ [7]	U UJ [7]	U UJ [7]	50
Phenanthrene	U	U	U	10
Anthracene	.6J	U	U	10
Carbazole	1J	U	U	10
Di-n-butylphthalate	.5JB [10] U[12]	.7JB [11] U[12]	.5JB [10] U[12]	10
Fluoranthene	.3J	U	U	10
Pyrene	.4J	U	U	10
Butylbenzylphthalate	U	U	U	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	.4JB [10] U[12]	.4JB [11] U[12]	.5JB [10] U[12]	10
Di-n-octylphthalate	.6JB [10] U[12]	.5JB [11] U[12]	.3JB [10] U[12]	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U UJ [10]	U UJ [10]	U UJ [10]	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	.3J	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	.3J	U	U	10
Date Received	10/11/99	10/11/99	10/11/99	
Date Extracted	10/15/99	10/15/99	10/15/99	
Date Analyzed	10/25/99	10/25/99	10/25/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/16/00

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-17
Date Sampled.....: 01/17/2002
Time Sampled.....: 14:20
Sample Matrix.....: Water

Laboratory Sample ID: 200419-1
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	ND	U		3.0	10.0	1	ug/L	2594		01/23/02 1424	dtn
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.40	1.0000	ug/L	2793		01/29/02 1432	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	2679		01/25/02 1452	nnp
	Barium	280			1.1	5.0	1	ug/L	2679		01/25/02 1452	nnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	2679		01/25/02 1452	nnp
	Chromium	1.6 J5	B		1.5	10.0	1	ug/L	2679		01/25/02 1452	nnp
	Lead	ND	U		3.4	10.0	1	ug/L	2679		01/25/02 1452	nnp
	Selenium	ND	U		6.9	30.0	1	ug/L	2679		01/25/02 1452	nnp
	Silver	ND R9	U		1.4	6.0	1	ug/L	2679		01/25/02 1452	nnp
8270C	Semivolatile Organics											
	Phenol	ND UJ9	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Bis(2-chloroethyl)ether	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	1,3-Dichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	1,4-Dichlorobenzene	ND	U		20	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	1,2-Dichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzyl alcohol	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2-Methylphenol	ND UJ9	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,2-oxybis (1-chloropropane)	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	n-Nitroso-di-n-propylamine	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Hexachloroethane	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Methylphenol	ND UJ9	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2-Chlorophenol	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Nitrobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-RW-17
Date Sampled.....: 01/17/2002
Time Sampled.....: 14:20
Sample Matrix.....: Water

Laboratory Sample ID: 200419-1
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Bis(2-chloroethoxy)methane	ND	U		20	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	1,2,4-Trichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzoic acid	ND R9	U		2200	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Isophorone	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,4-Dimethylphenol	ND UJ9	U		60	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Hexachlorobutadiene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Naphthalene	7100			40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,4-Dichlorophenol	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Chloroaniline	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,4,6-Trichlorophenol	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,4,5-Trichlorophenol	ND UJ9	U		30	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Hexachlorocyclopentadiene	ND UJ9	U		60	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2-Methylnaphthalene	870 J5	J	a	30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2-Nitroaniline	ND	U		40	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2-Chloronaphthalene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Chloro-3-methylphenol	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,6-Dinitrotoluene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2-Nitrophenol	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	3-Nitroaniline	ND	U		40	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Dimethyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,4-Dinitrophenol	ND	U		130	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Acenaphthylene	ND	U	a	40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	2,4-Dinitrotoluene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Acenaphthene	170 J5	J	a	30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Dibenzofuran	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Nitrophenol	ND UJ9	U		40	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Fluorene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Nitroaniline	ND	U		60	2000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Bromophenyl phenyl ether	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-17
Date Sampled.....: 01/17/2002
Time Sampled.....: 14:20
Sample Matrix.....: Water

Laboratory Sample ID: 200419-1
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Hexachlorobenzene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Diethyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4-Chlorophenyl phenyl ether	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Pentachlorophenol	ND	U		260	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	n-Nitrosodiphenylamine	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	4,6-Dinitro-2-methylphenol	ND	U		90	5000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Phenanthrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Carbazole	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Di-n-butyl phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Fluoranthene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Butyl benzyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzo(a)anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Chrysene	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	3,3-Dichlorobenzidine	ND	U		40	2000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Bis(2-ethylhexyl)phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Di-n-octyl phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzo(b)fluoranthene	ND	U		100	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzo(k)fluoranthene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzo(a)pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Dibenzo(a,h)anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
	Benzo(ghi)perylene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1236	jdw
82608	Volatile Organics (5mL Purge)											
	Benzene	360			3	50	10.0000	ug/L	2775		01/23/02 2039	pam
	Toluene	1100 J?			3	50	10.0000	ug/L	2775		01/23/02 2039	pam
	Ethylbenzene	1800 J?			3	50	10.0000	ug/L	2775		01/23/02 2039	pam

* In Description = Dry Wgt.

jm 2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-17
Date Sampled.....: 01/17/2002
Time Sampled.....: 14:20
Sample Matrix.....: Water

Laboratory Sample ID: 200419-1
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Xylenes (total)	1900			5	50	10.0000	ug/L	2775		01/23/02 2039	pam

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date: 02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-18
Date Sampled.....: 01/17/2002
Time Sampled.....: 15:15
Sample Matrix.....: Water

Laboratory Sample ID: 200419-2
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	ND	U		3.0	10.0	1	ug/L	2594		01/23/02 1428	dtn
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.40	1.0000	ug/L	2793		01/29/02 1443	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	2679		01/25/02 1523	nnp
	Barium	325			1.1	5.0	1	ug/L	2679		01/25/02 1523	nnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	2679		01/25/02 1523	nnp
	Chromium	ND	U		1.5	10.0	1	ug/L	2679		01/25/02 1523	nnp
	Lead	ND	U		3.4	10.0	1	ug/L	2679		01/25/02 1523	nnp
	Selenium	ND	U		6.9	30.0	1	ug/L	2679		01/25/02 1523	nnp
	Silver	ND- R9	U		1.4	6.0	1	ug/L	2679		01/25/02 1523	nnp
8270C	Semivolatile Organics											
	Phenol	ND V39	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Bis(2-chloroethyl)ether	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	1,3-Dichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	1,4-Dichlorobenzene	ND	U		20	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	1,2-Dichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzyl alcohol	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2-Methylphenol	ND V39	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,2-oxybis (1-chloropropane)	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	n-Nitroso-di-n-propylamine	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Hexachloroethane	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Methylphenol	ND V39	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2-Chlorophenol	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Nitrobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-18
Date Sampled.....: 01/17/2002
Time Sampled.....: 15:15
Sample Matrix.....: Water

Laboratory Sample ID: 200419-2
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Bis(2-chloroethoxy)methane	ND	U		20	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	1,2,4-Trichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzoic acid	ND R4	U		2200	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Isophorone	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,4-Dimethylphenol	ND U3	U		60	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Hexachlorobutadiene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Naphthalene	5100			40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,4-Dichlorophenol	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Chloroaniline	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,4,6-Trichlorophenol	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,4,5-Trichlorophenol	ND U3	U		30	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Hexachlorocyclopentadiene	ND U3	U		60	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2-Methylnaphthalene	660 J5	J	a	30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2-Nitroaniline	ND	U		40	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2-Chloronaphthalene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Chloro-3-methylphenol	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,6-Dinitrotoluene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2-Nitrophenol	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	3-Nitroaniline	ND	U		40	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Dimethyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,4-Dinitrophenol	ND	U		130	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Acenaphthylene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	2,4-Dinitrotoluene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Acenaphthene	160 J5	J	a	30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Dibenzofuran	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Nitrophenol	ND U3	U		40	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Fluorene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Nitroaniline	ND	U		60	2000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Bromophenyl phenyl ether	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw

* In Description = Dry Wgt.

-JDW 2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-18
Date Sampled.....: 01/17/2002
Time Sampled.....: 15:15
Sample Matrix.....: Water

Laboratory Sample ID: 200419-2
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Hexachlorobenzene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Diethyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4-Chlorophenyl phenyl ether	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Pentachlorophenol	ND	U		260	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	n-Nitrosodiphenylamine	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	4,6-Dinitro-2-methylphenol	ND	U		90	5000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Phenanthrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Carbazole	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Di-n-butyl phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Fluoranthene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Butyl benzyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzo(a)anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Chrysene	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	3,3-Dichlorobenzidine	ND	U		40	2000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Bis(2-ethylhexyl)phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Di-n-octyl phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzo(b)fluoranthene	ND	U		100	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzo(k)fluoranthene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzo(a)pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Dibenzo(a,h)anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
	Benzo(ghi)perylene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1528	jdw
82608	Volatile Organics (5mL Purge)											
	Benzene	820			3	50	10.0000	ug/L	2775		01/24/02 2029	pam
	Toluene	52			3	50	10.0000	ug/L	2775		01/24/02 2029	pam
	Ethylbenzene	1300			3	50	10.0000	ug/L	2775		01/24/02 2029	pam

* In Description = Dry Wgt.

2/7/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLINTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-RW-18
Date Sampled.....: 01/17/2002
Time Sampled.....: 15:15
Sample Matrix.....: Water

Laboratory Sample ID: 200419-2
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Xylenes (total)	1000			5	50	10.0000	ug/L	2775		01/24/02 2029	pam

* In Description = Dry Wgt.

JHM 2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-81
Date Sampled.....: 01/17/2002
Time Sampled.....: 16:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-3
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	5.9 JS	#		3.0	10.0	1	ug/L	2594		01/23/02 1429	dtn
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.40	1.0000	ug/L	2793		01/29/02 1444	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	2679		01/25/02 1547	nnp
	Barium	317			1.1	5.0	1	ug/L	2679		01/25/02 1547	nnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	2679		01/25/02 1547	nnp
	Chromium	ND	U		1.5	10.0	1	ug/L	2679		01/25/02 1547	nnp
	Lead	ND	U		3.4	10.0	1	ug/L	2679		01/25/02 1547	nnp
	Selenium	ND	U		6.9	30.0	1	ug/L	2679		01/25/02 1547	nnp
	Silver	ND R4	U		1.4	6.0	1	ug/L	2679		01/25/02 1547	nnp
8270C	Semivolatile Organics											
	Phenol	ND UJ4	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Bis(2-chloroethyl)ether	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	1,3-Dichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	1,4-Dichlorobenzene	ND	U		20	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	1,2-Dichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzyl alcohol	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2-Methylphenol	ND UJ4	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,2-oxybis (1-chloropropane)	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	n-Nitroso-di-n-propylamine	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Hexachloroethane	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Methylphenol	ND UJ4	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2-Chlorophenol	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Nitrobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-81
Date Sampled.....: 01/17/2002
Time Sampled.....: 16:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-3
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Bis(2-chloroethoxy)methane	ND	U		20	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	1,2,4-Trichlorobenzene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzoic acid	ND R9	U		2200	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Isophorone	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,4-Dimethylphenol	ND U39	U		60	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Hexachlorobutadiene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Naphthalene	5300		M	40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,4-Dichlorophenol	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Chloroaniline	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,4,6-Trichlorophenol	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,4,5-Trichlorophenol	ND U39	U		30	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Hexachlorocyclopentadiene	ND U39	U		60	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2-Methylnaphthalene	720 J5	J	a	30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2-Nitroaniline	ND	U		40	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2-Chloronaphthalene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Chloro-3-methylphenol	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,6-Dinitrotoluene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2-Nitrophenol	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	3-Nitroaniline	ND	U		40	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Dimethyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,4-Dinitrophenol	ND	U		130	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Acenaphthylene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	2,4-Dinitrotoluene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Acenaphthene	160 J5	J	a	30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Dibenzofuran	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Nitrophenol	ND U39	U		40	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Fluorene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Nitroaniline	ND	U		60	2000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Bromophenyl phenyl ether	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-RW-81
Date Sampled.....: 01/17/2002
Time Sampled.....: 16:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-3
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Hexachlorobenzene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Diethyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4-Chlorophenyl phenyl ether	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Pentachlorophenol	ND	U		260	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	n-Nitrosodiphenylamine	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	4,6-Dinitro-2-methylphenol	ND	U		90	5000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Phenanthrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Carbazole	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Di-n-butyl phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Fluoranthene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Butyl benzyl phthalate	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzo(a)anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Chrysene	ND	U		60	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	3,3-Dichlorobenzidine	ND	U		40	2000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Bis(2-ethylhexyl)phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Di-n-octyl phthalate	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzo(b)fluoranthene	ND	U		100	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzo(k)fluoranthene	ND	U		30	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzo(a)pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Dibenzo(a,h)anthracene	ND	U		50	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
	Benzo(ghi)perylene	ND	U		40	1000	100.0000	ug/L	2962		01/29/02 1611	jdw
82608	Volatile Organics (5mL Purge)											
	Benzene	790			3	50	10.0000	ug/L	2775		01/24/02 2105	pam
	Toluene	53			3	50	10.0000	ug/L	2775		01/24/02 2105	pam
	Ethylbenzene	1300			3	50	10.0000	ug/L	2775		01/24/02 2105	pam

* In Description = Dry Wgt.

2/21/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-RW-81
Date Sampled.....: 01/17/2002
Time Sampled.....: 16:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-3
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Xylenes (total)	1100			5	50	10.0000	ug/L	2775		01/24/02 2105	pam

* In Description = Dry Wgt.

Jim 4/2/02

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-01
Date Sampled.....: 01/18/2002
Time Sampled.....: 08:30
Sample Matrix.....: Water

Laboratory Sample ID: 200419-6
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzyl alcohol	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2-Methylphenol	0.4 [illegible]	J	a	0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,2-oxybis (1-chloropropane)	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	n-Nitroso-di-n-propylamine	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Hexachloroethane	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Methylphenol	ND [illegible]	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2-Chlorophenol	ND	U		0.7	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Nitrobenzene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Bis(2-chloroethoxy)methane	ND	U		0.2	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	1,2,4-Trichlorobenzene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Benzoic acid	ND [illegible]	U		24	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	Isophorone	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,4-Dimethylphenol	ND [illegible]	U		0.7	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Hexachlorobutadiene	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Naphthalene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,4-Dichlorophenol	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Chloroaniline	ND	U		0.7	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,4,6-Trichlorophenol	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,4,5-Trichlorophenol	ND [illegible]	U		0.3	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	Hexachlorocyclopentadiene	ND [illegible]	U		0.7	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2-Methylnaphthalene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2-Nitroaniline	ND	U		0.4	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	2-Chloronaphthalene	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Chloro-3-methylphenol	ND	U		0.7	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,6-Dinitrotoluene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2-Nitrophenol	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	3-Nitroaniline	ND	U		0.4	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	Dimethyl phthalate	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,4-Dinitrophenol	ND	U		1	55	1.00000	ug/L	2962		01/30/02 2207	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200419 — Date: 02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL — PROJECT: CLINTON MGP — ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-01
Date Sampled.....: 01/18/2002
Time Sampled.....: 08:30
Sample Matrix.....: Water

Laboratory Sample ID: 200419-6
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	14.5			3.0	10.0	1	ug/L	2594		01/23/02 1431	dtn
90408	pH (Liquid)											
	pH	7.03				0.20	1	pH Units	2717		01/23/02 0000	mip
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.40	1.0000	ug/L	2793		01/29/02 1447	ckc
23408	Hardness, as CaCO3											
	Hardness, Total as CaCO3	352			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	nnp
	Hardness, Calcium	218			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	nnp
	Hardness, Magnesium	134			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	nnp
60108	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	2679		01/25/02 1559	nnp
	Barium	188			1.1	5.0	1	ug/L	2679		01/25/02 1559	nnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	2679		01/25/02 1559	nnp
	Chromium	2.4	B		1.5	10.0	1	ug/L	2679		01/25/02 1559	nnp
	Lead	18.0			3.4	10.0	1	ug/L	2679		01/25/02 1559	nnp
	Selenium	ND	U		6.9	30.0	1	ug/L	2679		01/25/02 1559	nnp
	Silver	ND	U		1.4	6.0	1	ug/L	2679		01/25/02 1559	nnp
8270C	Semivolatile Organics											
	Phenol	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Bis(2-chloroethyl)ether	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	1,3-Dichlorobenzene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	1,4-Dichlorobenzene	ND	U		0.2	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	1,2-Dichlorobenzene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200419 Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-01
Date Sampled.....: 01/18/2002
Time Sampled.....: 08:30
Sample Matrix.....: Water

Laboratory Sample ID: 200419-6
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Dibenzo(a,h)anthracene	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Benzo(ghi)perylene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	2775		01/23/02 1852	pam
	Toluene	10			0.3	5	1.00000	ug/L	2775		01/23/02 1852	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	2775		01/23/02 1852	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	2775		01/23/02 1852	pam

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200419

Date: 02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-01
Date Sampled.....: 01/18/2002
Time Sampled.....: 08:30
Sample Matrix.....: Water

Laboratory Sample ID: 200419-6
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Acenaphthylene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	2,4-Dinitrotoluene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Acenaphthene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Dibenzofuran	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Nitrophenol	ND	U		0.4	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	Fluorene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Nitroaniline	ND	U		0.7	22	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Bromophenyl phenyl ether	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Hexachlorobenzene	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Diethyl phthalate	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4-Chlorophenyl phenyl ether	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Pentachlorophenol	ND	U		3	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	n-Nitrosodiphenylamine	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	4,6-Dinitro-2-methylphenol	ND	U		1	55	1.00000	ug/L	2962		01/30/02 2207	jdw
	Phenanthrene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Anthracene	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Carbazole	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Di-n-butyl phthalate	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Fluoranthene	0.6	J	a	0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Pyrene	0.6	J	a	0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Butyl benzyl phthalate	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Benzo(a)anthracene	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Chrysene	ND	U		0.7	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	3,3-Dichlorobenzidine	ND	U		0.4	22	1.00000	ug/L	2962		01/30/02 2207	jdw
	Bis(2-ethylhexyl)phthalate	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Di-n-octyl phthalate	ND	U		0.5	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Benzo(b)fluoranthene	ND	U		1	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Benzo(k)fluoranthene	ND	U		0.3	11	1.00000	ug/L	2962		01/30/02 2207	jdw
	Benzo(a)pyrene	ND	U		0.4	11	1.00000	ug/L	2962		01/30/02 2207	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200419 Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-02
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-7
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzyl alcohol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2-Methylphenol	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,2-oxybis (1-chloropropane)	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	n-Nitroso-di-n-propylamine	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Hexachloroethane	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Methylphenol	17	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2-Chlorophenol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Nitrobenzene	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Bis(2-chloroethoxy)methane	ND	U		0.8	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	1,2,4-Trichlorobenzene	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Benzoic acid	ND	U		88	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	Isophorone	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,4-Dimethylphenol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Hexachlorobutadiene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Naphthalene	280			2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,4-Dichlorophenol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Chloroaniline	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,4,6-Trichlorophenol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,4,5-Trichlorophenol	ND	U		1	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	Hexachlorocyclopentadiene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2-Methylnaphthalene	31	J	a	1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2-Nitroaniline	ND	U		2	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	2-Chloronaphthalene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Chloro-3-methylphenol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,6-Dinitrotoluene	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2-Nitrophenol	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	3-Nitroaniline	ND	U		2	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	Dimethyl phthalate	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,4-Dinitrophenol	ND	U		5	200	4.00000	ug/L	2962		01/29/02 1445	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200419

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-02
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-7
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	164			3.0	10.0	1	ug/L	2594		01/23/02 1432	dtn
9040B	pH (Liquid)											
	pH	7.05 H				0.20	1	pH Units	2717		01/23/02 0000	mip
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.40	1.0000	ug/L	2793		01/29/02 1449	ckc
2340B	Hardness, as CaCO3											
	Hardness, Total as CaCO3	372			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	nnp
	Hardness, Calcium	220			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	nnp
	Hardness, Magnesium	151			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	2679		01/25/02 1605	nnp
	Barium	192			1.1	5.0	1	ug/L	2679		01/25/02 1605	nnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	2679		01/25/02 1605	nnp
	Chromium	9.5	B		1.5	10.0	1	ug/L	2679		01/25/02 1605	nnp
	Lead	62.0			3.4	10.0	1	ug/L	2679		01/25/02 1605	nnp
	Selenium	ND	U		6.9	30.0	1	ug/L	2679		01/25/02 1605	nnp
	Silver	ND	U		1.4	6.0	1	ug/L	2679		01/25/02 1605	nnp
8270C	Semivolatile Organics											
	Phenol	3.01	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Bis(2-chloroethyl)ether	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	1,3-Dichlorobenzene	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	1,4-Dichlorobenzene	ND	U		0.8	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	1,2-Dichlorobenzene	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 200419

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-02
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-7
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Indeno(1,2,3-cd)pyrene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Dibenzo(a,h)anthracene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Benzo(ghi)perylene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
8260B	Volatile Organics (5mL Purge)											
	Benzene	340			0.6	10	2.00000	ug/L	2775		01/24/02 1842	pam
	Toluene	11			0.6	10	2.00000	ug/L	2775		01/24/02 1842	pam
	Ethylbenzene	200			0.6	10	2.00000	ug/L	2775		01/24/02 1842	pam
	Xylenes (total)	110			1	10	2.00000	ug/L	2775		01/24/02 1842	pam

* In Description = Dry Wgt.

[redacted]

LABORATORY TEST RESULTS

Job Number: 200419

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLINTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-02
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-7
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Acenaphthylene	ND	U	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	2,4-Dinitrotoluene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Acenaphthene	15 [illegible]	J	a	1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Dibenzofuran	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Nitrophenol	ND [illegible]	U		2	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	Fluorene	8 [illegible]	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Nitroaniline	ND	U		2	80	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Bromophenyl phenyl ether	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Hexachlorobenzene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Diethyl phthalate	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4-Chlorophenyl phenyl ether	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Pentachlorophenol	ND	U		10	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	n-Nitrosodiphenylamine	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	4,6-Dinitro-2-methylphenol	ND	U		4	200	4.00000	ug/L	2962		01/29/02 1445	jdw
	Phenanthrene	17 [illegible]	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Anthracene	4 [illegible]	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Carbazole	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Di-n-butyl phthalate	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Fluoranthene	7 [illegible]	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Pyrene	9 [illegible]	J	a	2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Butyl benzyl phthalate	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Benzo(a)anthracene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Chrysene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	3,3-Dichlorobenzidine	ND	U		2	80	4.00000	ug/L	2962		01/29/02 1445	jdw
	Bis(2-ethylhexyl)phthalate	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Di-n-octyl phthalate	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Benzo(b)fluoranthene	ND	U		4	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Benzo(k)fluoranthene	ND	U		1	40	4.00000	ug/L	2962		01/29/02 1445	jdw
	Benzo(a)pyrene	ND	U		2	40	4.00000	ug/L	2962		01/29/02 1445	jdw

* In Description = Dry Wgt.

Job Number: 200419

LABORATORY TEST RESULTS

Date: 02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-03
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-8
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Benzyl alcohol	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2-Methylphenol	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,2-oxybis (1-chloropropane)	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	n-Nitroso-di-n-propylamine	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Hexachloroethane	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Methylphenol	9	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2-Chlorophenol	ND	U		3	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Nitrobenzene	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Bis(2-chloroethoxy)methane	ND	U		0.9	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	1,2,4-Trichlorobenzene	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Benzoic acid	ND	U	a	94	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	Isophorone	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,4-Dimethylphenol	ND	U		3	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Hexachlorobutadiene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Naphthalene	240			2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,4-Dichlorophenol	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Chloroaniline	ND	U		3	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,4,6-Trichlorophenol	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,4,5-Trichlorophenol	ND	U		1	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	Hexachlorocyclopentadiene	ND	U		3	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2-Methylnaphthalene	33	J	a	1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2-Nitroaniline	ND	U		2	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	2-Chloronaphthalene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Chloro-3-methylphenol	ND	U		3	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,6-Dinitrotoluene	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2-Nitrophenol	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	3-Nitroaniline	ND	U		2	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	Dimethyl phthalate	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,4-Dinitrophenol	ND	U		6	220	4.00000	ug/L	2962		01/29/02 1902	jdw

* In Description = Dry Wgt.

[redacted]

LABORATORY TEST RESULTS

Job Number: 200419

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-03
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-8
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	110			3.0	10.0	1	ug/L	2594		01/23/02 1432	dtn
9040B	pH (Liquid)											
	pH	7.18				0.20	1	pH Units	2717		01/23/02 0000	mip
7470A	Mercury (CVAA)											
	Mercury	ND		U	0.18	0.40	1.0000	ug/L	2793		01/29/02 1450	ckc
2340B	Hardness, as CaCO3											
	Hardness, Total as CaCO3	322			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	mnp
	Hardness, Calcium	192			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	mnp
	Hardness, Magnesium	130			Missing MDL	1.00	1	mg/L	2695		01/25/02 0000	mnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND		U	7.0	40.0	1	ug/L	2679		01/25/02 1611	mnp
	Barium	166			1.1	5.0	1	ug/L	2679		01/25/02 1611	mnp
	Cadmium	ND		U	1.3	10.0	1	ug/L	2679		01/25/02 1611	mnp
	Chromium	5.3		B	1.5	10.0	1	ug/L	2679		01/25/02 1611	mnp
	Lead	13.1			3.4	10.0	1	ug/L	2679		01/25/02 1611	mnp
	Selenium	ND		U	6.9	30.0	1	ug/L	2679		01/25/02 1611	mnp
	Silver	ND		U	1.4	6.0	1	ug/L	2679		01/25/02 1611	mnp
8270C	Semivolatile Organics											
	Phenol	2		A	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Bis(2-chloroethyl)ether	ND		U	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	1,3-Dichlorobenzene	ND		U	1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	1,4-Dichlorobenzene	ND		U	0.9	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	1,2-Dichlorobenzene	ND		U	1	43	4.00000	ug/L	2962		01/29/02 1902	jdw

* In Description = Dry Wgt.

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-03
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-8
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Acenaphthylene	ND	U	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	2,4-Dinitrotoluene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Acenaphthene	15	J	a	1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Dibenzofuran	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Nitrophenol	ND	U		2	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	Fluorene	7	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Nitroaniline	ND	U		3	86	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Bromophenyl phenyl ether	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Hexachlorobenzene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Diethyl phthalate	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4-Chlorophenyl phenyl ether	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Pentachlorophenol	ND	U		11	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	n-Nitrosodiphenylamine	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	4,6-Dinitro-2-methylphenol	ND	U		4	220	4.00000	ug/L	2962		01/29/02 1902	jdw
	Phenanthrene	13	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Anthracene	4	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Carbazole	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Di-n-butyl phthalate	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Fluoranthene	5	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Pyrene	7	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Butyl benzyl phthalate	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Benzo(a)anthracene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Chrysene	ND	U		3	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	3,3-Dichlorobenzidine	ND	U		2	86	4.00000	ug/L	2962		01/29/02 1902	jdw
	Bis(2-ethylhexyl)phthalate	29	J	a	2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Di-n-octyl phthalate	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Benzo(b)fluoranthene	ND	U		4	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Benzo(k)fluoranthene	ND	U		1	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Benzo(a)pyrene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw

* In Description = Dry Wgt.

