FINAL

INTERIM REMEDIAL MEASURES REPORT

FOR

CARDWELL CONDENSER

LINDENHURST, NEW YORK

NYSDEC REGISTRY # 1-52-035

FOR SUBMITTAL TO

THE NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

PREPARED BY

FPM *group*

909 MARCONI AVENUE

RONKONKOMA, NEW YORK 11779

OCTOBER, 2000

TABLE OF CONTENTS

APPENDICES

SECTION 1.0
INTRODUCTION

1.1 Overview

This Interim Remedial Measures (IRM) Report was prepared by FPM Group (FPM) for the Cardwell Condenser Inactive Hazardous Waste Disposal Site (NYSDEC Registry # 1-52-035) located at 80 East Montauk Highway, Lindenhurst, New York (the Site). The Site location is shown in Figure 1.1.1. The Site was placed on the New York State Department of Environmental Conservation (NYSDEC) Registry of Inactive Hazardous Waste Disposal Sites (IHWDS) as a Class 2 site.

The NYSDEC performed a Phase I Investigation (January, 1986) which was followed by a Phase II Investigation (February, 1990), and a Supplemental Phase II Investigation (December, 1993). During these investigations, seven groundwater monitoring wells were installed at the Site and groundwater samples were obtained and analyzed. Soil samples were also obtained and analyzed. The resulting data indicated that on-site soil and groundwater were impacted by volatile organic compounds (VOCs) and metals. A Remedial Investigation of the Site was recommended.

In October, 1994, FPM obtained additional soil and groundwater samples to evaluate whether the groundwater conditions detected at the Site are conclusively attributable to Site activities and to confirm the presence and concentrations of constituents previously detected in the on-site groundwater. The resulting report, "Groundwater and Soil Investigation Report for the Cardwell Condenser Site, Lindenhurst, New York" was submitted to the NYSDEC in January, 1995.

The NYSDEC reviewed the report and requested that the report's recommendations be presented in a Remedial Investigation (RI) Work Plan. An RI Work Plan was prepared and finalized in February, 1998 after incorporation of comments from the NYSDEC (FPM, January, 1998). The results of the RI were presented to the NYSDEC in an IRM Work Plan in August, 1999 since the obvious remedial step was to remove impacted sediments from the leaching pools.

SCALE: 1" = 2,000'

Fanning, Phillips & Molnar Engineers		
FIGURE 1.1.1 SITE LOCATION MAP CARDWELL CONDENSER LINDENHURST, NEW YORK		
Drawn By: J.S.	Checked By: L.B.	Date: 8/18/98

Based on the results of the RI, it was concluded that Site leaching pools are impacted with VOCs and metals. Low to moderate concentrations of TCL VOCs are present in the groundwater at Site sampling locations, including wells MW-2, MW-8, and MW-9 and the Geoprobe locations GP-7, GP-8, GP-9, and GP-10. The groundwater samples exhibiting exceedances of the NYSDEC standards for VOCs are all located downgradient of VOC-impacted leaching pools. The groundwater flow direction across the Site was calculated to be east-southeast. An exposure assessment was performed and it was concluded that the potential for ingestion, dermal, or inhalation contact with the impacted leaching pool sediments and groundwater was minimal. In addition, the potential for impact to Neguntatogue Creek was also evaluated to be insignificant. Remediation of the VOC-impacted leaching pools was recommended to reduce the potential for impact to groundwater and Neguntatogue Creek. Additional investigation, including installation of two groundwater monitoring wells in the vicinity of GP-9 and sampling of Neguntatogue Creek, was also recommended. The scope of work for remediation and additional investigation was detailed in the August, 1999 IRM Work Plan. The NYSDEC, in a September 15, 1999 letter, also required additional soil sampling in the vicinity of leaching pool LP-14. This report presents the IRM remediation and investigation results.

SECTION 2.0
SITE BACKGROUND AND SETTING

2.1 Site Location

The Site consists of approximately 1.2 acres located at 80 Montauk Highway in Lindenhurst, New York. The Site layout is shown in Figure 2.1.1. Neguntatogue Creek is located east of the Site and flows south into the Great South Bay. Bordering the property to the north is an undeveloped parcel owned by the Village of Lindenhurst. Immediately to the east is Strux, Inc., a small plastics manufacturing facility. The south and west boundaries of the property are formed by East Montauk Highway and Lincoln Avenue, respectively. The surrounding area is primarily residential and light industrial.

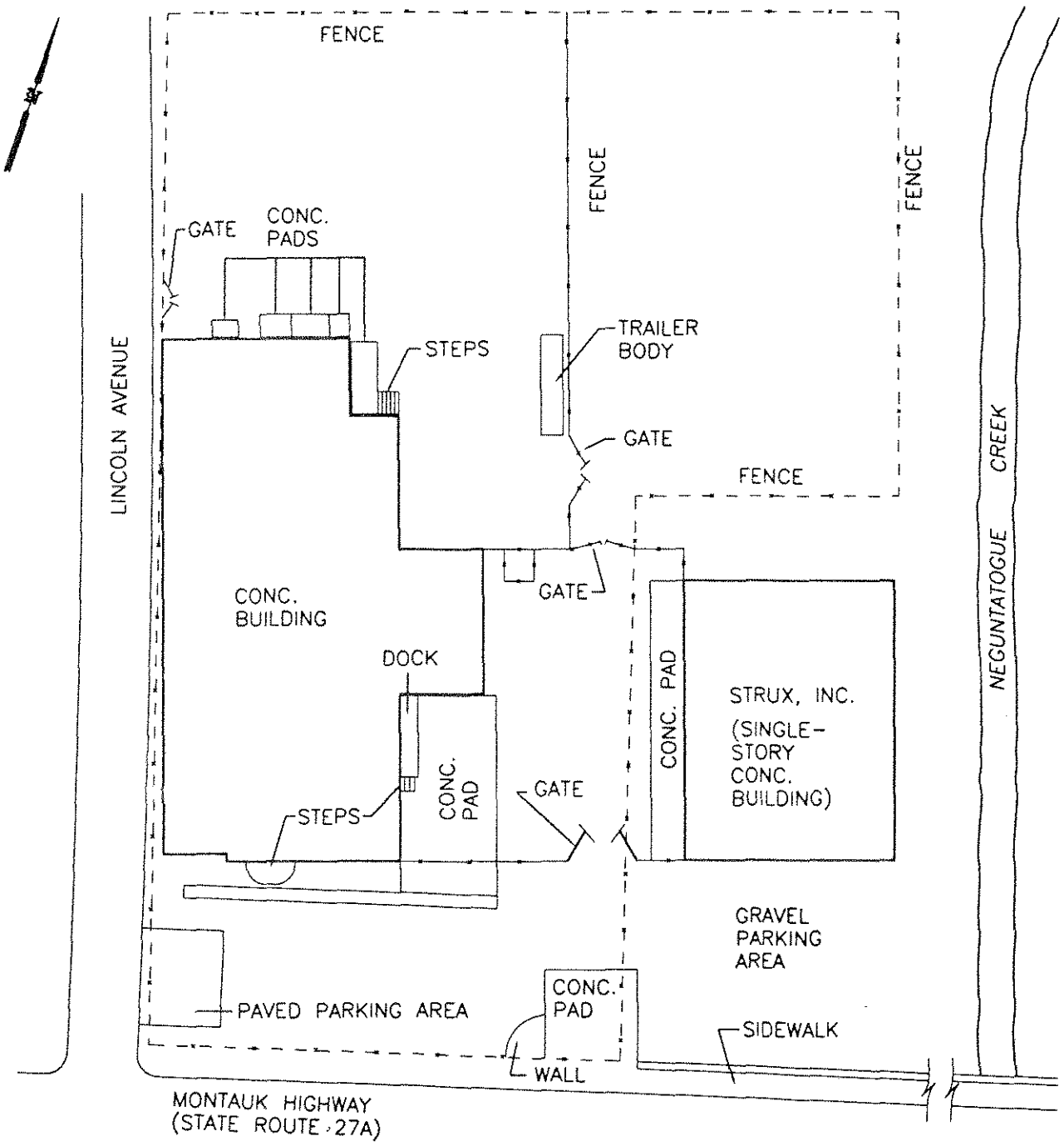
2.2 Environmental Setting

The regional geology and hydrogeology in the vicinity of the Site are typical of Long Island; glacial deposits of Pleistocene age overlie Cretaceous deposits which rest on Precambrian crystalline bedrock. Of importance to this investigation are the Pleistocene deposits which are present in the shallow subsurface beneath the Site.

2.2.1 Regional Geology

Precambrian bedrock is present at approximately 1,650 feet beneath the surface of the Site and is composed of crystalline igneous and metamorphic lithologies.

Cretaceous deposits unconformably overlie the bedrock and consist of the Raritan Formation and the Magothy Formation. The Raritan Formation includes the Lloyd Sand Member and the Raritan Clay Member. The Raritan Formation is present from approximately 1,000 to 1,650 feet beneath the Site. The Lloyd Sand Member is about 500 feet thick and the overlying Raritan Clay is approximately 150 feet thick. The Magothy Formation overlies the Raritan Formation and consists of interbedded fine sands,



SCALE (in feet):

0 25 50

BASE MAP FROM: LAWLER, MATUSKY & SKELLY ENGRS.

Fanning, Phillips & Molnar
Engineers

FIGURE 2.1.1
SITE PLAN
CARDWELL CONDENSER
LINDENHURST, N.Y.

Drawn By: JDS	Checked By: SOD	Date: 12/8/99

H\D-DRIVE\CARDWELL\FIGURE 2.1.1A

silts, and clays, with discontinuous zones of sand and gravel found at various depths. The Magothy Formation is present from approximately 86 to 1000 feet below grade at the Site.

The Pleistocene Gardiners Clay overlies the Magothy Formation and is present from approximately 65 to 86 feet below the Site. The Gardiners Clay is composed of a marine clay with interbedded sand layers and lenses.

The Pleistocene Glacial Deposits overlie the Gardiners Clay and extend from at or near the ground surface to 65 feet below the ground surface at the Site. The Glacial Deposits consist of fine to very coarse sand and gravel.

2.2.2 Regional Hydrogeology

At the Site the hydrogeologic units correspond to the stratigraphic units. Of primary interest is the Upper Glacial Aquifer which is present in the Pleistocene Glacial Deposits. The Gardiners Clay acts as a confining unit between the Upper Glacial Aquifer and the underlying Magothy Aquifer.

Groundwater at the Cardwell Condenser Site is derived solely from precipitation. The Upper Glacial Aquifer is a water table aquifer and depth to water at the Site is approximately five feet below grade. Regional groundwater flow in the Upper Glacial Aquifer in the Site area is generally to the east-southeast.

Groundwater levels were measured in June 1993 in the on-site monitoring wells by an NYSDEC contractor and indicated a southeast groundwater flow direction. Previous groundwater elevation contour maps show a more east-southeasterly groundwater flow direction. Groundwater elevation contours and flow direction may be variable in the Site area due to tidal influences.

2.3 Site History and Previous Investigation Results

Information regarding the Site history and previous investigation results was obtained from the Phase I Investigation report prepared by Woodward-Clyde Consultants, Inc. in 1986, the Phase II Investigation report prepared by Lawler, Matusky & Shelly Engineers in December, 1993, and the Groundwater and Soil Investigation Report prepared by FPM in January, 1995.

2.3.1 Site History

The Site consists of approximately 1.2 acres of land with a 17,000- square-foot manufacturing and office building and a small storage building. The Cardwell Condenser Site, which is owned by Normilt Realty, has been operated as a manufacturing and office facility at this location since 1957. Prior to Cardwell Condenser's occupation of the Site, the two existing Site buildings were used by the Lindenhurst Brewery which operated at the Site from 1933 until the mid-1950s.

Cardwell Condenser manufactures electrical components, including waveguides, variable air capacitors, and microwave equipment. The manufacturing process includes chrome plating of the brass and/or aluminum components. Based on a report prepared by Donnelly Engineering Company in 1972 for a waste disposal permit application, the plating baths used in the manufacturing process at the Site included copper cyanide, silver cyanide, cadmium cyanide, nickel sulfate, chromic acid, other acids (hydrochloric, nitric, and nitric/sulfuric), and sodium cyanide. Cadmium iridite and aluminum iridite were also used as a coating on some parts.

Process wastewater from the plating operations was discharged to a shallow leaching pool located north of the manufacturing building. This pool overflowed into three eight-foot-diameter cesspools located within 30 feet of the shallow leaching pool. To the east of the manufacturing building, additional eight-foot-diameter leaching pools were used for sanitary waste disposal.

In June, 1972 the Suffolk County Department of Environmental Control (SCDEC, now the Suffolk County Department of Health Services, or SCDHS) informed Cardwell Condenser that industrial waste treatment facilities were required at the Site. Donnelly Engineering subsequently designed a wastewater treatment system which was approved by the SCDEC in August, 1974.

Between 1974 and 1985 an estimated 38,000 gallons of treated plating wastewater was discharged to the on-site leaching pools. Additional leaching pools were added as the useful life of the existing leaching pools was exceeded. A Site plan from 1980 shows six industrial leaching pools and eight sanitary leaching pools. The pools are eight or ten feet in diameter and are located at a maximum of four feet below grade due to the shallow groundwater at the Site.

Plating wastewater discharged to the industrial leaching pools (collectively identified as outfall 001) was regulated under State Pollutant Discharge Elimination System (SPDES) permits issued in 1975 and 1980. Industrial and sanitary wastewater discharges at the Site were connected to the Suffolk County Sewer District (SCSD) in June, 1987. Cardwell's SPDES permit was deleted in March, 1988 due to the cessation of on-site industrial wastewater discharges. Due to changes in operations at Cardwell since the connection to the municipal sewer, industrial wastewater is no longer generated.

With the exception of two leaching pools, it was reported that all on-site leaching pools have been backfilled. The leaching pools are reported to receive 500 gallons per day of non-contact cooling water only.

2.3.2 Previous Investigations

In 1986, Woodward-Clyde Consultants, Inc. was contracted by the NYSDEC to perform a Phase I Investigation of the Site. This investigation included data collection and review, preliminary Hazard Ranking Score (HRS) preparation, responsible parties interviews, preliminary hydrogeologic model preparation, work plan development, cost estimation, and summary report preparation. Results from

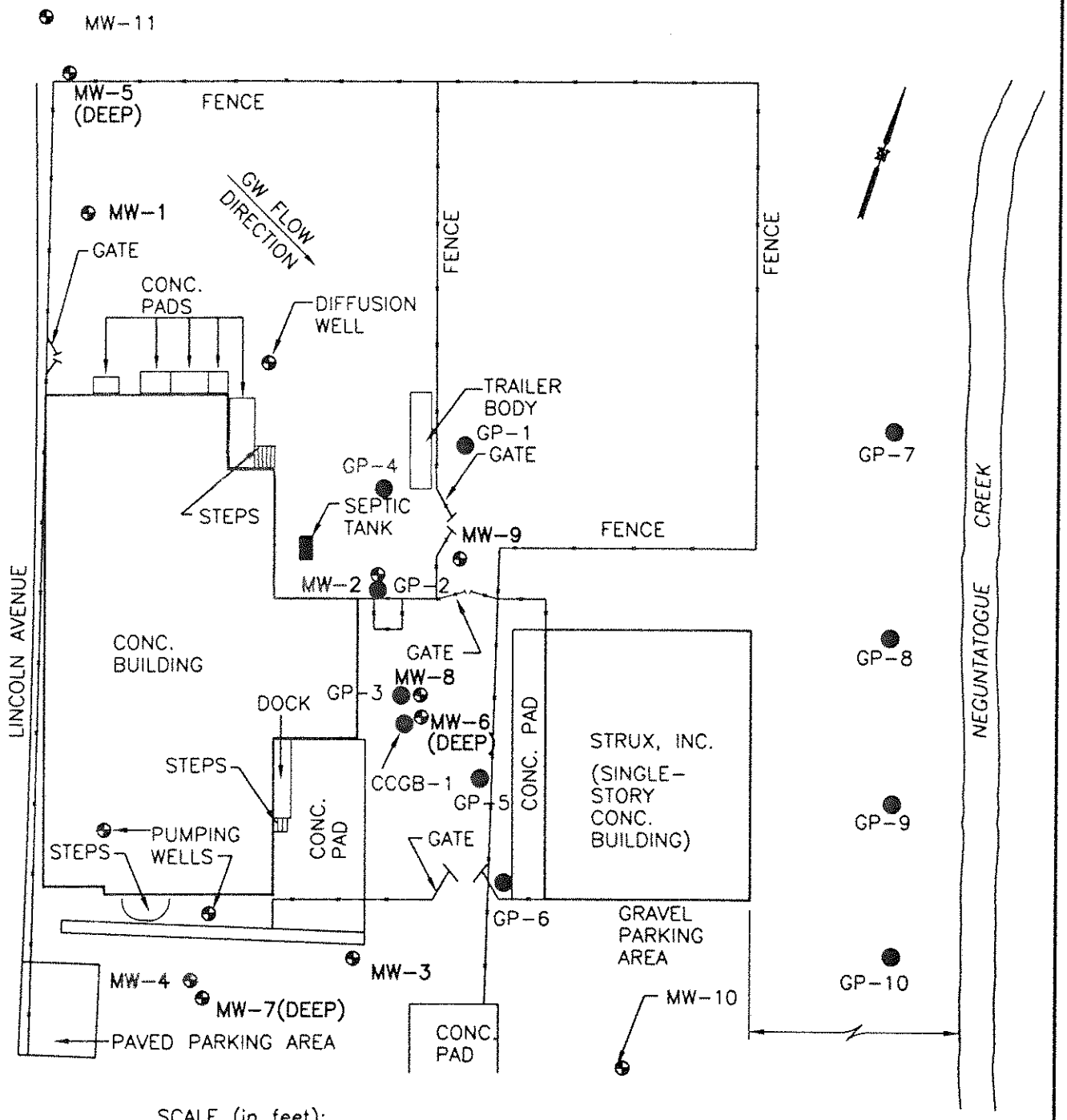
previous analyses of leaching pools indicated the presence of metals, VOCs, acid-extractable organic compounds, and total dissolved solids. The report concluded that the potential existed for contamination of groundwater.

Gibbs & Hill, Inc. was contracted by the NYSDEC in 1986 to conduct a Phase II investigation of the Site. Four groundwater monitoring wells were installed and samples were obtained and analyzed for VOCs, semivolatile organic compounds (SVOCs), metals, pesticides, and polychlorinated biphenyls (PCBs). The samples contained concentrations of VOCs in excess of the NYSDEC Class GA Ambient Water Quality Standards (Standards). However, the upgradient well showed the highest concentrations of VOCs and the results of the groundwater blind duplicate sample were inconsistent. Therefore, the chemical analytical results are considered suspect. No SVOCs, pesticides, or PCBs were detected in the groundwater samples. Low to non-detectable concentrations of metals, including silver, and cyanide were detected. Slightly elevated concentrations of cadmium and nickel were detected. The groundwater flow direction was found to be to the east-southeast. Two soil samples were also collected during this investigation. The chemical analytical results indicated that similar VOCs were detected in the soil samples and the groundwater samples. SVOCs were detected in one soil sample and pesticides were detected in the other soil sample. No PCBs were detected in the soil samples.

In 1992, Lawler, Matusky & Skelly Engineers (LMS) was contracted by the NYSDEC to conduct a Supplemental Phase II Investigation of the Site. The Supplemental Investigation was reported to be intended to collect additional information needed to classify the Site for further action. An additional soil sample was collected and analyzed for total Target Analyte List (TAL) metals and Extraction Procedure (EP) Toxicity metals. Concentrations of cadmium, copper, and lead exceeding eastern U.S. background soil concentration ranges were detected, however, the duplicate analyses were not within control limits.

Iron and zinc concentrations were estimated due to matrix interference. No metals concentrations were detected in exceedance of the EP Toxicity standards. The Site background levels for metals were not established.

Three additional wells (MW-5 through MW-7) were installed and screened at the base of the Upper Glacial Aquifer (60 to 65 feet below grade). The locations of these wells, together with the groundwater sampling locations for other investigations, are shown on Figure 2.3.2.1. All seven groundwater monitoring wells and the two on-site process/potable water supply wells were sampled in May, 1992 and analyzed for Target Compound List (TCL) VOCs, SVOCs, and pesticides/PCBs, TAL metals, cyanide, chemical oxygen demand (COD), total suspended solids (TSS), and total dissolved solids (TDS). The results showed concentrations of 1,2-dichloroethylene and tetrachloroethylene in exceedance of the Standards in well MW-2. Estimated concentrations of vinyl chloride and trichloroethylene also exceeded the standards in CCMW-2. Estimated concentrations of 1,1,1-trichloroethane slightly exceeded the standards at the two potable/process water supply wells on Site. One VOC tentatively identified compound (TIC) was detected in four of the six wells in estimated concentrations in exceedance of the NYSDEC guidance value for individual TICs. No significant concentrations of SVOCs were detected in any of the samples. Only sample MW-2 from the shallow wells contained concentrations of SVOC TICs exceeding NYSDEC guidance values. Several TICs were detected in the deep monitoring wells. The highest concentrations were detected in the sample from well MW-6. Metals detected in all seven wells exceeding the Standards included iron, manganese, and sodium. These metals are likely to be due to naturally-occurring conditions. Low to non-detectable concentrations of cyanide, silver, cadmium, and nickel were detected. No pesticides or PCBs were detected in any of the wells.



Fanning, Phillips & Molnar
Engineers

FIGURE 2.3.2.1
GROUNDWATER SAMPLING LOCATIONS
CARDWELL CONDENSER
LINDENHURST, NEW YORK

Drawn By: H.C., J.S. | Checked By: S.D. | Date: 12/8/99

H\D-DRIVE\CARDWELL\FIGURE 2.3.2.1

In November 1992, the shallow monitoring wells (MW-1 through MW- 4) were resampled by the NYSDEC contractor and analyzed for TCL VOCs and SVOCs, TAL metals, and cyanide. The results show that no VOCs, SVOCs, or TICs were detected in any of the wells above the NYSDEC Class GA standards or guidance values. Numerous metals were detected above the natural ambient groundwater ranges. However, only iron (filtered), lead (unfiltered), manganese (filtered and unfiltered), and zinc (unfiltered) exceeded the Standards. No detectable concentrations of cyanide, silver, or cadmium were noted and only low concentrations of nickel were detected.

Due to inconclusive results from NYSDEC's May and November 1992 sampling rounds, a third sampling effort was performed by the NYSDEC contractor via Geoprobe to collect groundwater samples from varying depths and locations within the aquifer for on-Site analysis using a mobile laboratory. Groundwater samples were obtained from three shallow monitoring wells (MW-1 through MW-3) prior to the Geoprobe investigation. Sixteen additional groundwater samples were collected from six Geoprobe points throughout the Site. The groundwater samples were analyzed for selected VOCs by the mobile laboratory. No VOCs were detected in any of the three monitoring wells above quantitation limits. Samples were obtained from six depths (60, 50, 40, 30, 20, and 10 feet below grade) at Geoprobe locations GP-1 and GP-2. No VOCs were detected in any of the samples obtained at GP-1. The 10 to 12-foot interval from point GP-2 contained concentrations of trichloroethane, 1,2-dichloroethene, and 1,1-dichloroethane exceeding Standards. Ethylbenzene, toluene, xylenes, and vinyl chloride also exceeded the Standards. The 60 to 62-foot interval contained trichloroethene and 1,2-dichloroethane at concentrations slightly above the Standards. The other four intervals at GP-2 contained no detectable concentrations of VOCs. Therefore, the Geoprobe vertical profiling indicated that groundwater impacts at the Site are, in general, limited to the shallow groundwater. Also, there is no evidence to date of a

release of dense non-aqueous phase liquid and, therefore, it appears that the plume consists solely of dissolved VOCs. The Long Island Regional Planning Board's "208 Study" has characterized the Site and vicinity as within Hydrogeologic Zone VII, which is a groundwater discharge area or an area of an upward vertical component of flow which would further inhibit the downward migration of dissolved contaminants.

The remaining four Geoprobe points (GP-3 though GP-6) were sampled at the 10 to 12-foot interval only. Groundwater samples from the following Geoprobe points contained concentrations of selected VOCs in exceedance of Standards: GP-3, tetrachloroethylene and trichloroethene; GP-4, tetrachloroethylene; GP-5, tetrachloroethylene and trichloroethene; and GP-6, tetrachloroethylene and trichloroethene.

Two surface water samples were collected by the NYSDEC contractor from Neguntatogue Creek to determine if groundwater contamination had migrated from the Site to the creek. The samples were analyzed for TCL VOCs and SVOCs, TAL metals, and cyanide. The NYSDEC contractor reported that "Low levels of several VOCs (tetrachloroethene, trichloroethene, 1,2-dichloroethene, 1,1,1-trichloroethane, and 1,1-dichloroethane) were detected. However, these results were inconclusive as to the source of the low-level VOC contamination due to the selection of sampling locations and the similarity in the concentrations detected. No significant SVOC or metals contamination was detected in either surface water sample."

One water sample was collected from the active industrial leaching pool and analyzed for TCL VOCs, SVOCs, pesticides/PCBs, TAL metals, and cyanide. The cooling water discharge samples obtained from the leaching pool were compared to the Standards. The results showed that the trichloroethane concentration and the estimated volatile TIC concentration exceeded their respective

Standard and guidance value. No SVOCs exceeded the Standards, however, one TIC exceeded the NYSDEC guidance value. The metals iron and manganese exceeded the Standards for groundwater. One sediment sample was collected from the same leaching pool and analyzed for the same parameters and EP Toxicity metals. Numerous constituents were detected in the leaching pool sediment, however, all were detected at trace concentrations.

The results of the LMS investigations indicated that a VOC plume is present in the shallow groundwater beneath the Site. LMS recommended that the Site be classified as a Class 2 (significant threat to public health or environment) IHWDS and that an RI be implemented to delineate the extent and magnitude of the contamination present. Recommendations for the RI included a source investigation, additional groundwater investigation, additional surface water sampling, and an area well inventory.

FPM performed a soil and groundwater investigation at the Site in October, 1994. Four soil samples were obtained and analyzed for VOCs and metals. The chemical analytical results indicated that soil in the vicinity of the area where empty drums were stored may be a source for VOC groundwater contamination at the Site and that minor amounts of VOCs have been released to the soil in the vicinity of the area north of the building and may be contributing to groundwater contamination.

Two groundwater wells were also installed and sampled during this investigation. The chemical analytical results showed exceedances of the Standards for VOCs. The groundwater results show that solvents, primarily tetrachloroethylene, are present in the groundwater beneath the Site.

Based on the results of this investigation, FPM recommended additional investigation to determine the extent of soil contamination and an additional groundwater investigation to confirm the groundwater flow direction, evaluate the concentrations of groundwater contaminants at the downgradient edge of the

Site, and evaluate potential impacts to downgradient resources. The recommended additional investigation was performed as an RI.

The RI included a geophysical investigation, soil and sediment sampling, groundwater monitoring well installation and sampling, and Geoprobe groundwater sampling. Based on the geophysical investigation 13 leaching pools (LP-1 through LP-8 and LP-11 through LP-14), one former septic tank, and one catch basin associated with a former roof drain (LP-9) were identified. Sediment samples from leaching pools LP-1 through LP-14 were obtained for the purpose of evaluating potential on-Site sources of soil and/or groundwater contamination and to determine whether remediation of the leaching pools was warranted. Sediment that appeared to be impacted based on visual observations or photoionization detector (PID) readings was encountered in most of the leaching pools examined. TCL VOCs and/or total VOCs exceeded the NYSDEC Recommended Soil Cleanup Objectives (TAGM-4046 Objectives) in LP-1, LP-3, LP-8, LP-11, LP-12, LP-13, and LP-14. Exceedances of the Objectives for select metals (arsenic, chromium, copper, lead, and zinc) were detected in all of the leaching pool sediment samples. Based on the groundwater chemical analytical data (discussed below), it was recommended that the leaching pools exhibiting exceedances of the Objectives for VOCs be remediated. This remediation would also address the leaching pools with the highest metals concentrations.

Two sediment samples were collected from two locations within a former drum storage area at the Site. Both soil samples appeared to be impacted on the basis of visual or PID data. Low concentrations of two VOCs were detected in these samples, however, none of the detected concentrations exceeded their respective Objectives. None of the detected concentrations of select metals exceeded their respective Objectives with the exception of zinc and copper at both locations. No remediation was recommended for these soils since metals contamination of groundwater does not appear to be an issue at this Site.

Two groundwater monitoring wells (MW-10 and MW-11) were also installed at the Site during the RI. Water level data obtained from all of the Site wells indicate that the groundwater flow direction is toward the east and east-southeast in the center of the Site. Groundwater samples were obtained at the newly-installed wells and at the previously-existing monitoring wells designated in the RI work plan. The groundwater monitoring well results show that the two wells with the highest concentrations of total VOCs are MW-8 and MW-9. Detected VOCs in the groundwater include tetrachloroethene and its breakdown products as well as relatively minor amounts of benzene, toluene, chlorobenzene. Both of these wells are located in the central portion of the Site and to the east of the Site building. In addition, both of these wells appear to be downgradient of the leaching pools at the Site. Therefore, it was concluded that the groundwater has been impacted by VOCs as a result of the leaching pools. MW-11, which was installed as an upgradient well, did not show any detections of TCL VOCs; only one tentatively-identified compound was detected. One or more of the select metals were detected in all of the groundwater samples. However, only one detection, chromium at well MW-9, exceeded the Standard and the exceedance was minor.

After determining the groundwater flow direction and evaluating the well sampling data, four Geoprobe groundwater samples were obtained to evaluate the extent of VOC groundwater contamination downgradient of wells MW-8 and MW-9. These samples were obtained along the east Site boundary and indicate that VOC groundwater contamination decreases downgradient of the Site source area. The highest concentration of total VOCs, 880 ug/l, was detected at GP-9 which is located downgradient of well MW-9 and approximately 30 to 50 feet from Neguntatogue Creek.

Based on the results of the RI, it was concluded that elevated concentrations of several TCL VOCs are present at several Site sampling locations, including wells MW-2, MW-8, and MW-9 and the

additional Geoprobe locations GP-7, GP-8, GP-9, and GP-10. The samples exhibiting exceedances of the Standards for VOCs are all located downgradient of the leaching pools. The available data also suggest that groundwater VOC concentrations decrease downgradient of the Site source area, although potential dilution effects associated with the longer screened intervals of the wells in comparison to the shorter sample intervals from the Geoprobe locations may affect the data. Finally, an evaluation of the deep and shallow well results indicates that the VOC impact is confined to the shallow groundwater beneath the Site and highly elevated VOC concentrations that would suggest the present of dense non-aqueous-phase liquid (DNAPL) are not present.

An assessment of possible human and environmental exposure to contaminants found at the Site was performed during the RI. This assessment examined possible human exposure through ingestion, inhalation, and dermal contact. Ingestion or dermal contact with VOC and metal-impacted leaching pool sediment was evaluated to be highly improbable since the contaminated sediment is located at the base of leaching pools within an access-restricted (fenced) area of the Site. The possibility of inhalation exposure is also improbable as no odors, PID readings, or dust was noted at the commencement of the field investigation, indicating that volatilization and/or mass-transport of the contaminants in the sediment is not occurring. Although the potential for exposure to sediment contaminants is negligible, remediation of most of the leaching pools was recommended to prevent potential contaminant migration.

A survey of potential public and private supply wells within one mile downgradient of the Site was conducted to evaluate the potential presence of groundwater receptors. This review indicated that no public water supply wells are located within one mile downgradient of the facility. Information from the NYSDEC database of Long Island wells indicates that no non-public water supply wells are present within one mile of the Site. Based on the results of a visual inspection and information from the Suffolk County

Water Authority, residences and other buildings located within one mile downgradient of the Site are confirmed to be connected to public water supplies.

Due to the groundwater flow direction at the Site, there does not appear to be a potential for groundwater contaminants which may be present at the Site to impact potable water supplies at any residences or other buildings located within one mile of the Site. Due to the fact that no public or private supply wells have been identified within one mile downgradient of the Site, the probability of ingestion of VOC-impacted groundwater is negligible. Similarly, the probability of inhalation or dermal contact is negligible.