Job Number: 200419

LABORATORY TEST RESULTS

Date:02/08/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLINTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-STRM-03
Date Sampled.....: 01/18/2002
Time Sampled.....: 09:45
Sample Matrix.....: Water

Laboratory Sample ID: 200419-8
Date Received.....: 01/18/2002
Time Received.....: 20:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Indeno(1,2,3-cd)pyrene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Dibenzo(a,h)anthracene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
	Benzo(ghi)perylene	ND	U		2	43	4.00000	ug/L	2962		01/29/02 1902	jdw
8260B	Volatile Organics (5mL Purge)											
	Benzene	200			0.6	10	2.00000	ug/L	2775		01/24/02 1918	pam
	Toluene	19			0.6	10	2.00000	ug/L	2775		01/24/02 1918	pam
	Ethylbenzene	100			0.6	10	2.00000	ug/L	2775		01/24/02 1918	pam
	Xylenes (total)	68			1	10	2.00000	ug/L	2775		01/24/02 1918	pam

* In Description = Dry Wgt.

TABLE VO-3.0 Aqueous
7099-0302A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB1		Quant. Limits with no Dilution
Lab Sample I.D.	VBLK07	990302A-14		
Method Blank I.D.	VBLK07	VBLK07		
Quant. Factor	1.00	1.00		
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		02/23/99		
Date Extracted	N/A	N/A		
Date Analyzed	02/27/99	02/27/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.0
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMN VBLKMN 1.00	CF-TB-2 990302C-08 VBLKMN 1.00		Quant. Limits with no Dilution
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U UJa4		10
Methylene Chloride	1J	U		5.0
Acetone	8J	U		10
Carbon Disulfide	U	U		5.0
Vinyl Acetate	U	U		10
1,1-Dichloroethene	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethene (total)	U	U		5.0
Chloroform	U	U		5.0
1,2-Dichloroethane	U	U		5.0
2-Butanone	U	4J Ja4		10
1,1,1-Trichloroethane	U	U		5.0
Carbon Tetrachloride	U	U		5.0
Bromodichloromethane	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
Trichloroethene	U	2J Ja4		5.0
Dibromochloromethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Benzene	U	U		5.0
trans-1,3-Dichloropropene	U	U		5.0
Bromoform	U	U		5.0
4-Methyl-2-Pentanone	U	1J Ja4		10
2-Hexanone	U	U		10
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,2,2-Tetrachloroethane	U	U		5.0
Chlorobenzene	U	U		5.0
Ethylbenzene	U	U		5.0
Styrene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received Date Extracted Date Analyzed	N/A 03/02/99	02/26/99 N/A 03/02/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE VO-1.2 Aqueous
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB3		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKH	990302C-20		
Method Blank I.D.	VBLKKH	VBLKKH		
Quant. Factor	1.00	1.00		
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U UJ		10
Methylene Chloride	6	7B UJ		5.0
Acetone	16	U		10
Carbon Disulfide	U	U UJ		5.0
Vinyl Acetate	U	U UJ		10
1,1-Dichloroethene	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethene (total)	U	U		5.0
Chloroform	U	U		5.0
1,2-Dichloroethane	U	U		5.0
2-Butanone	U	U UJ		10
1,1,1-Trichloroethane	U	U		5.0
Carbon Tetrachloride	U	U		5.0
Bromodichloromethane	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
Trichloroethene	U	U		5.0
Dibromochloromethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Benzene	U	U		5.0
trans-1,3-Dichloropropene	U	U		5.0
Bromoform	U	U UJ		5.0
4-Methyl-2-Pentanone	U	U UJ		10
2-Hexanone	U	U UJ		10
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,2,2-Tetrachloroethane	U	U		5.0
Chlorobenzene	U	U		5.0
Ethylbenzene	U	U		5.0
Styrene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		03/02/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/04/99	03/04/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

Validators revisions - removed original qualifications (marked X) KJ

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-SBTB4

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0527A SAS No.: _____ SDG No.: A0527 59

Matrix: (soil/water) WATER Lab Sample ID: 990527A-04

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2575

Level: (low/med) LOW Date Received: 03/11/99

% Moisture: not dec. _____ Date Analyzed: 03/17/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

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TABLE VO-1.1
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL VOLATILE ORGANICS + TIC'S

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMO VBLKMO 1.00	CF-HSA-ER1 990302C-03 VBLKMO 1.00		Quant. Limits with no Dilution
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U		10
Methylene Chloride	6	6B UJ24 J09	6U13	5.0
Acetone	5J	U		10
Carbon Disulfide	U	U		5.0
Vinyl Acetate	U	U		10
1,1-Dichloroethene	U	U		5.0
1,1-Dichloroethane	U	U		5.0
1,2-Dichloroethene (total)	U	U		5.0
Chloroform	U	U		5.0
1,2-Dichloroethane	U	U		5.0
2-Butanone	U	U		10
1,1,1-Trichloroethane	U	U		5.0
Carbon Tetrachloride	U	U		5.0
Bromodichloromethane	U	U		5.0
1,2-Dichloropropane	U	U		5.0
cis-1,3-Dichloropropene	U	U		5.0
Trichloroethene	U	U		5.0
Dibromochloromethane	U	U		5.0
1,1,2-Trichloroethane	U	U		5.0
Benzene	U	U		5.0
trans-1,3-Dichloropropene	U	U		5.0
Bromoform	U	U		5.0
4-Methyl-2-Pentanone	U	U		10
2-Hexanone	U	U		10
Tetrachloroethene	U	U		5.0
Toluene	U	U		5.0
1,1,2,2-Tetrachloroethane	U	U		5.0
Chlorobenzene	U	U		5.0
Ethylbenzene	U	U		5.0
Styrene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		02/26/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/03/99	03/03/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-HSA-ER1		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKP2	990302C-03		
Method Blank I.D.	SBLKP2	SBLKP2		
Quant. Factor	1.00	1.11		
Phenol	U	U		10
bis(2-Chloroethyl)ether	U	U		10
2-Chlorophenol	U	U		10
1,3-Dichlorobenzene	U	U		10
1,4-Dichlorobenzene	U	U		10
Benzyl alcohol	U	U		10
1,2-Dichlorobenzene	U	U		10
2-Methylphenol	U	U		10
2,2'-oxybis(1-Chloropropane)	U	U		10
4-Methylphenol	U	U		10
N-Nitroso-di-n-propylamine	U	U		10
Hexachloroethane	U	U		10
Nitrobenzene	U	U		10
Isophorone	U	U		10
2-Nitrophenol	U	U		10
2,4-Dimethylphenol	U	U		10
Benzoic acid	U	U		50
Bis(2-Chloroethoxy)methane	U	U		10
2,4-Dichlorophenol	U	U		10
1,2,4-Trichlorobenzene	U	U		10
Naphthalene	U	.2J		10
4-Chloroaniline	U	U		10
Hexachlorobutadiene	U	U		10
4-Chloro-3-methylphenol	U	U		10
2-Methylnaphthalene	U	U		10
Hexachlorocyclopentadiene	U	U		10
2,4,6-Trichlorophenol	U	U		10
2,4,5-Trichlorophenol	U	U		50
2-Chloronaphthalene	U	U		10
2-Nitroaniline	U	U		50
Dimethylphthalate	U	U		10
Acenaphthylene	U	.5J		10
2,6-Dinitrotoluene	U	U		10
3-Nitroaniline	U	U		50
Acenaphthene	U	U		10
Date Received		02/26/99		
Date Extracted	03/02/99	03/02/99		
Date Analyzed	03/03/99	03/04/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0302C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-HSA-ER1		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKP2	990302C-03		
Method Blank I.D.	SBLKP2	SBLKP2		
Quant. Factor	1.00	1.11		
2,4-Dinitrophenol	U	U		50
4-Nitrophenol	U	U		50
Dibenzofuran	U	U		10
2,4-Dinitrotoluene	U	U		10
Diethylphthalate	.1J	.2JB		10
4-Chlorophenyl-phenylether	U	U		10
Fluorene	U	U		10
4-Nitroaniline	U	U		20
4,6-Dinitro-2-methylphenol	U	U		50
N-Nitrosodiphenylamine (1)	U	U		10
4-Bromophenyl-phenylether	U	U		10
Hexachlorobenzene	U	U		10
Pentachlorophenol	U	U		50
Phenanthrene	U	.6J		10
Anthracene	U	U		10
Carbazole	U	U		10
Di-n-butylphthalate	U	U		10
Fluoranthene	U	U		10
Pyrene	U	.3J		10
Butylbenzylphthalate	U	U		10
3,3'-Dichlorobenzidine	U	U		20
Benzo(a)anthracene	U	U		10
Chrysene	U	U		10
bis(2-Ethylhexyl)phthalate	.4J	U		10
Di-n-octylphthalate	.2J	U		10
Benzo(b)fluoranthene	U	U		10
Benzo(k)fluoranthene	U	U		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
Date Received		02/26/99		
Date Extracted	03/02/99	03/02/99		
Date Analyzed	03/03/99	03/04/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-HSA-ER1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302C SAS No.: _____ SDG No.: C0302

Matrix (soil/water): WATER Lab Sample ID: 990302C-03

Level (low/med): LOW Date Received: 02/26/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	22.5	B		P
7440-36-0	Antimony	10.0	U		P
7440-38-2	Arsenic	6.0	U		P
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	1.0	U		P
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium	246.	B		P
7440-47-3	Chromium	2.5	B		P
7440-48-4	Cobalt	2.0	U		P
7440-50-8	Copper	1.0	U		P
7439-89-6	Iron	934.			P
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium	30.0	U		P
7439-96-5	Manganese	16.5			P
7439-97-6	Mercury	0.10	B	W12	CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	66.0	U		P
7782-49-2	Selenium	4.0	U	W3	P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium	62.2	B		P
7440-28-0	Thallium	8.4	B	J3	P
7440-62-2	Vanadium	2.0	U		P
7440-66-6	Zinc	8.0	U		P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-ER1

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): WATER Lab Sample ID: 990302B-10

Level (low/med): LOW Date Received: 02/25/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.0	U		P
7440-39-3	Barium	25.2	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	6.0			P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	4.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: OPAQUE Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

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_____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-HSA-ER1

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302C SAS No. : _____ SDG No.: C0302

Matrix: (soil/water) WATER Lab Sample ID: 0302203

% Solids: _____ Date Received: 02/26/99

Concentration Units (mg/L or mg/kg dry weight) : mg/L

Analyte	Concentration	C	Q	M
CYAN-T	0.010	U	UJ9	

Comments: _____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-ER1

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) ~~SOIL~~ water

Lab Sample ID: 0302110

% Solids: _____

Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : ug/L ~~mg/kg~~

Analyte	Concentration	C	Q	M
CYAN-T	0.010	U		

Comments:

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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-ER1

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) WATER Lab Sample ID: 990302B-10

Sample wt/vol: 780 (g/mL) ML Lab File ID: >P2901

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/04/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	13	U
111-44-4	bis(2-Chloroethyl)ether	13	U
95-57-8	2-Chlorophenol	13	U
541-73-1	1,3-Dichlorobenzene	13	U
106-46-7	1,4-Dichlorobenzene	13	U
100-51-6	Benzyl alcohol	13	U
95-50-1	1,2-Dichlorobenzene	13	U
95-48-7	2-Methylphenol	13	U
108-60-1	2,2'-oxybis(1-Chloropropane)	13	U
106-44-5	4-Methylphenol	.7	J
621-64-7	N-Nitroso-di-n-propylamine	13	U
67-72-1	Hexachloroethane	13	U
98-95-3	Nitrobenzene	13	U
78-59-1	Isophorone	13	U
88-75-5	2-Nitrophenol	13	U
105-67-9	2,4-Dimethylphenol	13	U
65-85-0	Benzoic acid	64	U
111-91-1	bis(2-Chloroethoxy)methane	13	U
120-83-2	2,4-Dichlorophenol	13	U
120-82-1	1,2,4-Trichlorobenzene	13	U
91-20-3	Naphthalene	.4	J
106-47-8	4-Chloroaniline	13	U
87-68-3	Hexachlorobutadiene	13	U
59-50-7	4-Chloro-3-methylphenol	13	U
91-57-6	2-Methylnaphthalene	13	U
77-47-4	Hexachlorocyclopentadiene	13	U
88-06-2	2,4,6-Trichlorophenol	13	U
95-95-4	2,4,5-Trichlorophenol	64	U
91-58-7	2-Chloronaphthalene	13	U
88-74-4	2-Nitroaniline	64	U
131-11-3	Dimethylphthalate	13	U
208-96-8	Acenaphthylene	13	U
606-20-2	2,6-Dinitrotoluene	13	U

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1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-ER1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) WATER Lab Sample ID: 990302B-10

Sample wt/vol: 780 (g/mL) ML Lab File ID: >P2901

Level: (low/med) LOW Date Received: 02/25/99

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/04/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	64	U
83-32-9	Acenaphthene	13	U
51-28-5	2,4-Dinitrophenol	64	U
100-02-7	4-Nitrophenol	64	U
132-64-9	Dibenzofuran	13	U
121-14-2	2,4-Dinitrotoluene	13	U
84-66-2	Diethylphthalate	13	U
7005-72-3	4-Chlorophenyl-phenylether	13	U
86-73-7	Fluorene	13	U
100-01-6	4-Nitroaniline	26	U
534-52-1	4,6-Dinitro-2-methylphenol	64	U
86-30-6	N-Nitrosodiphenylamine (1)	13	U
101-55-3	4-Bromophenyl-phenylether	13	U
118-74-1	Hexachlorobenzene	13	U
87-86-5	Pentachlorophenol	64	U
85-01-8	Phenanthrene	13	U
120-12-7	Anthracene	13	U
86-74-8	Carbazole	13	U
84-74-2	Di-n-butylphthalate	13	U
206-44-0	Fluoranthene	13	U
129-00-0	Pyrene	13	U
85-68-7	Butylbenzylphthalate	13	U
91-94-1	3,3'-Dichlorobenzidine	26	U
56-55-3	Benzo(a)anthracene	13	U
218-01-9	Chrysene	13	U WJH
117-81-7	bis(2-Ethylhexyl)phthalate	6	JB JH
117-84-0	Di-n-octylphthalate	.2	JB 13 U12
205-99-2	Benzo(b)fluoranthene	13	U
207-08-9	Benzo(k)fluoranthene	13	U
50-32-8	Benzo(a)pyrene	13	U
193-39-5	Indeno(1,2,3-cd)pyrene	13	U
53-70-3	Dibenzo(a,h)anthracene	13	U
191-24-2	Benzo(g,h,i)perylene	13	U

(1) - Cannot be separated from Diphenylamine

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Aqueous

TABLE VO-1.0
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-HSAER2		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMR	990302D-07		
Method Blank I.D.	VBLKMR	VBLKMR		
Quant. Factor	1.00	1.00		
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received		03/04/99		
Date Extracted	N/A	N/A		
Date Analyzed	03/08/99	03/08/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank SBLKLP SBLKLP 1.00	CF-HSAER2 990302D-07 SBLKLP 1.25		Quant. Limits with no Dilution
Phenol	U	U		10
bis(2-Chloroethyl)ether	U	U		10
2-Chlorophenol	U	U		10
1,3-Dichlorobenzene	U	U		10
1,4-Dichlorobenzene	U	U		10
Benzyl alcohol	U	U		10
1,2-Dichlorobenzene	U	U		10
2-Methylphenol	U	U		10
2,2'-oxybis(1-Chloropropane)	U	U		10
4-Methylphenol	U	U		10
N-Nitroso-di-n-propylamine	U	U		10
Hexachloroethane	U	U		10
Nitrobenzene	U	U		10
Isophorone	U	U		10
2-Nitrophenol	U	U		10
2,4-Dimethylphenol	U	U		10
Benzoic acid	U	U. R24		50
bis(2-Chloroethoxy)methane	U	U		10
2,4-Dichlorophenol	U	U		10
1,2,4-Trichlorobenzene	U	U		10
Naphthalene	U	1J		10
4-Chloroaniline	U	U		10
Hexachlorobutadiene	U	U		10
4-Chloro-3-methylphenol	U	U		10
2-Methylnaphthalene	U	U		10
Hexachlorocyclopentadiene	U	U		10
2,4,6-Trichlorophenol	U	U		10
2,4,5-Trichlorophenol	U	U		50
2-Chloronaphthalene	U	U		10
2-Nitroaniline	U	U		50
Dimethylphthalate	U	U		10
Acenaphthylene	U	.3J		10
2,6-Dinitrotoluene	U	U		10
3-Nitroaniline	U	U		50
Acenaphthene	U	U		10
Date Received		03/04/99		
Date Extracted	03/09/99	03/09/99		
Date Analyzed	04/05/99	04/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

TABLE SV-1.0
7099-0302D
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-HSAER2		Quant. Limits with no Dilution
Lab Sample I.D.	SBLKLP	990302D-07		
Method Blank I.D.	SBLKLP	SBLKLP		
Quant. Factor	1.00	1.25		
2,4-Dinitrophenol	U	U		50
4-Nitrophenol	U	U		50
Dibenzofuran	U	U		10
2,4-Dinitrotoluene	U	U		10
Diethylphthalate	U	.4		10
4-Chlorophenyl-phenylether	U	U		10
Fluorene	U	U	validator's revision	10
4-Nitroaniline	U	U		20
4,6-Dinitro-2-methylphenol	U	U		50
N-Nitrosodiphenylamine (1)	U	U		10
4-Bromophenyl-phenylether	U	U		10
Hexachlorobenzene	U	U		10
Pentachlorophenol	U	U		50
Phenanthrene	U	.8J		10
Anthracene	U	U		10
Carbazole	U	U		10
Di-n-butylphthalate	U	U		10
uoranthene	U	U		10
rene	U	.2J		10
Butylbenzylphthalate	U	U		10
3,3'-Dichlorobenzidine	U	U		20
Benzo(a)anthracene	U	U		10
Chrysene	U	U		10
bis(2-Ethylhexyl)phthalate	.2J	.3JB (20)		10
Di-n-octylphthalate	U	U		10
Benzo(b)fluoranthene	U	U		10
Benzo(k)fluoranthene	U	U		10
Benzo(a)pyrene	U	U		10
Indeno(1,2,3-cd)pyrene	U	U		10
Dibenzo(a,h)anthracene	U	U		10
Benzo(g,h,i)perylene	U	U		10
Date Received		03/04/99		
Date Extracted	03/09/99	03/09/99		
Date Analyzed	04/05/99	04/05/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

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INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-HSAER2

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0302D SAS No.: _____ SDG No.: D0302

Matrix (soil/water): WATER Lab Sample ID: 990302D-07

Level (low/med): LOW Date Received: 03/04/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.0	U		P
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	4.0	U	UJ3	P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium		-		NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-HSAER2

ab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302D SAS No. : _____ SDG No.: D0302

Matrix: (soil/water) WATER Lab Sample ID: 0302307

% Solids: _____ Date Received: 03/02/99

Concentration Units (mg/L or mg/kg dry weight) : mg/L

Analyte	Concentration	C	Q	M
CYAN-T	0.010	U		

Comments: _____

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1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-ERSS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) WATER Lab Sample ID: 990302B-18

Sample wt/vol: 880 (g/mL) ML Lab File ID: >P2902

Level: (low/med) LOW Date Received: 02/26/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/04/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	11	U
111-44-4	bis(2-Chloroethyl)ether	11	U
95-57-8	2-Chlorophenol	11	U
541-73-1	1,3-Dichlorobenzene	11	U
106-46-7	1,4-Dichlorobenzene	11	U
100-51-6	Benzyl alcohol	11	U
95-50-1	1,2-Dichlorobenzene	11	U
95-48-7	2-Methylphenol	11	U
108-60-1	2,2'-oxybis(1-Chloropropane)	11	U
106-44-5	4-Methylphenol	11	U
621-64-7	N-Nitroso-di-n-propylamine	11	U
67-72-1	Hexachloroethane	11	U
98-95-3	Nitrobenzene	11	U
78-59-1	Isophorone	11	U
88-75-5	2-Nitrophenol	11	U
105-67-9	2,4-Dimethylphenol	11	U
65-85-0	Benzoic acid	57	U
111-91-1	bis(2-Chloroethoxy)methane	11	U
120-83-2	2,4-Dichlorophenol	11	U
120-82-1	1,2,4-Trichlorobenzene	11	U
91-20-3	Naphthalene	.8	J
106-47-8	4-Chloroaniline	11	U
87-68-3	Hexachlorobutadiene	11	U
59-50-7	4-Chloro-3-methylphenol	11	U
91-57-6	2-Methylnaphthalene	11	U
77-47-4	Hexachlorocyclopentadiene	11	U
88-06-2	2,4,6-Trichlorophenol	11	U
95-95-4	2,4,5-Trichlorophenol	57	U
91-58-7	2-Chloronaphthalene	11	U
88-74-4	2-Nitroaniline	57	U
131-11-3	Dimethylphthalate	11	U
208-96-8	Acenaphthylene	.4	J
606-20-2	2,6-Dinitrotoluene	11	U

5/12

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-ERSS

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix: (soil/water) WATER Lab Sample ID: 990302B-18

Sample wt/vol: 880 (g/mL) ML Lab File ID: >P2902

Level: (low/med) LOW Date Received: 02/26/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 03/02/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 03/04/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	57	U
83-32-9	Acenaphthene	11	U
51-28-5	2,4-Dinitrophenol	57	U
100-02-7	4-Nitrophenol	57	U
132-64-9	Dibenzofuran	11	U
121-14-2	2,4-Dinitrotoluene	11	U
84-66-2	Diethylphthalate	11	U
7005-72-3	4-Chlorophenyl-phenylether	11	U
86-73-7	Fluorene	11	U
100-01-6	4-Nitroaniline	23	U
534-52-1	4,6-Dinitro-2-methylphenol	57	U
86-30-6	N-Nitrosodiphenylamine (1)	11	U
101-55-3	4-Bromophenyl-phenylether	11	U
118-74-1	Hexachlorobenzene	11	U
87-86-5	Pentachlorophenol	57	U
85-01-8	Phenanthrene	2	J
120-12-7	Anthracene	11	U
86-74-8	Carbazole	11	U
84-74-2	Di-n-butylphthalate	11	U
206-44-0	Fluoranthene	11	U
129-00-0	Pyrene	2	J
85-68-7	Butylbenzylphthalate	11	U
91-94-1	3,3'-Dichlorobenzidine	23	U
56-55-3	Benzo(a)anthracene	.6	J
218-01-9	Chrysene	.6	J JH
117-81-7	bis(2-Ethylhexyl)phthalate	11	U JH
117-84-0	Di-n-octylphthalate	11	U
205-99-2	Benzo(b)fluoranthene	11	U
207-08-9	Benzo(k)fluoranthene	11	U
50-32-8	Benzo(a)pyrene	.5	J
193-39-5	Indeno(1,2,3-cd)pyrene	11	U
53-70-3	Dibenzo(a,h)anthracene	11	U
191-24-2	Benzo(g,h,i)perylene	11	U

(1) - Cannot be separated from Diphenylamine

JBR 5/12

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-ERSS

Name: STL Contract: _____

Lab Code: STL Case No.: 0302B SAS No.: _____ SDG No.: B0302

Matrix (soil/water): WATER Lab Sample ID: 990302B-18

Level (low/med): LOW Date Received: 02/26/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	6.0	U		P
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	2.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	4.0	U		P
7440-22-4	Silver	2.0	U		P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

DAM 5112

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-ERSS

Lab Name: IEA Contract: _____

Lab Code: IEA Case No.: 0302B SAS No. : _____ SDG No.: B0302

Matrix: (soil/water) ~~soil~~ water

Lab Sample ID: 0302118

% Solids: _____

Date Received: 02/25/99

Concentration Units (mg/L or mg/kg dry weight) : mg/~~kg~~ L

Analyte	Concentration	C	Q	M
CYAN-T	0.010	U		

Comments: _____

FORM I - WC

JMM 5/12

TABLE VO-1.0 Aqueous
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	Method Blank	CF-TB-0 9/14/99	CF-FB-0 9/14/99	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKMJ	992348A-01	992348A-02	
Method Blank I.D.	VBLKMJ	VBLKMJ	VBLKMJ	
Quant. Factor	1.00	1.00	1.00	
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		09/15/99	09/15/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	09/18/99	09/18/99	09/18/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

11/16/99

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-FB-09/14/99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) WATER Lab Sample ID: 992348A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q5722

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	UJ11
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	UJ11
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-FB-09/14/99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) WATER Lab Sample ID: 992348A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q5722

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	.2	JB	10U12
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.8	JB	10U12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	.4	JB	10U12
117-84-0	Di-n-octylphthalate	.4	JB	10U12
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-FB-09/14/99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix: (soil/water) WATER Lab Sample ID: 992348A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >Q5722

Level: (low/med) LOW Date Received: 09/15/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 09/17/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 10/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

Number TICs Found: 4 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01. 85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	26.03	4	JBN	R33
02.	UNKNOWN ALKANE	26.32	3	JB	R33
03.	UNKNOWN ALKANE	26.93	3	JB	R33
04.	UNKNOWN ALKANE	25.73	2	JB	R33
05.					
06.					
07.					
08.					
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

TABLE AS-1.0
7099-2348A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D.	CF-FB-0 9/14/99			
Lab Sample I.D.	992348A-02			
Arsenic	4.0U			
Barium	2.4B			
Cadmium	1.0U			
Chromium	2.0U			
Lead	3.0U UJ			
Mercury	0.10U			
Selenium	5.0U			
Silver	1.0U			

See Appendix for qualifier definitions

11/16/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB-09/14/99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2348A SAS No.: _____ SDG No.: A2348

Matrix (soil/water): WATER Lab Sample ID: 992348A-02

% Solids: 0 Date Received: 09/15/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

11/16/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CFTB081099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) WATER Lab Sample ID: 991811B-20

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M5439

Level: (low/med) LOW Date Received: 08/11/99

% Moisture: not dec. _____ Date Analyzed: 08/11/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

CAS NO.	COMPOUND		Q
71-43-2	Benzene	5	U
108-88-3	Toluene	~~1~~ 5	JB U12
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

tom 9/20

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-TB-081599

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811B SAS No.: _____ SDG No.: B1811

Matrix: (soil/water) WATER Lab Sample ID: 991811B-15

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M5315

Level: (low/med) LOW Date Received: 08/06/99

% Moisture: not dec. _____ Date Analyzed: 08/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

for 9/20

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-FB082099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-10

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O4442

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: not dec. _____ Date Analyzed: 08/23/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-FB082099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >R4305

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	.4	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U → UJ il
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CF-FB082099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >R4305

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	UJ11
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	UJ27
85-01-8	Phenanthrene	10	U	UJ27
120-12-7	Anthracene	10	U	UJ27
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.8	JB	10U
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	U	
117-84-0	Di-n-octylphthalate	.1	JB	10U
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	UJ11
53-70-3	Dibenzo(a,h)anthracene	10	U	UJ11
191-24-2	Benzo(g,h,i)perylene	10	U	UJ27, UJ11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CF-FB082099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-10

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >R4305

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: _____ decanted: (Y/N) ___ Date Extracted: 08/24/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/13/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

Number TICs Found: 3 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN	25.16	7	J	J33
02. 112-12-9	2-UNDECANONE	11.16	4	JN	J33
03.	UNKNOWN	17.31	3	J	J33
04.					
05.					
06.					
07.					
08.					
09.					
10.					
11.					
12.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB 081699