Based on the results of the RI, remediation of the VOC-impacted leaching pools was recommended to reduce the potential for impacts to groundwater and Neguntatogue Creek. Additional investigation, including installation and sampling of two downgradient groundwater monitoring wells adjacent to Neguntatogue Creek and sampling of Neguntatogue Creek, was also recommended. The scope of work for remediation and additional investigation was detailed in the August, 1999 IRM Work Plan. The NYSDEC, in a September 15, 1999 letter, also required soil sampling in the vicinity of leaching pool LP-14. The IRM remediation and investigation results are presented in the following section.

SECTION 3.0
INTERIM REMEDIAL MEASURES AND INVESTIGATION

The results of the IRM remediation and investigation, including the quality assurance/quality control procedures, are presented in this section. Remediation and investigation activities were conducted in October and November, 1999 and January 2000.

3.1 Quality Assurance/Quality Control

Quality assurance/quality control (QA/QC) procedures are described in this section. These procedures include environmental sample collection and management procedures and QA/QC sample collection, analysis, and evaluation.

3.1.1 Sample Packaging and Shipment

All samples were transmitted via overnight courier to Severn-Trent Laboratories, a NYSDOH ELAP-approved laboratory. All samples were analyzed by NYSDEC ASP methods with Category B deliverables. The filled and labeled sample bottles were placed in a laboratory-supplied cooler and packed with ice to depress the temperature to four degrees Celsius.

For each day of sampling, a chain-of-custody form was completed and was submitted to the laboratory with the samples to document the sequence of sample possession. A copy of the chain-of-custody form was retained by FPM. The chain-of-custody forms include the project name, FPM's internal project number, the sampler's signature, and the locations, intervals, and analysis parameters requested.

3.1.2 Quality Assurance/Quality Control Samples

Several types of QA/QC samples were obtained during the soil and groundwater sampling. One equipment blank sample was prepared for each equipment type and each matrix type for each day of sampling. The equipment blanks were prepared by pouring laboratory-supplied deionized water through

the sampling apparatus and capturing the liquid in the appropriate sample bottles. The equipment blank samples were tested for the same parameters as the associated matrices. The equipment blank sample results were evaluated to determine the potential for either laboratory or field contamination and attest to the quality of the equipment decontamination procedures.

Equipment blank sample results are presented in Table 3.1.2.1 and the laboratory chemical analytical data are included in Appendix A. Low concentrations of methylene chloride, acetone, and 2-butanone were detected in most of the equipment blank samples and, in the case of one sample, a low concentration of chloroform was detected. In addition, the acetone and 2-butanone detections are B-qualified, indicating that these analytes were detected in the laboratory blank samples. These data indicate that similar low concentrations of methylene chloride, acetone, and/or 2-butanone detected in the associated primary environmental samples may have resulted from either laboratory or field contamination. Since chloroform was not detected in any of the primary environmental samples, it does not appear that potential field or laboratory contamination by chloroform has affected the environmental samples.

Several of the equipment blank samples were also analyzed for metals. Low concentrations of zinc were detected in each of the equipment blank samples and a low concentration of copper was also detected in one equipment blank sample. Each of these detections was below the contract-required detection limit but above the instrument detection limit. These data suggest that similar low detections of zinc and copper in the associated primary environmental samples may have resulted from either field or laboratory contamination and are not necessarily representative of environmental contamination.

Blind duplicate samples were collected for each of the matrices sampled, including two soil samples, one groundwater sample, and one surface water sample. The blind duplicate samples were

TABLE 3.1.2.1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS
QUALITY ASSURANCE/QUALITY CONTROL SAMPLES
CARDWELL CONDENSER SITE
LINDENHURST, NEW YORK

Sample Type	Equipment Blanks					Blind Duplicates								Trip Blanks				
Sample No.	EB-1	EB-2	EB-1	MW-13E	EB-5	Downstream	Downstream (duplicate)	LP-15	LP-150 (duplicate)	LP-15	LP-150 (duplicate)	MW-12A	MW-12C (duplicate)	TB-1	TB-2	Trip Blank-1	MW-13T	TB-5
Sample Date	11/8/99	11/9/99	11/15/99	1/5/00	1/19/00	11/8/99	11/8/99	11/8/99	11/8/99	1/19/00	1/19/00	1/5/00	1/5/00	11/8/99	11/9/99	11/15/99	1/5/00	1/19/00
Target Compound List Volatile Organic Compounds in micrograms per liter								*micrograms per kilogram*				*micrograms per liter*		*micrograms per liter*				
Methylene chloride	0.8 J	0.8 J	3 J	U	U	0.6 J	0.6 J	5,800 JB	93 J	1 J	2 J	U	U	1 J	2 J	0.6 J	0.7 JB	U
Acetone	5 JB	4 JB	3 JB	U	U	5 JB	4 JB	11,000 JB	1,100 JB	6 JB	17 B	U	U	4 JB	2 JB	7 JB	U	U
1,1-Dichloroethane	U	U	U	U	U	0.4 J	0.4 J	U	U	U	U	U	U	U	U	U	U	U
1,2-Dichloroethene (total)	U	U	U	U	U	2 J	2 J	U	290 J	14	2 J	3 J	4 J	U	U	U	U	U
2-Butanone	2 JB	2 JB	4 JB	U	U	2 JB	3 JB	4,500J	1,500 B	3 J	3 J	U	U	2 JB	2 JB	4 JB	U	U
1,1,1-Trichloroethane	U	U	U	U	U	0.5 J	0.5 J	8,000 J	1,200 J	U	U	U	U	U	U	U	U	U
Trichloroethene	U	U	U	U	U	3 J	3 J	14,000 J	1,900	4 J	0.9 J	8 J	U	U	U	U	U	U
Tetrachloroethene	U	U	U	U	U	2 J	2 J	300,000	18,000	76	16	270	260	U	U	U	U	U
Xylene (total)	U	U	U	U	U	0.3 J	0.3 J	U	660 J	0.3 J	U	U	U	0.3 J	U	U	U	U
Chloroform	U	U	15	U	U	U	U	U	U	U	U	U	U	U	U	U	U	U
Toluene	U	U	U	U	U	U	U	2,400 J	350 J	0.4 J	0.4 J	0.5 J	U	U	U	U	U	U
cis-1,3-Dichloropropene	U	U	U	U	U	U	U	U	U	U	U	U	8 J	U	U	U	U	U
Ethylbenzene	U	U	U	U	U	U	U	U	160 J	U	U	0.6 J	U	U	U	U	U	U
4-Methyl-2-pentanone	U	U	U	U	U	U	U	U	U	U	U	2 J	U	U	U	U	U	U
Chlorobenzene	U	U	U	U	U	U	U	U	U	U	U	0.7 J	U	U	U	U	U	U
Styrene	U	U	U	U	U	U	U	U	U	U	U	0.4 J	U	U	U	U	U	U
Benzene	U	U	U	U	U	U	U	U	U	0.5 J	0.4 J	U	U	U	U	U	U	1 J
Select Metals in micrograms per liter								*milligrams per kilogram*				*micrograms per liter*		*micrograms per liter*				
Arsenic	U	U	U	-	U	-	-	1.4	U	U	U	-	-	-	-	-	-	-
Chromium	U	U	U	-	U	-	-	10.1	1.9	9.5	9.3	-	-	-	-	-	-	-
Copper	U	U	U	-	6.1 B	-	-	530	86.6	14.3	15.3	-	-	-	-	-	-	-
Lead	U	U	U	-	U	-	-	134	41.0	1.4	1.5	-	-	-	-	-	-	-
Zinc	11.5 B	5.6 B	3.6 B	-	4.3 B	-	-	713	500	15.1	13.7	-	-	-	-	-	-	-

Notes:

U = Not detected at or above instrument detection limit.
J = Estimated concentration less than the quantitation limit but greater than zero.
\- = Not analyzed.
B = For volatile organic compounds, compound detected in an associated blank sample. For metals, detected concentration was between the instrument detection limit and the contract-required detection limit.

analyzed for the same constituents as their associated parent samples and the results were evaluated to determine the precision of the laboratory analysis.

Blind duplicate sample results are presented in Table 3.1.2.1 together with the results from their associated parent samples. The laboratory chemical analytical data are included in Appendix A. The results from the blind duplicate surface water sample (downstream-D) and groundwater sample (MW-12C) are very similar to those from the parent samples (downstream and MW-12A, respectively). These data attest to the analytical precision of the laboratory. The results of the blind duplicate soil samples (LP-150) are generally lower than those from the primary samples (LP-15), although the analytes detected are generally the same. These data likely reflect the generally non-homogeneous nature of soil samples and do not indicate a lack of analytical precision by the laboratory.

A trip blank sample was submitted with each cooler containing samples for VOC analysis. Trip blank samples consist of filled, preserved, and unopened vials of laboratory water which are kept with the unfilled sample bottles and transported to the laboratory with the filled sample bottles in the coolers. The purpose of the trip blank samples is to provide an indication of the potential for cross-contamination of the VOC samples within the coolers.

Trip blank sample results are presented in Table 3.1.2.1 and the laboratory chemical analytical data are included in Appendix A. Low concentrations of methylene chloride, acetone, and/or 2-butanone were detected in most of the trip blank samples. In the case of one sample, xylene was also detected at a low concentration and, in the case of another sample, benzene was also detected at a low concentration. In addition, the acetone, 2-butanone, and/or methylene chloride results are B-qualified, indicating that these analytes were also detected in laboratory blank samples. These results indicate that similar low concentrations of methylene chloride, acetone, and/or 2-butanone detected in the primary environmental

samples may have resulted from cross-contamination within the coolers or from field or laboratory contamination. In the case of samples collected on November 8, 1999 and January 19, 2000, it is possible that low concentrations of xylene or benzene, respectively, detected in these samples may have resulted from cross-contamination within the coolers or from field or laboratory contamination.

Matrix spike/matrix spike duplicate (MS/MSD) samples consist of field samples spiked with known concentrations of the analytes of interest for the purpose of assessing the effect of the matrix on the reliability of the analytical results. Spiking occurs in the laboratory prior to sample preparation and analysis. One MS/MSD sample was collected per matrix per analytical group.

The MS/MSD results are included in the chemical analytical data packages in Appendix A. Based on information provided by the analytical laboratory, all of the MS/MSD results were within QC limits with the exception of the QC sample associated with the groundwater samples. The percent recovery for the spike compounds carbon disulfide, vinyl acetate, and 2-butanone were outside of criteria limits for this QC sample. Since none of these compounds are of significance with respect to groundwater contamination at this Site, these QC sample results do not present a significant concern. The only issue regarding matrix interference was identified during soil VOC monitoring of compound recoveries. Matrix interference was associated with the LP-3 end-point sample collected on November 9, 1999. This sample was re-extracted and analyzed twice due to the initial results having a surrogate compound out of recovery criteria. Both sets of results exhibited the effects of matrix interference. The initial results are reported in Table 3.2.1 since they are generally higher than the re-extraction results. However, since additional sediment was subsequently removed from this leaching pool and a subsequent end sample obtained, the initial (November 9, 1999) sample results are irrelevant.

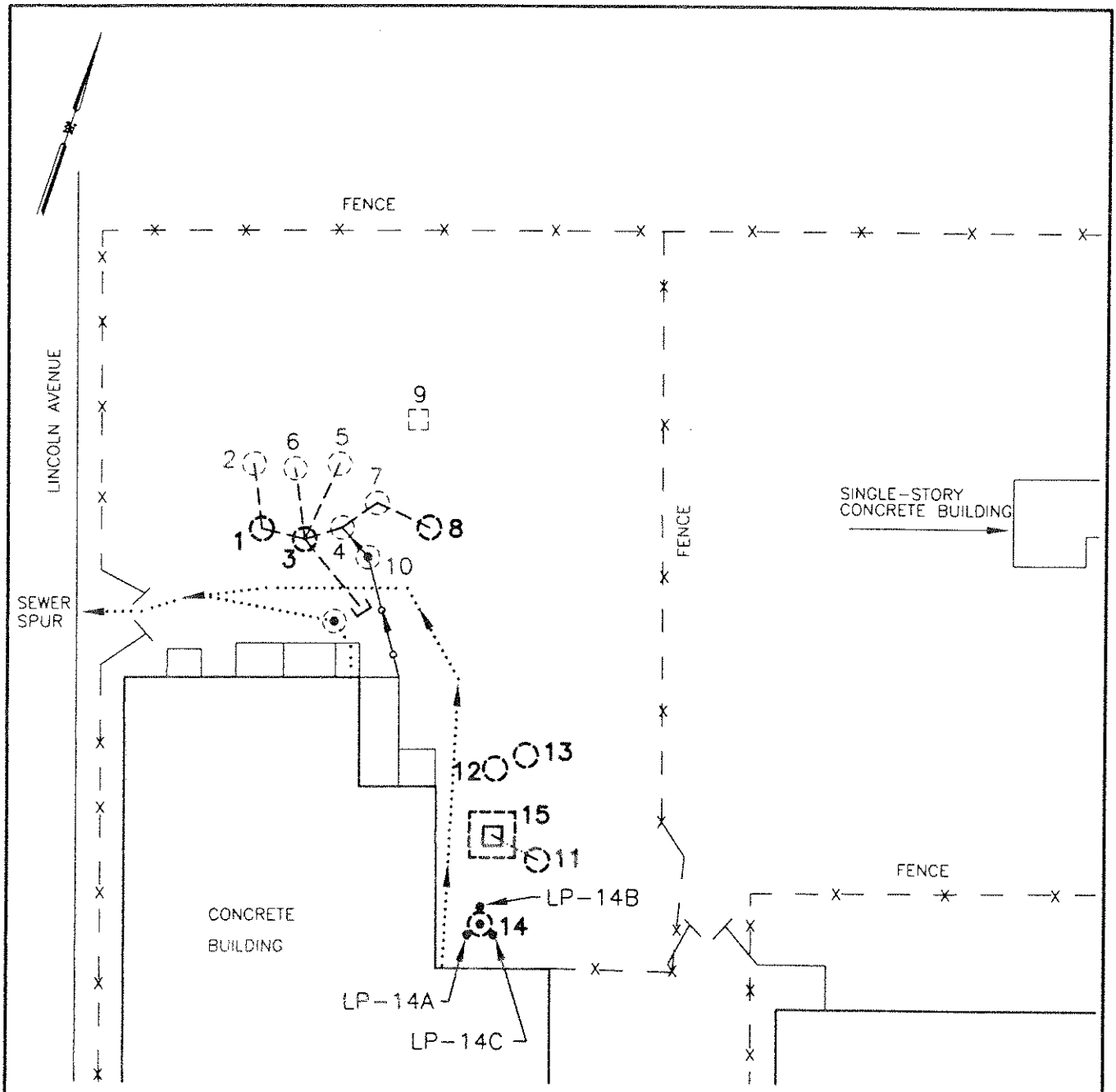
Other laboratory QA/QC samples include method blank samples. The results from these samples are reviewed by the laboratory in their evaluation of the data packages. This review indicates that low concentrations of acetone and 2-butanone were detected in most of the method blank samples. In one case, a low concentration of 4-methyl-2-pentanone and an elevated concentration of methylene chloride were detected, and in another case, low concentrations of 2-hexanone and xylene were detected. The sample results associated with the method blank detections have been B-qualified, indicating the potential for these samples to be impacted by laboratory contamination.

In summary, based on the results of the QA/QC samples, the chemical analytical data from the soil and water samples collected during the investigation and following remediation may generally be relied on. However, low concentrations of methylene chloride, acetone, 2-butanone, and several other VOCs and low concentrations of zinc or copper may be associated with field or laboratory contamination. Therefore, these compounds, where detected at similar low concentrations, may not be present.

3.2 Sediment Removal and Soil Sampling

Chemical analytical results from leaching pool sediment samples collected during the RI indicated that leaching pools LP-1, LP-3, LP-8, LP-11, LP-12, LP-13, and LP-14 contained exceedances of the Objectives for VOCs and/or metals. Leaching pool locations are shown on Figure 3.2.1. Leaching pools LP-6 and LP-9 were not recommended to be remediated. Neither of these pools exhibited elevated concentrations of VOCs and only very minor exceedances of the Objectives were noted for copper and zinc. The NYSDEC accepted these conclusions in a letter to FPM dated December 9, 1998.

For the seven impacted leaching pools, it was proposed to excavate the impacted leaching pool sediments and transport the sediments for disposal at an off-site facility. Remediation commenced on November 8, 1999 and the majority was completed on November 9, 1999. Mr. Robert H. Filkins, an



LEGEND

- 15 — FORMER SEPTIC TANK
- 9 — POSSIBLE CATCH BASIN ASSOCIATED WITH A FORMER ROOF DRAIN
- 2 — LEACHING POOLS (REMEDIATED LEACHING POOLS AND NUMBERS SHOWN IN BOLD)
- NON-CONTACT COOLING WATER
- CURRENT CONNECTIONS
- SEWER CONNECTION
- LP-14A • — SOIL SAMPLE LOCATIONS

SCALE (in feet): 0 20 40

Fanning, Phillips & Molnar
Engineers

FIGURE 3.2.1
LOCATIONS OF LEACHING POOLS AND SOIL SAMPLES
CARDWELL CONDENSER
LINDENHURST, NEW YORK

Drawn By: L.G., J.S.	Checked By: S.D.	Date: 12/8/99

H\D-DRIVE\CARDWELL\FIGURE3.2.1

engineering geologist with the NYSDEC was present on both days to observe the remediation. Based on preliminary end-point sample chemical analytical results, additional remediation of two leaching pools, LP-1 and LP-3, was performed on November 15, 1999 and on January 19, 2000.

In general, at each leaching pool to be remediated, the interior of the pool was accessed by removing the slab covering the pool and the impacted sediments were removed with a backhoe. Removed sediments were stockpiled on plastic sheeting in the vicinity of each leaching pool and liquids associated with the sediments were permitted to drain back into the leaching pool from which they originated. After the liquids had drained sufficiently for the excavated materials to be handled, the materials were moved to an on-Site stockpile which was underlain by plastic sheeting. This stockpile was removed from the Site and properly disposed following remediation. Copies of the waste disposal manifests are included in Appendix B.

Excavation at each leaching pool continued until either visibly-clean native materials were encountered or until the leaching pool was determined to have a potential for collapse. In two cases, LP-14 and LP-15 (which is the septic tank connected to LP-11), proximity of the excavation to the existing Site building foundation initially limited further excavation. In the case of LP-15, additional excavation of impacted material was performed in November, 1999. However, no endpoint sample was collected at that time due to the instability of the excavation and the proximity of the excavation to the Site building. An end-point sample was collected from the former LP-15 location on January 19, 2000 when a portion of the backfill was removed and native material underlying the backfill was sampled.

In general, following completion of the excavations, an end-point soil sample was collected from each leaching pool and analyzed for the constituents of concern: TCL VOCs and select metals (arsenic, chromium, copper, lead, and zinc). Each end-point sample was obtained from the final backhoe bucket

of sediment/soil removed from the leaching pool and was transferred to laboratory-supplied sample jars using a dedicated sampling spoon. The filled sample jars were labeled and the labeled jars were placed in a cooler with ice to depress the sample temperature to four degrees Celsius. A chain of custody form was completed and kept with the filled cooler to document the sequence of sample possession. The filled coolers were transmitted via overnight courier to Severn-Trent Laboratories, a NYSDOH ELAP-approved laboratory. All samples were analyzed by NYSDEC ASP methods with Category B deliverables. The sample results are discussed below.

Based on conversations with the on-site NYSDEC representative, no groundwater sampling was performed at locations where groundwater was encountered during sediment removal since the impacted sediments which were being removed were mixed with the water in the leaching pools during the removal process. The results of the groundwater sampling from wells and Geoprobe sampling points were determined to be more representative of subsurface groundwater conditions at the Site.

Clean fill was placed to grade in each leaching pool for structural stabilization following remediation. The fill placed in leaching pools LP-1 and LP-3 was temporarily removed during the additional remediation performed on November 15, 1999 and on January 19, 2000. The fill placed in LP-15 was also temporarily removed on January 19, 2000 for the purpose of endpoint sampling. This fill was stockpiled separately during the additional remediation process and was replaced into these leaching pools following the additional remediation.

Prior to remediation of LP-14, soil sampling was performed at three locations (LP-14A through LP-14C) surrounding the perimeter of the LP-14 structure as required by the NYSDEC. Each soil sample was obtained from four to six feet below grade (approximately 0 to 2 feet above the water table). A backhoe was used to excavate and obtain the soil sample at each location. At the first sampling location,

the depth to groundwater was first determined by excavation prior to sampling. Subsequent samples were obtained at the same depth as the first sample. The samples were obtained and managed in the same manner as described above for the leaching end-point samples. However, these samples were analyzed for TCL VOCs only.

The results for the leaching pool end-point samples are summarized in Table 3.2.1 and the chemical analytical laboratory reports are included in Appendix A. These data indicate that the leaching pool remediation was successful on the initial attempt for leaching pools LP-8, LP-11, LP-12, LP-13, and LP-14. In each of these cases, the VOC-impacted sediments were removed to the extent that none of the VOCs detected in the end-point samples exceeded the Objectives. Metals contamination was also significantly reduced in these leaching pools. Following remediation, none of the detected metals concentrations exceeded the Objectives with the exception of a slightly elevated concentration of copper in LP-8 and a moderately elevated concentration of zinc in LP-12. As previously discussed, the metals concentrations do not appear to be impacting groundwater and, since the metals concentrations have been significantly reduced in comparison to their initial concentrations, no further work is recommended for these leaching pools.

At LP-1 and LP-3, VOC and metals concentrations were significantly reduced from their initial levels during the first remediation event on November 9, 1999. VOC and metals concentrations were also further reduced at LP-1 following the second remediation event on November 15, 1999. However, concentrations of several VOCs and metals remained above the Objectives following the second remediation event at both LP-1 and LP-3. Therefore, on January 19, 2000 additional soil was removed from beneath both LP-1 and LP-3. Following this remediation event, VOC and metals concentrations were considerably reduced. In the case of LP-1, several VOC concentrations and copper remain slightly

TABLE 3.2.1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS
LEACHING POOL END-POINT SAMPLES
CARDWELL CONDENSER SITE
LINDENHURST, NEW YORK

Sample No.	LP-1			LP-3			LP-8	LP-11	LP-12	LP-13	LP-14	LP-15		NYSDEC Recommended Soil Cleanup Objectives
Sample Date	**11/9/99**	**11/15/99**	**1/19/00**	**11/9/99**	**11/15/99**	**1/19/00**	**11/9/99**	**11/8/99**	**11/8/99**	**11/8/99**	**11/8/99**	**11/8/99**	**1/19/00**	
Target Compound List Volatile Organic Compounds in micrograms per kilogram														
Chloromethane	6,200 J	U	U	U	U	U	U	U	U	U	U	U	U	-
Methylene chloride	**1,100 JB**	**450 J**	U	**220 JB**	**230 J**	2 J	1 J	U	1 J	1 J	1 J	**5,800 JB**	1 J	100
Styrene	U	U	U	U	**280 J**	U	U	U	U	U	U	U	U	-
Acetone	**11,000 JB**	**2,300 B**	**610 J**	**710 JB**	**2,800 B**	U	12	9 JB	35 B	8 JB	27 B	**11,000 JB**	6 JB	200
1,1-Dichloroethane	U	U	U	U	U	U	U	U	0.5 J	U	0.6 J	U	U	200
1,2-Dichloroethene (total)	U	U	U	U	U	U	U	U	1 J	1 J	3 J	U	14	300
2-Butanone	**6,100 J**	**1,600**	**2,500**	**1,400**	**1,800**	U	2 J	2 J	4 J	U	3 J	**4,500 J**	3 J	300
1,1,1-Trichloroethane	U	U	U	U	U	U	U	U	12	2 J	7 J	**8,000 J**	U	800
Trichloroethene	U	U	U	U	U	U	3 J	0.6 J	9 J	2 J	10 J	**14,000 J**	4 J	700
Tetrachloroethene	**240,000**	**19,000**	**3,500**	**5,600**	**15,000**	4 J	48	2 J	67	26	210	**300,000**	76	1,400
Toluene	U	U	U	U	U	0.5 J	0.5 J	U	2 J	U	0.5 J	**2,400 J**	0.4 J	1,500
Carbon disulfide	U	U	U	U	U	U	U	U	U	2 J	U	U	U	2,700
4-Methyl-2- pentanone	U	U	U	U	U	U	1 J	U	U	U	U	U	U	1,000
Ethylbenzene	U	U	U	U	U	U	U	U	1 J	U	U	U	U	5,500
Xylene (total)	U	U	U	U	U	U	U	U	3 J	U	U	U	0.3 J	1,200
Benzene	U	U	U	U	U	0.2 J	U	U	U	U	U	U	0.5 J	60

TABLE 3.2.1 (CONTINUED)
SUMMARY OF CHEMICAL ANALYTICAL RESULTS
LEACHING POOL END-POINT SAMPLES
CARDWELL CONDENSER SITE
LINDENHURST, NEW YORK

Sample No.	LP-1			LP-3			LP-8	LP-11	LP-12	LP-13	LP-14	LP-15		NYSDEC Recommended Soil Cleanup Objectives
Sample Date	**11/9/99**	**11/15/99**	**1/19/00**	**11/9/99**	**11/15/99**	**1/19/00**	**11/9/99**	**11/8/99**	**11/8/99**	**11/8/99**	**11/8/99**	**11/8/99**	**1/19/00**	
Select Metals in milligrams per kilogram														
Arsenic	U	U	0.75 B	U	U	U	U	U	U	U	U	1.4	U	7.5
Chromium	38.2	20.0	20.6	22.3	48.7	32.0	12.4	32.4	1.6	1.0 B	7.4	10.1	9.5	50
Copper	**236**	**121**	**55.1**	**759**	**916**	**61.0**	**26.3**	18.5	10.8	16.8	11.8	**530**	14.3	25
Lead	19.0	10.8	4.5	34.5	84.7	4.9	5.4	2.0	4.0	U	U	134	1.4	200-500*
Zinc	**111**	**59.8**	13.2	**266**	**456**	16.2	18.7	10.7	**53.8**	8.0	14.7	**713**	15.1	20

Notes:

U = Not detected at or above instrument detection limit.
J = Estimated concentration less than the quantitation limit but greater than zero.
B = For volatile organic compounds, compound detected in an associated blank sample. For metals, detected concentration is above the instrument detection limit and below the contract-required detection limit.
-- = Not established.
* = Average background levels for lead in metropolitan or suburban areas near highways typically range from 200 to 500 milligrams per kilogram.
NYSDEC = New York State Department of Environmental Conservation.
Bold values exceed NYSDEC Recommended Soil Cleanup Objectives.

elevated above the NYSDEC Objectives. However, since the concentrations have been significantly reduced relative to the initial concentrations, and since the LP-1 structure has collapsed, making further soil removal impractical, no further remediation work is recommended for LP-1.

In the case of LP-3, VOC concentrations were all reduced below the Objectives. Metals concentrations are also considerably reduced, although the copper concentration remains slightly above the Objective. No further work is recommended for this leaching pool.

At LP-15, several VOC and metals concentrations remained elevated following the first remediation event. Therefore, additional material was removed. On January 19, 2000 backfill placed in the completed excavation was removed so that an endpoint sample could be collected to document the condition of the soil remaining after the second remediation event. Following the second remediation event, VOC and metals concentrations were all reduced to below Objectives. Based on these results, no further work is recommended for leaching pool LP-15.

The results for the soil samples collected from the outside perimeter of leaching pool LP-14 are summarized in Table 3.2.2 and the chemical analytical laboratory data are included in Appendix A. Although low concentrations of several VOCs were detected, no exceedances of the Objectives were noted for any of these soil samples. These data indicate that significant VOC-impacted soil does not appear to be present outside of the leaching pool structures in the vicinity of the water table. The highest concentrations of VOCs were detected in the LP-14C sample which was obtained from the downgradient side of the leaching pool. These results are consistent with the expected behavior of VOC contaminants in the vicinity of leaching pools; the contaminants are anticipated to migrate downward until the water table is encountered and are then anticipated to migrate downgradient with the groundwater flow. Based on these data, no further investigation of the soil outside of the leaching pool structures is recommended.

TABLE 3.2.2
SUMMARY OF CHEMICAL ANALYTICAL RESULTS
LP-14 PERIMETER SOIL SAMPLES
CARDWELL CONDENSER SITE
LINDENHURST, NEW YORK

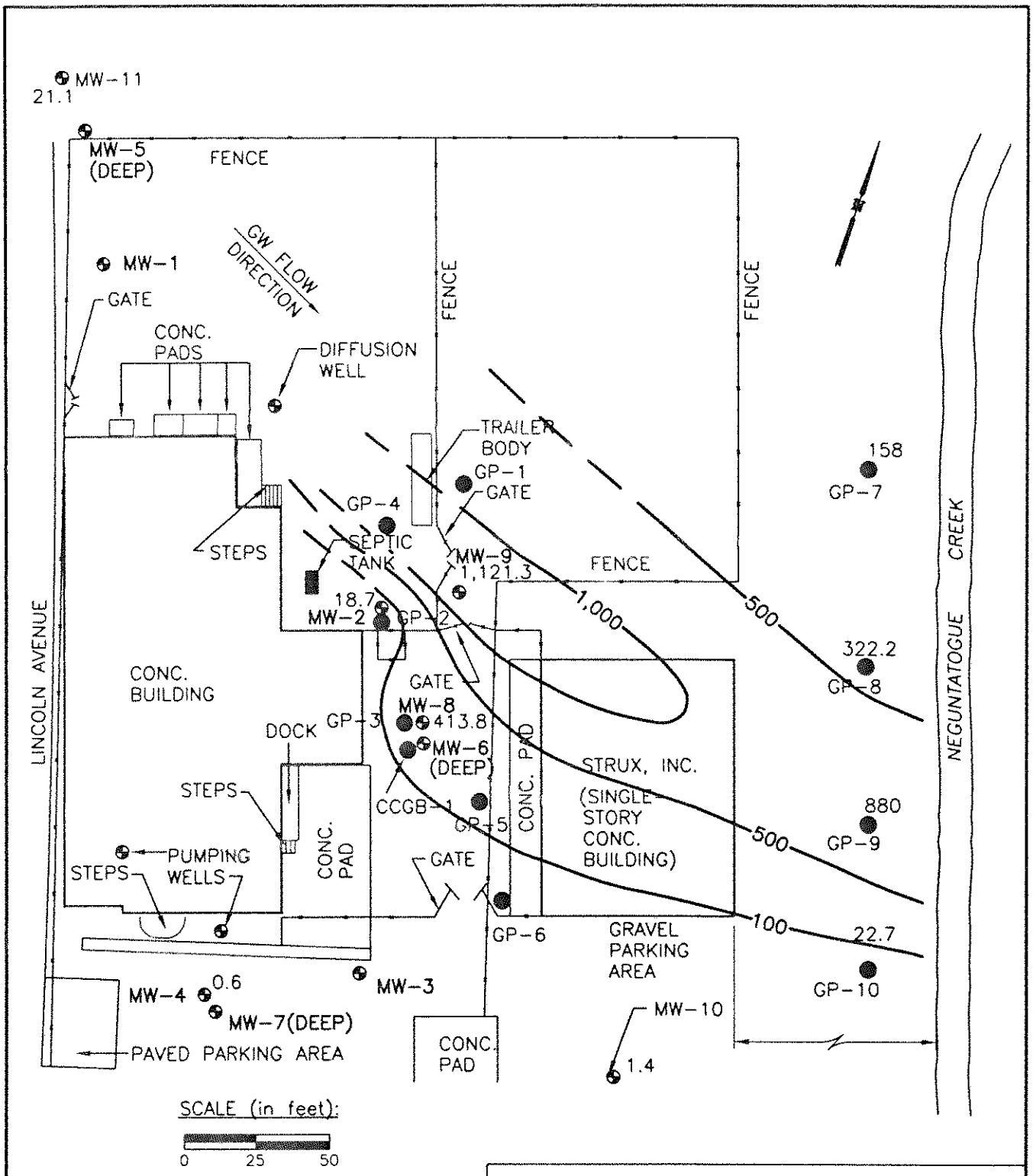
Sample No.	LP-14A	LP-14B	LP-14C	NYSDEC Recommended Soil Cleanup Objectives
Sample Depth (feet)	4 to 6	4 to 6	4 to 6	
Target Compound List Volatile Organic Compounds in micrograms per kilogram				
Methylene chloride	2 J	1 J	1 J	100
Acetone	15 B	14 B	17 B	200
2-Butanone	U	2 J	U	300
Trichloroethene	2 J	2 J	3 J	700
Tetrachloroethene	17	4 J	130	1,400
Toluene	0.5 J	0.5 J	0.3 J	1,500
Ethylbenzene	U	0.4 J	0.3 J	5,500
Xylene (total)	U	0.4 J	0.2 J	1,200
1,2-Dichloroethene (total)	U	U	2 J	300
1,1,1-Trichloroethane	U	U	3 J	800

Notes:
U = Not detected at or above instrument detection limit.
J = Estimated concentration less than the quantitation limit but greater than zero.
B = Compound detected in an associated blank sample.
NYSDEC = New York State Department of Environmental Conservation.