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >R4315

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/20/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	.5	J
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U → UJ,1
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB 081699

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >R4315

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/20/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	UJ11
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	UJ11
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	.2	JB	10U12
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	UJ27
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	1	JB	10U12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	.2	J	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	.8	JB	10U12
117-84-0	Di-n-octylphthalate	.8	JB	10U12
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB 081699

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-02

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >R4315

Level: (low/med) LOW Date Received: 08/17/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/20/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/14/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

Number TICs Found: 9 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN	25.17	19	J	J33
02.	UNKNOWN	17.32	5	J	J33
03. 112-12-9	2-UNDECANONE	11.16	4	JN	J33
04.	UNKNOWN ALKANE	25.08	4	JB	R33
05.	UNKNOWN ALKANE	24.33	4	JB	R33
06.	UNKNOWN ALKANE	25.80	3	JB	R33
07.	UNKNOWN ALKANE	23.56	3	JB	R33
08.	UNKNOWN ALKANE	26.49	2	J	J33
09.	UNKNOWN ALKANE	22.76	2	J	J33
10.					
11.					
12.					
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-TB082099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-11

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O4443

Level: (low/med) LOW Date Received: 08/20/99

% Moisture: not dec. _____ Date Analyzed: 08/23/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-TB-081899

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix: (soil/water) WATER Lab Sample ID: 991983A-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O4432

Level: (low/med) LOW Date Received: 08/19/99

% Moisture: not dec. _____ Date Analyzed: 08/20/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	.6	J

1A

LATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

FB 081699

Contract: _____

e No.: 1983A SAS No.: _____ SDG No.: A1983

ER

(g/mL) ML

____

: 0.53 (mm)

_____(uL)

Lab Sample ID: 991983A-02

Lab File ID: >O4441

Date Received: 08/17/99

Date Analyzed: 08/23/99

Dilution Factor: 1.0

Soil Aliquot Volume: ____(uL)

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

		Q
	5	U
	5	U
ene	5	U
otal)	5	U

SHEET

CLIENT ID

CF-SB-56(12.5-13

_____

SDG No.: A1983

mple ID: 991983A-03

le ID: >O4438

eceived: 08/19/99

nalyzed: 08/20/99

on Factor: 1.0

liquot Volume: 100 (uL)

N UNITS:
Kg) UG/KG

	Q
7300	
1400	U
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480	J

1400 J 12

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-FB-08-24-99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix: (soil/water) WATER Lab Sample ID: 992051A-03

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M5698

Level: (low/med) LOW Date Received: 08/25/99

% Moisture: not dec. _____ Date Analyzed: 08/26/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-FB-08-24-99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix: (soil/water) WATER Lab Sample ID: 992051A-03

Sample wt/vol: 960 (g/mL) ML Lab File ID: >P5629

Level: (low/med) LOW Date Received: 08/25/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/27/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	52	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U UJ11
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	52	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	52	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CF-FB-08-24-99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix: (soil/water) WATER Lab Sample ID: 992051A-03

Sample wt/vol: 960 (g/mL) ML Lab File ID: >P5629

Level: (low/med) LOW Date Received: 08/25/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/27/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 09/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	52	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	52	U	UJ a7
100-02-7	4-Nitrophenol	52	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	21	U	
534-52-1	4,6-Dinitro-2-methylphenol	52	U	UJ a7
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	52	U	UJ a7
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.9	JB	10 U 12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	21	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	1	JB	10 U 12
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	

(1) - Cannot be separated from Diphenylamine

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID: CF-TB-08-24-99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix: (soil/water) WATER Lab Sample ID: 992051A-02

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M5697

Level: (low/med) LOW Date Received: 08/25/99

% Moisture: not dec. _____ Date Analyzed: 08/26/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-FB-08-24-99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix (soil/water): WATER Lab Sample ID: 992051A-03

Level (low/med): LOW Date Received: 08/25/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.0	U		P
7440-39-3	Barium	5.1	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U	UT3	P
7440-22-4	Silver	8.0	U	UT3	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

10/05/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB-08-24-99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix (soil/water): WATER Lab Sample ID: 992051A-03

% Solids: 0 Date Received: 08/25/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

10/05/99

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

CF-FB082099

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): WATER Lab Sample ID: 991983A-10

Level (low/med): LOW Date Received: 08/20/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.0	U	VT3	P
7440-39-3	Barium	4.2	B		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U	VT9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN ILM03.0

Jan 10/05/99

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB082099

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): WATER Lab Sample ID: 991983A-10

% Solids: 0 Date Received: 08/20/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

10/05/99

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

FB 081699

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): WATER Lab Sample ID: 991983A-02

Level (low/med): LOW Date Received: 08/17/99

% Solids: 0.0

Concentration Units (ug/L or mg/kg dry weight): UG/L

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	8.0	U	UT3	P
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium				NR
7440-43-9	Cadmium	1.0	U		P
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury	0.10	U		CV
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	8.0	U	UT9	P
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN ILM03.0

10/05/99

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WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FB 081699

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1983A SAS No.: _____ SDG No.: A1983

Matrix (soil/water): WATER Lab Sample ID: 991983A-02

% Solids: 0 Date Received: 08/17/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L

Comments:

FORM I - WC

JRom 10/05/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

CLIENT ID

CF-TB-08-26-99

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2051A SAS No.: _____ SDG No.: A2051

Matrix: (soil/water) WATER Lab Sample ID: 992051A-08

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O4593

Level: (low/med) LOW Date Received: 08/27/99

% Moisture: not dec. _____ Date Analyzed: 09/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

Jm 10/05/99

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB073099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) WATER Lab Sample ID: 991811A-18

Sample wt/vol: 5 (g/mL) ML Lab File ID: >K5701

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: not dec. _____ Date Analyzed: 08/03/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

EHM 9/21/99

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

TB072799

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) WATER Lab Sample ID: 991811A-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M5161

Level: (low/med) LOW Date Received: 07/28/99

% Moisture: not dec. _____ Date Analyzed: 07/29/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
71-43-2	Benzene	5	U
108-88-3	Toluene	5	U
100-41-4	Ethylbenzene	5	U
1330-20-7	Xylene (total)	5	U

EMM 9/24/99

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB073099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) WATER Lab Sample ID: 991811A-17

Sample wt/vol: 500 (g/mL) ML Lab File ID: >R3993

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/03/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	10	U	
106-47-8	4-Chloroaniline	10	U	UJ11
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

EMM 9/24/99

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB073099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) WATER Lab. Sample ID: 991811A-17

Sample wt/vol: 500 (g/mL) ML Lab File ID: >R3993

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/03/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	UJ11
100-02-7	4-Nitrophenol	50	U	
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	
84-66-2	Diethylphthalate	.3	JB	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	UJ27
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	UJ11
84-74-2	Di-n-butylphthalate	2	JB	
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	.2	J	
91-94-1	3,3'-Dichlorobenzidine	20	U	UJ11
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	.6	JB	
117-84-0	Di-n-octylphthalate	.3	JB	
205-99-2	Benzo(b)fluoranthene	10	U	
207-08-9	Benzo(k)fluoranthene	10	U	
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	UJ11
53-70-3	Dibenzo(a,h)anthracene	10	U	UJ11
191-24-2	Benzo(g,h,i)perylene	10	U	UJ1

(1) - Cannot be separated from Diphenylamine

EM 9/21/99

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FB073099

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix: (soil/water) WATER Lab Sample ID: 991811A-17

Sample wt/vol: 500 (g/mL) ML Lab File ID: >R3993

Level: (low/med) LOW Date Received: 07/30/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 08/03/99

Concentrated Extract Volume: 500 (uL) Date Analyzed: 08/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

Number TICs Found: 20 (ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q	
01.	UNKNOWN STRAIGHT ALKANE	25.24	20	JB	R33
02.	UNKNOWN STRAIGHT ALKANE	24.54	20	JB	R33
03.	UNKNOWN STRAIGHT ALKANE	23.83	20	JB	R33
04.	UNKNOWN STRAIGHT ALKANE	23.09	19	J	R33
05.	UNKNOWN	18.77	12	JB	J33
06.	UNKNOWN STRAIGHT ALKANE	22.31	12	JB	R33
07.	UNKNOWN	21.01	9	JB	R33
08.	UNKNOWN STRAIGHT ALKANE	25.90	9	JB	R33
09.	UNKNOWN STRAIGHT ALKANE	26.56	8	JB	R33
10.	UNKNOWN STRAIGHT ALKANE	21.53	8	JB	R33
11.	UNKNOWN	21.07	6	JB	R33
12.	UNKNOWN	24.16	6	J	J33
13.	UNKNOWN	24.67	6	JB	R33
14.	UNKNOWN STRAIGHT ALKANE	24.98	5	JB	R33
15.	UNKNOWN STRAIGHT ALKANE	20.72	4	JB	R33
16.	UNKNOWN	20.63	3	J	J33
17.	UNKNOWN	25.06	3	J	J33
18.	UNKNOWN	16.42	3	J	J33
19.	UNKNOWN STRAIGHT ALKANE	27.19	3	J	J33
20.	UNKNOWN STRAIGHT ALKANE	26.31	3	J	J33
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

EHM 9/21/99

TABLE AS-1.0
7099-1811A
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D.	FB073099			
Lab Sample I.D.	991811A-17			
Arsenic	8.8B U12			
Barium	1.0U			
Cadmium	1.0U			
Chromium	1.0U			
Lead	3.0U			
Mercury	0.10U			
Selenium	5.0U W29			
Silver	8.0U			

See Appendix for qualifier definitions

tom 9/9/95

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

FB073099

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 1811A SAS No.: _____ SDG No.: A1811

Matrix (soil/water): WATER Lab Sample ID: 991811A-17

% Solids: 0 Date Received: 07/30/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	~~ug/L~~ mg/L		L

Comments:

FORM I - WC

9/9

TABLE VO-1.0
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKMF VBLKMF 1.00	CF-TB-1 2/1/99A 993194C-01 VBLKMF 1.00	CF-TB-12/1/99 993194C-02 VBLKMF 1.00	Quant. Limits with no Dilution
Benzene	U	U	U	5.0
Toluene	U	U	U	5.0
Ethylbenzene	U	U	U	5.0
Xylene (total)	U	U	U	5.0
Date Received		12/01/99	12/01/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	12/02/99	12/02/99	12/02/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM
1/15/00

Aqueous

TABLE VO-1.1
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
BENZENE, TOLUENE, ETHYLBENZENE, XYLENES

All values are ug/L.

Client Sample I.D.	CF-FB-GP -12/1/99	CF-FB-SS -12/1/99		Quant. Limits with no Dilution
Lab Sample I.D.	993194C-03	993194C-04		
Method Blank I.D.	VBLKMF	VBLKMF		
Quant. Factor	1.00	1.00		
Benzene	U	U		5.0
Toluene	U	U		5.0
Ethylbenzene	U	U		5.0
Xylene (total)	U	U		5.0
Date Received	12/01/99	12/01/99		
Date Extracted	N/A	N/A		
Date Analyzed	12/02/99	12/02/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMH 1/15/00

TABLE SV-1.0
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	CF-FB-GP -12/1/99	CF-FB-SS -12/1/99	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKTQ	993194C-03	993194C-04	
Method Blank I.D.	SBLKTQ	SBLKTQ	SBLKTQ	
Quant. Factor	1.00	1.00	1.00	
Phenol	U	U	U	10
bis(2-Chloroethyl)ether	U	U	U	10
2-Chlorophenol	U	U	U	10
1,3-Dichlorobenzene	U	U	U	10
1,4-Dichlorobenzene	U	U	U	10
Benzyl alcohol	U	U	U	10
1,2-Dichlorobenzene	U	U	U	10
2-Methylphenol	U	U	U	10
2,2'-oxybis(1-Chloropropane)	U	U	U	10
4-Methylphenol	U	U	U	10
N-Nitroso-di-n-propylamine	U	U	U	10
Hexachloroethane	U	U	U	10
Nitrobenzene	U	U	U	10
Isophorone	U	U	U	10
2-Nitrophenol	U	U	U	10
2,4-Dimethylphenol	U	U	U	10
Benzoic acid	U	U	U	50
bis(2-Chloroethoxy)methane	U	U	U	10
2,4-Dichlorophenol	U	U	U	10
1,2,4-Trichlorobenzene	U	U	U	10
Naphthalene	U	U	U	10
4-Chloroaniline	U	U	U	10
Hexachlorobutadiene	U	U	U	10
4-Chloro-3-methylphenol	U	U	U	10
2-Methylnaphthalene	U	U	U	10
Hexachlorocyclopentadiene	U	U	U	10
2,4,6-Trichlorophenol	U	U	U	10
2,4,5-Trichlorophenol	U	U	U	50
2-Chloronaphthalene	U	U	U	10
2-Nitroaniline	U	U	U	50
Dimethylphthalate	U	U	U	10
Acenaphthylene	U	U	U	10
2,6-Dinitrotoluene	U	U	U	10
3-Nitroaniline	U	U	U	50
Acenaphthene	U	U	U	10
Date Received		12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/15/99	12/15/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMM 1/15/00

TABLE SV-1.0
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
TCL SEMI-VOLATILE ORGANICS

All values are ug/L.

Client Sample I.D.	Method Blank	CF-FB-GP -12/1/99	CF-FB-SS -12/1/99	Quant. Limits with no Dilution
Lab Sample I.D.	SBLKTQ	993194C-03	993194C-04	
Method Blank I.D.	SBLKTQ	SBLKTQ	SBLKTQ	
Quant. Factor	1.00	1.00	1.00	
2,4-Dinitrophenol	U	U UJ10	U UJ10	50
4-Nitrophenol	U	U	U	50
Dibenzofuran	U	U	U	10
2,4-Dinitrotoluene	U	U	U	10
Diethylphthalate	U	U	U	10
4-Chlorophenyl-phenylether	U	U	U	10
Fluorene	U	U	U	10
4-Nitroaniline	U	U	U	20
4,6-Dinitro-2-methylphenol	U	U	U	50
N-Nitrosodiphenylamine (1)	U	U	U	10
4-Bromophenyl-phenylether	U	U	U	10
Hexachlorobenzene	U	U	U	10
Pentachlorophenol	U	U	U	50
Phenanthrene	U	U	U	10
Anthracene	U	U	U	10
Carbazole	U	U	U	10
Di-n-butylphthalate	.4J	.6JB 10U	.2JB 10U	10
Fluoranthene	U	U	U	10
Pyrene	U	U	U	10
Butylbenzylphthalate	U	.8J	.7J	10
3,3'-Dichlorobenzidine	U	U	U	20
Benzo(a)anthracene	U	U	U	10
Chrysene	U	U	U	10
bis(2-Ethylhexyl)phthalate	U	.6J	.3J	10
Di-n-octylphthalate	.3J	.4JB 10U	.3JB 10U	10
Benzo(b)fluoranthene	U	U	U	10
Benzo(k)fluoranthene	U	U UJ10	U UJ10	10
Benzo(a)pyrene	U	U	U	10
Indeno(1,2,3-cd)pyrene	U	U	U	10
Dibenzo(a,h)anthracene	U	U	U	10
Benzo(g,h,i)perylene	U	U	U	10
Date Received		12/01/99	12/01/99	
Date Extracted	12/02/99	12/02/99	12/02/99	
Date Analyzed	12/15/99	12/15/99	12/15/99	

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

EMH 1/15/00

TABLE AS-1.0
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
RCRA METALS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D.	CF-FB-GP -12/1/99 993194C-03	CF-FB-SS -12/1/99 993194C-04		
Arsenic	3.0U	3.0U		
Barium	1.0U	1.0U		
Cadmium	1.0U	1.0U		
Chromium	1.0U	1.0U		
Lead	2.0U UJ3	2.0U UJ3		
Mercury	0.10U UJ4	0.10U UJ4		
Selenium	5.0U	5.0U		
Silver	1.0U	1.0U		

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB-GP-12/1/9

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194C SAS No.: _____ SDG No.: C3194

Matrix (soil/water): WATER Lab Sample ID: 993194C-03

% Solids: 0 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L
	TOC	1.00	U	mg/L		D

Comments:

FORM I - WC

1/14/00

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CF-FB-SS-12/1/99

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 3194C SAS No.: _____ SDG No.: C3194

Matrix (soil/water): WATER Lab Sample ID: 993194C-04

% Solids: 0 Date Received: 12/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L
	TOC	2.43		mg/L		D

Comments:

FORM I - WC

1/12/00

Aqueous

TABLE SV-2.0
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKTQ

Lab Sample Id: SBLKTQ Client Sample Id: Method Blank

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	24.55	11J
	UNKNOWN ALKANE	26.22	11J
	UNKNOWN	22.68	6J
	UNKNOWN ALKANE	27.50	6J
	UNKNOWN	25.88	5J
	UNKNOWN ALKANE	26.83	5J
	UNKNOWN ALKANE	25.60	4J
	UNKNOWN ALKANE	28.25	4J
	UNKNOWN	25.93	3J
	UNKNOWN	24.19	3J
	UNKNOWN	27.60	3J
	UNKNOWN ALKANE	24.97	3J
	UNKNOWN ALKANE	29.10	3J
	UNKNOWN ALKANE	24.31	3J
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	26.52	2JN

Lab Sample Id: 993194C-03 Client Sample Id: CF-FB-GP-12/1/99

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	26.28	13J J33
	UNKNOWN	24.56	10JB R33
	UNKNOWN ALKANE	26.22	9JB R33
	UNKNOWN	25.87	7JB R33
	UNKNOWN	22.69	6JB R33
	UNKNOWN ALKANE	27.50	5JB R33
	UNKNOWN ALKANE	26.82	4JB R33
	UNKNOWN ALKANE	25.60	4JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	26.53	3JBN R33
	UNKNOWN	27.60	3JB R33
	UNKNOWN	24.19	3JB R33
	UNKNOWN ALKANE	28.24	3JB R33
	UNKNOWN	25.93	2JB R33
	UNKNOWN	24.74	2J J33
	UNKNOWN ALKANE	24.97	2JB R33
	UNKNOWN ALKANE	29.10	2JB R33

See Appendix for qualifier definitions

EMM
1/15/00

TABLE SV-2.1 Aqueous
7099-3194C
GEI/ATLANTIC ENVIRONMENTAL
SEMI-VOLATILE TENTATIVELY IDENTIFIED COMPOUNDS

Related Method Blank: SBLKTQ

Lab Sample Id: 993194C-04 Client Sample Id: CF-FB-SS-12/1/99

CAS#	Compound	RT	Estimated Conc., ug/L
	UNKNOWN	26.28	13J J33
	UNKNOWN	24.56	10JB R33
	UNKNOWN	22.68	10JB R33
	UNKNOWN ALKANE	26.22	10JB R33
	UNKNOWN	25.87	6JB R33
	UNKNOWN	27.64	6J J33
	UNKNOWN ALKANE	27.50	5JB R33
	UNKNOWN ALKANE	26.82	5JB R33
	UNKNOWN	24.19	4JB R33
	UNKNOWN ALKANE	25.61	4JB R33
	UNKNOWN ALKANE	28.24	4JB R33
	UNKNOWN	25.92	3JB R33
	UNKNOWN ALKANE	24.96	3JB R33
85-60-9	PHENOL, 4,4'-BUTYLIDENEBIS[2	26.53	2JBN R33
	UNKNOWN ALKANE	29.10	2JB R33
	UNKNOWN	24.24	2JB R33

See Appendix for qualifier definitions

EMM
1/15/00

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

CFTAR01

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) SOIL Lab Sample ID: 990644A-14

Sample wt/vol: 1 (g/mL) G Lab File ID: >P3510 652

Level: (low/med) MED Date Received: 04/01/99

% Moisture: 0 decanted: (Y/N) N Date Extracted: 04/06/99

Concentrated Extract Volume: 10000 (uL) Date Analyzed: 04/16/99

Injection Volume: 2.0 (uL) Dilution Factor: 200.0

GPC Cleanup: (Y/N) N pH: ____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
91-20-3	Naphthalene	94000000	
91-57-6	2-Methylnaphthalene	68000000	
208-96-8	Acenaphthylene	19000000	J
83-32-9	Acenaphthene	2200000	J
86-73-7	Fluorene	750000	J
85-01-8	Phenanthrene	23000000	J
120-12-7	Anthracene	40000000	U
206-44-0	Fluoranthene	40000000	U
129-00-0	Pyrene	11000000	J
56-55-3	Benzo(a)anthracene	40000000	U
218-01-9	Chrysene	40000000	U
205-99-2	Benzo(b)fluoranthene	40000000	U
207-08-9	Benzo(k)fluoranthene	40000000	U
50-32-8	Benzo(a)pyrene	2400000	J
193-39-5	Indeno(1,2,3-cd)pyrene	730000	J
53-70-3	Dibenzo(a,h)anthracene	40000000	U
191-24-2	Benzo(g,h,i)perylene	720000	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

TRIP BLANK

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

085

Matrix: (soil/water) WATER Lab Sample ID: 990644A-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2876

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	.8	J
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	5	U
108-05-4	Vinyl Acetate	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	.6	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	.4	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

10U UJ
10U UJ

1E

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TRIP BLANK

086

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M2876

Level: (low/med) LOW Date Received: 03/30/99

% Moisture: not dec. _____ Date Analyzed: 04/01/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 0 CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.					
02.					
03.					
04.					
05.					
06.					
07.					
08.					
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
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29.					
30.					

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB 033199

162

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-11

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3013

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	JB
67-64-1	Acetone	4	JB
75-15-0	Carbon Disulfide	5	U
108-05-4	Vinyl Acetate	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

NYSDEC SAMPLE NO.

TB 033199

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644 163

Matrix: (soil/water) WATER Lab Sample ID: 990644A-11

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3013

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.				
02.				
03.				
04.				
05.				
06.				
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NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

CFER04

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

182

Matrix: (soil/water) WATER Lab Sample ID: 990644A-13

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3021

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/07/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	JB
67-64-1	Acetone	3	JB
75-15-0	Carbon Disulfide	5	U
108-05-4	Vinyl Acetate	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	.5	J
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

10U 12
10U 12

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFER04

ab Name: STL/CT Contract: _____

ab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3505

Level: (low/med) LOW Date Received: 04/01/99 624

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
108-95-2	Phenol	10	U	
111-44-4	bis(2-Chloroethyl)ether	10	U	
95-57-8	2-Chlorophenol	10	U	
541-73-1	1,3-Dichlorobenzene	10	U	
106-46-7	1,4-Dichlorobenzene	10	U	
100-51-6	Benzyl alcohol	10	U	
95-50-1	1,2-Dichlorobenzene	10	U	
95-48-7	2-Methylphenol	10	U	
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U	
106-44-5	4-Methylphenol	10	U	
621-64-7	N-Nitroso-di-n-propylamine	10	U	
67-72-1	Hexachloroethane	10	U	
98-95-3	Nitrobenzene	10	U	
78-59-1	Isophorone	10	U	
88-75-5	2-Nitrophenol	10	U	
105-67-9	2,4-Dimethylphenol	10	U	
65-85-0	Benzoic acid	50	U	R24
111-91-1	bis(2-Chloroethoxy)methane	10	U	
120-83-2	2,4-Dichlorophenol	10	U	
120-82-1	1,2,4-Trichlorobenzene	10	U	
91-20-3	Naphthalene	.5	J	
106-47-8	4-Chloroaniline	10	U	
87-68-3	Hexachlorobutadiene	10	U	
59-50-7	4-Chloro-3-methylphenol	10	U	
91-57-6	2-Methylnaphthalene	10	U	
77-47-4	Hexachlorocyclopentadiene	10	U	
88-06-2	2,4,6-Trichlorophenol	10	U	
95-95-4	2,4,5-Trichlorophenol	50	U	
91-58-7	2-Chloronaphthalene	10	U	
88-74-4	2-Nitroaniline	50	U	
131-11-3	Dimethylphthalate	10	U	
208-96-8	Acenaphthylene	10	U	
606-20-2	2,6-Dinitrotoluene	10	U	

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

CFER04

ab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3505

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

625

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q	
99-09-2	3-Nitroaniline	50	U	
83-32-9	Acenaphthene	10	U	
51-28-5	2,4-Dinitrophenol	50	U	
100-02-7	4-Nitrophenol	50	U	UJ11
132-64-9	Dibenzofuran	10	U	
121-14-2	2,4-Dinitrotoluene	10	U	UJ11
84-66-2	Diethylphthalate	10	U	
7005-72-3	4-Chlorophenyl-phenylether	10	U	
86-73-7	Fluorene	10	U	
100-01-6	4-Nitroaniline	20	U	UJ11
534-52-1	4,6-Dinitro-2-methylphenol	50	U	
86-30-6	N-Nitrosodiphenylamine (1)	10	U	
101-55-3	4-Bromophenyl-phenylether	10	U	
118-74-1	Hexachlorobenzene	10	U	
87-86-5	Pentachlorophenol	50	U	
85-01-8	Phenanthrene	10	U	
120-12-7	Anthracene	10	U	
86-74-8	Carbazole	10	U	
84-74-2	Di-n-butylphthalate	.4	JB	10 U 12
206-44-0	Fluoranthene	10	U	
129-00-0	Pyrene	10	U	
85-68-7	Butylbenzylphthalate	10	U	
91-94-1	3,3'-Dichlorobenzidine	20	U	
56-55-3	Benzo(a)anthracene	10	U	
218-01-9	Chrysene	10	U	
117-81-7	bis(2-Ethylhexyl)phthalate	10	U	
117-84-0	Di-n-octylphthalate	10	U	
205-99-2	Benzo(b)fluoranthene	10	U	UJ24
207-08-9	Benzo(k)fluoranthene	10	U	R24
50-32-8	Benzo(a)pyrene	10	U	
193-39-5	Indeno(1,2,3-cd)pyrene	10	U	
53-70-3	Dibenzo(a,h)anthracene	10	U	
191-24-2	Benzo(g,h,i)perylene	10	U	UJ11

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

CFER04

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-13

Sample wt/vol: 1000 (g/mL) ML Lab File ID: >P3505

626

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 04/06/99

Concentrated Extract Volume: 1000 (uL) Date Analyzed: 04/15/99

Injection Volume: 2.0 (uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH:____

Number TICs Found: 13 (ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.		UNKNOWN	25.96	6	J
02.		UNKNOWN	24.79	6	J
03.		UNKNOWN	26.33	5	J
04.		UNKNOWN	26.30	5	J
05.		UNKNOWN	24.42	4	J
06.		UNKNOWN	24.84	4	J
07.		UNKNOWN	26.01	4	J
08.		UNKNOWN	24.71	3	J
09.		UNKNOWN	26.05	2	J
10.		UNKNOWN	25.58	2	J
11.		UNKNOWN	23.04	2	J
12.		UNKNOWN	27.58	2	J
13.		UNKNOWN	23.11	2	J
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
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Aqueous

TABLE AS-1.3
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
TAL METALS

All values are ug/L.

Client Sample I.D.	CFER04			
Lab Sample I.D.	990644A-13			
Aluminum	22.0U			
Antimony	10.0U			
Arsenic	6.0U			
Barium	1.0U			
Beryllium	1.0U			
Cadmium	1.2B U			
Calcium	70.0U			
Chromium	1.0U			
Cobalt	2.0U			
Copper	1.0U			
Iron	50.0U			
Lead	2.0U			
Magnesium	30.0U			
Manganese	1.0U			
Mercury	0.10U			
Nickel	3.6B			
Potassium	66.0UE			
Selenium	4.0U			
Silver	2.0U			
Sodium	158.B U			
Thallium	7.0U			
Vanadium	2.0U			
Zinc	13.2B U			

See Appendix for qualifier definitions

1

WET CHEM ANALYSIS DATA SHEET

SAMPLE NO.

CFER04

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix (soil/water): WATER Lab Sample ID: 990644A-13

% Solids: 0 Date Received: 04/01/99

CAS No.	Analyte	Concentration	C	Units	Q	M
57-12-5	Cyanide, Total	0.0100	U	mg/L		L
	TDS	10.	U	mg/L		G
	Salinity	0.100	U			D

Comments:

FORM I - WC

6/9/99

TABLE GC-1.4 Aqueous
7099-0644A
GEI/ATLANTIC ENVIRONMENTAL
8081 POLYCHLORINATED BIPHENYLS (PCB"s)

All values are ug/L.

Client Sample I.D.	CFRW01-01	CFER04		Quant. Limits with no Dilution
Lab Sample I.D.	990644A-10	990644A-13		
Method Blank I.D.	PBLK58	PBLK58		
Quant. Factor	1.05	1.05		
Aroclor-1016	U	U		1.0
Aroclor-1221	U	U		2.0
Aroclor-1232	U	U		1.0
Aroclor-1242	U	U		1.0
Aroclor-1248	U	U		1.0
Aroclor-1254	U	U		1.0
Aroclor-1260	U	U		1.0
Date Received	04/01/99	04/01/99		
Date Extracted	04/05/99	04/05/99		
Date Analyzed	04/07/99	04/07/99		

See Appendix for qualifier definitions
Note: Compound detection limit = quantitation limit x quantitation factor
Quant. Factor = a numerical value which takes into account any variation in sample weight/volume, % moisture and sample dilution.

6/4/99

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB 040199

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-15210

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3035

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	5	U
108-05-4	Vinyl Acetate	10	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
108-88-3	Toluene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

10U 12
10U 12 UJ11

1E

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

TB 040199

211

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0644A SAS No.: _____ SDG No.: A0644

Matrix: (soil/water) WATER Lab Sample ID: 990644A-15

Sample wt/vol: 5 (g/mL) ML Lab File ID: >M3035

Level: (low/med) LOW Date Received: 04/01/99

% Moisture: not dec. _____ Date Analyzed: 04/08/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: ____(uL)

Number TICs Found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
01.					
02.					
03.					
04.					
05.					
06.					
07.					
08.					
09.					
10.					
11.					
12.					
13.					
14.					
15.					
16.					
17.					
18.					
19.					
20.					
21.					
22.					
23.					
24.					
25.					
26.					
27.					
28.					
29.					
30.					

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-FB-12/7/01
Date Sampled.....: 12/07/2001
Time Sampled.....: 08:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-10
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric)											
	Cyanide, Total	<10.000			3.0	10.	1	ug/L	1466		12/12/01 0000	ddm
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.030	0.20	1	ug/L	2094		12/12/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	60.0	1	ug/L	1810		12/21/01 1303	nnp
	Barium	ND	U		1.1	10.0	1	ug/L	1810		12/21/01 1303	nnp
	Cadmium	ND	U		1.2	10.0	1	ug/L	1810		12/21/01 1303	nnp
	Chromium	ND	U		1.5	10.0	1	ug/L	1810		12/21/01 1303	nnp
	Lead	ND	U		2.2	20.0	1	ug/L	1810		12/21/01 1303	nnp
	Selenium	ND	U		5.0	30.0	1	ug/L	1810		12/21/01 1303	nnp
	Silver	ND UJ9	U		1.1	10.0	1	ug/L	1810		12/21/01 1303	nnp
8270C	Semivolatile Organics											
	Phenol	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Bis(2-chloroethyl)ether	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	1,3-Dichlorobenzene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	1,4-Dichlorobenzene	ND	U		0.2	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	1,2-Dichlorobenzene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzyl alcohol	ND UJ9	U	*	0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2-Methylphenol (o-cresol)	ND UJ9	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,2-oxybis (1-chloropropane)	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	n-Nitroso-di-n-propylamine	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Hexachloroethane	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Methylphenol (m/p-cresol)	ND UJ9	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2-Chlorophenol	ND	U		0.6	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Nitrobenzene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-FB-12/7/01
Date Sampled.....: 12/07/2001
Time Sampled.....: 08:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-10
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Bis(2-chloroethoxy)methane	ND	U		0.2	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	1,2,4-Trichlorobenzene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzoic acid	~~ND~~ R9	U		22	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	Isophorone	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,4-Dimethylphenol	ND UJ9	U		0.6	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Hexachlorobutadiene	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Naphthalene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,4-Dichlorophenol	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Chloroaniline	ND	U		0.6	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,4,6-Trichlorophenol	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,4,5-Trichlorophenol	ND UJ9	U		0.3	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	Hexachlorocyclopentadiene	ND	U		0.6	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2-Nitroaniline	ND	U		0.4	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	2-Chloronaphthalene	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Chloro-3-methylphenol	ND	U		0.6	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,6-Dinitrotoluene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2-Nitrophenol	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	3-Nitroaniline	ND	U		0.4	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	Dimethyl phthalate	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,4-Dinitrophenol	ND	U		1	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	Acenaphthylene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	2,4-Dinitrotoluene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Acenaphthene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Dibenzofuran	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Nitrophenol	ND UJ9	U		0.4	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	Fluorene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Nitroaniline	ND	U		0.6	20	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Bromophenyl phenyl ether	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw

* In Description = Dry Wgt.

for 1/29/02

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-FB-12/7/01
Date Sampled.....: 12/07/2001
Time Sampled.....: 08:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-10
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Hexachlorobenzene	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Diethyl phthalate	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4-Chlorophenyl phenyl ether	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Pentachlorophenol	ND	U		3	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	n-Nitrosodiphenylamine	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	4,6-Dinitro-2-methylphenol	ND	U		0.9	50	1.00000	ug/L	2071		12/17/01 1019	jdw
	Phenanthrene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Anthracene	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Carbazole	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Di-n-butyl phthalate	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Fluoranthene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Pyrene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Butyl benzyl phthalate	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Chrysene	ND	U		0.6	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	3,3-Dichlorobenzidine	ND	U		0.4	20	1.00000	ug/L	2071		12/17/01 1019	jdw
	Bis(2-ethylhexyl)phthalate	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Di-n-octyl phthalate	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug/L	2071		12/17/01 1019	jdw
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug/L	2071		12/17/01 1019	jdw
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1255	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1255	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1255	pam

* In Description = Dry Wgt.

1/24/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: CF-FB-12/7/01
Date Sampled.....: 12/07/2001
Time Sampled.....: 08:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-10
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	2010		12/12/01 1255	pam

* In Description = Dry Wgt.

1/14/02

Revised RL

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/24/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-FB-12/7/01
Date Sampled.....: 12/07/2001
Time Sampled.....: 08:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-10
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.030	0.20	1	ug/L	2094		12/12/01 0000	ckc
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	60.0	1	ug/L	1810		12/21/01 1303	nnp
	Barium	ND	U		1.1	10.0	1	ug/L	1810		12/21/01 1303	nnp
	Cadmium	ND	U		1.2	10.0	1	ug/L	1810		12/21/01 1303	nnp
	Chromium	ND	U		1.5	10.0	1	ug/L	1810		12/21/01 1303	nnp
	Lead	ND	U	-	2.4	20.0	1	ug/L	1810		12/21/01 1303	nnp
	Selenium	ND	U	-	5.0	30.0	1	ug/L	1810		12/21/01 1303	nnp
	Silver	ND 0.59	U	-	1.1	10.0	1	ug/L	1810		12/21/01 1303	nnp

jrc 1/30/02

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/07/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-FB-5-21/02
Date Sampled.....: 05/21/2002
Time Sampled.....: 15:50
Sample Matrix.....: Water

Laboratory Sample ID: 201118-6
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.20	1.0000	ug/L	5823		05/28/02 1632	mnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	5931		05/30/02 1444	mnp
	Barium	ND	U		1.1	5.0	1	ug/L	5931		05/30/02 1444	mnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	5931		05/30/02 1444	mnp
	Chromium	ND	U		1.5	10.0	1	ug/L	5931		05/30/02 1444	mnp
	Lead	ND	U		3.4	10.0	1	ug/L	5931		05/30/02 1444	mnp
	Selenium	ND	U		6.9	30.0	1	ug/L	5931		05/30/02 1444	mnp
	Silver	ND UJQ	U		1.4	6.0	1	ug/L	5931		05/30/02 1444	mnp

* In Description = Dry Wgt.

fam 7/15/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:05/31/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-FB-5-21/02
Date Sampled.....: 05/21/2002
Time Sampled.....: 15:50
Sample Matrix.....: Water

Laboratory Sample ID: 201118-6
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		3.0	10.0	1.0	ug/L	5922		05/30/02 1452	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-FB-5-21/02
Date Sampled.....: 05/21/2002
Time Sampled.....: 15:50
Sample Matrix.....: Water

Laboratory Sample ID: 201118-6
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8270C	Semivolatile Organics											
	Naphthalene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Acenaphthylene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Acenaphthene	ND	U		0.3	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Fluorene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Phenanthrene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Anthracene	ND	U		0.5	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Fluoranthene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Pyrene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Chrysene	ND	U		0.6	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug/L	6038		05/29/02 1453	jdw
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug/L	6038		05/29/02 1453	jdw

* In Description = Dry Wgt.

7/13/02

Job Number: 201118

LABORATORY TEST RESULTS

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-FB-5-21/02
Date Sampled.....: 05/21/2002
Time Sampled.....: 15:50
Sample Matrix.....: Water

Laboratory Sample ID: 201118-6
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	5982		05/30/02 1803	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	5982		05/30/02 1803	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	5982		05/30/02 1803	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	5982		05/30/02 1803	pam

* In Description = Dry Wgt.

6000010

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-TB-12/6/01
Date Sampled.....: 12/06/2001
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-5
Date Received.....: 12/06/2001
Time Received.....: 18:55

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1119	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1119	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1119	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	2010		12/12/01 1119	pam

* In Description = Dry Wgt.

fa 1/14/02

LABORATORY TEST RESULTS

Job Number: 200201

Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: GEI CLIFTON MGP | ATTN: DAVE TERRY

Customer Sample ID: CF-TB-12/7/01
Date Sampled.....: 12/07/2001
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-11
Date Received.....: 12/07/2001
Time Received.....: 18:10

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1154	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1154	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	2010		12/12/01 1154	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	2010		12/12/01 1154	pam

* In Description = Dry Wgt.

for 1/24/02

[redacted]

LABORATORY TEST RESULTS

Job Number: 200201 Date:01/11/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: GEI CLIFTON MGP ATTN: DAVE TERRY

Customer Sample ID: TRIP BLANK
Date Sampled.....: 12/10/2001
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 200201-20
Date Received.....: 12/12/2001
Time Received.....: 20:00

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	2010		12/17/01 1703	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	2010		12/17/01 1703	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	2010		12/17/01 1703	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	2010		12/17/01 1703	pam

* In Description = Dry Wgt.

1/28/02

LABORATORY TEST RESULTS

Job Number: 201118

Date:06/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: DAVE TERRY

Customer Sample ID: CF-TB-5-21/02
Date Sampled.....: 05/21/2002
Time Sampled.....: 16:50
Sample Matrix.....: Water

Laboratory Sample ID: 201118-5
Date Received.....: 05/25/2002
Time Received.....: 11:25

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
82608	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	5982		05/30/02 1732	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	5982		05/30/02 1732	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	5982		05/30/02 1732	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	5982		05/30/02 1732	pam

* In Description = Dry Wgt.

pm 7/15/02

LABORATORY TEST RESULTS

Job Number: 202480

Date:11/27/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-FB111302
Date Sampled.....: 11/13/2002
Time Sampled.....: 16:25
Sample Matrix.....: Water

Laboratory Sample ID: 202480-7
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		1.0	10.0	1.0	ug/L	11913		11/19/02 1123	dtn

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 202480

Date:12/05/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL

PROJECT: CLIFTON MGP

ATTN: Dave Terry

Customer Sample ID: CF-FB111302
Date Sampled.....: 11/13/2002
Time Sampled.....: 16:25
Sample Matrix.....: Water

Laboratory Sample ID: 202480-7
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
7470A	Mercury (CVAA)											
	Mercury	ND	U		0.18	0.20	1.0000	ug/L	12141		11/25/02 0939	nnp
6010B	Metals Analysis (ICAP Trace)											
	Arsenic	ND	U		7.0	40.0	1	ug/L	12117		11/26/02 1707	nnp
	Barium	ND	U		1.1	5.0	1	ug/L	12117		11/26/02 1707	nnp
	Cadmium	ND	U		1.3	10.0	1	ug/L	12117		11/26/02 1707	nnp
	Chromium	ND	U		1.5	10.0	1	ug/L	12117		11/26/02 1707	nnp
	Lead	ND	U		3.4	10.0	1	ug/L	12117		11/26/02 1707	nnp
	Selenium	ND	U		6.9	30.0	1	ug/L	12117		11/26/02 1707	nnp
	Silver	ND	U		1.4	6.0	1	ug/L	12117		11/26/02 1707	nnp

* In Description = Dry Wgt.

00033

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-FB111302
Date Sampled.....: 11/13/2002
Time Sampled.....: 16:25
Sample Matrix.....: Water

Laboratory Sample ID: 202480-7
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8270C	Semivolatile Organics											
	Naphthalene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Acenaphthylene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Acenaphthene	ND	U		0.3	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Fluorene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Phenanthrene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Anthracene	ND	U		0.5	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Fluoranthene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Pyrene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Chrysene	ND	U		0.6	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug/L	12366		11/22/02 1305	jdw
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug/L	12366		11/22/02 1305	jdw

* In Description = Dry Wgt.

Job Number: 202480

LABORATORY TEST RESULTS

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-TB111502
Date Sampled.....: 11/15/2002
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 202480-14
Date Received.....: 11/16/2002
Time Received.....: 12:40

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2219	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2219	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2219	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	11779		11/18/02 2219	pam

* In Description = Dry Wgt.

0017

[redacted]

LABORATORY TEST RESULTS

Job Number: 202480

Date: 12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL PROJECT: CLIFTON MGP ATTN: Dave Terry

Customer Sample ID: CF-TB111302
Date Sampled.....: 11/13/2002
Time Sampled.....: 17:00
Sample Matrix.....: Water

Laboratory Sample ID: 202480-6
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2148	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2148	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2148	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	11779		11/18/02 2148	pam

* In Description = Dry Wgt.

60000

Job Number: 202480

LABORATORY TEST RESULTS

Date:12/06/2002

CUSTOMER: GEI/ATLANTIC ENVIRONMENTAL | PROJECT: CLIFTON MGP | ATTN: Dave Terry

Customer Sample ID: CF-FB111302
Date Sampled.....: 11/13/2002
Time Sampled.....: 16:25
Sample Matrix.....: Water

Laboratory Sample ID: 202480-7
Date Received.....: 11/14/2002
Time Received.....: 18:30

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UNITS	BATCH	DT	DATE/TIME	TECH
8260B	Volatile Organics (5mL Purge)											
	Benzene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2251	pam
	Toluene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2251	pam
	Ethylbenzene	ND	U		0.3	5	1.00000	ug/L	11779		11/18/02 2251	pam
	Xylenes (total)	ND	U		0.5	5	1.00000	ug/L	11779		11/18/02 2251	pam

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-20
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-3
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8260B	Volatile Organics (5mL Purge)							
	Benzene	ND	U		0.5	5	1.00000	ug
	Toluene	ND	U		0.4	5	1.00000	ug
	Ethylbenzene	ND	U		0.5	5	1.00000	ug
	Xylenes (total)	ND	U		0.9	5	1.00000	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-20
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-3
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8270C	Semivolatile Organics							
	Naphthalene	ND	U		0.4	10	1.00000	ug
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug
	Acenaphthylene	ND	U		0.4	10	1.00000	ug
	Acenaphthene	ND	U		0.3	10	1.00000	ug
	Fluorene	ND	U		0.4	10	1.00000	ug
	Phenanthrene	ND	U		0.4	10	1.00000	ug
	Anthracene	ND	U		0.5	10	1.00000	ug
	Fluoranthene	ND	U		0.4	10	1.00000	ug
	Pyrene	0.8 J	J		0.4	10	1.00000	ug
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug
	Chrysene	ND	U		0.6	10	1.00000	ug
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug

2700012

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-20
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-3
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
7470A	Mercury (CVAA)							
	Mercury	ND	U		0.070	0.20	1.0000	u
6010B	Metals Analysis (ICAP Trace)							
	Arsenic	ND	U		3.9	40.0	1	u
	Barium	37.3 J			0.74	5.0	1	u
	Cadmium	ND	U		1.1	10.0	1	u
	Chromium	ND	U		1.3	10.0	1	u
	Lead	ND	U		3.0	10.0	1	u
	Selenium	ND	U	J	5.0	30.0	1	u
	Silver	ND	U		1.1	6.0	1	u

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-20
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-3
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-200 duplicate of CF-RW-20
Date Sampled.....: 06/22/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-4
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8260B	Volatile Organics (5mL Purge)							
	Benzene	ND	U		0.5	5	1.00000	ug
	Toluene	ND	U		0.4	5	1.00000	ug
	Ethylbenzene	ND	U		0.5	5	1.00000	ug
	Xylenes (total)	ND	U		0.9	5	1.00000	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-200 duplicate of CF-RW-20
Date Sampled.....: 06/22/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-4
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8270C	Semivolatile Organics							
	Naphthalene	ND	U		0.4	10	1.00000	ug
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug
	Acenaphthylene	ND	U		0.4	10	1.00000	ug
	Acenaphthene	ND	U		0.3	10	1.00000	ug
	Fluorene	ND	U		0.4	10	1.00000	ug
	Phenanthrene	ND	U		0.4	10	1.00000	ug
	Anthracene	ND	U		0.5	10	1.00000	ug
	Fluoranthene	ND	U		0.4	10	1.00000	ug
	Pyrene	0.8 J			0.4	10	1.00000	ug
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug
	Chrysene	ND	U		0.6	10	1.00000	ug
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-200 duplicate of CF-RW-20
Date Sampled.....: 06/22/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-4
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
7470A	Mercury (CVAA)							
	Mercury	ND	U		0.070	0.20	1.0000	u
6010B	Metals Analysis (ICAP Trace)							
	Arsenic	ND	U		3.9	40.0	1	u
	Barium	33.9 J			0.74	5.0	1	u
	Cadmium	ND	U		1.1	10.0	1	u
	Chromium	ND	U		1.3	10.0	1	u
	Lead	ND	U		3.0	10.0	1	u
	Selenium	ND	U	J	5.0	30.0	1	u
	Silver	ND	U		1.1	6.0	1	u

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-200 duplicate of CF-RW-20
Date Sampled.....: 06/22/2004
Time Sampled.....: 07:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-4
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	u

250003

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-21
Date Sampled.....: 06/22/2004
Time Sampled.....: 13:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-2
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8260B	Volatile Organics (5mL Purge)							
	Benzene	100			0.5	5	1.00000	ug
	Toluene	3 J			0.4	5	1.00000	ug
	Ethylbenzene	59			0.5	5	1.00000	ug
	Xylenes (total)	34			0.9	5	1.00000	ug

900005

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-21
Date Sampled.....: 06/22/2004
Time Sampled.....: 13:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-2
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
8270C	Semivolatile Organics							
	Naphthalene	170			2	40	4.00000	u
	2-Methylnaphthalene	7 J	J		1	40	4.00000	u
	Acenaphthylene	ND	U		2	40	4.00000	u
	Acenaphthene	9 J	J		1	40	4.00000	u
	Fluorene	2 J	J	M	2	40	4.00000	u
	Phenanthrene	3 J	J		2	40	4.00000	u
	Anthracene	ND	U		2	40	4.00000	u
	Fluoranthene	ND	U		2	40	4.00000	u
	Pyrene	ND	U		2	40	4.00000	u
	Benzo(a)anthracene	ND	U		2	40	4.00000	u
	Chrysene	ND	U		2	40	4.00000	u
	Benzo(b)fluoranthene	ND	U		4	40	4.00000	u
	Benzo(k)fluoranthene	ND	U		1	40	4.00000	u
	Benzo(a)pyrene	ND	U		2	40	4.00000	u
	Indeno(1,2,3-cd)pyrene	ND	U		2	40	4.00000	u
	Dibenzo(a,h)anthracene	ND	U		2	40	4.00000	u
	Benzo(ghi)perylene	ND	U		2	40	4.00000	u

0000011

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-21
Date Sampled.....: 06/22/2004
Time Sampled.....: 13:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-2
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UI
7470A	Mercury (CVAA)							
	Mercury	ND	U		0.070	0.20	1.0000	ug
6010B	Metals Analysis (ICAP Trace)							
	Arsenic	ND	U		3.9	40.0	1	ug
	Barium	44.8 J			0.74	5.0	1	ug
	Cadmium	ND	U		1.1	10.0	1	ug
	Chromium	ND	U		1.3	10.0	1	ug
	Lead	ND	U		3.0	10.0	1	ug
	Selenium	ND	U	J	5.0	30.0	1	ug
	Silver	ND	U		1.1	6.0	1	ug

* In Description = Dry Wgt.

Job Number: 206972

LABORATORY TEST RESULTS

CUSTOMER: GEI CONSULTANTS, INC.

PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-21
Date Sampled.....: 06/22/2004
Time Sampled.....: 13:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-2
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UI
9012	Cyanide (Colorimetric) Cyanide, Total	8.7	B		7.0	10.0	1.0	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-22
Date Sampled.....: 06/22/2004
Time Sampled.....: 10:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-1
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8260B	Volatile Organics (5mL Purge)							
	Benzene	ND	U		0.5	5	1.00000	ug
	Toluene	ND	U		0.4	5	1.00000	ug
	Ethylbenzene	ND	U		0.5	5	1.00000	ug
	Xylenes (total)	ND	U		0.9	5	1.00000	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-22
Date Sampled.....: 06/22/2004
Time Sampled.....: 10:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-1
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
8270C	Semivolatile Organics							
	Naphthalene	ND	U		0.4	10	1.00000	ug
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	ug
	Acenaphthylene	ND	U		0.4	10	1.00000	ug
	Acenaphthene	ND	U		0.3	10	1.00000	ug
	Fluorene	ND	U		0.4	10	1.00000	ug
	Phenanthrene	ND	U		0.4	10	1.00000	ug
	Anthracene	ND	U		0.5	10	1.00000	ug
	Fluoranthene	ND	U		0.4	10	1.00000	ug
	Pyrene	ND	U		0.4	10	1.00000	ug
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	ug
	Chrysene	ND	U		0.6	10	1.00000	ug
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	ug
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	ug
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	ug
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	ug
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	ug
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-22
Date Sampled.....: 06/22/2004
Time Sampled.....: 10:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-1
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
7470A	Mercury (CVAA)							
	Mercury	ND	U		0.070	0.20	1.0000	ug
6010B	Metals Analysis (ICAP Trace)							
	Arsenic	ND	U		3.9	40.0	1	ug
	Barium	52.9 J			0.74	5.0	1	ug
	Cadmium	ND	U		1.1	10.0	1	ug
	Chromium	ND	U		1.3	10.0	1	ug
	Lead	20.7 J			3.0	10.0	1	ug
	Selenium	ND	U	J	5.0	30.0	1	ug
	Silver	ND	U		1.1	6.0	1	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-RW-22
Date Sampled.....: 06/22/2004
Time Sampled.....: 10:30
Sample Matrix.....: Water

Laboratory Sample ID: 206972-1
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	U

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-FB-062304
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:45
Sample Matrix.....: Water

Laboratory Sample ID: 206972-5
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
8260B	Volatile Organics (5mL Purge)							
	Benzene	ND	U		0.5	5	1.00000	u
	Toluene	ND	U		0.4	5	1.00000	u
	Ethylbenzene	ND	U		0.5	5	1.00000	u
	Xylenes (total)	ND	U		0.9	5	1.00000	u

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-FB-062304
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:45
Sample Matrix.....: Water

Laboratory Sample ID: 206972-5
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
8270C	Semivolatile Organics							
	Naphthalene	ND	U		0.4	10	1.00000	u
	2-Methylnaphthalene	ND	U		0.3	10	1.00000	u
	Acenaphthylene	ND	U		0.4	10	1.00000	u
	Acenaphthene	ND	U		0.3	10	1.00000	u
	Fluorene	ND	U		0.4	10	1.00000	u
	Phenanthrene	ND	U		0.4	10	1.00000	u
	Anthracene	ND	U		0.5	10	1.00000	u
	Fluoranthene	ND	U		0.4	10	1.00000	u
	Pyrene	ND	U		0.4	10	1.00000	u
	Benzo(a)anthracene	ND	U		0.5	10	1.00000	u
	Chrysene	ND	U		0.6	10	1.00000	u
	Benzo(b)fluoranthene	ND	U		1	10	1.00000	u
	Benzo(k)fluoranthene	ND	U		0.3	10	1.00000	u
	Benzo(a)pyrene	ND	U		0.4	10	1.00000	u
	Indeno(1,2,3-cd)pyrene	ND	U		0.4	10	1.00000	u
	Dibenzo(a,h)anthracene	ND	U		0.5	10	1.00000	u
	Benzo(ghi)perylene	ND	U		0.4	10	1.00000	u

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-FB-062304
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:45
Sample Matrix.....: Water

Laboratory Sample ID: 206972-5
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
7470A	Mercury (CVAA)							
	Mercury	ND	U		0.070	0.20	1.0000	ug
6010B	Metals Analysis (ICAP Trace)							
	Arsenic	ND	U		3.9	40.0	1	ug
	Barium	ND	U		0.74	5.0	1	ug
	Cadmium	ND	U		1.1	10.0	1	ug
	Chromium	ND	U		1.3	10.0	1	ug
	Lead	ND	U		3.0	10.0	1	ug
	Selenium	ND	U		5.0	30.0	1	ug
	Silver	ND	U		1.1	6.0	1	ug

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-FB-062304
Date Sampled.....: 06/23/2004
Time Sampled.....: 07:45
Sample Matrix.....: Water

Laboratory Sample ID: 206972-5
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	U
9012	Cyanide (Colorimetric) Cyanide, Total	ND	U		7.0	10.0	1.0	u

* In Description = Dry Wgt.

LABORATORY TEST RESULTS

Job Number: 206972

CUSTOMER: GEI CONSULTANTS, INC. PROJECT: CLIFTON MGP

Customer Sample ID: CF-TB-062304
Date Sampled.....: 06/23/2004
Time Sampled.....: 00:00
Sample Matrix.....: Water

Laboratory Sample ID: 206972-6
Date Received.....: 06/25/2004
Time Received.....: 12:50

TEST METHOD	PARAMETER/TEST DESCRIPTION	SAMPLE RESULT	Q	FLAGS	MDL	RL	DILUTION	UN
8260B	Volatile Organics (5mL Purge)							
	Benzene	ND	U		0.5	5	1.00000	ug
	Toluene	ND	U		0.4	5	1.00000	ug
	Ethylbenzene	ND	U		0.5	5	1.00000	ug
	Xylenes (total)	ND	U		0.9	5	1.00000	ug

* In Description = Dry Wgt.