3.3 Groundwater Monitoring Well Installation and Sampling

The previously-obtained groundwater monitoring well and Geoprobe sampling results (Figure 3.3.1) show that the two wells with the highest concentrations of total VOCs are MW-8 (413.8 ug/l) and MW-9 (1,121.3 ug/l) and that the VOC plume axis extends to the east-southeast in the vicinity of Geoprobe location GP-9 where the concentration of total VOCs is 880 ppb. Detected VOCs in the groundwater include tetrachloroethene and its breakdown products as well as relatively minor amounts of benzene, toluene, chlorobenzene. Both of these wells and the GP-9 location are in the central portion of the Site to the east of the Site building and/or downgradient of the impacted leaching pools at the Site. Therefore, it can reasonably be concluded that the groundwater has been impacted by VOCs present in the leaching pool sediments. As discussed previously, there are no downgradient users of potable water and the removal of the source area is likely to result in a significant reduction in groundwater VOC concentrations within a relatively short period of time without the use of active remediation. Therefore, since the groundwater VOC concentrations are moderate and the source area of contamination is to be removed, natural attenuation was selected as the remediation alternative.

FPM proposed the installation of two groundwater monitoring wells to monitor the expected decrease in VOC concentrations. Wells MW-12 and MW-13 were installed on December 16, 1999 approximately 15 feet north and 15 feet south, respectively, of groundwater sample location GP-9. Each well was installed using the hollow-stem auger method to advance the borehole to approximately 10 feet below the water table. A two-inch diameter Schedule 40 PVC monitoring well with a 15-foot-long 0.02-inch slotted screen was installed in each borehole. The bottom of the screens were capped with threaded end caps and the top of each well casing was capped with a locked expansion-fit plug. The screens were installed to extend approximately 10 feet below and two to three feet above the water table. A sufficient



Fanning, Phillips & Molnar
Engineers

FIGURE 3.3.1
TOTAL VOC CONCENTRATION CONTOURS
CARDWELL CONDENSER
LINDENHURST, NEW YORK

Drawn By: H.C., J.S. | Checked By: S.D. | Date: 1/26/00

H\D-DRIVE\CARDWELL\FIGURE 3.3.1 .dwg

length of two-inch diameter Schedule 40 PVC well casing was attached to the top of each screen to bring the top of each well to grade. Each borehole annulus was backfilled with #2 Morie well gravel from approximately one foot below the bottom of the screen to one foot above the top of the screen. An approximately one-foot-thick layer of bentonite was placed above the top of the well gravel and hydrated to form a seal. The balance of the well annulus was backfilled with cement/bentonite grout and a flush-to-grade manhole cover was placed over the top of each well casing for protection.

Borehole and cutting organic vapor concentrations were monitored with a PID during the drilling process and the cuttings were examined to evaluate subsurface lithologies and potential indications of contamination. Observations were recorded on boring logs together with well construction details. Copies of the completed boring logs are included in Appendix C. No indications of contamination were noted based on the visual inspection or PID data.

The wells were developed on December 16, 1999 with a decontaminated submersible pump until the discharged water was visibly clear (turbidity less than 50 nephelometric units). Groundwater sampling was performed at the newly-installed wells on January 5, 2000. Prior to sampling, each well was purged of at least three but no more than five casing volumes of water using a decontaminated pump. Sampling was performed after the turbidity of the discharged water was less than 50 nephelometric units and the parameters pH, conductivity, and temperature had stabilized. Well purging data were recorded on well sampling forms which are included in Appendix C. Following purging, each well was sampled using a dedicated disposable bailer. The retrieved samples were transferred into laboratory-supplied sample bottles and managed as discussed above for the sediment samples. The groundwater samples were analyzed for TCL VOCs.

The results for the groundwater samples are summarized in Table 3.3.1 and the chemical analytical laboratory reports are included in Appendix A. These data indicate that low levels of several VOCs were detected at each of the well locations. However, the only VOCs that exceeded the Standards were trichloroethene (8 ug/l and 20 ug/l at wells MW-12 and MW-13, respectively) and tetrachloroethene (270 ug/l and 6 ug/l at wells MW-12 and MW-13, respectively).

The total VOC concentrations for each well were integrated with the previously-obtained groundwater VOC data and the total VOC concentration contours previously shown in Figure 3.3.1 were modified to reflect the additional data. The revised total VOC contours are shown in Figure 3.3.2. This figure indicates that the plume axis extends to the east-southeast toward the GP-9 location.

Based on the current and previously-obtained groundwater chemical analytical data, it is concluded that the source of the groundwater VOC contamination appears to be the formerly-impacted leaching pools. Since the source area has been removed, it is anticipated that groundwater VOC concentrations will be reduced over time.

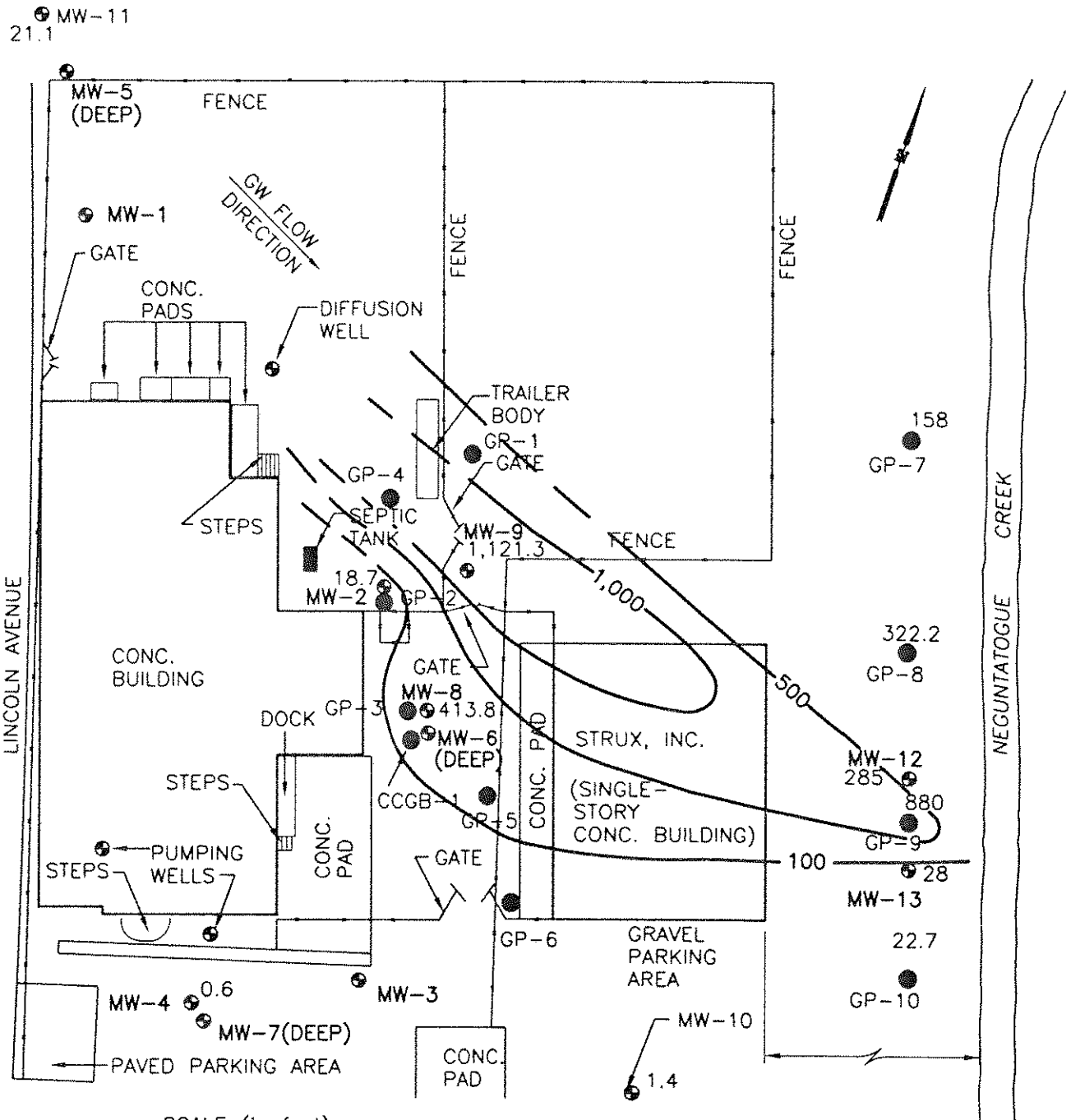
Based on the horizontal groundwater gradient (i = 0.004) derived from groundwater relative elevation data collected in June, 1998 (FPM, August 1999), and the average hydraulic conductivity (k) of Upper Glacial outwash deposits in the Site area (1,100 gallons per day per square foot, USGS, 1964), the estimated linear groundwater velocity (v, where v = ki) in the vicinity of the Site is 0.6 feet per day. At this flow rate, it is estimated that groundwater in the vicinity of the remediated leaching pools will take approximately one year to travel to the vicinity of downgradient monitoring wells MW-12 and MW-13. If the effects of diffusion, dispersivity and chemical retardation are taken into account, additional time will be required for groundwater in the vicinity of wells MW-12 and MW-13 to show the effects of the leaching pool remediation.

TABLE 3.3.1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS
GROUNDWATER SAMPLES
CARDWELL CONDENSER SITE
LINDENHURST, NEW YORK

Sample No.	MW-12	MW-13	NYSDEC Class GA Ambient Water Quality Standards
Sample Date	1/5/00	1/5/00	
Target Compound List Volatile Organic Compounds in micrograms per liter			
Styrene	0.4 J	U	5*
Chlorobenzene	0.7 J	U	5*
Toluene	0.5 J	U	5*
1,2-Dichloroethene (total)	3 J	2 J	5*
4-Methyl-2-pentanone	2 J	U	50**
Trichloroethene	**8 J**	**20**	5*
Tetrachloroethene	**270**	**6 J**	5*
Xylene (total)	0.6 J	U	5*

Notes:

U = Not detected at or above instrument detection limit.
J = Estimated concentration less than the quantitation limit but greater than zero.
* = The Principal Organic Contaminant Standard of 5 micrograms per liter applies to this constituent.
** = The general organic guidance value of 50 micrograms per liter applies to this constituent.
NYSDEC = New York State Department of Environmental Conservation.
Bold values exceed NYSDEC Class GA Ambient Water Quality Standards.



Fanning, Phillips & Molnar
Engineers

FIGURE 3.3.2
TOTAL VOC CONCENTRATION CONTOURS
CARDWELL CONDENSER
LINDENHURST, NEW YORK

Drawn By: H.C., J.S. | Checked By: S.D. | Date: 1/26/00

H:\D-DRIVE\CARDWELL\FIGURE 3.3.2.dwg

Based on the estimated groundwater flow velocity, it is proposed to sample wells MW-12 and MW-13 for VOCs on a bi-annual basis. Wells MW-8 and MW-9, located in the vicinity of the former source area, will also be sampled. If, at any time during the monitoring, the levels of VOCs are found to be sufficiently low, FPM will request the NYSDEC to allow a discontinuation of monitoring and consider de-listing the Site from the registry of IHWDS.

3.4 Neguntatogue Creek Sampling

Since the discharge point of the groundwater from the Site is Neguntatogue Creek, FPM proposed obtaining two surface water samples for VOCs: one upstream of the area of impacted groundwater, and one on the downstream edge of the impacted area. This information can be used to evaluate potential impacts to the creek that may be attributable to the Site. The NYSDEC was also contacted and a freshwater fisheries department representative confirmed that the portion of Neguntatogue Creek in the vicinity of the Site is classified as a Class C stream.

The proposed groundwater samples, identified as "upstream" and "downstream", were collected on November 8, 1999. The samples were collected at approximately 2:00 PM, shortly prior to low tide when the water level in the creek was low and groundwater discharge was anticipated to be at a maximum. The upstream sample was collected near the northeast Site boundary, approximately 300 feet upstream of the GP-9 sample location. The downstream sample was collected in the vicinity of the GP-9 location. The samples were collected by slowly lowering the laboratory-supplied sample bottles in the stream until the bottles were filled. The filled bottles were labeled and managed as discussed above for the sediment samples. The creek samples were analyzed for TCL VOCs.

The results for the creek samples are summarized in Table 3.4.1 and the chemical analytical laboratory reports are included in Appendix A. Low concentrations of several VOCs were detected in both the upstream and downstream samples, however, none of the detected VOCs exceeded the NYSDEC Class C Water Quality Standard. Based on the results of the QA/QC samples discussed in Section 3.1, the methylene chloride, acetone, and 2-butanone detections are likely related to field or laboratory contamination and do not appear to represent surface water contamination. All of the other analytes were detected at similar concentrations in both the upstream and downstream samples.

Based on previous sampling performed by the NYSDEC (see Section 2.3.2), low concentrations of similar VOCs have previously been detected in the creek. These data indicate that low concentrations of VOCs appear to be present in Neguntatogue Creek surface water both upstream and downstream of the Site. No significant impact to the creek appears to be attributable to the Site. This creek is located in a heavily-developed area with numerous industrial properties located upstream of the Site. Since the Site leaching pools have been successfully remediated and groundwater monitoring will be performed on a quarterly basis to track the anticipated reduction in groundwater VOC concentrations, no further monitoring of the creek is recommended.

TABLE 3.4.1
SUMMARY OF CHEMICAL ANALYTICAL RESULTS
NEGUNTATOGUE CREEK SURFACE WATER SAMPLES
CARDWELL CONDENSER SITE
LINDENHURST, NEW YORK

Sample No.	Upstream	Downstream	NYSDEC Class C Water Quality Standards
Sample Date	11/8/99	11/8/99	
Target Compound List Volatile Organic Compounds in micrograms per liter			
Methylene chloride	0.4 J	0.6 J	200
Acetone	4 JB	5 JB	-
1,1-Dichloroethane	U	0.4 J	-
1,2-Dichloroethene (total)	0.6 J	2 J	-
2-Butanone	2 JB	2 JB	-
1,1,1-Trichloroethane	0.4 J	0.5 J	-
Trichloroethene	0.4 J	3 J	40
Tetrachloroethene	0.8 J	2 J	-
Xylene (total)	0.3 J	0.3 J	-

Notes:

U = Not detected at or above instrument detection limit.
J = Estimated concentration less than the quantitation limit but greater than zero.
B = Compound detected in an associated blank sample.
– = Not established.
NYSDEC = New York State Department of Environmental Conservation.

SECTION 4.0
CONCLUSIONS AND RECOMMENDATIONS

4.1 Leaching Pool Remediation

The leaching pools targeted for remediation, including LP-1, LP-3, LP-5, LP-8, and LP-11 through LP-15 have been successfully remediated based on the results of the end-point samples. Leaching pools LP-8, LP-11, LP-12, LP-13, and LP-14 were successfully remediated during the initial attempt and none of the VOCs detected in the end-point samples exceeded the Objectives. LP-15 was successfully remediated following the second remediation effort and none of the VOCs detected in the January 19, 2000 end-point sample exceeded the Objectives. Leaching pools LP-1 and LP-3 required three remediation efforts. For LP-3, none of the VOC concentrations detected in the January 19, 2000 end-point sample exceeded the Objectives. For LP-1, several VOC concentrations remained elevated slightly above Objectives following the third remediation effort. Since the remaining VOC concentrations are significantly reduced relative to the initial concentrations and since the LP-1 structure has collapsed, making further remediation impractical, no further remediation is recommended for LP-1. Metals concentrations in all of the remediated leaching pools were also significantly reduced. Following remediation, the VOC-impacted sediments were removed and properly disposed offsite as documented by manifests included in Appendix B. No further leaching pool remediation is recommended.