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

STL Project NO: 990644A

REVIEWER: Lisa McDonagh

DATE: July 17, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CFOW07-01	990644A-01	VOA, ABN
CFRW02-01	990644A-02	VOA, ABN
CFRW03-01	990644A-03	VOA, ABN
CFRW06-01	990644A-04	VOA, ABN
Trip Blank	990644A-05	VOA
CFRW04-01	990644A-06	VOA, ABN
CFRW14-01	990644A-07	VOA, ABN
CFOW05-01	990644A-08	VOA, ABN
CFOW06-01	990644A-09	VOA, ABN
CFRW01-01	990644A-10	VOA, ABN
TB033199	990644A-11	VOA
CFRW07-01	990644A-12	VOA, ABN
CFER04	990644A-13	VOA, ABN
CFTAR01	990644A-14	VOA, PAH
TB040199	990644A-15	VOA

ASSOCIATED QC SAMPLE(S):

Trip Blanks: Trip Blank, TB033199, TB040199

Field Duplicates: None

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standard areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

Organic Data

Evaluation of the VOA and ABN data was based on the following parameters:

*	Data Completeness
*	Holding Times
*	GC/MS Instrument Performance Check (Tuning)
	Calibration
	Blanks
*	Surrogate Recoveries
	Laboratory Control Spike/Spike Duplicate
*	Matrix spike/Matrix spike duplicate
*	Internal Standard Performance
NA	Field Duplicates
*	Compound identification
*	Compound quantitation

* All criteria were met for this parameter.

INTRODUCTION

The analysis for the presence of Volatile and Semivolatile Analytes by low -resolution mass spectrometry was performed by methods 8260B and 8270C . All criteria were met with the following exceptions:

Calibration

Instrument: HP5970M

Compound	ICAL 3/10/99	CCAL 3/31/99	CCAL 4/7/99	CCAL 4/7/99
Acetone	X	XX	XX	XX
Samples Affected:	all samples listed	Trip Blank, CFOW07-01, CFRW02-01, CFRW03-01, CFRW06-01	CFRW04-01, TB033199, CFRW14-01, CFOW06-01, CFRW01-01, CFER04	TB040199, CFOW05-01
X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/J11positive / UJ11 non-detects. + - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/R7 non-detects. XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.				

Instrument: HP5971P

Compound	ICAL 4/7/99	CCAL 4/14/99	CCAL 4/15/99	CCAL 4/16/99
Benzoic Acid	XXX		XXX	
4-Nitrophenol		X	X	
2,4-Dinitrotoluene			X	
4-Nitroaniline			X	
bis(2-ethylhexyl)phthalate		X		
Di-n-octylphthalate	XXX			
Benzo(k)fluoranthene	XXX	XXX		XXX
Benzo(g,h,i)perylene			X	
Samples Affected:	all samples listed	CFOW07-01, CFRW02-01, CFRW03-01, CFRW06-01	CFRW04-01, CFRW14-01, CFOW05-01, CFO06-01, CFRW01-01, CFER04	CFRW07-01, CFTAR01

X and/or XX - denotes %RSD >30.0 % or %D > 25%: J10/11 positive / UJ11 non-detects.
\+ - RRF does not meet minimum RRF for all target compounds and surrogates : J7 positive/ R7 non-detects.
XXX - denotes correlation coefficient <0.990 for a compound: J6 detects.

Blanks

The VOA low level laboratory method blanks and trip blanks contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/l	Action Level ug/l
Methylene Chloride	0.6	6
Acetone	23	230
2-Butanone	2	10
4-Methyl-2-pentanone	0.6	3
1,1,2,2-Tetrachloroethane	0.4	2
Ethylbenzene	0.1	0.5
Styrene	0.2	1.0
Xylenes	0.2	1.0

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Methylene Chloride in sample CFOW07-01, CFRW02-01, CFRW03-01, CFRW06-01, Trip Blank, CFRW04-01, CFRW14-01, CFOW05-01, CFOW06-01, CFRW01-01, TB033199, CFER04 and TB040199 should be reported as the CRQL followed by U12. Acetone in samples CFOW07-01, CFRW02-01, CFRW06-01, Trip Blank, CFRW04-01, CFRW14-01, CFOW06-01, TB033199, CFER04 and TB040199 should be reported as the CRQL followed by U12. 2-Butanone in samples CFOW07-01, CFRW14-01, CFOW05-01, CFOW06-01 and CFRW01-01 should be reported as the CRQL followed by U12. Xylene (total) in samples CFOW07-01, CFRW02-01, CFRW14-01 and CFRW01-01 should be reported as the CRQL followed by U12. 4-Methyl-2-pentanone in samples CFRW14-01, CFOW05-01 and CFOW06-01 should be reported by the CRQL followed by U12. 1,1,2,2-Tetrachloroethane in samples CFOW05-01 and CFOW06-01 should be reported as the CRQL followed by U12. Acetone in samples CFOW05-01 and CFRW01-01 should be reported as the concentration followed by U13.

The VOA medium level laboratory method blanks and trip blank contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/kg	Action Level ug/kg
Methylene Chloride	300	3000
Acetone	2600	26000

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Methylene Chloride and 2-Butanone in sample CFTAR-01 should be reported as the CRQL followed by U12. Acetone in sample CFTAR-01 should be reported as the CRQL followed by U13.

The Tentatively Identified Compounds from the method blanks were compared to the samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

The SVOA low level laboratory method blanks contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/l	Action Level ug/l
Diethylphthalate	0.2	2
Di-n-butylphthalate	0.9	9
bis(2-ethylhexyl)phthalate	2	20

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Diethylphthalate in samples CFOW07-01 and CFRW02-01 should be reported as the CRQL followed by U12. Di-n-butylphthalate in samples CFOW07-01, CFRW02-01, CFRW03-01, CFRW06-01, CFRW04-01, CFRW14-01, CFOW06-01, CFRW01-01 and CFER04 should be reported as the CRQL followed by U12. Bis(2-ethylhexyl)phthalate in samples CFOW07-01, CFRW02-01, CFRW03-01, CFRW06-01, CFRW04-01, CFRW14-01, CFOW05-01, CFOW06-01 and CFRW01-01 should be reported as the CRQL followed by U12.

The Tentatively Identified Compounds from the method blanks were compared to the

samples. The Tentatively Identified Compounds in the samples were rejected (R26) if detected below the action level and should be considered laboratory contamination.

Laboratory Control Spike/Spike Duplicate

The following table lists the semivolatile laboratory spike compounds recovered outside of the laboratory established control limits and the resultant actions:

SBLKCP

Compounds	% Recovery	Control Limits	Action
Benzoic Acid	0	01-474	J/R24
2-Chloronaphthalene	158	60-118	J24
Phenanthrene	125	54-120	J24
Pyrene	122	52-115	J24
Associated Samples	CFOW07-01, CFRW02-01, CFRW03-01, CFRW06-01		

SBLKGP

Compound	% Recovery	Control Limits	Action
Benzoic Acid	0	01-474	J24/R24
2-Chloronaphthalene	128	60-118	J24
Di-n-octylphthalate	160	4-146	J24
Associated samples:	CFRW04-01, CFRW14-01, CFOW05-01, CFOW06-01, CFRW01-01, CFER-01		

SBLKKP

Compound	%Recovery	Control Limits	Action
Acenaphthene	124	47-121	J24
Benzo(b)fluoranthene	22	24-159	J24/UJ24
Benzo(k)fluoranthene	9	11-162	J24/R24
Associated samples	CFRW04-01, CFRW14-01, CFOW05-01, CFOW06-01, CFRW01-01, CFER-01		

Clifton Qualifications

J6	The correlation coefficient <0.990 for a compound: estimate positive results in the associated samples.
J7, R7	The initial or continuing calibration RF was low: estimate positive results and reject non-detects.
J10	The initial %RSD was high; estimate positive results and non-detects.
J11, UJ11	The continuing %D was greater than 25%; estimate positive results and non-detects.
U12	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (U12).
U13	Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by reporting the value followed by "u". (i.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.
J15, UJ15	One or more Internal Standard (IS) areas were not within the CRR: estimate the positive results and non-detects for all compounds quantitated from that IS.
J16, UJ16	One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J18, UJ18	One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram.
J19, UJ19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were greater than or equal to 10%, but less than the lower limit of the QC acceptance criteria for this compound: estimate positive results and non-detects in the unspiked sample.

Clifton Qualifications

J20, R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21, UJ21	The MS/MSD %RPD for this compound was high: estimate positive results and non-detects in the unspiked sample.
J22	Field duplicate %RPD was high for this compound: estimate positive results for this compound in the sample and duplicate.
J23, UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R24	The blank spike (LCS) recovery for an analyte is outside of criteria. The reported results or detection limit is estimated based on the recovery.
J25	The blank spike (LCS) RPD was high for this compound: estimate positive results for this compound in the associated samples.
J26/R26	The TIC result is estimated as a compound specific response factor is not used for the quantitation. The TIC result is rejected as it was reported as a target analyte in another fraction or was detected in a field or laboratory blank.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 990644A, Metal/CN and Pesticide/PCBs

REVIEWER(S): Lorie MacKinnon, GEI Consultants

DATE: July 13, 1999

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-OW07-01	990644A-01	METALS/CN, PCB
CF-RW02-01	990644A-02	METALS/CN, PCB
CF-RW03-01	990644A-03	METALS/CN, PCB
CF-RW06-01	990644A-04	METALS/CN, PCB
CF-RW04-01	990644A-06	METALS/CN, PCB
CF-RW14-01	990644A-07	METALS/CN, PCB
CF-OW05-01	990644A-08	METALS/CN, PCB
CF-OW06-01	990644A-09	METALS/CN, PCB
CF-RW01-01	990644A-10	METALS/CN, PCB
CF-RW07-01	990644A-12	METALS/CN, PCB
CF-ER04	990644A-13	METALS/CN, PCB

ASSOCIATED QC SAMPLE(S): Field Blanks: CF-ER04
Field Duplicate: CF-RW04-01/CF-RW14-01

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries and surrogate recoveries were

reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Ten aqueous samples and one aqueous field QC sample were validated for PCBs by Method 8080.

All quality control results were found to be acceptable with the following exceptions:

Surrogate Recoveries

The PCB surrogate DCB was recovered below the laboratory established control limits of 35 - 117% in the analysis of sample CF-OW05-01 (33%). The positive and non-detected results for sample CF-OW05-01 were estimated (J7, UJ7).

Laboratory Control Sample Results

Aroclor-1242 was recovered above the control limits of 83 - 84% in the blank spike samples PBLK53 (150%) and PBLK58 (140%). There were no actions required as the sample AR-1242 results were non-detected and a high bias was indicated.

INORGANIC FRACTIONS

Ten aqueous samples and one aqueous field QC sample were validated for TAL metals and Cyanide.

All quality control results were found within control limits with the following exceptions:

Data Completeness

The Mercury result for sample CF-RW14-01 was not reported on the sample reporting form. The raw data was reviewed and the Mercury result entered by the validator.

Calibration

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Lead	120.4%, 123.6%	Estimate (J3) + results < 4XCRDL or 12 ug/l. No actions.
Thallium	40.1%, 35.9%	Estimate (J/UJ3) + and ND results < 4XCRDL of 40 ug/l.

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following table lists the concentration of each metal found in the blanks along with the resultant action levels.

Element	Conc./Units	5X Action Level
Arsenic	6.8 ug/l	34.1 ug/l
Cadmium	1.2 ug/l	6.0 ug/l
Lead	2.8 ug/l	13.8 ug/l
Sodium	301 ug/l	1506 ug/l
Zinc	18 ug/l	90 ug/l

Field Blank CFER04 associated with all samples

Element	Conc./Units	5X Action Level
Nickel	3.6 ug/l	18 ug/l

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

The action level values were compared to the sample value before application of sample dilution factors. Based on the action levels found, the following actions were required:

Analyte	OW07-01	RW02-01	RW03-01	RW06-01	RW04-01
Arsenic	U12		U12	U12	
Cadmium	U12	U12		U12	U12
Lead	U12	U12	U12	U12	
Zinc		U12	U12		U12
Nickel	U12			U12	U12

Analyte	RW14-01	OW05-01	OW06-01	RW01-01	RW07-01
Arsenic		U12			U12
Cadmium		U12	U12	U12	U12
Lead		U12	U12	U12	U12
Zinc	U12	U12	U12		
Nickel	U12	U12	U12	U12	U12

Analyte	CFER04
Cadmium	U12
Sodium	U12
Zinc	U12

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Nickel was under-recovered in the ICSAB sample at 79.5%. As sample interferent levels were less than 50% those of the ICSA standard, no actions were taken.

Barium, Cadmium and Lead were detected above the 2XIDL level. As sample interferent levels were less than 50% those of the ICSA standard, no actions were taken.

ICP Serial Dilution Results

An ICP serial dilution was performed on sample CF-RW04-01. The %D for Potassium (19.6%) was found outside of the control limits of 10%. The positive Potassium results are estimated (J4).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.
J8, UR8	The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.
J10	The initial %RSD was high; estimate positive results.
J11,UJ11	The continuing %D was greater than 25%; estimate positive results and non-detects for %Ds greater than -25% and estimate positive results for %Ds greater than 25%..
U12	Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.
U13	Compound was present in the associated blank. Compound is present in the

	sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)
J14	One or more of the surrogate %recoveries was greater than the Contract Required Recovery Range (CRR): estimate positive results within that area of the chromatogram.
J15,UJ15	One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated from that IS.
J16,UJ16	One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.
J17	Compound reported above the calibration range.
J18,UJ18	One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram .
J19	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.
J20,R20	The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.
J21	The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.
J22	Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.
J23,UJ23	The %moisture was greater than 50%; estimate the positive and non-detects.
J/UJ/R24	The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.
R26	The Tentatively Identified Compound (TIC) was detected in the associated

	sample at less than the blank action level. The results were considered to be laboratory contamination.
J/UJ27	The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 992618A, BTEX and Inorganics

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: January 24, 2000

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-RW-06	992618A-01	BTEX, METALS/CN
CF-RW-03	992618A-02	BTEX, METALS/CN
CF-RW-08	992618A-03	BTEX, METALS/CN
CF-OW-07	992618A-04	BTEX, METALS/CN
CF-TB-10/4/99	992618A-05	BTEX
CF-RW-15	992618A-06	BTEX, METALS/CN
CF-RW-13	992618A-07	BTEX, METALS/CN
CF-RW-02	992618A-08	BTEX, METALS/CN
CF-TB-10/6/99	992618A-09	BTEX
CF-RW-01	992618A-10	BTEX, METALS/CN
CF-RW-09	992618A-11	BTEX, METALS/CN
CF-OW-06	992618A-12	BTEX, METALS/CN
CF-RW-10	992618A-13	BTEX, METALS/CN
CF-FB-10/8/99	992618A-14	BTEX, METALS/CN
CF-TB-10/8/99	992618A-15	BTEX
CF-FB-10/12/99	992618A-16	BTEX, METALS/CN
CF-RW-04	992618A-17	BTEX, METALS/CN
CF-RW-11	992618A-18	BTEX, METALS/CN
CF-OW-05	992618A-19	BTEX, METALS/CN
CF-RW-12	992618A-20	BTEX, METALS/CN

ASSOCIATED QC SAMPLE(S): Field Blanks: TB-10/4/99, TB-10/6/99, TB-10/8/99, FB-10/8/99, FB-10/12/99
Field Duplicate: None

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Fifteen soil and five aqueous field QC samples were validated for volatile organics. The volatile samples were analyzed for BTEX compounds by Method 8260B.

All quality control results were found to be acceptable. No qualifications were required.

INORGANIC FRACTIONS

Fifteen soil and two aqueous field QC samples were validated for metals and Cyanide. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Calibration

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Chromium	121.7%	Estimate (J3) + results < 4XCRDL or 40 ug/l. No actions.
Lead	130.9%, 133.2%	Estimate (J3) + results < 4XCRDL or 12 ug/l. (J3) OW-07, RW-13, RW-02, OW-06, RW-11, OW-05.

Blanks

The preparation and instrument blanks contained levels of several metals above the IDL. The following table lists the highest concentration of each metal found in the blanks along with the resultant action levels.

Analyte	Blank Type	Level (ug/l)	Action Level (ug/l)	Actions (U12)
Barium	**Field**	**6.0**	**30**	**No actions.**
Chromium	**Laboratory**	**2.8**	**14**	**(U12) RW-03**
Silver	**Laboratory**	**1.4**	**7.0**	**(U12) RW-03, RW-08, OW-07, RW-15, RW-02, RW-01, FB-10/8/99, FB-10/12/99, OW-05**

Value < 5X Action Level; the value is qualified as non-detected and considered laboratory contamination (U12).
Value > 5X Action Level; the value is reported unqualified.
Value < 5X Negative Action Level; the value is estimated and may be biased low (J29).

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Lead and cadmium were detected above the negative 2XIDL level in the interference sample ICSA. Raw data was reviewed. As sample interferent levels were less than 50% for all samples, no qualifications were required.

Matrix Spike Results

A matrix spike was performed on sample RW-06. The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Selenium	31.6%	Estimate (J/UJ1) + and ND soil results.
Cyanide (RW-03)	0%	Estimate (J1) + and reject (R1) ND results.

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL for waters and 35% or +/-35% for soils. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J, UJ10	**The initial %RSD was high; estimate positive and nondetected results.**
J11, UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detected results.**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.**
U13	**Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)**
J/UJ14	**A continuing standard was not analyzed within the required time. The results are estimated.**

J15,UJ15	**One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated from that IS.**
J16,UJ16	**One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.**
J17	**Compound reported above the calibration range.**
J18,UJ18	**One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram .**
J19	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.**
J20,R20	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.**
J21	**The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.**
J22	**Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.**
J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J24,R24	**The initial and/or continuing RRF < 0.05; qualify positive results (J) and nondetected results as unusable (R).**
J26,R26	**One or more of the surrogate %recoveries was less than 10%; estimate the positive results and reject nondetected results (J26,R26).**
J27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J, UJ28	**The analyte was recovered outside of the control limits of 80 - 120% in the interference check sample. The positive and/or nondetected results are estimated based on the recovery.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.

J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.
J33	The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 992618B, Inorganics

REVIEWER: Lorie MacKinnon, GEI Consultants

DATE: January 24, 2000

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-RW-16	992618B-02	METALS/CN
CF-RW-14	992618B-03	METALS/CN
CF-RW-10/12/99	992618B-04	METALS/CN

ASSOCIATED QC SAMPLE(S): Field Blanks: None
Field Duplicate: RW-14/RW-10/12/99

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

INORGANIC FRACTIONS

Three ~~soil~~ aqueous samples were validated for metals and Cyanide. The metals included Arsenic, Barium, Cadmium, Chromium, Lead, Mercury, Selenium, and Silver.

Calibration

The following table lists the CRDL standard recoveries found outside of the control limits of 80 - 120% and the resultant actions.

Analyte	Recovery	Actions
Chromium	160.8%	Estimate (J3) + results < 4XCRDL or 40 ug/l. No actions.
Selenium	139.5%	Estimate (J3) + results < 4XCRDL or 20 ug/l. No actions.

Interference Check Sample Results

The Interference check samples were analyzed at the proper frequency. Lead was detected above the negative 2XIDL level in the interference sample ICSA. Raw data was reviewed. As sample interferent levels were less than 50% for all samples, no qualifications were required.

Matrix Spike Results

A matrix spike was performed on sample RW-16. The following table lists the analytes recovered outside of the control limits of 75 - 125% and the resultant actions.

Analyte	Recovery	Actions
Lead	66.1%	Estimate (J/UJ1) + and ND aqueous ~~soil~~ results.
Silver	56.5%	Estimate (J/UJ1) + and ND aqueous ~~soil~~ results.

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1	The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.
J2	The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL for waters and 35% or +/-35% for soils. The reported results are estimated.
J/UJ3	The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.
J4	The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.
J/UJ5	The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.
J6	The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.
J7/UJ7	**One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.**
J8, UR8	**The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.**
J, UJ10	**The initial %RSD was high; estimate positive and nondetected results.**
J11, UJ11	**The continuing %D was greater than 25%; estimate positive results and non-detected results.**
U12	**Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected.**
U13	**Compound was present in the associated blank. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)**
J/UJ14	**A continuing standard was not analyzed within the required time. The results are estimated.**
J15,UJ15	**One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects for all compounds quantitated**

	from that IS.
J16,UJ16	**One or more IS areas were grossly low: estimate positive results and reject non-detects for all compounds quantitated from that IS.**
J17	**Compound reported above the calibration range.**
J18,UJ18	**One or more of the surrogate %recoveries was less than the Contract Required Recovery Range (CRR): estimate positive results and non-detects within that area of the chromatogram.**
J19	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.**
J20,R20	**The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.**
J21	**The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.**
J22	**Field duplicate %RPD was high (greater than 30% for aqueous samples and greater than 50% for soils) for this compound: estimate positive results for this compound in the sample and duplicate.**
J23,UJ23	**The %moisture was greater than 50%; estimate the positive and non-detects.**
J24,R24	**The initial and/or continuing RRF < 0.05; qualify positive results (J) and nondetected results as unusable (R).**
J26,R26	**One or more of the surrogate %recoveries was less than 10%; estimate the positive results and reject nondetected results (J26,R26).**
J27	**The lab control spike %recoveries were not within the CRR for this compound: estimate positive results in the associated samples.**
J, UJ28	**The analyte was recovered outside of the control limits of 80 - 120% in the interference check sample. The positive and/or nondetected results are estimated based on the recovery.**
J29	The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.
J30, R30	The continuing calibration %D was greater than 90%. Estimate the detected compound results and reject the non-detected results.
J31	The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.
J/UJ32	The result is estimated due to interference seen in the ICSA sample analysis.

J33 The TIC results are estimated as there is a lack of specific response factors used for the quantitations.

COVER LETTER

SITE: Staten Island, Project Number 98248

LABORATORY: Severn Trent Laboratories, Connecticut

SDG: 992618A, 992618B

REVIEWER: Elissa McDonagh, GEI Consultants

DATE: January 31, 2000

SAMPLES REVIEWED

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-RW-06	992618A-01	ABN
CF-RW-03	992618A-02	ABN
CF-RW-08	992618A-03	ABN
CF-OW-07	992618A-04	ABN
CF-RW-15	992618A-06	ABN
CF-RW-13	992618A-07	ABN
CF-RW-02	992618A-08	ABN
CF-RW-01	992618A-10	ABN
CF-RW-09	992618A-11	ABN
CF-OW-06	992618A-12	ABN
CF-RW-10	992618A-13	ABN
CF-FB10/8/99	992618A-14	ABN
CF-FB10/12/99	992618A-16	ABN
CF-RW-04	992618A-17	ABN
CF-RW-11	992618A-18	ABN
CF-OW-05	992618A-19	ABN
CF-RW-12	992618A-20	ABN
CF-TB-10/11/99	992618B-01	VOA
CF-RW16	992618B-02	VOA, ABN
CF-RW-14	992618B-03	VOA, ABN
CF-RW10/12/99	992618B-04	VOA, ABN

ASSOCIATED QC SAMPLE(S): Field Blanks: CF-FB-10/8/99, CF-FB-10/12/99
Trip Blanks: CF-TB-10/11/99
Field Duplicate: CF-RW-14, CF-RW-10/12/99

GENERAL COMMENTS

The data usability summary report was performed according to the NYSDEC Analytical Services Protocol '95 Revision Guidelines. The data was reviewed and evaluated to ensure the following:

The data packages were complete and compliant.
Holding times were met.
Blanks were reviewed and qualifications were performed if necessary.
Laboratory and/or Field duplicates were reviewed and results were qualified if necessary.
Matrix spike recoveries, laboratory control sample recoveries, and surrogate recoveries were reviewed and results were qualified if necessary.
Internal standards areas were reviewed and results were qualified if necessary.
The initial and continuing standard results were reviewed and results were qualified if necessary.

The following usability report details the samples and the analysis parameters reviewed. Data deficiencies, analytical method protocol deviations and quality control problems are detailed and their effect on the data is discussed.

ORGANIC FRACTIONS

Twenty aqueous sample were validated for semivolatiles. The semivolatile samples were analyzed by Method 8270C.

Four aqueous samples were validated for volatiles. The volatile samples were analyzed by Method 8260B.

All quality control results were found to be acceptable with the following exceptions:

Calibration

The following table lists the compound initial %RSD and/or continuing %D found outside of control limits:

SVOA Instrument HP5971Q (Initial calibration 10/12/99):

Compound	10/12	10/21
Benzoic Acid		XX
Hexachlorocyclopentadiene		XX
2,4-Dinitrophenol		XX
Benzo(k)fluoranthene	X	

Associated samples: 10/12 All samples listed below
10/21 CF-RW-06, CF-RW-03, CF-RW-08, CF-OW-07, CF-RW-15, CF-RW-02

SVOA Instrument HP5971Q (Initial calibration 10/22/99):

Compound	10/22	10/25	10/26	11/4	11/5
N-Nitroso-di-n-propylamine			XX		
2,4-Dinitrophenol					XX
4,6-Dinitro-2-methylphenol					XX
Hexachlorocyclopentadiene	X	XX	XX	XX	XX
Benzo(k)fluoranthene	X				

Associated samples: 10/22 All samples listed below
10/25 CF-RW-13, CF-RW-01, CF-RW-09, CF-OW-06, CF-RW-10, CF-FB10/8/99, CF-FB10/12/99, CF-RW-04, CF-RW-11, CF-RW-12

10/26 CF-OW-05
11/4 CF-RW-16
11/5 CF-RW-14, CF-RW-10/12/99

X - The initial calibration %RSD was found greater than 30%, estimate (J10/UJ10) detected and non-detected results.

XX - The continuing calibration %SD was found greater than 25%, estimate (J/UJ11) positive and non-detected compound results.

+ - The response factor (RF) was found below the validation control limit of 0.050. Positive compound results are estimated and nondetected results rejected (J8, UR8).

Matrix spike/Matrix spike duplicate

The following table lists the semivolatile matrix spike compounds recovered outside of the laboratory established control limits and the resultant actions:

Sample: CF-RW-16

Compound	% Recovery MS	% Recovery MSD	RPD	Control Limits	Action
Pentachlorophenol	110			9-103	J19

Blanks

The ABN fraction low level aqueous method blanks contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/l	Action Level ug/l
Diethylphthalate	0.2	2
Di-n-butylphthalate	0.8	8
Bis(2-ethylhexyl)phthalate	0.5	5
Di-n-octylphthalate	0.3	3

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Diethylphthalate in samples CF-RW-03, CF-OW-07, CF-RW-15, CF-RW-02, CF-RW-01, CF-RW-10, CF-FB10/12/99, CF-RW-04 and CF-RW-11 should be reported as the CRQL followed by U12. Di-n-butylphthalate, bis(2-ethylhexyl)phthalate and Di-n-octylphthalate in samples CF-RW-06, CF-RW-03, CF-RW-08, CF-OW-07, CF-RW-15, CF-RW-13, CF-RW-02, CF-RW-01, CF-RW-09, CF-OW-06, CF-RW-10, CF-FB10/8/99, CF-FB10/12/99, CF-RW-04, CF-RW-11, CF-OW-05 and CF-RW-12 should be reported as the CRQL followed by U12.