Based on the results from the three soil samples collected from the outside perimeter of leaching pool LP-14, it appears that significant VOC-impacted soil is not present outside of the leaching pool structures in the vicinity of the water table. Although low concentrations of VOCs were detected, no exceedances of the Objectives were noted for any of the soil samples. These results are consistent with the expected behavior of VOCs in the vicinity of leaching pools; the VOCs are anticipated to migrate

downward until the water table is encountered and are then anticipated to migrate downgradient with the groundwater flow. No further investigation of the soil outside of the leaching pool structures is recommended.

4.2 Groundwater Monitoring

Groundwater monitoring wells MW-12 and MW-13 were installed and sampled. Based on an evaluation of the previous and recent sampling results, it appears that the groundwater VOC plume extends to the east-southeast downgradient of the leaching pool area and the axis is located in the vicinity of former sampling location GP-9. The source of the VOC plume appears to be the leaching pools that have now been remediated.

It is estimated that the effects of leaching pool remediation will not be observed in downgradient monitoring wells MW-12 and MW-13 for at least a year. Based on this information, it is proposed to monitor wells MW-12 and MW-13 on a bi-annual basis. Wells MW-8 and MW-9, located near the former source area, will also be sampled. If the concentrations of VOCs are found to be sufficiently low, FPM will request that the NYSDEC allow monitoring to be discontinued and to consider delisting of the Site from the registry of IHWD sites.

4.3 Neguntatogue Creek

Neguntatogue Creek is classified as a Class C stream by the NYSDEC. The results of the surface water samples collected from Neguntatogue Creek at near low tide indicate that low concentrations of several VOCs were detected both upstream and downstream of the Site. None of the detected concentrations exceeds the applicable NYSDEC Standards. No significant impact to the creek appears to originate from the Site. Since the on-Site VOC sources have been remediated, VOC concentrations in groundwater are anticipated to decrease. Therefore, no further monitoring of the creek is warranted.

4.4 Reclassification of Site

The Site is presently classified by the NYSDEC as a Class 2 site, which is characterized as a site which presents a "significant threat to the public health or environment - action required." This classification was warranted due to the presence of contamination in the Site leaching pools which had impacted Site groundwater. However, since the leaching pools have been successfully remediated, the source of groundwater contamination has been removed. In addition, the results of a receptor survey and sampling of Neguntatogue Creek have shown that the impacted groundwater, which will continue to be monitored, does not pose a threat to public health or the environment. Therefore, FPM recommends that the NYSDEC reclassify this Site to a Class 4 site, which includes sites that are properly closed but which require continued management. A classification of 4 more accurately represents the current status of this Site.

SECTION 5.0
REFERENCES

Fanning, Phillips and Molnar, August, 1999, Interim Remedial Measures Work Plan for Cardwell Condenser, Lindenhurst, New York, NYSDEC Registry #1-52-035.

Fanning, Phillips and Molnar, January, 1995, Groundwater and Soil Investigation Report for the Cardwell Condenser Site, Lindenhurst, New York.

Gibbs and Hill, Inc., February, 1990, Phase II Investigation Cardwell Condenser Site No. 152035, Village of Lindenhurst, Suffolk County.

Lawler, Matusky & Skelly Engineers, December, 1993, Phase II Investigation, Cardwell Condenser Corporation, Site No. 152035, Village of Lindenhurst, Suffolk County.

New York State Department of Environmental Conservation, September 15, 1999 letter from Robert Filkins to Peter Dermody, Fanning, Phillips and Molnar.

U.S. Geological Survey, 1964. Hydrology of the Babylon-Islip Area, Suffolk County, Long Island, New York. U.S. Geological Survey Water-Supply Paper 1768.

Woodward-Clyde Consultants, Inc., January 1986, Phase I Investigations, Cardwell Condenser Corporation, Town of Lindenhurst, Suffolk County, New York, NYSDEC Site No. 152035.

APPENDIX A

LABORATORY CHEMICAL ANALYTICAL

DATA PACKAGES

FPM

Committed To *Your* Success

December 10, 1999

Severn Trent Laboratories
200 Monroe Turnpike
Monroe, Connecticut 06468

Tel: (203) 261-4458
Fax: (203) 268-5346
www.stl-inc.com

Ms. Stephanie Davis
FANNING PHILLIPS + MOLNAR
909 Marconi Avenue
Ronkonkoma, NY 11779

Dear Ms. Davis :

Please find enclosed the analytical results of 31 sample(s) received at our laboratory on November 9-16, 1999. This report contains sections addressing the following information at a minimum:

- sample summary
- analytical methodology
- state certifications
- definition of data qualifiers and terminology
- analytical results
- chain-of-custody

STL Report #7099-2987A	
Project ID: CARDWELL CONDENSER	

Copies of this analytical report and supporting data are maintained in our files for a minimum of five years unless special arrangements have been made. Unless specifically indicated, all analytical testing was performed at this laboratory location and no portion of the testing was subcontracted.

We appreciate your selection of our services and welcome any questions or suggestions you may have relative to this report. Please contact your customer service representative at (203) 261-4458 for any additional information. Thank you for utilizing our services; we hope you will consider us for your future analytical needs.

I have reviewed and approved the enclosed data for final release.

Very truly yours,

Marsha K. Curran

Jeffrey C. Curran
Laboratory Manager

JCC

7099-2987A

FANNING PHILLIPS & MOLNAR

Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Metals - ICAP metals were determined by ICP using a JA61E trace ICAP according to the USEPA CLP 4.0 SOW.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Volatile Organics - Volatile organics were determined by purge and trap GC/MS using NYSDEC '95 Protocols. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett-Packard Model 5970A/5971A GC/MS/DS.

Sample Calculation:

Sample ID - LP-14C
Compound - Tetrachloroethene

$$\frac{(2780100)(250)}{(1799857)(.700)(5)(.87)} = 126.82 = 130 \text{ UG/KG.}$$

The following samples were analyzed as medium level soils due to high target compound concentrations:

LP-15 END	1:20
LP-150 END	STRAIGHT
LP-3 END	STRAIGHT
LP-3 ENDRE	STRAIGHT
LP-1 END	1:10
LP-1	STRAIGHT
LP-3	STRAIGHT

Sample LP-3 END was analyzed twice due to results having a surrogate out of criteria. Both analyses were reported since matrix interference was proven.

TABLE VO-1.0
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	UPSTREAM	DOWNSTREAM	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKO4	992987A-04	992987A-05	
Method Blank I.D.	VBLKO4	VBLKO4	VBLKO4	
Quant. Factor	1.00	1.00	1.00	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	.4J	.6J	10
Acetone	5J	4JB	5JB	10
Carbon Disulfide	U	U	U	10
1,1-Dichloroethene	U	U	U	10
1,1-Dichloroethane	U	U	.4J	10
1,2-Dichloroethene (total)	U	.6J	2J	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	2J	2JB	2JB	10
1,1,1-Trichloroethane	U	.4J	.5J	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	U	.4J	3J	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	U	U	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	.8J	2J	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	U	U	U	10
Chlorobenzene	U	U	U	10
Ethylbenzene	U	U	U	10
Styrene	U	U	U	10
Xylene (total)	U	.3J	.3J	10
Date Received		11/09/99	11/09/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/09/99	11/09/99	11/09/99	

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
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	EB-1	DOWNSTREAM D	TB-1	Quant. Limits with no Dilution
Lab Sample I.D.	992987A-10	992987A-12	992987A-13	
Method Blank I.D.	VBLKO4	VBLKO4	VBLKO4	
Quant. Factor	1.00	1.00	1.00	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	.8J	.6J	1J	10
Acetone	5JB	4JB	4JB	10
Carbon Disulfide	U	U	U	10
1,1-Dichloroethene	U	U	U	10
1,1-Dichloroethane	U	.4J	U	10
1,2-Dichloroethene (total)	U	2J	U	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	2JB	3JB	2JB	10
1,1,1-Trichloroethane	U	.5J	U	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	U	3J	U	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	U	U	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	2J	U	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	U	U	U	10
Chlorobenzene	U	U	U	10
Ethylbenzene	U	U	U	10
Styrene	U	U	U	10
Xylene (total)	U	.3J	.3J	10
Date Received	11/09/99	11/09/99	11/09/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/09/99	11/09/99	11/09/99	

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-1.2
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	DOWNSTREAM MS	DOWNSTREAM MSD	Quant. Limits with no Dilution
Lab Sample I.D.	VBLK05	992987A-05MS	992987A-05 MSD	
Method Blank I.D.	VBLK05	VBLK05	VBLK05	
Quant. Factor	1.00	1.00	1.00	
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	10
Acetone	2J	U	U	10
Carbon Disulfide	U	U	U	10
1,1-Dichloroethene	U	45X	45X	10
1,1-Dichloroethane	U	U	U	10
1,2-Dichloroethene (total)	U	3J	3J	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	1J	2JB	2JB	10
1,1,1-Trichloroethane	U	U	U	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	U	51X	51X	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	50X	49X	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	3J	3J	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	U	49X	49X	10
Chlorobenzene	U	48X	48X	10
Ethylbenzene	U	U	U	10
Styrene	U	U	U	10
Xylene (total)	U	U	U	10
Date Received		11/09/99	11/09/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/10/99	11/10/99	11/10/99	

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-1.3
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKO7 VBLKO7 1.00	EB-2 992987A-15 VBLKO7 1.00	TB-2 992987A-16 VBLKO7 1.00	Quant. Limits with no Dilution
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	.8J	2J	10
Acetone	7J	4JB	2JB	10
Carbon Disulfide	U	U	U	10
1,1-Dichloroethene	U	U	U	10
1,1-Dichloroethane	U	U	U	10
1,2-Dichloroethene (total)	U	U	U	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	3J	2JB	2JB	10
1,1,1-Trichloroethane	U	U	U	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	U	U	U	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	U	U	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	U	U	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	U	U	U	10
Chlorobenzene	U	U	U	10
Ethylbenzene	U	U	U	10
Styrene	U	U	U	10
Xylene (total)	U	U	U	10
Date Received		11/10/99	11/10/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/10/99	11/10/99	11/10/99	

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-1.4
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D. Lab Sample I.D. Method Blank I.D. Quant. Factor	Method Blank VBLKOO VBLKOO 1.00	EB-1 992987A-21 VBLKOO 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	U	3J		10
Acetone	4J	3JB		10
Carbon Disulfide	U	U		10
1,1-Dichloroethene	U	U		10
1,1-Dichloroethane	U	U		10
1,2-Dichloroethene (total)	U	U		10
Chloroform	U	15		10
1,2-Dichloroethane	U	U		10
2-Butanone	5J	4JB		10
1,1,1-Trichloroethane	U	U		10
Carbon Tetrachloride	U	U		10
Bromodichloromethane	U	U		10
1,2-Dichloropropane	U	U		10
cis-1,3-Dichloropropene	U	U		10
Trichloroethene	U	U		10
Dibromochloromethane	U	U		10
1,1,2-Trichloroethane	U	U		10
Benzene	U	U		10
trans-1,3-Dichloropropene	U	U		10
Bromoform	U	U		10
4-Methyl-2-Pentanone	U	U		10
2-Hexanone	U	U		10
Tetrachloroethene	U	U		10
1,1,2,2-Tetrachloroethane	U	U		10
Toluene	U	U		10
Chlorobenzene	U	U		10
Ethylbenzene	U	U		10
Styrene	U	U		10
Xylene (total)	U	U		10
Date Received		11/16/99		
Date Extracted	N/A	N/A		
Date Analyzed	11/17/99	11/17/99		

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.

TABLE VO-1.5
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Aqueous

All values are ug/L.

Client Sample I.D.	Method Blank	TRIP BLANK-1		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKOQ	992987A-20		
Method Blank I.D.	VBLKOQ	VBLKOQ		
Quant. Factor	1.00	1.00		
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U		10
Methylene Chloride	U	.6J		10
Acetone	7J	7JB		10
Carbon Disulfide	U	U		10
1,1-Dichloroethene	U	U		10
1,1-Dichloroethane	U	U		10
1,2-Dichloroethene (total)	U	U		10
Chloroform	U	U		10
1,2-Dichloroethane	U	U		10
2-Butanone	4J	4JB		10
1,1,1-Trichloroethane	U	U		10
Carbon Tetrachloride	U	U		10
Bromodichloromethane	U	U		10
1,2-Dichloropropane	U	U		10
cis-1,3-Dichloropropene	U	U		10
Trichloroethene	U	U		10
Dibromochloromethane	U	U		10
1,1,2-Trichloroethane	U	U		10
Benzene	U	U		10
trans-1,3-Dichloropropene	U	U		10
Bromoform	U	U		10
4-Methyl-2-Pentanone	U	U		10
2-Hexanone	U	U		10
Tetrachloroethene	U	U		10
1,1,2,2-Tetrachloroethane	U	U		10
Toluene	U	U		10
Chlorobenzene	U	U		10
Ethylbenzene	U	U		10
Styrene	U	U		10
Xylene (total)	U	U		10
Date Received		11/16/99		
Date Extracted	N/A	N/A		
Date Analyzed	11/18/99	11/18/99		

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-1.6
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	LP-14A	LP-14B	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKS	992987A-01	992987A-02	
Method Blank I.D.	VBLKKS	VBLKKS	VBLKKS	
Quant. Factor	1.00	1.18	1.11	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	2J	1J	10
Acetone	4J	15B	14B	10
Carbon Disulfide	U	U	U	10
1,1-Dichloroethene	U	U	U	10
1,1-Dichloroethane	U	U	U	10
1,2-Dichloroethene (total)	U	U	U	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	U	U	2J	10
1,1,1-Trichloroethane	U	U	U	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	U	2J	2J	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	U	U	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	17	4J	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	U	.5J	.5J	10
Chlorobenzene	U	U	U	10
Ethylbenzene	U	U	.4J	10
Styrene	U	U	U	10
Xylene (total)	U	U	.4J	10
Date Received		11/09/99	11/09/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/11/99	11/11/99	11/11/99	

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 VO-1.7
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	LP-14C	LP-14 END	LP-13 END	Quant. Limits with no Dilution
Lab Sample I.D.	992987A-03	992987A-06	992987A-11	
Method Blank I.D.	VBLKKS	VBLKKS	VBLKKS	
Quant. Factor	1.18	1.19	1.19	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	1J	1J	1J	10
Acetone	17B	27B	8JB	10
Carbon Disulfide	U	U	2J	10
1,1-Dichloroethene	U	U	U	10
1,1-Dichloroethane	U	.6J	U	10
1,2-Dichloroethene (total)	2J	3J	1J	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	U	3J	U	10
1,1,1-Trichloroethane	3J	7J	2J	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	3J	10J	2J	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	U	U	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	130	210	26	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	.3J	.5J	U	10
Chlorobenzene	U	U	U	10
Ethylbenzene	.3J	U	U	10
Styrene	U	U	U	10
Xylene (total)	.2J	U	U	10
Date Received	11/09/99	11/09/99	11/09/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/11/99	11/11/99	11/12/99	

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 VO-1.8
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	LP-11 END			Quant. Limits with no Dilution
Lab Sample I.D.	992987A-14			
Method Blank I.D.	VBLKKS			
Quant. Factor	1.08			
Chloromethane	U			10
Bromomethane	U			10
Vinyl Chloride	U			10
Chloroethane	U			10
Methylene Chloride	U			10
Acetone	9JB			10
Carbon Disulfide	U			10
1,1-Dichloroethene	U			10
1,1-Dichloroethane	U			10
1,2-Dichloroethene (total)	U			10
Chloroform	U			10
1,2-Dichloroethane	U			10
2-Butanone	2J			10
1,1,1-Trichloroethane	U			10
Carbon Tetrachloride	U			10
Bromodichloromethane	U			10
1,2-Dichloropropane	U			10
cis-1,3-Dichloropropene	U			10
Trichloroethene	.6J			10
Dibromochloromethane	U			10
1,1,2-Trichloroethane	U			10
Benzene	U			10
trans-1,3-Dichloropropene	U			10
Bromoform	U			10
4-Methyl-2-Pentanone	U			10
2-Hexanone	U			10
Tetrachloroethene	2J			10
1,1,2,2-Tetrachloroethane	U			10
Toluene	U			10
Chlorobenzene	U			10
Ethylbenzene	U			10
Styrene	U			10
Xylene (total)	U			10
Date Received	11/09/99			
Date Extracted	N/A			
Date Analyzed	11/12/99			