The ABN fraction low level aqueous method blanks contained the following maximum quantities of contaminants:

Compound	Max [ ] ug/l	Action Level ug/l
Diethylphthalate	0.2	2
Di-n-butylphthalate	1	10
bis(2-ethylhexyl)phthalate	1	10
Di-n-octylphthalate	0.6	6

The action level values were compared to the sample values after application of sample dilution factors and the following actions are recommended . Diethylphthalate, Di-n-butylphthalate, bis(2-ethylhexyl)phthalate and Di-n-octylphthalate in sample CF-RW-16 should be reported as the CRQL followed by U12.

It should be noted that the TIC contaminants were reviewed and sample results found less that five times the level detected in the method and field blanks were rejected (R33).

Laboratory Control Spike

The following table lists the semivolatile laboratory spike compounds recovered outside of the laboratory established control limits and the resultant actions:

SVOA SBLKRQ Date of analysis: 10/21/99 Instrument: HP5971Q

Compounds	% Recovery	Control Limits	Action
Pentachlorophenol	**58**	**63-125**	**J27/UJ27**
Associated samples:	**CF-RW-06, CF-RW-03, CF-RW-08, CF-OW-07, CF-RW-15, CF-RW-13, CF-RW-02**		

SVOA SBLKC1 Date of analysis: 10/22/99 Instrument: HP5971Q

Compounds	% Recovery	Control Limits	Action
Pentachlorophenol	**62**	**63-125**	**J27/UJ27**
Associated samples:	**CF-RW-01, CF-RW-09, CF-OW-06, CF-RW-10, CF-FB10/8/99, CF-FB10/12/99, CF-RW-04, CF-RW-11, CF-OW-05, CF-RW-12**		

Field Duplicate

The volatile compound Toluene had a %RPD above the required acceptance limit in the field duplicate pair (CF-RW-14, CF-RW10/12/99). Estimate the detected results (J5) for Toluene in both samples.

Data Assessment and Usability

Due to the lack of compound specific response factors used in the quantitation of the tentatively identified compounds, the results are estimated (J33).

DATA USABILITY RECOMMENDATION FOOTNOTES

J/UJ1, R1 The recovery of an element is outside of control limits in the matrix spike. The reported results or detection limits are estimated or rejected based on the recovery.

J2 The RPD for the metals laboratory duplicate sample analysis exceeded 20% or +/- CRDL. The reported results are estimated.

J/UJ3 The analyte was recovered outside of the control limits of 80 - 120% in the CRDL standard. The positive and/or non-detected results were estimated dependant of the recovery.

J4 The results of the ICP Serial Dilution analysis were outside of control limits for initial concentrations equal to or greater than 50XIDL. Positive analyte results are estimated.

J/UJ5 The field duplicate %RPD exceeded 50% for soils and 30% for waters. Estimate affected sample results. In the case where an analyte was detected in the sample and non-detected in the field duplicate, the results are estimated.

J6 The result was quantitated based on a linear regression. The correlation coefficient was less than 0.990. The positive results quantitated are estimated.

J7/UJ7 One or more of the surrogate %recoveries was recovered outside of the established control limits. The positive and/or non-detected results are estimated based on the recovery found.

J8, UR8 The RF was found to be less than 0.05. Positive results are estimated and non-detected results rejected.

J/UJ9 The analyte was recovered outside of the control limits of 80 -120% for the aqueous inorganic blank spike or outside of the established control limits in the soil laboratory control sample. Estimate positive and/or nondetected results dependent on the recovery.

J10, UJ10 The initial %RSD was high; estimate positive and non-detected results.

J11,UJ11 The continuing %D was greater than 25%; estimate positive results and non-detected results.

U12 Compound was present in the associated blank. Compound is present in the sample at a concentration less than the CRQL: report the CRQL (u12). For

inorganics, the sample result was less than the action level of five times the highest blank contamination seen and therefore, qualified as non-detected. Compound is present in the sample at a concentration higher than the CRQL but lower than the "action level": qualify the result by result by reporting the value followed by "u" . (I.e., the limit of detection has been raised for that compound, and the result is considered to be non-detect.)

J/UJ/R15 One or more Internal Standard (IS) areas were not within the CRR : estimate the positive results and non-detects (or reject the nondetected results for IS areas <10%) for all compounds quantitated from that IS.

J17 Compound reported above the calibration range.

J19 The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were not within the CRR for this compound: estimate positive results in the unspiked sample.

J20,R20 The matrix spike (MS) and/or matrix spike duplicate (MSD) %recoveries were less than 10%: estimate positive results and reject non-detects in the unspiked sample.

J21 The MS/MSD %RPD for this compound was high: estimate positive results in the unspiked sample.

J23,UJ23 The %moisture was greater than 50%; estimate the positive and non-detects.

J/UJ/R27 The lab control spike %recoveries were not within the CRR for this compound: estimate positive and/or nondetected results in the associated samples dependent of the recovery. For organic recoveries less than 10%, estimate positive results and reject non-detects in the associated samples.

J29 The result is estimated as the result was less than five times the negative blank level seen. The result may be biased low.

J31 The RPD for the pesticide dual column analysis was greater than 25%. The reported results are estimated.

J/UJ32 The result is estimated due to interference seen in the ICSA sample analysis.

J33/R33 The TIC results are estimated as there is a lack of specific response factors used for the quantitations. The TIC result are rejected R33 for sample results found less than five times the level detected in the method and/or field blanks.

Site: Clifton, NY Site, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 200419
Reviewer: Lorie MacKinnon/GEI Consultants
Date: March 1, 2002

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
* CF-RW-17	200419-01	BTEX, SVOC, Metals/CN
* CF-RW-18	200419-02	BTEX, SVOC, Metals/CN
CF-RW-81	200419-03	BTEX, SVOC, Metals/CN
CF-TB-1/17/02	200419-04	VOC
CF-FB-1/17/02	200419-05	VOC, SVOC, Metals/CN
* CF-STRM-01	200419-06	BTEX, SVOC, Metals/CN, pH, Hardness
* CF-STRM-02	200419-07	BTEX, SVOC, Metals/CN, pH, Hardness
* CF-STRM-03	200419-08	BTEX, SVOC, Metals/CN, pH, Hardness
CF-DWTR-P23	200419-09	VOA, SVOC, PCBs, Metals/CN, pH, TDS, TSS, Flashpoint, Amenable CN, Hexavalent Cr, Hardness
CF-DWTR-P2/TP13	200419-10	VOA, SVOC, PCBs, Metals/CN, pH, TDS, TSS, Flashpoint, Amenable CN, Hexavalent Cr, Hardness
CF-DWTR-P24	200419-11	VOA, SVOC, PCBs, Metals/CN, pH, TDS, TSS, Flashpoint, Amenable CN, Hexavalent Cr, Hardness
CF-TB-1/18/02	200419-12	VOC

Associated QC Samples: Field Blanks: TB-1/17/02, FB-1/17/02, TB-1/18/02
Field Duplicate pair: RW-18/RW-81

The above listed samples were analyzed for volatile organic compounds by SW-846 method 8260B, semivolatile organic compounds by SW-846 method 8270C, RCRA metals and copper, nickel, and zinc by SW-846 method 6000/7000 series, cyanide by SW-846 method 9012, amenable cyanide by EPA method 335.1, total dissolved solids (TDS) by EPA method 160.1, total suspended solids (TSS) by EPA method 160.2, hexavalent chromium by SW-846 7196, pH by SW-846 method 9040B, and flashpoint by SW-846 1010. The data validation was based on the National Functional Guidelines for Evaluating Organic Analyses, EPA 540/R-99/008, dated October 1999 and the National Functional Guidelines for Evaluating Inorganic Analyses, EPA 540/R-94/012, dated February 1994.

The organic data were evaluated based on the following parameters:

- * Holding Times and Sample Preservation
- * Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
- Initial and Continuing Calibrations
- Blanks
- * Surrogate Recoveries

- Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
- Internal Standards
- Laboratory Control Sample (LCS) Results
* · Field Duplicate Results
- Reported Quantitation Limits
NA · Sample Quantitation and Target Compound Identification

* - All criteria were met.

NA - Not evaluated due to reduced deliverable data package.

All results were found to be usable with the exception of benzoic acid in all samples.

The organic validation recommendations were based on the following information.

Initial and Continuing Calibrations

Compounds that did not meet criteria in the VOC and SVOC initial and continuing calibrations are summarized in the following tables. All criteria were met for the PCB analyses.

Instrument ID MSM Compound	IC 01/28/02	CC 01/30/02
acetone		XX(26.1%)
Samples Affected	All listed	DWTR-P2/TP13

Instrument ID MSK Compound	IC 11/19/01	CC 01/23/02	CC 01/24/02	CC 01/25/02
acetone	X(35.6%)			
4-methyl-2-pentanone	X(34.1%)	XX(36.5%)		XX(28.8%)
2-hexanone	X(65.7%)		XX(56.8%)	XX(43.2%)
bromomethane		XX(25.3%)	XX(36.7%)	
chloroethane			XX(28.1%)	
Samples Affected	All listed	RW-17, TB-1/17/02, STRM-01, TB-1/18/02	RW-18, RW-81, STRM-02, STRM-03, DWTR-P23, DWTR-P24	FB-1/17/02

Instrument ID MSP Compound	IC 01/28/02
2,4-dinitrophenol	X (35.4%)
Samples Affected	FB-1/17/02, RW-17, STRM-02, RW-18, RW-81, DWTR-P23, DWTR-P24, STRM-03

X = Initial calibration (IC) relative standard deviation (%RSD) > 30; estimate (J) positive and (UJ) blank-qualified nondetect results.
XX = Continuing calibration (CC) percent difference (%D) > 25; estimate (J/UJ) positive and nondetect results.
+ = Response factor (RRF) < 0.05; Estimate (J) positive results and reject (R) nondetect results.

The positive result for acetone in sample DWTR-P23 was qualified as estimated (J3) due to initial calibration nonconformances. No other actions were required for acetone, 4-methyl-2-pentanone, or hexanone due to initial calibration nonconformances as the affected results were nondetect. No actions were required for 2,4-dinitrophenol due to initial calibration nonconformances as the sample results were nondetect.

The following results were qualified as estimated (J/UJ4) due to continuing calibration nonconformances: 4-methyl-2-pentanone and bromomethane in samples TB-1/17/02 and TB-1/18/02; 2-hexanone, bromomethane, and chloroethane in sample DWTR-P23 and DWTR-P24; and 4-methyl-2-pentanone and 2-hexanone in sample FB-1/17/02. No actions were required for samples RW-17, STRM-01, RW-18, RW-81, STRM-02, and STRM-03 due to continuing calibration nonconformances as samples were analyzed for BTEX compounds only. The direction of the bias cannot be determined from these nonconformances.

Blanks

The following table summarizes the method and field blank contamination in the VOC and SVOC analyses.

Compound	Type of Blank	Maximum Concentration (ug/L)	Blank Action Level (ug/L)
naphthalene	Field Blank FB-1/17/02	0.9	4.5
methylene chloride	Field Blank FB-1/17/02	1.0	10

Blank Actions

If the sample concentration $\leq$ QL and $\leq$ blank action level, qualify the result as not detected (U6) at the QL.

If the sample concentration > QL and ≤ blank action level, qualify the result as not detected (U6) at the reported value.
If the sample concentration > blank action level, report the value unqualified.
The positive result for methylene chloride in sample DWTR-P23 was qualified as nondetect (U6) at the quantitation limit due to field blank contamination.

Target analytes were not detected in the PCB method and field blanks.

MS/MSD Results

Sample CF-RW-17 was designated for the MS/MSD SVOC analyses with this sample set. Recoveries could not be evaluated as matrix spike compounds were diluted out of the sample, MS, and MSD as they were analyzed at 100-fold dilutions.

The laboratory performed an MS/MSD on sample CF-RW-17 for the VOC analyses. The following table lists the compound recoveries found outside of control limits and the resultant actions.

Compound	Recovery (%)	RPD (%)	Control Limits	Actions
chloroethane	69, 57	-	71-155/20	No action, BTEX compounds only reported.
bromomethane	MSD 61	-	62-151/20	No action, BTEX compounds only reported.
toluene	54, 51	-	84-119/20	Estimate (J8) the positive result for toluene in sample RW-17; possible low bias.
ethylbenzene	72, 68	-	84-124/20	Estimate (J8) the positive result for ethylbenzene in sample RW-17; possible low bias.
4-methyl-2-pentanone	-	26	57-150/20	No action, BTEX compounds only reported.
2-hexanone	-	22	47-159/20	No action, BTEX compounds only reported.

- Within control limits

Internal Standards

The following table lists the internal standard areas found outside of control limits and the resultant actions.

Sample	Internal Standard	IS Area	Acceptable Range	Actions

Sample	Internal Standard	IS Area	Acceptable Range	Actions
SVOC STRM-03	Chrysene-d12 Perylene-d12	362859 245531	378779-1515114 245825-983298	Estimate (J/UJ11) the positive and nondetect (J/UJ11) results quantitated from the IS.

The following compound results were qualified as estimated (J/UJ11) in sample STRM-03 due to internal standard areas outside of control limits: pyrene, butylbenzylphthalate, 3,3'-dichlorobenzidine, benzo(a)anthracene, chrysene, bis(2-ethylhexyl)phthalate, di-n-octylphthalate, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(123-cd)pyrene, dibenzo(ah)anthracene, and benzo(ghi)perylene.

LCS Results

The following table lists the VOC and SVOC compound recoveries found outside of the validation control limits of 60 - 140% in the laboratory control samples and the resultant actions.

Compound	Recovery (%)	Associated samples	Actions
4-methyl-2-pentanone	152	RW-18, RW-81, STRM-02, STRM-03, DWTR-P23, DWTR-P24	No actions required; 4-methyl-2-pentanone results nondetect and a high bias was indicated or compounds were analyzed for BTEX compounds only.
chloromethane	154	FB-1/17/02	No action required; result nondetect and a high bias was indicated.
acetone	262	FB-1/17/02	No action required; result nondetect and a high bias was indicated.
2-butanone	42	FB-1/17/02	Estimate (UJ9) the nondetect result for 2-butanone in sample FB-1/17/02; possible low bias.
bromomethane	53	DWTR-P2/TP13	Estimate (UJ9) the nondetect result for bromomethane in sample P2/TP13; possible low bias.
phenol	35, 32	All samples	Estimate (J/UJ9) the positive and nondetect results for phenol in all samples; possible low bias.
2-methylphenol	47, 37	All samples	Estimate (J/UJ9) the positive and nondetect results for 2-methylphenol in all samples; possible low bias.
4-methylphenol	47, 36	All samples	Estimate (J/UJ9) the positive and nondetect results for 4-methylphenol in all samples; possible low bias.
benzoic acid	21, 7	All samples	Reject (R9) the nondetect results for benzoic acid in all samples.

Compound	Recovery (%)	Associated samples	Actions
2,4-dimethylphenol	38, 25	All samples	Estimate (J/UJ9) the positive and nondetect results for 2,4-dimethylphenol in all samples; possible low bias.
4-nitrophenol	46, 43	All samples	Estimate (J/UJ9) the positive and nondetect results for 4-nitrophenol in all samples; possible low bias.
2,4,5-trichlorophenol	59	All samples	Estimate (UJ9) the nondetect results for 2,4,5-trichlorophenol in all samples; possible low bias.
hexachlorocyclo-pentadiene	25	All samples	Estimate (UJ9) the nondetect results for hexachlorocyclopentadiene in all samples; possible low bias.

All criteria were met for the PCB analyses.

Field Duplicate Precision

The field duplicate pair of RW-18 and RW-81 was identified. All compound RPDs were found to be less than the validation control limit of 30% for waters.

Sample Quantitation and Data Assessment

Results were reported which were below the lowest calibration standard level and quantitation limit in the VOC and SVOC analyses. These results were qualified as estimated (J5) by the laboratory.

The following table lists the sample dilutions performed and reported. Quantitation limits were elevated accordingly.

Sample	VOC Dilution Reported	SVOC Dilution Reported
RW-17	10-fold	100-fold
RW-18	10-fold	100-fold
RW-81	10-fold	100-fold
STRM-02	2-fold	4-fold
STRM-03	2-fold	4-fold
DWTR-P23	40-fold	100-fold
DWTR-P2/TP13	100-fold	200-fold
DWTR-P24	50-fold	10-fold

The inorganic data were evaluated based on the following parameters:

	Holding Times and Sample Preservation
*	Instrument Calibration
	Contract Required Detection Limit (CRDL) Standard Analysis
	Blank Analysis Results
*	Inductively Coupled Plasma (ICP) Interference Check Sample Results
*	Matrix Spike (MS) Results
	Laboratory Duplicate Results
*	Field Duplicate Results
	Laboratory Control Sample (LCS) Results
*	ICP Serial Dilution Results
	Detection Limit Results
*	Reported Quantitation Limits
NA	Sample Quantitation

* All criteria were met for this parameter.

NA - Not evaluated due to reduced deliverable data package.

All results were found to be usable with the exception of silver in samples RW-17, RW-18, RW-81, FB-1/17/02, STRM-01, STRM-02, STRM-03, DWTR-P23, and DWTR-P24.

The validation recommendations were based on the following information.

Holding Times and Preservation

The pH analysis for samples STRM-01, STRM-02, STRM-03, DWTR-P23, DWTR-P2/TP13, and DWTR-P24 took place four days outside of the required holding time of one day. The pH results for samples STRM-01, STRM-02, STRM-03, DWTR-P23, DWTR-P2/TP13, and DWTR-P24 were qualified as estimated (J1).

CRDL Standard Analysis

A CRDL standard was analyzed at 2x the required detection limit for the ICP analyses. The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120%. Sample results which were less than 1.5x the standard amount analyzed were qualified as estimated dependant on the recovery.

Analyte	Recovery (%)	Associated Samples	Actions
Selenium	123, 122	All samples	No action required; results nondetect and a high bias

Analyte	Recovery (%)	Associated Samples	Actions
			was indicated.
Lead	155, 133	All samples	No action required; results nondetect or blank-qualified nondetect and a high bias was indicated.

Blank Results

The following table summarizes the blank contaminants detected in the laboratory blanks associated with all samples and the associated action levels.

Analyte	Maximum Concentration	Action Level
Copper	1.5 ug/L	7.5 ug/L
Lead	3.9 ug/L	19.5 ug/L

Target analytes were not detected in the associated field blank FB-1/17/02.

Qualification of the data was performed as follows:

For positive contamination,

If the positive sample value was > the instrument detection limit (IDL) and < the Action Level, qualify the result as a nondetect (U) at the reported concentration.
If the positive sample value was > the IDL and > the Action Level, report the value unqualified.

The following tables lists the analyte results which were qualified as nondetect (U6) at the reported value due to method blank contamination.

Analyte	RW-17	RW-18	RW-81	STRM-01	STRM-02	STRM-03
copper	-	-	-	-	-	-
lead	-	-	-	U6	-	U6

Analyte	DWTR-P23	DWTR-P2/TP13	DWTR-P24
copper	U6	U6	U6
lead	-	U6	U6

- No actions required.

Laboratory Duplicate Results

A laboratory duplicate analysis was performed on sample RW-17. The following table lists the analyte RPDs found outside of control limit of 20% and the resultant actions.

Analyte	RPD	Actions
Nickel	200%	Estimate (J/UJ17) the positive and nondetect results for nickel in samples DWTR-P23, DWTR-P2/TP13, and DWTR-P24; direction of the bias cannot be determined by this nonconformance.

Field Duplicate Precision

The field duplicate pair of RW-18 and RW-81 was identified. All compound RPDs were found to be less than the validation control limit of 30% for waters.

Laboratory Control Sample Results

The following table lists the analytes which exhibited recoveries outside of the validation control limits of 80 - 120% in the LCS.

Analyte	Recovery (%)	Actions
Silver	43, 18	Estimate (J9) the positive results for silver in sample DWTR-P2/TP13 and reject the nondetect results in samples RW-17, RW-18, RW-81, FB-1/17/02, STRM-01, STRM-02, STRM-03, DWTR-P23, and DWTR-P24.

Detection Limit Results

Although not a requirement of the National Functional Validation Guidelines, positive results which were ≤2x the MDL were qualified as estimated (J5) due to uncertainty at the low end of calibration. The following results were affected by this qualification: chromium in samples RW-17, STRM-01, and DWTR-P24; silver in sample DWTR-P2/TP13; zinc in sample DWTR-P24; and cyanide in sample RW-81.

Data Usability Summary Report

Project: Clifton, Staten Island, NY
Laboratory: Severn Trent Laboratories, Shelton, CT
Report No.: 206972
Reviewer: Lorie MacKinnon/GEI Consultants
Date: July 16, 2004

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-RW-22	206972-01	BTEX, PAH
CF-RW-21	206972-02	BTEX, PAH
CF-RW-20	206972-03	BTEX, PAH
CF-RW-200	206972-04	BTEX, PAH
CF-FB-062304	206972-05	BTEX, PAH
CF-TB-062304	206972-06	BTEX

Associated QC Samples:	Field/Trip Blanks:	CF-FB-062304, CF-TB-062304
	Field Duplicate pair:	CF-RW-20/CF-RW-200

The above listed samples were collected on June 22 and 23, 2004 and were analyzed for BTEX volatile organic compounds (VOCs) by SW-846 method 8260B and polynuclear aromatic hydrocarbon (PAH) semivolatile organic compounds (SVOCs) by SW-846 method 8270C. The data validation was based on the USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8260B, SOP No. HW-24, Revision 1, June 1999 and USEPA Region II Standard Operating Procedure (SOP) for the Validation of Organic Data Acquired using SW-846 Method 8270C, SOP No. HW-22, Revision 2, June 2001.

The organic data were evaluated based on the following parameters:

* • Data Completeness
* • Holding Times and Sample Preservation
* • Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
* • Initial and Continuing Calibrations
* • Blanks
* • Surrogate Recoveries
* • Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
* • Internal Standards
* • Laboratory Control Sample (LCS) Results
* • Field Duplicate Results

- Quantitation Limits and Data Assessment
* • Sample Quantitation and Compound Identification

* - All criteria were met.

All results are usable for project objectives.

BTEX and PAH

Qualifications were not applied as a result of sampling error. Qualifications applied to the data as a result of analytical error are discussed below.

- Potential uncertainty exists for select BTEX and PAH results which were below the lowest calibration standard and quantitation limit. These results were qualified as estimated (J) in the associated samples by the laboratory. These results can be used for project objectives as estimated values which may have a minor impact on the data usability.

The validation findings were based on the following information.

Data Completeness

The data package was complete as defined under the requirements for the NYSDEC ASP Category B deliverables for the VOC and SVOC analyses.

Holding Times and Sample Preservation

All criteria were met in the BTEX and PAH analyses.

GC/MS Tunes

All criteria were met in the BTEX and PAH analyses.

Initial and Continuing Calibrations

All criteria were met in the BTEX and PAH analyses.

Blanks

Target compounds were not detected in the BTEX and PAH method and field blanks and BTEX trip blank sample.

Surrogate Recoveries

All criteria were met in the BTEX and PAH analyses.

MS/MSD Results

MS/MSD analyses were performed on sample CF-RW-22 for the BTEX and PAH analyses. All criteria were met.

Internal Standards

All criteria were met in the BTEX and PAH analyses.

LCS Results

All criteria were met in the BTEX and PAH analyses.

Field Duplicate Results

Samples CF-RW-20 and CF-RW-200 were submitted as the field duplicate pair with this sample group. The following table summarizes the RPDs of the detected analytes. All criteria were met.

Compound	CF-RW-20 (ug/L)	CF-RW-200 (ug/L)	RPD (%)
Pyrene	0.8	0.8	0

Quantitation Limits and Data Assessment

Results were reported which were below the lowest calibration standard level (RL) and above the method detection limit (MDL) in the BTEX and PAH analyses. These results were qualified by the laboratory (J). These results were qualified as estimated (J) due to uncertainty at the low end of calibration.

A 4-fold dilution was performed on PAH sample CF-RW-21. Quantitation limits were elevated accordingly.

Sample Quantitation and Compound Identification

Calculations were spot-checked; no discrepancies were noted.

Appendix G

Chain-of-Custody Forms, Validated Form I Reports, and Data Usability Summary Reports – Soil Gas

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CHAIN-OF-CUSTODY RECORD

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Contact Person Lynn Willey
Company GEI Consultants Inc.
Address 188 Norwiche Avenue City Colchester State CT Zip 06415
Phone 860-537-0751 x125 FAX 860-537-6347
Collected By: Signature Lynn E. Willey

Project info:
P.O. # 5457
Project # 982162-1-1004
Project Name CH Ice Cream
MGP OU-2 Sub Slab Sampling

Turn Around Time:
☒ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	CF-SG-01	6/11/03 1721	VOC by TO-15 w/ Naphthalenes	-30" Hg	-8.5" Hg	
	CF-SG-02	1733		-29" Hg	-8.6" Hg	
	CF-SG-03	1810		-27.5" Hg	-8.0" Hg	
	CF-SG-04	1831		-30" Hg	-8.5" Hg	
	CF-SG-05	1711		-24.5" Hg	-5.5" Hg	
	CF-SG-06	1911		-27.5" Hg	-7.5" Hg	
	CF-SG-07	1902		-29" Hg	-7.0" Hg	
	CF-SG-08	1645		-29.5" Hg	-7.5" Hg	
	CF-SG-09	1921		-30" Hg	-8.5" Hg	
	CF-SG-10	1730		-29" Hg	-7.5" Hg	

Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
Lynn E Willey 6/12/03 1745
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time
Relinquished By: (Signature) Date/Time — Received By: (Signature) Date/Time

Notes: Please fax or email data once it becomes available.

Lab Use Only	Shipper Name	Air Bill #	Opened By:	Temp. (°C)	Condition	Custody Seals Intact? Yes No None	Work Order #

Form 1293 rev. 09

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Contact Person: Lynn Willey
Company: GET Consultants Inc
Address: 166 Norwich Avenue City: Colchester State: CT Zip: 06415
Phone: 860-537-0751 x125 FAX: 860-537-6347
Collected By: Signature: Lynn E Willey

Project info:
P.O. #: 5457
Project #: 98242-1-1006
Project Name: Clifton Farmer
MGP OU-2 Sub Slab Sampling

Turn Around Time:
☒ Normal
☐ Rush _____ Specify

Lab I.D.	Field Sample I.D.	Date & Time	Analyses Requested	Canister Pressure / Vacuum Initial	Final	Receipt
	CF-SG-11	6/11/03 1937	VOC TO 15 w/ naphthalene	30"	-8.5"	
	CF-SG-12	6/11/03 1954		30"	-10.0"	
	CF-SG-6/11/03	6/11/03 800		29"	-8.0"	

Relinquished By: (Signature) Date/Time: Lynn E Willey 6/11/03 1745
Received By: (Signature) Date/Time:
Relinquished By: (Signature) Date/Time:
Received By: (Signature) Date/Time:
Relinquished By: (Signature) Date/Time:
Received By: (Signature) Date/Time:

Notes: Please fax or email data once it becomes available.

Lab Use Only

Shipper Name	Air Bill #	Opened By:	Temp. (°C)	Condition	Custody Seals Intact?	Work Order #
					Yes No None	

Form 1293 rev. 09

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-01

ID#: 0306331-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

[illegible]	[illegible]	[illegible]	Date of Collection: 6/5/03
Dilution:	5.42		Date of Analysis: 6/22/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	17	86	Not Detected	Not Detected
Freon 114	17	120	Not Detected	Not Detected
Chloromethane	17	36	Not Detected	Not Detected
Vinyl Chloride	17	44	48	120
Bromomethane	17	67	Not Detected	Not Detected
Chloroethane	17	46	Not Detected	Not Detected
Freon 11	17	98	Not Detected	Not Detected
1,1-Dichloroethene	17	69	700	2800
Freon 113	17	130	Not Detected	Not Detected
Methylene Chloride	17	60	Not Detected	Not Detected
1,1-Dichloroethane	17	70	1300	5400
cis-1,2-Dichloroethene	17	69	Not Detected	Not Detected
Chloroform	17	85	Not Detected	Not Detected
1,1,1-Trichloroethane	17	95	4600	25000
Carbon Tetrachloride	17	110	Not Detected	Not Detected
Benzene	17	56	Not Detected	Not Detected
1,2-Dichloroethane	17	70	Not Detected	Not Detected
Trichloroethene	17	93	Not Detected	Not Detected
1,2-Dichloropropane	17	80	Not Detected	Not Detected
cis-1,3-Dichloropropene	17	79	Not Detected	Not Detected
Toluene	17	65	Not Detected	Not Detected
trans-1,3-Dichloropropene	17	79	Not Detected	Not Detected
1,1,2-Trichloroethane	17	95	Not Detected	Not Detected
Tetrachloroethene	17	120	72	500
1,2-Dibromoethane (EDB)	17	130	Not Detected	Not Detected
Chlorobenzene	17	80	Not Detected	Not Detected
Ethyl Benzene	17	75	Not Detected	Not Detected
m,p-Xylene	17	75	Not Detected	Not Detected
o-Xylene	17	75	Not Detected	Not Detected
Styrene	17	74	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	17	120	Not Detected	Not Detected
1,3,5-Trimethylbenzene	17	85	Not Detected	Not Detected
1,2,4-Trimethylbenzene	17	85	Not Detected	Not Detected
1,3-Dichlorobenzene	17	100	Not Detected	Not Detected
1,4-Dichlorobenzene	17	100	Not Detected	Not Detected
alpha-Chlorotoluene	17	90	Not Detected	Not Detected
1,2-Dichlorobenzene	17	100	Not Detected	Not Detected
1,2,4-Trichlorobenzene	68	520	Not Detected	Not Detected
Hexachlorobutadiene	68	740	Not Detected	Not Detected
Propylene	68	120	Not Detected	Not Detected
1,3-Butadiene	68	150	Not Detected	Not Detected
Acetone	68	160	Not Detected	Not Detected

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-01

ID#: 0306331-01A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	68	220	Not Detected	Not Detected
2-Propanol	68	170	Not Detected	Not Detected
trans-1,2-Dichloroethene	68	280	Not Detected	Not Detected
Vinyl Acetate	68	240	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	68	200	Not Detected	Not Detected
Hexane	68	240	Not Detected	Not Detected
Tetrahydrofuran	68	200	Not Detected	Not Detected
Cyclohexane	68	240	Not Detected	Not Detected
1,4-Dioxane	68	250	Not Detected	Not Detected
Bromodichloromethane	68	460	Not Detected	Not Detected
4-Methyl-2-pentanone	68	280	Not Detected	Not Detected
2-Hexanone	68	280	Not Detected	Not Detected
Dibromochloromethane	68	590	Not Detected	Not Detected
Bromoform	68	720	Not Detected	Not Detected
4-Ethyltoluene	68	340	Not Detected	Not Detected
Ethanol	68	130	Not Detected	Not Detected
Methyl tert-butyl ether	68	250	Not Detected	Not Detected
Heptane	68	280	Not Detected	Not Detected
Naphthalene	340	1800	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-02

ID#: 0306331-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	3.4	17	Not Detected	Not Detected
Freon 114	3.4	24	Not Detected	Not Detected
Chloromethane	3.4	7.2	Not Detected	Not Detected
Vinyl Chloride	3.4	8.9	Not Detected	Not Detected
Bromomethane	3.4	13	Not Detected	Not Detected
Chloroethane	3.4	9.2	Not Detected	Not Detected
Freon 11	3.4	20	Not Detected	Not Detected
1,1-Dichloroethene	3.4	14	44	180
Freon 113	3.4	27	Not Detected	Not Detected
Methylene Chloride	3.4	12	Not Detected	Not Detected
1,1-Dichloroethane	3.4	14	90	370
cis-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
Chloroform	3.4	17	Not Detected	Not Detected
1,1,1-Trichloroethane	3.4	19	680	3800
Carbon Tetrachloride	3.4	22	Not Detected	Not Detected
Benzene	3.4	11	Not Detected	Not Detected
1,2-Dichloroethane	3.4	14	Not Detected	Not Detected
Trichloroethene	3.4	19	Not Detected	Not Detected
1,2-Dichloropropane	3.4	16	Not Detected	Not Detected
cis-1,3-Dichloropropene	3.4	16	Not Detected	Not Detected
Toluene	3.4	13	Not Detected	Not Detected
trans-1,3-Dichloropropene	3.4	16	Not Detected	Not Detected
1,1,2-Trichloroethane	3.4	19	Not Detected	Not Detected
Tetrachloroethene	3.4	24	140	960
1,2-Dibromoethane (EDB)	3.4	27	Not Detected	Not Detected
Chlorobenzene	3.4	16	Not Detected	Not Detected
Ethyl Benzene	3.4	15	Not Detected	Not Detected
m,p-Xylene	3.4	15	Not Detected	Not Detected
o-Xylene	3.4	15	Not Detected	Not Detected
Styrene	3.4	15	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	3.4	24	Not Detected	Not Detected
1,3,5-Trimethylbenzene	3.4	17	Not Detected	Not Detected
1,2,4-Trimethylbenzene	3.4	17	Not Detected	Not Detected
1,3-Dichlorobenzene	3.4	21	Not Detected	Not Detected
1,4-Dichlorobenzene	3.4	21	Not Detected	Not Detected
alpha-Chlorotoluene	3.4	18	Not Detected	Not Detected
1,2-Dichlorobenzene	3.4	21	Not Detected	Not Detected
1,2,4-Trichlorobenzene	14	100	Not Detected	Not Detected
Hexachlorobutadiene	14	150	Not Detected	Not Detected
Propylene	14	24	Not Detected	Not Detected
1,3-Butadiene	14	31	Not Detected	Not Detected
Acetone	14	33	Not Detected	Not Detected

Jam 7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-02

ID#: 0306331-02A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name: [illegible]	[illegible]	Date of Collection: 6/17/03	
Dil Fac: [illegible]	6.94	Date of Analysis: 6/22/03	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	14	43	Not Detected	Not Detected
2-Propanol	14	34	Not Detected	Not Detected
trans-1,2-Dichloroethene	14	55	Not Detected	Not Detected
Vinyl Acetate	14	49	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	41	Not Detected	Not Detected
Hexane	14	49	Not Detected	Not Detected
Tetrahydrofuran	14	41	Not Detected	Not Detected
Cyclohexane	14	48	Not Detected	Not Detected
1,4-Dioxane	14	50	Not Detected	Not Detected
Bromodichloromethane	14	93	Not Detected	Not Detected
4-Methyl-2-pentanone	14	57	Not Detected	Not Detected
2-Hexanone	14	57	Not Detected	Not Detected
Dibromochloromethane	14	120	Not Detected	Not Detected
Bromoform	14	140	Not Detected	Not Detected
4-Ethyltoluene	14	68	Not Detected	Not Detected
Ethanol	14	26	49	95
Methyl tert-butyl ether	14	50	Not Detected	Not Detected
Heptane	14	57	Not Detected	Not Detected
Naphthalene	68	360	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-03

ID#: 0306331-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

File Name:	[illegible]	Date of Collection: 6/11/03
Dil. Factor:	7.16	Date of Analysis: 6/22/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	3.6	18	Not Detected	Not Detected
Freon 114	3.6	25	Not Detected	Not Detected
Chloromethane	3.6	7.5	Not Detected	Not Detected
Vinyl Chloride	3.6	9.3	Not Detected	Not Detected
Bromomethane	3.6	14	Not Detected	Not Detected
Chloroethane	3.6	9.6	Not Detected	Not Detected
Freon 11	3.6	20	Not Detected	Not Detected
1,1-Dichloroethene	3.6	14	58	230
Freon 113	3.6	28	Not Detected	Not Detected
Methylene Chloride	3.6	13	Not Detected	Not Detected
1,1-Dichloroethane	3.6	15	6.1	25
cis-1,2-Dichloroethene	3.6	14	Not Detected	Not Detected
Chloroform	3.6	18	Not Detected	Not Detected
1,1,1-Trichloroethane	3.6	20	880	4900
Carbon Tetrachloride	3.6	23	Not Detected	Not Detected
Benzene	3.6	12	Not Detected	Not Detected
1,2-Dichloroethane	3.6	15	Not Detected	Not Detected
Trichloroethene	3.6	20	Not Detected	Not Detected
1,2-Dichloropropane	3.6	17	Not Detected	Not Detected
cis-1,3-Dichloropropene	3.6	16	Not Detected	Not Detected
Toluene	3.6	14	Not Detected	Not Detected
trans-1,3-Dichloropropene	3.6	16	Not Detected	Not Detected
1,1,2-Trichloroethane	3.6	20	Not Detected	Not Detected
Tetrachloroethene	3.6	25	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	3.6	28	Not Detected	Not Detected
Chlorobenzene	3.6	17	Not Detected	Not Detected
Ethyl Benzene	3.6	16	Not Detected	Not Detected
m,p-Xylene	3.6	16	Not Detected	Not Detected
o-Xylene	3.6	16	Not Detected	Not Detected
Styrene	3.6	15	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	3.6	25	Not Detected	Not Detected
1,3,5-Trimethylbenzene	3.6	18	Not Detected	Not Detected
1,2,4-Trimethylbenzene	3.6	18	Not Detected	Not Detected
1,3-Dichlorobenzene	3.6	22	Not Detected	Not Detected
1,4-Dichlorobenzene	3.6	22	Not Detected	Not Detected
alpha-Chlorotoluene	3.6	19	Not Detected	Not Detected
1,2-Dichlorobenzene	3.6	22	Not Detected	Not Detected
1,2,4-Trichlorobenzene	14	110	Not Detected	Not Detected
Hexachlorobutadiene	14	160	Not Detected	Not Detected
Propylene	14	25	Not Detected	Not Detected
1,3-Butadiene	14	32	Not Detected	Not Detected
Acetone	14	34	Not Detected	Not Detected

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-03

ID#: 0306331-03A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Filename:	030622B	Date of Collection: 6/11/03	
Dil. Factor:	2.47	Date of Analysis: 6/22/03	

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	14	45	Not Detected	Not Detected
2-Propanol	14	36	Not Detected	Not Detected
trans-1,2-Dichloroethene	14	58	Not Detected	Not Detected
Vinyl Acetate	14	51	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	43	Not Detected	Not Detected
Hexane	14	51	Not Detected	Not Detected
Tetrahydrofuran	14	43	Not Detected	Not Detected
Cyclohexane	14	50	Not Detected	Not Detected
1,4-Dioxane	14	52	Not Detected	Not Detected
Bromodichloromethane	14	98	Not Detected	Not Detected
4-Methyl-2-pentanone	14	60	Not Detected	Not Detected
2-Hexanone	14	60	Not Detected	Not Detected
Dibromochloromethane	14	120	Not Detected	Not Detected
Bromoform	14	150	Not Detected	Not Detected
4-Ethyltoluene	14	72	Not Detected	Not Detected
Ethanol	14	27	Not Detected	Not Detected
Methyl tert-butyl ether	14	52	Not Detected	Not Detected
Heptane	14	60	Not Detected	Not Detected
Naphthalene	72	380	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	100	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-6/11/03

ID#: 0306331-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	3.6	18	Not Detected	Not Detected
Freon 114	3.6	25	Not Detected	Not Detected
Chloromethane	3.6	7.5	Not Detected	Not Detected
Vinyl Chloride	3.6	9.3	Not Detected	Not Detected
Bromomethane	3.6	14	Not Detected	Not Detected
Chloroethane	3.6	9.6	Not Detected	Not Detected
Freon 11	3.6	20	Not Detected	Not Detected
1,1-Dichloroethene	3.6	14	55	220
Freon 113	3.6	28	Not Detected	Not Detected
Methylene Chloride	3.6	13	Not Detected	Not Detected
1,1-Dichloroethane	3.6	15	6.1	25
cis-1,2-Dichloroethene	3.6	14	Not Detected	Not Detected
Chloroform	3.6	18	Not Detected	Not Detected
1,1,1-Trichloroethane	3.6	20	920	5100
Carbon Tetrachloride	3.6	23	Not Detected	Not Detected
Benzene	3.6	12	Not Detected	Not Detected
1,2-Dichloroethane	3.6	15	Not Detected	Not Detected
Trichloroethene	3.6	20	Not Detected	Not Detected
1,2-Dichloropropane	3.6	17	Not Detected	Not Detected
cis-1,3-Dichloropropene	3.6	16	Not Detected	Not Detected
Toluene	3.6	14	Not Detected	Not Detected
trans-1,3-Dichloropropene	3.6	16	Not Detected	Not Detected
1,1,2-Trichloroethane	3.6	20	Not Detected	Not Detected
Tetrachloroethene	3.6	25	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	3.6	28	Not Detected	Not Detected
Chlorobenzene	3.6	17	Not Detected	Not Detected
Ethyl Benzene	3.6	16	Not Detected	Not Detected
m,p-Xylene	3.6	16	Not Detected	Not Detected
o-Xylene	3.6	16	Not Detected	Not Detected
Styrene	3.6	15	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	3.6	25	Not Detected	Not Detected
1,3,5-Trimethylbenzene	3.6	18	Not Detected	Not Detected
1,2,4-Trimethylbenzene	3.6	18	Not Detected	Not Detected
1,3-Dichlorobenzene	3.6	22	Not Detected	Not Detected
1,4-Dichlorobenzene	3.6	22	Not Detected	Not Detected
alpha-Chlorotoluene	3.6	19	Not Detected	Not Detected
1,2-Dichlorobenzene	3.6	22	Not Detected	Not Detected
1,2,4-Trichlorobenzene	14	110	Not Detected	Not Detected
Hexachlorobutadiene	14	160	Not Detected	Not Detected
Propylene	14	25	Not Detected	Not Detected
1,3-Butadiene	14	32	Not Detected	Not Detected
Acetone	14	34	Not Detected	Not Detected

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-6/11/03

ID#: 0306331-13A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

[illegible]	[illegible]	[illegible]	Date of Collection: 6/11/03
Dil. Fac.:	7.46		Date of Analysis: 6/25/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	14	45	Not Detected	Not Detected
2-Propanol	14	36	Not Detected	Not Detected
trans-1,2-Dichloroethene	14	58	Not Detected	Not Detected
Vinyl Acetate	14	51	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	43	Not Detected	Not Detected
Hexane	14	51	Not Detected	Not Detected
Tetrahydrofuran	14	43	Not Detected	Not Detected
Cyclohexane	14	50	Not Detected	Not Detected
1,4-Dioxane	14	52	Not Detected	Not Detected
Bromodichloromethane	14	98	Not Detected	Not Detected
4-Methyl-2-pentanone	14	60	Not Detected	Not Detected
2-Hexanone	14	60	Not Detected	Not Detected
Dibromochloromethane	14	120	Not Detected	Not Detected
Bromoform	14	150	Not Detected	Not Detected
4-Ethyltoluene	14	72	Not Detected	Not Detected
Ethanol	14	27	Not Detected	Not Detected
Methyl tert-butyl ether	14	52	Not Detected	Not Detected
Heptane	14	60	Not Detected	Not Detected
Naphthalene	72	380	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

JAM 7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-04

ID#: 0306331-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	3.5	18	Not Detected	Not Detected
Freon 114	3.5	25	Not Detected	Not Detected
Chloromethane	3.5	7.3	Not Detected	Not Detected
Vinyl Chloride	3.5	9.1	Not Detected	Not Detected
Bromomethane	3.5	14	Not Detected	Not Detected
Chloroethane	3.5	9.4	Not Detected	Not Detected
Freon 11	3.5	20	Not Detected	Not Detected
1,1-Dichloroethene	3.5	14	78	320
Freon 113	3.5	27	Not Detected	Not Detected
Methylene Chloride	3.5	12	Not Detected	Not Detected
1,1-Dichloroethane	3.5	14	Not Detected	Not Detected
cis-1,2-Dichloroethene	3.5	14	Not Detected	Not Detected
Chloroform	3.5	17	Not Detected	Not Detected
1,1,1-Trichloroethane	3.5	19	1200	6600
Carbon Tetrachloride	3.5	22	Not Detected	Not Detected
Benzene	3.5	11	Not Detected	Not Detected
1,2-Dichloroethane	3.5	14	Not Detected	Not Detected
Trichloroethene	3.5	19	Not Detected	Not Detected
1,2-Dichloropropane	3.5	16	Not Detected	Not Detected
cis-1,3-Dichloropropene	3.5	16	Not Detected	Not Detected
Toluene	3.5	13	Not Detected	Not Detected
trans-1,3-Dichloropropene	3.5	16	Not Detected	Not Detected
1,1,2-Trichloroethane	3.5	19	Not Detected	Not Detected
Tetrachloroethene	3.5	24	16	110
1,2-Dibromoethane (EDB)	3.5	27	Not Detected	Not Detected
Chlorobenzene	3.5	16	Not Detected	Not Detected
Ethyl Benzene	3.5	15	Not Detected	Not Detected
m,p-Xylene	3.5	15	Not Detected	Not Detected
o-Xylene	3.5	15	Not Detected	Not Detected
Styrene	3.5	15	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	3.5	24	Not Detected	Not Detected
1,3,5-Trimethylbenzene	3.5	17	Not Detected	Not Detected
1,2,4-Trimethylbenzene	3.5	17	Not Detected	Not Detected
1,3-Dichlorobenzene	3.5	21	Not Detected	Not Detected
1,4-Dichlorobenzene	3.5	21	Not Detected	Not Detected
alpha-Chlorotoluene	3.5	18	Not Detected	Not Detected
1,2-Dichlorobenzene	3.5	21	Not Detected	Not Detected
1,2,4-Trichlorobenzene	14	100	Not Detected	Not Detected
Hexachlorobutadiene	14	150	Not Detected	Not Detected
Propylene	14	24	Not Detected	Not Detected
1,3-Butadiene	14	31	Not Detected	Not Detected
Acetone	14	34	Not Detected	Not Detected

Jam 7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-04

ID#: 0306331-04A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	14	44	Not Detected	Not Detected
2-Propanol	14	35	Not Detected	Not Detected
trans-1,2-Dichloroethene	14	56	Not Detected	Not Detected
Vinyl Acetate	14	50	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	42	Not Detected	Not Detected
Hexane	14	50	Not Detected	Not Detected
Tetrahydrofuran	14	42	Not Detected	Not Detected
Cyclohexane	14	49	Not Detected	Not Detected
1,4-Dioxane	14	51	Not Detected	Not Detected
Bromodichloromethane	14	95	Not Detected	Not Detected
4-Methyl-2-pentanone	14	58	Not Detected	Not Detected
2-Hexanone	14	58	Not Detected	Not Detected
Dibromochloromethane	14	120	Not Detected	Not Detected
Bromoform	14	150	Not Detected	Not Detected
4-Ethyltoluene	14	70	Not Detected	Not Detected
Ethanol	14	27	Not Detected	Not Detected
Methyl tert-butyl ether	14	51	Not Detected	Not Detected
Heptane	14	58	Not Detected	Not Detected
Naphthalene	70	370	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	101	70-130

Jam 7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-05

ID#: 0306331-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	5.0	25	Not Detected	Not Detected
Freon 114	5.0	36	Not Detected	Not Detected
Chloromethane	5.0	10	Not Detected	Not Detected
Vinyl Chloride	5.0	13	Not Detected	Not Detected
Bromomethane	5.0	20	Not Detected	Not Detected
Chloroethane	5.0	13	Not Detected	Not Detected
Freon 11	5.0	28	Not Detected	Not Detected
1,1-Dichloroethene	5.0	20	120	470
Freon 113	5.0	39	Not Detected	Not Detected
Methylene Chloride	5.0	18	Not Detected	Not Detected
1,1-Dichloroethane	5.0	20	86	350
cis-1,2-Dichloroethene	5.0	20	Not Detected	Not Detected
Chloroform	5.0	25	Not Detected	Not Detected
1,1,1-Trichloroethane	5.0	28	1800	9700
Carbon Tetrachloride	5.0	32	Not Detected	Not Detected
Benzene	5.0	16	Not Detected	Not Detected
1,2-Dichloroethane	5.0	20	Not Detected	Not Detected
Trichloroethene	5.0	27	Not Detected	Not Detected
1,2-Dichloropropane	5.0	23	Not Detected	Not Detected
cis-1,3-Dichloropropene	5.0	23	Not Detected	Not Detected
Toluene	5.0	19	Not Detected	Not Detected
trans-1,3-Dichloropropene	5.0	23	Not Detected	Not Detected
1,1,2-Trichloroethane	5.0	28	Not Detected	Not Detected
Tetrachloroethene	5.0	34	12	84
1,2-Dibromoethane (EDB)	5.0	39	Not Detected	Not Detected
Chlorobenzene	5.0	23	Not Detected	Not Detected
Ethyl Benzene	5.0	22	Not Detected	Not Detected
m,p-Xylene	5.0	22	Not Detected	Not Detected
o-Xylene	5.0	22	Not Detected	Not Detected
Styrene	5.0	22	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	5.0	35	Not Detected	Not Detected
1,3,5-Trimethylbenzene	5.0	25	Not Detected	Not Detected
1,2,4-Trimethylbenzene	5.0	25	Not Detected	Not Detected
1,3-Dichlorobenzene	5.0	30	Not Detected	Not Detected
1,4-Dichlorobenzene	5.0	30	Not Detected	Not Detected
alpha-Chlorotoluene	5.0	26	Not Detected	Not Detected
1,2-Dichlorobenzene	5.0	30	Not Detected	Not Detected
1,2,4-Trichlorobenzene	20	150	Not Detected	Not Detected
Hexachlorobutadiene	20	220	Not Detected	Not Detected
Propylene	20	35	Not Detected	Not Detected
1,3-Butadiene	20	45	Not Detected	Not Detected
Acetone	20	48	Not Detected	Not Detected

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-05

ID#: 0306331-05A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Dil. Fact.: 4.00	Date of Collection: 6/17/03		
Dil. Fact.: 4.00	Date of Analysis: 6/22/03		

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	20	63	Not Detected	Not Detected
2-Propanol	20	50	Not Detected	Not Detected
trans-1,2-Dichloroethene	20	80	Not Detected	Not Detected
Vinyl Acetate	20	72	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	20	60	Not Detected	Not Detected
Hexane	20	72	Not Detected	Not Detected
Tetrahydrofuran	20	60	Not Detected	Not Detected
Cyclohexane	20	70	Not Detected	Not Detected
1,4-Dioxane	20	73	Not Detected	Not Detected
Bromodichloromethane	20	140	Not Detected	Not Detected
4-Methyl-2-pentanone	20	83	Not Detected	Not Detected
2-Hexanone	20	83	Not Detected	Not Detected
Dibromochloromethane	20	170	Not Detected	Not Detected
Bromoform	20	210	Not Detected	Not Detected
4-Ethyltoluene	20	100	Not Detected	Not Detected
Ethanol	20	38	Not Detected	Not Detected
Methyl tert-butyl ether	20	73	Not Detected	Not Detected
Heptane	20	83	Not Detected	Not Detected
Naphthalene	100	530	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-06

ID#: 0306331-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	3.7	18	Not Detected	Not Detected
Freon 114	3.7	26	Not Detected	Not Detected
Chloromethane	3.7	7.7	Not Detected	Not Detected
Vinyl Chloride	3.7	9.5	Not Detected	Not Detected
Bromomethane	3.7	14	Not Detected	Not Detected
Chloroethane	3.7	9.8	Not Detected	Not Detected
Freon 11	3.7	21	Not Detected	Not Detected
1,1-Dichloroethene	3.7	15	55	220
Freon 113	3.7	28	Not Detected	Not Detected
Methylene Chloride	3.7	13	Not Detected	Not Detected
1,1-Dichloroethane	3.7	15	55	220
cis-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
Chloroform	3.7	18	Not Detected	Not Detected
1,1,1-Trichloroethane	3.7	20	810	4500
Carbon Tetrachloride	3.7	23	Not Detected	Not Detected
Benzene	3.7	12	Not Detected	Not Detected
1,2-Dichloroethane	3.7	15	Not Detected	Not Detected
Trichloroethene	3.7	20	Not Detected	Not Detected
1,2-Dichloropropane	3.7	17	Not Detected	Not Detected
cis-1,3-Dichloropropene	3.7	17	Not Detected	Not Detected
Toluene	3.7	14	6.8	26
trans-1,3-Dichloropropene	3.7	17	Not Detected	Not Detected
1,1,2-Trichloroethane	3.7	20	Not Detected	Not Detected
Tetrachloroethene	3.7	25	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	3.7	28	Not Detected	Not Detected
Chlorobenzene	3.7	17	Not Detected	Not Detected
Ethyl Benzene	3.7	16	Not Detected	Not Detected
m,p-Xylene	3.7	16	4.8	20
o-Xylene	3.7	16	Not Detected	Not Detected
Styrene	3.7	16	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	3.7	26	Not Detected	Not Detected
1,3,5-Trimethylbenzene	3.7	18	Not Detected	Not Detected
1,2,4-Trimethylbenzene	3.7	18	Not Detected	Not Detected
1,3-Dichlorobenzene	3.7	22	Not Detected	Not Detected
1,4-Dichlorobenzene	3.7	22	Not Detected	Not Detected
alpha-Chlorotoluene	3.7	19	Not Detected	Not Detected
1,2-Dichlorobenzene	3.7	22	Not Detected	Not Detected
1,2,4-Trichlorobenzene	15	110	Not Detected	Not Detected
Hexachlorobutadiene	15	160	Not Detected	Not Detected
Propylene	15	26	Not Detected	Not Detected
1,3-Butadiene	15	33	Not Detected	Not Detected
Acetone	15	35	25	60

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-06

ID#: 0306331-06A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	15	46	Not Detected	Not Detected
2-Propanol	15	36	Not Detected	Not Detected
trans-1,2-Dichloroethene	15	59	Not Detected	Not Detected
Vinyl Acetate	15	52	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	15	44	Not Detected	Not Detected
Hexane	15	52	Not Detected	Not Detected
Tetrahydrofuran	15	44	Not Detected	Not Detected
Cyclohexane	15	51	Not Detected	Not Detected
1,4-Dioxane	15	54	Not Detected	Not Detected
Bromodichloromethane	15	100	Not Detected	Not Detected
4-Methyl-2-pentanone	15	61	Not Detected	Not Detected
2-Hexanone	15	61	Not Detected	Not Detected
Dibromochloromethane	15	130	Not Detected	Not Detected
Bromoform	15	150	Not Detected	Not Detected
4-Ethyltoluene	15	73	Not Detected	Not Detected
Ethanol	15	28	Not Detected	Not Detected
Methyl tert-butyl ether	15	54	Not Detected	Not Detected
Heptane	15	61	Not Detected	Not Detected
Naphthalene	73	390	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	105	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	100	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-07