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 VO-1.9
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	LP-11 END MS	LP-11 END MSD	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKKT	992987A-14MS	992987A-14 MSD	
Method Blank I.D.	VBLKKT	VBLKKT	VBLKKT	
Quant. Factor	1.00	1.08	1.08	
Chloromethane	U	U	U	10
Bromomethane	U	U	U	10
Vinyl Chloride	U	U	U	10
Chloroethane	U	U	U	10
Methylene Chloride	U	1J	U	10
Acetone	U	25	11	10
Carbon Disulfide	U	U	U	10
1,1-Dichloroethene	U	56X	51X	10
1,1-Dichloroethane	U	U	U	10
1,2-Dichloroethene (total)	U	U	U	10
Chloroform	U	U	U	10
1,2-Dichloroethane	U	U	U	10
2-Butanone	U	2J	3J	10
1,1,1-Trichloroethane	U	U	U	10
Carbon Tetrachloride	U	U	U	10
Bromodichloromethane	U	U	U	10
1,2-Dichloropropane	U	U	U	10
cis-1,3-Dichloropropene	U	U	U	10
Trichloroethene	U	51X	50X	10
Dibromochloromethane	U	U	U	10
1,1,2-Trichloroethane	U	U	U	10
Benzene	U	53X	52X	10
trans-1,3-Dichloropropene	U	U	U	10
Bromoform	U	U	U	10
4-Methyl-2-Pentanone	U	U	U	10
2-Hexanone	U	U	U	10
Tetrachloroethene	U	.5J	.6J	10
1,1,2,2-Tetrachloroethane	U	U	U	10
Toluene	U	50X	51X	10
Chlorobenzene	U	50X	49X	10
Ethylbenzene	U	U	U	10
Styrene	U	U	U	10
Xylene (total)	U	U	U	10
Date Received		11/09/99	11/09/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/12/99	11/12/99	11/12/99	

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 VO-1.10
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL 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	LP-8 END 992987A-17 VBLKKT 1.23			Quant. Limits with no Dilution
Chloromethane	U			10
Bromomethane	U			10
Vinyl Chloride	U			10
Chloroethane	U			10
Methylene Chloride	1J			10
Acetone	12			10
Carbon Disulfide	U			10
1,1-Dichloroethene	U			10
1,1-Dichloroethane	U			10
1,2-Dichloroethene (total)	U			10
Chloroform	U			10
1,2-Dichloroethane	U			10
2-Butanone	2J			10
1,1,1-Trichloroethane	U			10
Carbon Tetrachloride	U			10
Bromodichloromethane	U			10
1,2-Dichloropropane	U			10
cis-1,3-Dichloropropene	U			10
Trichloroethene	3J			10
Dibromochloromethane	U			10
1,1,2-Trichloroethane	U			10
Benzene	U			10
trans-1,3-Dichloropropene	U			10
Bromoform	U			10
4-Methyl-2-Pentanone	1J			10
2-Hexanone	U			10
Tetrachloroethene	48			10
1,1,2,2-Tetrachloroethane	U			10
Toluene	.5J			10
Chlorobenzene	U			10
Ethylbenzene	U			10
Styrene	U			10
Xylene (total)	U			10
Date Received	11/10/99			
Date Extracted	N/A			
Date Analyzed	11/12/99			

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 VO-1.11
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL 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 VBLKKU VBLKKU 1.00	LP-12 END 992987A-09 VBLKKU 1.15		Quant. Limits with no Dilution
Chloromethane	U	U		10
Bromomethane	U	U		10
Vinyl Chloride	U	U		10
Chloroethane	U	U		10
Methylene Chloride	U	1J		10
Acetone	9J	35B		10
Carbon Disulfide	U	U		10
1,1-Dichloroethene	U	U		10
1,1-Dichloroethane	U	.5J		10
1,2-Dichloroethene (total)	U	1J		10
Chloroform	U	U		10
1,2-Dichloroethane	U	U		10
2-Butanone	U	4J		10
1,1,1-Trichloroethane	U	12		10
Carbon Tetrachloride	U	U		10
Bromodichloromethane	U	U		10
1,2-Dichloropropane	U	U		10
cis-1,3-Dichloropropene	U	U		10
Trichloroethene	U	9J		10
Dibromochloromethane	U	U		10
1,1,2-Trichloroethane	U	U		10
Benzene	U	U		10
trans-1,3-Dichloropropene	U	U		10
Bromoform	U	U		10
4-Methyl-2-Pentanone	1J	U		10
2-Hexanone	U	U		10
Tetrachloroethene	U	67		10
1,1,2,2-Tetrachloroethane	U	U		10
Toluene	U	2J		10
Chlorobenzene	U	U		10
Ethylbenzene	U	1J		10
Styrene	U	U		10
Xylene (total)	U	3J		10
Date Received		11/09/99		
Date Extracted	N/A	N/A		
Date Analyzed	11/15/99	11/15/99		

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 VO-1.12
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	LP-150 END		Quant. Limits with no Dilution
Lab Sample I.D.	VBLKO8	992987A-08		
Method Blank I.D.	VBLKO8	VBLKO8		
Quant. Factor	1.00	1.15		
Chloromethane	U	U		1200
Bromomethane	U	U		1200
Vinyl Chloride	U	U		1200
Chloroethane	U	U		1200
Methylene Chloride	U	93J		1200
Acetone	290J	1100JB		1200
Carbon Disulfide	U	U		1200
1,1-Dichloroethene	U	U		1200
1,1-Dichloroethane	U	U		1200
1,2-Dichloroethene (total)	U	290J		1200
Chloroform	U	U		1200
1,2-Dichloroethane	U	U		1200
2-Butanone	150J	1500B		1200
1,1,1-Trichloroethane	U	1200J		1200
Carbon Tetrachloride	U	U		1200
Bromodichloromethane	U	U		1200
1,2-Dichloropropane	U	U		1200
cis-1,3-Dichloropropene	U	U		1200
Trichloroethene	U	1900		1200
Dibromochloromethane	U	U		1200
1,1,2-Trichloroethane	U	U		1200
Benzene	U	U		1200
trans-1,3-Dichloropropene	U	U		1200
Bromoform	U	U		1200
4-Methyl-2-Pentanone	U	U		1200
2-Hexanone	U	U		1200
Tetrachloroethene	U	18000		1200
1,1,2,2-Tetrachloroethane	U	U		1200
Toluene	U	350J		1200
Chlorobenzene	U	U		1200
Ethylbenzene	U	160J		1200
Styrene	U	U		1200
Xylene (total)	U	660J		1200
Date Received		11/09/99		
Date Extracted	N/A	N/A		
Date Analyzed	11/11/99	11/11/99		

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 VO-1.13
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	LP-15 END	LP-3 END	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKOI	992987A-07	992987A-18	
Method Blank I.D.	VBLKOI	VBLKOI	VBLKOI	
Quant. Factor	1.00	23.0	1.20	
Chloromethane	U	U	U	1200
Bromomethane	U	U	U	1200
Vinyl Chloride	U	U	U	1200
Chloroethane	U	U	U	1200
Methylene Chloride	180J	5800JB	220JB	1200
Acetone	360J	11000JB	710JB	1200
Carbon Disulfide	U	U	U	1200
1,1-Dichloroethene	U	U	U	1200
1,1-Dichloroethane	U	U	U	1200
1,2-Dichloroethene (total)	U	U	U	1200
Chloroform	U	U	U	1200
1,2-Dichloroethane	U	U	U	1200
2-Butanone	U	4500J	1400	1200
1,1,1-Trichloroethane	U	8000J	U	1200
Carbon Tetrachloride	U	U	U	1200
Bromodichloromethane	U	U	U	1200
1,2-Dichloropropane	U	U	U	1200
cis-1,3-Dichloropropene	U	U	U	1200
Trichloroethene	U	14000J	U	1200
Dibromochloromethane	U	U	U	1200
1,1,2-Trichloroethane	U	U	U	1200
Benzene	U	U	U	1200
trans-1,3-Dichloropropene	U	U	U	1200
Bromoform	U	U	U	1200
4-Methyl-2-Pentanone	U	U	U	1200
2-Hexanone	U	U	U	1200
Tetrachloroethene	U	300000	5600	1200
1,1,2,2-Tetrachloroethane	U	U	U	1200
Toluene	U	2400J	U	1200
Chlorobenzene	U	U	U	1200
Ethylbenzene	U	U	U	1200
Styrene	U	U	U	1200
Xylene (total)	U	U	U	1200
Date Received		11/09/99	11/10/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/15/99	11/15/99	11/15/99	

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 VO-1.14
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	LP-3 END RE	LP-1 END		Quant. Limits with no Dilution
Lab Sample I.D.	992987A-18RE	992987A-19		
Method Blank I.D.	VBLKOI	VBLKOI		
Quant. Factor	1.20	12.0		
Chloromethane	U	6200J		1200
Bromomethane	U	U		1200
Vinyl Chloride	U	U		1200
Chloroethane	U	U		1200
Methylene Chloride	90JB	1100JB		1200
Acetone	950JB	11000JB		1200
Carbon Disulfide	U	U		1200
1,1-Dichloroethene	U	U		1200
1,1-Dichloroethane	U	U		1200
1,2-Dichloroethene (total)	U	U		1200
Chloroform	U	U		1200
1,2-Dichloroethane	U	U		1200
2-Butanone	1500	6100J		1200
1,1,1-Trichloroethane	U	U		1200
Carbon Tetrachloride	U	U		1200
Bromodichloromethane	U	U		1200
1,2-Dichloropropane	U	U		1200
cis-1,3-Dichloropropene	U	U		1200
Trichloroethene	U	U		1200
Dibromochloromethane	U	U		1200
1,1,2-Trichloroethane	U	U		1200
Benzene	U	U		1200
trans-1,3-Dichloropropene	U	U		1200
Bromoform	U	U		1200
4-Methyl-2-Pentanone	U	U		1200
2-Hexanone	U	U		1200
Tetrachloroethene	5000	240000		1200
1,1,2,2-Tetrachloroethane	U	U		1200
Toluene	U	U		1200
Chlorobenzene	U	U		1200
Ethylbenzene	U	U		1200
Styrene	U	U		1200
Xylene (total)	U	U		1200
Date Received	11/10/99	11/10/99		
Date Extracted	N/A	N/A		
Date Analyzed	11/15/99	11/15/99		

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 VO-1.15
7099-2987A
FANNING PHILLIPS + MOLNAR
TCL VOLATILE ORGANICS

Soil
Medium

All values are ug/Kg dry weight basis.

Client Sample I.D.	Method Blank	LP-1	LP-3	Quant. Limits with no Dilution
Lab Sample I.D.	VBLKOW	992987A-22	992987A-23	
Method Blank I.D.	VBLKOW	VBLKOW	VBLKOW	
Quant. Factor	1.00	1.18	1.25	
Chloromethane	U	U	U	1200
Bromomethane	U	U	U	1200
Vinyl Chloride	U	U	U	1200
Chloroethane	U	U	U	1200
Methylene Chloride	U	450J	230J	1200
Acetone	910J	2300B	2800B	1200
Carbon Disulfide	U	U	U	1200
1,1-Dichloroethene	U	U	U	1200
1,1-Dichloroethane	U	U	U	1200
1,2-Dichloroethene (total)	U	U	U	1200
Chloroform	U	U	U	1200
1,2-Dichloroethane	U	U	U	1200
2-Butanone	U	1600	1800	1200
1,1,1-Trichloroethane	U	U	U	1200
Carbon Tetrachloride	U	U	U	1200
Bromodichloromethane	U	U	U	1200
1,2-Dichloropropane	U	U	U	1200
cis-1,3-Dichloropropene	U	U	U	1200
Trichloroethene	U	U	U	1200
Dibromochloromethane	U	U	U	1200
1,1,2-Trichloroethane	U	U	U	1200
Benzene	U	U	U	1200
trans-1,3-Dichloropropene	U	U	U	1200
Bromoform	U	U	U	1200
4-Methyl-2-Pentanone	U	U	U	1200
2-Hexanone	U	U	U	1200
Tetrachloroethene	U	19000	15000	1200
1,1,2,2-Tetrachloroethane	U	U	U	1200
Toluene	U	U	U	1200
Chlorobenzene	U	U	U	1200
Ethylbenzene	U	U	U	1200
Styrene	U	U	280J	1200
Xylene (total)	U	U	U	1200
Date Received		11/16/99	11/16/99	
Date Extracted	N/A	N/A	N/A	
Date Analyzed	11/22/99	11/22/99	11/22/99	

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.

TABLE AS-1.0
7099-2987A
FANNING PHILLIPS + MOLNAR
MISCELLANEOUS ATOMIC SPECTROSCOPY

Aqueous

All values are ug/L.

Client Sample I.D.	EB-1	EB-2	EB-1	
Lab Sample I.D.	992987A-10	992987A-15	992987A-21	
Arsenic	4.0U	4.0U	4.0U	
Chromium	2.0U	2.0U	2.0U	
Copper	1.0U	1.0U	1.0U	
Lead	3.0U	3.0U	3.0U	
Zinc	11.5B	5.6B	3.6B	

See Appendix for qualifier definitions

TABLE AS-1.1
7099-2987A
FANNING PHILLIPS + MOLNAR
MISCELLANEOUS ATOMIC SPECTROSCOPY

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	LP-14 END	LP-15 END	LP-150 END	LP-12 END
Lab Sample I.D.	992987A-06	992987A-07	992987A-08	992987A-09
Arsenic	0.64U	1.4	0.56U	0.64U
Chromium	7.4	10.1	1.9	1.6
Copper	11.8	530.	86.6	10.8
Lead	0.48U	134.	41.0	4.0
Zinc	14.7	713.	500.	53.8

See Appendix for qualifier definitions

TABLE AS-1.2
7099-2987A
FANNING PHILLIPS + MOLNAR
MISCELLANEOUS ATOMIC SPECTROSCOPY

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	LP-13 END	LP-11 END	LP-11 END D	LP-11 END S
Lab Sample I.D.	992987A-11	992987A-14	992987A-14D	992987A-14S
Arsenic	0.58U	0.51U	0.80U	7.9
Chromium	1.0B	32.4	26.6	72.6
Copper	16.8	18.5	12.1	68.6
Lead	0.44U	2.0	1.3	6.5
Zinc	8.0	10.7	4.3	104.

See Appendix for qualifier definitions

TABLE AS-1.3
7099-2987A
FANNING PHILLIPS + MOLNAR
MISCELLANEOUS ATOMIC SPECTROSCOPY

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	LP-8 END	LP-3 END	LP-1 END	LP-1
Lab Sample I.D.	992987A-17	992987A-18	992987A-19	992987A-22
Arsenic	0.54U	0.71U	0.65U	0.70U
Chromium	12.4	22.3	38.2	20.0
Copper	26.3	759.	236.	121.
Lead	5.4	34.5	19.0	10.8
Zinc	18.7	266.	111.	59.8

See Appendix for qualifier definitions

TABLE AS-1.4
7099-2987A
FANNING PHILLIPS + MOLNAR
MISCELLANEOUS ATOMIC SPECTROSCOPY

Soil

All values are mg/Kg dry weight basis.

Client Sample I.D.	LP-3			
Lab Sample I.D.	992987A-23			
Arsenic	0.71U			
Chromium	48.7			
Copper	916.			
Lead	84.7			
Zinc	456.			

See Appendix for qualifier definitions

Committed To *Your* Success

ORGANICS APPENDIX

U - Indicates that the compound was analyzed for but not detected.

J - Indicates that the compound was analyzed for and determined to be present in the sample. The mass spectrum of the compound meets the identification criteria of the method. The concentration listed is an estimated value, which is less than the specified minimum detection limit but is greater than zero.

B - This flag is used when the analyte is found in the blanks 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.

N - Indicates that the compound was analyzed for but not requested as an analyte. Value will not be listed on tabular result sheet.

S - Estimated due to surrogate outliers.

X - Matrix spike compound.

(1) - Cannot be separated.

(2) - Decomposes to azobenzene. Measured and calibrated as azobenzene.

A - This flag indicates that a TIC is a suspected aldol condensation product.

E - Indicates that it exceeds calibration curve range.

D - This flag identifies all compounds identified in an analysis at a secondary dilution factor.

C - Confirmed by GC/MS.

T - Compound present in TCLP blank.

P - This flag is used for a pesticide/aroclor target analyte when there is a greater than 25 percent difference for detected concentrations between the two GC columns (see Form X).