ID#: 0306331-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Dilution Factor: 2.26		Date of Collection: 6/7/03	Date of Analysis: 6/22/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	11	57	Not Detected	Not Detected
Freon 114	11	81	Not Detected	Not Detected
Chloromethane	11	24	Not Detected	Not Detected
Vinyl Chloride	11	30	Not Detected	Not Detected
Bromomethane	11	45	Not Detected	Not Detected
Chloroethane	11	30	Not Detected	Not Detected
Freon 11	11	65	Not Detected	Not Detected
1,1-Dichloroethene	11	46	190	750
Freon 113	11	89	Not Detected	Not Detected
Methylene Chloride	11	40	Not Detected	Not Detected
1,1-Dichloroethane	11	47	140	580
cis-1,2-Dichloroethene	11	46	Not Detected	Not Detected
Chloroform	11	56	Not Detected	Not Detected
1,1,1-Trichloroethane	11	63	3800	21000
Carbon Tetrachloride	11	73	Not Detected	Not Detected
Benzene	11	37	Not Detected	Not Detected
1,2-Dichloroethane	11	47	Not Detected	Not Detected
Trichloroethene	11	62	Not Detected	Not Detected
1,2-Dichloropropane	11	54	Not Detected	Not Detected
cis-1,3-Dichloropropene	11	52	Not Detected	Not Detected
Toluene	11	44	Not Detected	Not Detected
trans-1,3-Dichloropropene	11	52	Not Detected	Not Detected
1,1,2-Trichloroethane	11	63	Not Detected	Not Detected
Tetrachloroethene	11	78	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	11	89	Not Detected	Not Detected
Chlorobenzene	11	53	Not Detected	Not Detected
Ethyl Benzene	11	50	Not Detected	Not Detected
m,p-Xylene	11	50	Not Detected	Not Detected
o-Xylene	11	50	Not Detected	Not Detected
Styrene	11	49	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	11	80	Not Detected	Not Detected
1,3,5-Trimethylbenzene	11	57	Not Detected	Not Detected
1,2,4-Trimethylbenzene	11	57	Not Detected	Not Detected
1,3-Dichlorobenzene	11	70	Not Detected	Not Detected
1,4-Dichlorobenzene	11	70	Not Detected	Not Detected
alpha-Chlorotoluene	11	60	Not Detected	Not Detected
1,2-Dichlorobenzene	11	70	Not Detected	Not Detected
1,2,4-Trichlorobenzene	46	340	Not Detected	Not Detected
Hexachlorobutadiene	46	490	Not Detected	Not Detected
Propylene	46	80	Not Detected	Not Detected
1,3-Butadiene	46	100	Not Detected	Not Detected
Acetone	46	110	Not Detected	Not Detected

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-07

ID#: 0306331-07A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Dilution Factor	1.23		Date of Collection: 6/11/03 Date of Analysis: 6/22/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	46	140	Not Detected	Not Detected
2-Propanol	46	110	Not Detected	Not Detected
trans-1,2-Dichloroethene	46	180	Not Detected	Not Detected
Vinyl Acetate	46	160	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	46	140	Not Detected	Not Detected
Hexane	46	160	Not Detected	Not Detected
Tetrahydrofuran	46	140	Not Detected	Not Detected
Cyclohexane	46	160	Not Detected	Not Detected
1,4-Dioxane	46	170	Not Detected	Not Detected
Bromodichloromethane	46	310	Not Detected	Not Detected
4-Methyl-2-pentanone	46	190	Not Detected	Not Detected
2-Hexanone	46	190	Not Detected	Not Detected
Dibromochloromethane	46	390	Not Detected	Not Detected
Bromoform	46	480	Not Detected	Not Detected
4-Ethyltoluene	46	230	Not Detected	Not Detected
Ethanol	46	87	Not Detected	Not Detected
Methyl tert-butyl ether	46	170	Not Detected	Not Detected
Heptane	46	190	Not Detected	Not Detected
Naphthalene	230	1200	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	104	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	101	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-08

ID#: 0306331-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Canister ID#	4082874	Date of Collection:	6/17/03
Dil. Factor	1.85	Date of Analysis:	6/22/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.92	4.6	Not Detected	Not Detected
Freon 114	0.92	6.5	Not Detected	Not Detected
Chloromethane	0.92	1.9	1.3 J7	2.8 J7
Vinyl Chloride	0.92	2.4	Not Detected	Not Detected
Bromomethane	0.92	3.6	1.6 J7	6.3 J7
Chloroethane	0.92	2.4	Not Detected	Not Detected
Freon 11	0.92	5.2	Not Detected	Not Detected
1,1-Dichloroethene	0.92	3.7	21 J7	86 J7
Freon 113	0.92	7.1	Not Detected	Not Detected
Methylene Chloride	0.92	3.2	Not Detected	Not Detected
1,1-Dichloroethane	0.92	3.8	9.5 J7	39 J7
cis-1,2-Dichloroethene	0.92	3.7	Not Detected	Not Detected
Chloroform	0.92	4.5	Not Detected	Not Detected
1,1,1-Trichloroethane	0.92	5.1	170 J7	940 J7
Carbon Tetrachloride	0.92	5.8	Not Detected	Not Detected
Benzene	0.92	3.0	3.4 J7	11 J7
1,2-Dichloroethane	0.92	3.8	Not Detected	Not Detected
Trichloroethene	0.92	5.0	Not Detected	Not Detected
1,2-Dichloropropane	0.92	4.3	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.92	4.2	Not Detected	Not Detected
Toluene	0.92	3.5	15 J7	57 J7
trans-1,3-Dichloropropene	0.92	4.2	Not Detected	Not Detected
1,1,2-Trichloroethane	0.92	5.1	Not Detected	Not Detected
Tetrachloroethene	0.92	6.3	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.92	7.1	Not Detected	Not Detected
Chlorobenzene	0.92	4.3	Not Detected	Not Detected
Ethyl Benzene	0.92	4.0	5.8 J7	26 J7
m,p-Xylene	0.92	4.0	18 J7	78 J7
o-Xylene	0.92	4.0	4.5 J7	20 J7
Styrene	0.92	4.0	1.1 J7	4.9 J7
1,1,2,2-Tetrachloroethane	0.92	6.4	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.92	4.6	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.92	4.6	2.1 J7	11 J7
1,3-Dichlorobenzene	0.92	5.6	Not Detected	Not Detected
1,4-Dichlorobenzene	0.92	5.6	Not Detected	Not Detected
alpha-Chlorotoluene	0.92	4.8	Not Detected	Not Detected
1,2-Dichlorobenzene	0.92	5.6	Not Detected	Not Detected
1,2,4-Trichlorobenzene	3.7	28	Not Detected	Not Detected
Hexachlorobutadiene	3.7	40	Not Detected	Not Detected
Propylene	3.7	6.4	Not Detected	Not Detected
1,3-Butadiene	3.7	8.2	Not Detected	Not Detected
Acetone	3.7	8.8	42 J7	100 J7

JAM 7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-08

ID#: 0306331-08A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

[illegible]	[illegible]	[illegible]	[illegible]	Date of Collection: 6/19/03 Date of Analysis: 6/22/03

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	3.7	12	Not Detected	Not Detected
2-Propanol	3.7	9.1	4.4 J7	11 J7
trans-1,2-Dichloroethene	3.7	15	Not Detected	Not Detected
Vinyl Acetate	3.7	13	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.7	11	5.6 J7	17 J7
Hexane	3.7	13	4.1 J7	15 J7
Tetrahydrofuran	3.7	11	Not Detected	Not Detected
Cyclohexane	3.7	13	Not Detected	Not Detected
1,4-Dioxane	3.7	13	Not Detected	Not Detected
Bromodichloromethane	3.7	25	Not Detected	Not Detected
4-Methyl-2-pentanone	3.7	15	Not Detected	Not Detected
2-Hexanone	3.7	15	Not Detected	Not Detected
Dibromochloromethane	3.7	32	Not Detected	Not Detected
Bromoform	3.7	38	Not Detected	Not Detected
4-Ethyltoluene	3.7	18	Not Detected	Not Detected
Ethanol	3.7	7.0	12 J7	22 J7
Methyl tert-butyl ether	3.7	13	7.3 J7	27 J7
Heptane	3.7	15	Not Detected	Not Detected
Naphthalene	18	97	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	134	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	103	70-130

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-09

ID#: 0306331-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	3.4	17	Not Detected	Not Detected
Freon 114	3.4	24	Not Detected	Not Detected
Chloromethane	3.4	7.2	Not Detected	Not Detected
Vinyl Chloride	3.4	8.9	Not Detected	Not Detected
Bromomethane	3.4	13	Not Detected	Not Detected
Chloroethane	3.4	9.2	Not Detected	Not Detected
Freon 11	3.4	20	Not Detected	Not Detected
1,1-Dichloroethene	3.4	14	79	320
Freon 113	3.4	27	Not Detected	Not Detected
Methylene Chloride	3.4	12	Not Detected	Not Detected
1,1-Dichloroethane	3.4	14	36	150
cis-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
Chloroform	3.4	17	Not Detected	Not Detected
1,1,1-Trichloroethane	3.4	19	1100	6000
Carbon Tetrachloride	3.4	22	Not Detected	Not Detected
Benzene	3.4	11	Not Detected	Not Detected
1,2-Dichloroethane	3.4	14	Not Detected	Not Detected
Trichloroethene	3.4	19	Not Detected	Not Detected
1,2-Dichloropropane	3.4	16	Not Detected	Not Detected
cis-1,3-Dichloropropene	3.4	16	Not Detected	Not Detected
Toluene	3.4	13	Not Detected	Not Detected
trans-1,3-Dichloropropene	3.4	16	Not Detected	Not Detected
1,1,2-Trichloroethane	3.4	19	Not Detected	Not Detected
Tetrachloroethene	3.4	24	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	3.4	27	Not Detected	Not Detected
Chlorobenzene	3.4	16	Not Detected	Not Detected
Ethyl Benzene	3.4	15	Not Detected	Not Detected
m,p-Xylene	3.4	15	Not Detected	Not Detected
o-Xylene	3.4	15	Not Detected	Not Detected
Styrene	3.4	15	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	3.4	24	Not Detected	Not Detected
1,3,5-Trimethylbenzene	3.4	17	Not Detected	Not Detected
1,2,4-Trimethylbenzene	3.4	17	Not Detected	Not Detected
1,3-Dichlorobenzene	3.4	21	Not Detected	Not Detected
1,4-Dichlorobenzene	3.4	21	Not Detected	Not Detected
alpha-Chlorotoluene	3.4	18	Not Detected	Not Detected
1,2-Dichlorobenzene	3.4	21	Not Detected	Not Detected
1,2,4-Trichlorobenzene	14	100	Not Detected	Not Detected
Hexachlorobutadiene	14	150	Not Detected	Not Detected
Propylene	14	24	Not Detected	Not Detected
1,3-Butadiene	14	31	Not Detected	Not Detected
Acetone	14	33	24	59

7/9/03

AIR TOXICS LTD.

SAMPLE NAME: CF-SG-09

ID#: 0306331-09A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	14	43	Not Detected	Not Detected
2-Propanol	14	34	Not Detected	Not Detected
trans-1,2-Dichloroethene	14	55	Not Detected	Not Detected
Vinyl Acetate	14	49	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	14	41	Not Detected	Not Detected
Hexane	14	49	Not Detected	Not Detected
Tetrahydrofuran	14	41	Not Detected	Not Detected
Cyclohexane	14	48	Not Detected	Not Detected
1,4-Dioxane	14	50	Not Detected	Not Detected
Bromodichloromethane	14	93	Not Detected	Not Detected
4-Methyl-2-pentanone	14	57	Not Detected	Not Detected
2-Hexanone	14	57	Not Detected	Not Detected
Dibromochloromethane	14	120	Not Detected	Not Detected
Bromoform	14	140	Not Detected	Not Detected
4-Ethyltoluene	14	68	Not Detected	Not Detected
Ethanol	14	26	Not Detected	Not Detected
Methyl tert-butyl ether	14	50	Not Detected	Not Detected
Heptane	14	57	Not Detected	Not Detected
Naphthalene	68	360	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	120	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	100	70-130

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-10

ID#: 0306331-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.88	4.4	Not Detected	Not Detected
Freon 114	0.88	6.2	Not Detected	Not Detected
Chloromethane	0.88	1.8	Not Detected	Not Detected
Vinyl Chloride	0.88	2.3	Not Detected	Not Detected
Bromomethane	0.88	3.4	Not Detected	Not Detected
Chloroethane	0.88	2.3	Not Detected	Not Detected
Freon 11	0.88	5.0	Not Detected	Not Detected
1,1-Dichloroethene	0.88	3.5	35	140
Freon 113	0.88	6.8	Not Detected	Not Detected
Methylene Chloride	0.88	3.1	Not Detected	Not Detected
1,1-Dichloroethane	0.88	3.6	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.88	3.5	Not Detected	Not Detected
Chloroform	0.88	4.3	13	66
1,1,1-Trichloroethane	0.88	4.8	320	1800
Carbon Tetrachloride	0.88	5.6	Not Detected	Not Detected
Benzene	0.88	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.88	3.6	Not Detected	Not Detected
Trichloroethene	0.88	4.8	Not Detected	Not Detected
1,2-Dichloropropane	0.88	4.1	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.88	4.0	Not Detected	Not Detected
Toluene	0.88	3.4	Not Detected	Not Detected
trans-1,3-Dichloropropene	0.88	4.0	Not Detected	Not Detected
1,1,2-Trichloroethene	0.88	4.8	Not Detected	Not Detected
Tetrachloroethene	0.88	6.0	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.88	6.8	Not Detected	Not Detected
Chlorobenzene	0.88	4.1	Not Detected	Not Detected
Ethyl Benzene	0.88	3.9	Not Detected	Not Detected
m,p-Xylene	0.88	3.9	Not Detected	Not Detected
o-Xylene	0.88	3.9	Not Detected	Not Detected
Styrene	0.88	3.8	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.88	6.1	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.88	4.4	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.88	4.4	Not Detected	Not Detected
1,3-Dichlorobenzene	0.88	5.3	Not Detected	Not Detected
1,4-Dichlorobenzene	0.88	5.3	Not Detected	Not Detected
alpha-Chlorotoluene	0.88	4.6	Not Detected	Not Detected
1,2-Dichlorobenzene	0.88	5.3	Not Detected	Not Detected
1,2,4-Trichlorobenzene	3.5	26	Not Detected	Not Detected
Hexachlorobutadiene	3.5	38	Not Detected	Not Detected
Propylene	3.5	6.1	Not Detected	Not Detected
1,3-Butadiene	3.5	7.9	Not Detected	Not Detected
Acetone	3.5	8.4	11	26

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-10

ID#: 0306331-10A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	3.5	11	6.9	22
2-Propanol	3.5	8.7	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.5	14	Not Detected	Not Detected
Vinyl Acetate	3.5	12	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.5	10	Not Detected	Not Detected
Hexane	3.5	12	Not Detected	Not Detected
Tetrahydrofuran	3.5	10	Not Detected	Not Detected
Cyclohexane	3.5	12	Not Detected	Not Detected
1,4-Dioxane	3.5	13	Not Detected	Not Detected
Bromodichloromethane	3.5	24	Not Detected	Not Detected
4-Methyl-2-pentanone	3.5	14	Not Detected	Not Detected
2-Hexanone	3.5	14	Not Detected	Not Detected
Dibromochloromethane	3.5	30	Not Detected	Not Detected
Bromoform	3.5	37	Not Detected	Not Detected
4-Ethyltoluene	3.5	17	Not Detected	Not Detected
Ethanol	3.5	6.7	Not Detected	Not Detected
Methyl tert-butyl ether	3.5	13	Not Detected	Not Detected
Heptane	3.5	14	Not Detected	Not Detected
Naphthalene	18	93	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	110	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-11

ID#: 0306331-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.90	4.5	Not Detected	Not Detected
Freon 114	0.90	6.4	Not Detected	Not Detected
Chloromethane	0.90	1.9	1.0	2.1
Vinyl Chloride	0.90	2.3	Not Detected	Not Detected
Bromomethane	0.90	3.5	Not Detected	Not Detected
Chloroethane	0.90	2.4	Not Detected	Not Detected
Freon 11	0.90	5.1	Not Detected	Not Detected
1,1-Dichloroethene	0.90	3.6	2.0	8.1
Freon 113	0.90	7.0	Not Detected	Not Detected
Methylene Chloride	0.90	3.2	0.89 J 5	3.1 JS
1,1-Dichloroethane	0.90	3.7	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.90	3.6	Not Detected	Not Detected
Chloroform	0.90	4.4	Not Detected	Not Detected
1,1,1-Trichloroethane	0.90	5.0	14	76
Carbon Tetrachloride	0.90	5.7	Not Detected	Not Detected
Benzene	0.90	2.9	Not Detected	Not Detected
1,2-Dichloroethane	0.90	3.7	Not Detected	Not Detected
Trichloroethene	0.90	4.9	Not Detected	Not Detected
1,2-Dichloropropane	0.90	4.2	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.90	4.1	Not Detected	Not Detected
Toluene	0.90	3.4	0.97	3.7
trans-1,3-Dichloropropene	0.90	4.1	Not Detected	Not Detected
1,1,2-Trichloroethane	0.90	5.0	Not Detected	Not Detected
Tetrachloroethene	0.90	6.2	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.90	7.0	Not Detected	Not Detected
Chlorobenzene	0.90	4.2	Not Detected	Not Detected
Ethyl Benzene	0.90	3.9	Not Detected	Not Detected
m,p-Xylene	0.90	4.0	Not Detected	Not Detected
o-Xylene	0.90	4.0	Not Detected	Not Detected
Styrene	0.90	3.9	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.90	6.2	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.90	4.5	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.90	4.5	Not Detected	Not Detected
1,3-Dichlorobenzene	0.90	5.5	Not Detected	Not Detected
1,4-Dichlorobenzene	0.90	5.5	Not Detected	Not Detected
alpha-Chlorotoluene	0.90	4.7	Not Detected	Not Detected
1,2-Dichlorobenzene	0.90	5.5	Not Detected	Not Detected
1,2,4-Trichlorobenzene	3.6	27	Not Detected	Not Detected
Hexachlorobutadiene	3.6	39	Not Detected	Not Detected
Propylene	3.6	6.3	Not Detected	Not Detected
1,3-Butadiene	3.6	8.0	Not Detected	Not Detected
Acetone	3.6	8.6	9.8	24

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-11

ID#: 0306331-11A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	3.6	11	Not Detected	Not Detected
2-Propanol	3.6	8.9	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.6	14	Not Detected	Not Detected
Vinyl Acetate	3.6	13	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.6	11	Not Detected	Not Detected
Hexane	3.6	13	Not Detected	Not Detected
Tetrahydrofuran	3.6	11	Not Detected	Not Detected
Cyclohexane	3.6	12	Not Detected	Not Detected
1,4-Dioxane	3.6	13	Not Detected	Not Detected
Bromodichloromethane	3.6	24	Not Detected	Not Detected
4-Methyl-2-pentanone	3.6	15	Not Detected	Not Detected
2-Hexanone	3.6	15	Not Detected	Not Detected
Dibromochloromethene	3.6	31	Not Detected	Not Detected
Bromoform	3.6	38	Not Detected	Not Detected
4-Ethyltoluene	3.6	18	Not Detected	Not Detected
Ethanol	3.6	6.8	Not Detected	Not Detected
Methyl tert-butyl ether	3.6	13	Not Detected	Not Detected
Heptane	3.6	15	Not Detected	Not Detected
Naphthalene	18	95	Not Detected	Not Detected

J = Estimated value.

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	112	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-12

ID#: 0306331-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Freon 12	0.86	4.3	Not Detected	Not Detected
Freon 114	0.86	6.1	Not Detected	Not Detected
Chloromethane	0.86	1.8	Not Detected	Not Detected
Vinyl Chloride	0.86	2.2	Not Detected	Not Detected
Bromomethane	0.86	3.4	Not Detected	Not Detected
Chloroethane	0.86	2.3	Not Detected	Not Detected
Freon 11	0.86	4.9	Not Detected	Not Detected
1,1-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Freon 113	0.86	6.7	Not Detected	Not Detected
Methylene Chloride	0.86	3.0	Not Detected	Not Detected
1,1-Dichloroethane	0.86	3.5	Not Detected	Not Detected
cis-1,2-Dichloroethene	0.86	3.4	Not Detected	Not Detected
Chloroform	0.86	4.2	Not Detected	Not Detected
1,1,1-Trichloroethane	0.86	4.7	1.9	10
Carbon Tetrachloride	0.86	5.5	Not Detected	Not Detected
Benzene	0.86	2.8	Not Detected	Not Detected
1,2-Dichloroethane	0.86	3.5	Not Detected	Not Detected
Trichloroethene	0.86	4.7	Not Detected	Not Detected
1,2-Dichloropropane	0.86	4.0	Not Detected	Not Detected
cis-1,3-Dichloropropene	0.86	3.9	Not Detected	Not Detected
Toluene	0.86	3.3	0.95	3.6
trans-1,3-Dichloropropene	0.86	3.9	Not Detected	Not Detected
1,1,2-Trichloroethane	0.86	4.7	Not Detected	Not Detected
Tetrachloroethene	0.86	5.9	Not Detected	Not Detected
1,2-Dibromoethane (EDB)	0.86	6.7	Not Detected	Not Detected
Chlorobenzene	0.86	4.0	Not Detected	Not Detected
Ethyl Benzene	0.86	3.8	Not Detected	Not Detected
m,p-Xylene	0.86	3.8	Not Detected	Not Detected
o-Xylene	0.86	3.8	Not Detected	Not Detected
Styrene	0.86	3.7	Not Detected	Not Detected
1,1,2,2-Tetrachloroethane	0.86	6.0	Not Detected	Not Detected
1,3,5-Trimethylbenzene	0.86	4.3	Not Detected	Not Detected
1,2,4-Trimethylbenzene	0.86	4.3	Not Detected	Not Detected
1,3-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,4-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
alpha-Chlorotoluene	0.86	4.5	Not Detected	Not Detected
1,2-Dichlorobenzene	0.86	5.2	Not Detected	Not Detected
1,2,4-Trichlorobenzene	3.4	26	Not Detected	Not Detected
Hexachlorobutadiene	3.4	37	Not Detected	Not Detected
Propylene	3.4	6.0	Not Detected	Not Detected
1,3-Butadiene	3.4	7.7	Not Detected	Not Detected
Acetone	3.4	8.2	12	28

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AIR TOXICS LTD.

SAMPLE NAME: CF-SG-12

ID#: 0306331-12A

MODIFIED EPA METHOD TO-15 GC/MS FULL SCAN

Compound	Rpt. Limit (ppbv)	Rpt. Limit (uG/m3)	Amount (ppbv)	Amount (uG/m3)
Carbon Disulfide	3.4	11	Not Detected	Not Detected
2-Propanol	3.4	8.5	Not Detected	Not Detected
trans-1,2-Dichloroethene	3.4	14	Not Detected	Not Detected
Vinyl Acetate	3.4	12	Not Detected	Not Detected
2-Butanone (Methyl Ethyl Ketone)	3.4	10	Not Detected	Not Detected
Hexane	3.4	12	Not Detected	Not Detected
Tetrahydrofuran	3.4	10	Not Detected	Not Detected
Cyclohexane	3.4	12	Not Detected	Not Detected
1,4-Dioxane	3.4	12	Not Detected	Not Detected
Bromodichloromethane	3.4	23	Not Detected	Not Detected
4-Methyl-2-pentanone	3.4	14	Not Detected	Not Detected
2-Hexanone	3.4	14	Not Detected	Not Detected
Dibromochloromethane	3.4	30	Not Detected	Not Detected
Bromoform	3.4	36	Not Detected	Not Detected
4-Ethyltoluene	3.4	17	Not Detected	Not Detected
Ethanol	3.4	6.5	Not Detected	Not Detected
Methyl tert-butyl ether	3.4	12	Not Detected	Not Detected
Heptane	3.4	14	Not Detected	Not Detected
Naphthalene	17	91	Not Detected	Not Detected

Container Type: 6 Liter Summa Canister

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	107	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	99	70-130

7/9/03

Site: Clifton Former MGP
Laboratory: Air Toxics LTD, Folsom, CA
Report No.: 0306331
Reviewer: Lorie MacKinnon/GEI Consultants
Date: September 11, 2003

Samples Reviewed and Evaluation Summary

FIELD ID	LAB ID	FRACTIONS VALIDATED
CF-SG-01	0306331-01	VOC TO-15
CF-SG-02	0306331-02	VOC TO-15
CF-SG-03	0306331-03	VOC TO-15
CF-SG-04	0306331-04	VOC TO-15
CF-SG-05	0306331-05	VOC TO-15
CF-SG-06	0306331-06	VOC TO-15
CF-SG-07	0306331-07	VOC TO-15
CF-SG-08	0306331-08	VOC TO-15
CF-SG-09	0306331-09	VOC TO-15
CF-SG-10	0306331-10	VOC TO-15
CF-SG-11	0306331-11	VOC TO-15
CF-SG-12	0306331-12	VOC TO-15
CF-SG-6/11/03	0306331-13	VOC TO-15

QC Samples: Field and Trip Blanks: None associated
Field Duplicate pair: CF-SG-03/CF-SG-6/11/03

The above listed air samples were analyzed for volatile organic compounds by EPA Method TO-15. The data validation was based on the USEPA Contract Laboratory Program National Functional Guidelines for Organic Data Review, EPA 540/R-99/008, dated October 1999.

The organic data were evaluated based on the following parameters:

*	·	Holding Times and Sample Preservation
*	·	Gas Chromatography/Mass Spectrometry (GC/MS) Tunes
*	·	Initial and Continuing Calibrations
*	·	Blanks
	·	Surrogate Recoveries
NA	·	Matrix Spike/Matrix Spike Duplicate (MS/MSD) Results
*	·	Laboratory Duplicate Analysis
NS	·	Internal Standards
*	·	Laboratory Control Sample (LCS) Results
*	·	Field Duplicate Results
NS	·	Target Compound Identification
NS	·	Sample Quantitation and Reported Quantitation Limits

* - All criteria were met.

NS- Not submitted, due to reduced data package deliverable received, these parameters could not be reviewed
NA - Not associated, a matrix spike analysis was not associated with this sample group.

All results were found to be usable. The organic validation recommendations were based on the following information.

Surrogate Recoveries

The following table lists the surrogate recoveries which were outside of control limits and the resulting validation actions.

Sample	Surrogate	Recovery (%)	Control Limits	Actions
CF-SG-08	DCE	134	70-130	Estimate (J7) the positive results in sample CF-SG-08; results may be biased high.
DCE = 1,2-Dichloroethane				