Committed To Your Success

INORGANICS APPENDIX

C - Concentration qualifiers

U - Indicates analyte was not detected at method reporting limit.

B - Indicates analyte result between IDL and contract required detection limit (CRDL)

Q - QC qualifiers

E - Reported value is estimated because of the presence of interference

M - Duplicate injection precision not met

N - Spiked sample recovery not within control limits

S - The reported value was determined by the method of standard additions (MSA)

W - Post-digest spike recovery furnace analysis was out of 85-115 percent control limit, while sample absorbance was less than 50 percent of spike absorbance

* - Duplicate analysis not within control limit

+ - Correlation coefficient for MSA is less than 0.995

M - Method codes

P - ICP

A - Flame AA

F - Furnace AA

CV - Cold vapor AA (manual)

C - Cyanide

NR - Not Required

NC - Not Calculated as per protocols

Committed To Your Success

STATE CERTIFICATIONS

In some instances it may be necessary for environmental data to be reported to a regulatory authority with reference to a certified laboratory. For your convenience, the laboratory identification numbers for Severn Trent Laboratories-Connecticut are provided in the following table. Many states certify laboratories for specific parameters or tests within a category (i.e. method 325.2 for wastewater). The information in the following table indicates the lab is certified in a general category of testing such as drinking water or wastewater analysis. The laboratory should be contacted directly if parameter-specific certification information is required.

Severn Trent-Connecticut
Certification Summary (as of March 1999)

State	Responsible Agency	Certification	Lab Number
Connecticut	Department of Health Services	Drinking Water, Wastewater	PH-0497
Kansas	Department of Health and Environment	Drinking Water, Wastewater/Solid, Hazardous Waste	E-10210
Maine	Department of Human Services	Wastewater	CT023
Massachusetts	Department of Environmental Protection	Potable/Non-Potable Water	CT023
New Hampshire	Department of Environmental Services	Drinking Water, Wastewater	2528
New Jersey	Department of Environmental Protection	Drinking Water, Wastewater	46410
New York	Department of Health	CLP, Drinking Water, Wastewater, Solid/ Hazardous Waste	10602
North Carolina	Division of Environmental Management	Wastewater Hazardous Waste	388
Oklahoma	Department of Environmental Quality	General Water Quality/ Sludge Testing	9614
Rhode Island	Department of Health	Chemistry...Non-Potable Water and Wastewater	A43
Washington	Department of Ecology	Wastewater/ Hazardous Waste	C231
Wisconsin	Department of Natural Resources	Wastewater/ Hazardous Waste	998355710

7099-2987A
FANNING PHILLIPS + MOLNAR
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
LP-14A	992987A-01	SOIL	11/08/99	11/09/99
LP-14B	992987A-02	SOIL	11/08/99	11/09/99
LP-14C	992987A-03	SOIL	11/08/99	11/09/99
UPSTREAM	992987A-04	WATER	11/08/99	11/09/99
DOWNSTREAM	992987A-05	WATER	11/08/99	11/09/99
DOWNSTREAM	992987A-05MS	WATER	11/08/99	11/09/99
DOWNSTREAM	992987A-05MSB	WATER	11/08/99	11/09/99
DOWNSTREAM	992987A-05MSD	WATER	11/08/99	11/09/99
LP-14 END	992987A-06	SOIL	11/08/99	11/09/99
LP-15 END	992987A-07	SOIL	11/08/99	11/09/99
LP-150 END	992987A-08	SOIL	11/08/99	11/09/99
LP-12 END	992987A-09	SOIL	11/08/99	11/09/99
EB-1	992987A-10	WATER	11/08/99	11/09/99
LP-13 END	992987A-11	SOIL	11/08/99	11/09/99
DOWNSTREAM D	992987A-12	WATER	11/08/99	11/09/99
TB-1	992987A-13	WATER	11/08/99	11/09/99
LP-11 END	992987A-14	SOIL	11/08/99	11/09/99
LP-11 END	992987A-14D	SOIL	11/08/99	11/09/99
LP-11 END	992987A-14MS	SOIL	11/08/99	11/09/99
LP-11 END	992987A-14MSB	SOIL	11/08/99	11/09/99
LP-11 END	992987A-14MSD	SOIL	11/08/99	11/09/99
LP-11 END	992987A-14S	SOIL	11/08/99	11/09/99
EB-2	992987A-15	WATER	11/09/99	11/10/99
TB-2	992987A-16	WATER	11/09/99	11/10/99
LP-8 END	992987A-17	SOIL	11/09/99	11/10/99
LP-3 END	992987A-18	SOIL	11/09/99	11/10/99

LP-1 END	992987A-19	SOIL	11/09/99	11/10/99
TRIP BLANK-1	992987A-20	WATER	11/15/99	11/16/99

7099-2987A
FANNING PHILLIPS + MOLNAR
SAMPLE SUMMARY

CLIENT ID	LAB ID	MATRIX	DATE COLLECTED	DATE RECEIVED
EB-1	992987A-21	WATER	11/15/99	11/16/99
LP-1	992987A-22	SOIL	11/15/99	11/16/99
LP-3	992987A-23	SOIL	11/15/99	11/16/99

IEA-CT ANALYTICAL SUMMARY

Client ID: DOWNSTREAM, DOWNSTREAM D, EB-1, EB-2, LP-1, LP-1 END, LP-11 END, LP-12 END, LP-13 END, LP-14 END, LP-14A, LP-14B, LP-14C, LP-15 END, LP-150 END, LP-3, LP-3 END, LP-8 END, TB-1, TB-2, TRIP BLANK-1, UPSTREAM

Job Number: 7099-2987A

Date: 12/10/99

Qty	Matrix	Analysis	Description
13	SOIL	AS-NCLP4.0	Arsenic
13	SOIL	CD-NCLP4.0	Cadmium
13	SOIL	CR-NCLP4.0	Chromium
13	SOIL	MET-PREP-ICAP	Metals ICAP Prep
13	SOIL	PB-NCLP4.0	Lead
1	SOIL	VOA-NCLP3.2-TCL	TCL Volatile Organic
16	SOIL	VOA-NCLP3.2-TCL	TCL Volatile Organic
13	SOIL	ZN-NCLP4.0	Zinc
3	WATER	AS-NCLP4.0	Arsenic
3	WATER	CR-NCLP4.0	Chromium
3	WATER	CU-NCLP4.0	Copper
3	WATER	MET-PREP-ICAP	Metals ICAP Prep
3	WATER	PB-NCLP4.0	Lead
1	WATER	VOA-NCLP3.2-TCL	TCL Volatile Organic
11	WATER	VOA-NCLP3.2-TCL	TCL Volatile Organic
3	WATER	ZN-NCLP4.0	Zinc

Committed To *Your* Success

Severn Trent Laboratories
200 Monroe Turnpike
Monroe, Connecticut 06468

Tel: (203) 261-4458
Fax: (203) 268-5346
www.stl-inc.com

SAMPLE DATA SUMMARY PACKAGE

CLIENT :	FANNING PHILLIPS & MOLNAR
PROJECT ID :	CARDWELL CONDENSER
SDG NUMBER:	A2987
STL ID :	7099-2987A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
LP-14A	992987A-01	X					
LP-14B	992987A-02	X					
LP-14C	992987A-03	X					
UPSTREAM	992987A-04	X					
DOWNSTREAM	992987A-05	X					
DOWNSTREAM	992987A-05MS	X					
DOWNSTREAM	992987A-05MSB	X					
DOWNSTREAM	992987A-05MSD	X					
LP-14 END	992987A-06	X				X	
LP-15 END	992987A-07	X				X	
LP-150 END	992987A-08	X				X	
LP-12 END	992987A-09	X				X	
EB-1	992987A-10	X				X	
LP-13 END	992987A-11	X				X	
DOWNSTREAM D	992987A-12	X					
TB-1	992987A-13	X					
LP-11 END	992987A-14	X				X	
LP-11 END	992987A-14D					X	
LP-11 END	992987A-14MS	X					
LP-11 END	992987A-14MSB	X					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
LP-11 END	992987A-14MSD	X					
LP-11 END	992987A-14S					X	
EB-2	992987A-15	X				X	
TB-2	992987A-16	X					
LP-8 END	992987A-17	X				X	
LP-3 END	992987A-18	X				X	
LP-1 END	992987A-19	X				X	
TRIP BLANK-1	992987A-20	X					
EB-1	992987A-21	X				X	
LP-1	992987A-22	X				X	
LP-3	992987A-23	X				X	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
992987A-01	SOIL	11/08/99	11/09/99	N/A	11/11/99
992987A-02	SOIL	11/08/99	11/09/99		
992987A-03	SOIL	11/08/99	11/09/99		
992987A-04	WATER	11/08/99	11/09/99		11/09/99
992987A-05	WATER	11/08/99	11/09/99		
992987A-06	SOIL	11/08/99	11/09/99		11/11/99
992987A-07	SOIL	11/08/99	11/09/99		11/15/99
992987A-08	SOIL	11/08/99	11/09/99		11/11/99
992987A-09	SOIL	11/08/99	11/09/99		11/15/99
992987A-10	WATER	11/08/99	11/09/99		11/09/99
992987A-11	SOIL	11/08/99	11/09/99		11/12/99
992987A-12	WATER	11/08/99	11/09/99		11/09/99
992987A-13	WATER	11/08/99	11/09/99		
992987A-14	SOIL	11/08/99	11/09/99		11/12/99
992987A-15	WATER	11/09/99	11/10/99		11/10/99
992987A-16	WATER	11/09/99	11/10/99		
992987A-17	SOIL	11/09/99	11/10/99		11/12/99
992987A-18	SOIL	11/09/99	11/10/99		11/15/99
992987A-19	SOIL	11/09/99	11/10/99		
992987A-20	WATER	11/15/99	11/16/99		11/18/99
992987A-21	WATER	11/15/99	11/16/99		11/17/99

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
992987A-22	SOIL	11/15/99	11/16/99	N/A	11/22/99
992987A-23	SOIL	11/15/99	11/16/99	↓	↓

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
992987A-06	SOIL	AS-NCLP4.0	11/09/99	12/6/99
992987A-06	SOIL	CD-NCLP4.0	11/09/99	
992987A-06	SOIL	CR-NCLP4.0	11/09/99	
992987A-06	SOIL	PB-NCLP4.0	11/09/99	
992987A-06	SOIL	ZN-NCLP4.0	11/09/99	
992987A-07	SOIL	AS-NCLP4.0	11/09/99	
992987A-07	SOIL	CD-NCLP4.0	11/09/99	
992987A-07	SOIL	CR-NCLP4.0	11/09/99	
992987A-07	SOIL	PB-NCLP4.0	11/09/99	
992987A-07	SOIL	ZN-NCLP4.0	11/09/99	
992987A-08	SOIL	AS-NCLP4.0	11/09/99	
992987A-08	SOIL	CD-NCLP4.0	11/09/99	
992987A-08	SOIL	CR-NCLP4.0	11/09/99	
992987A-08	SOIL	PB-NCLP4.0	11/09/99	
992987A-08	SOIL	ZN-NCLP4.0	11/09/99	
992987A-09	SOIL	AS-NCLP4.0	11/09/99	
992987A-09	SOIL	CD-NCLP4.0	11/09/99	
992987A-09	SOIL	CR-NCLP4.0	11/09/99	
992987A-09	SOIL	PB-NCLP4.0	11/09/99	
992987A-09	SOIL	ZN-NCLP4.0	11/09/99	
992987A-10	WATER	AS-NCLP4.0	11/09/99	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
992987A-10	WATER	CR-NCLP4.0	11/09/99	12/6/99
992987A-10	WATER	CU-NCLP4.0	11/09/99	
992987A-10	WATER	PB-NCLP4.0	11/09/99	
992987A-10	WATER	ZN-NCLP4.0	11/09/99	
992987A-11	SOIL	AS-NCLP4.0	11/09/99	
992987A-11	SOIL	CD-NCLP4.0	11/09/99	
992987A-11	SOIL	CR-NCLP4.0	11/09/99	
992987A-11	SOIL	PB-NCLP4.0	11/09/99	
992987A-11	SOIL	ZN-NCLP4.0	11/09/99	
992987A-14	SOIL	AS-NCLP4.0	11/09/99	
992987A-14	SOIL	CD-NCLP4.0	11/09/99	
992987A-14	SOIL	CR-NCLP4.0	11/09/99	
992987A-14	SOIL	PB-NCLP4.0	11/09/99	
992987A-14	SOIL	ZN-NCLP4.0	11/09/99	
992987A-15	WATER	AS-NCLP4.0	11/10/99	
992987A-15	WATER	CR-NCLP4.0	11/10/99	
992987A-15	WATER	CU-NCLP4.0	11/10/99	
992987A-15	WATER	PB-NCLP4.0	11/10/99	
992987A-15	WATER	ZN-NCLP4.0	11/10/99	
992987A-17	SOIL	AS-NCLP4.0	11/10/99	
992987A-17	SOIL	CD-NCLP4.0	11/10/99	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
992987A-17	SOIL	CR-NCLP4.0	11/10/99	12/6/11
992987A-17	SOIL	PB-NCLP4.0	11/10/99	
992987A-17	SOIL	ZN-NCLP4.0	11/10/99	
992987A-18	SOIL	AS-NCLP4.0	11/10/99	
992987A-18	SOIL	CD-NCLP4.0	11/10/99	
992987A-18	SOIL	CR-NCLP4.0	11/10/99	
992987A-18	SOIL	PB-NCLP4.0	11/10/99	
992987A-18	SOIL	ZN-NCLP4.0	11/10/99	
992987A-19	SOIL	AS-NCLP4.0	11/10/99	
992987A-19	SOIL	CD-NCLP4.0	11/10/99	
992987A-19	SOIL	CR-NCLP4.0	11/10/99	
992987A-19	SOIL	PB-NCLP4.0	11/10/99	
992987A-19	SOIL	ZN-NCLP4.0	11/10/99	
992987A-21	WATER	AS-NCLP4.0	11/16/99	
992987A-21	WATER	CR-NCLP4.0	11/16/99	
992987A-21	WATER	CU-NCLP4.0	11/16/99	
992987A-21	WATER	PB-NCLP4.0	11/16/99	
992987A-21	WATER	ZN-NCLP4.0	11/16/99	
992987A-22	SOIL	AS-NCLP4.0	11/16/99	
992987A-22	SOIL	CD-NCLP4.0	11/16/99	
992987A-22	SOIL	CR-NCLP4.0	11/16/99	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
992987A-22	SOIL	PB-NCLP4.0	11/16/99	12/6/99
992987A-22	SOIL	ZN-NCLP4.0	11/16/99	
992987A-23	SOIL	AS-NCLP4.0	11/16/99	
992987A-23	SOIL	CD-NCLP4.0	11/16/99	
992987A-23	SOIL	CR-NCLP4.0	11/16/99	
992987A-23	SOIL	PB-NCLP4.0	11/16/99	
992987A-23	SOIL	ZN-NCLP4.0	11/16/99	

0099A

Committed To *Your* Success

Severn Trent Laboratories
200 Monroe Turnpike
Monroe, Connecticut 06468

Tel: (203) 261-4458
Fax: (203) 268-5346
www.stl-inc.com

7099-2987A
FANNING PHILLIPS & MOLNAR

Case Narrative

Sample Receipt - All samples were received in good condition and at the proper temperature.

Metals - ICAP metals were determined by ICP using a JA61E trace ICAP according to the USEPA CLP 4.0 SOW.

No problems occurred during analysis.. All appropriate protocols were employed. All data appears to be consistent.

Volatile Organics - Volatile organics were determined by purge and trap GC/MS using NYSDEC '95 Protocols. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett-Packard Model 5970A/5971A GC/MS/DS.

Sample Calculation:

Sample ID - LP-14C
Compound - Tetrachloroethene

$$\frac{(2780100)(250)}{(1799857)(.700)(5)(.87)} = 126.82 = 130 \text{ UG/KG.}$$

The following samples were analyzed as medium level soils due to high target compound concentrations:

LP-15 END	1:20
LP-150 END	STRAIGHT
LP-3 END	STRAIGHT

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-14A

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-01

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7598

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 15 Date Analyzed: 11/11/99

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	15	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	17	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-14B

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-02

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7599

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 10 Date Analyzed: 11/11/99

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
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	14	B
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	4	J
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	.4	J
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	.4	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-14C

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-03

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7600

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 15 Date Analyzed: 11/11/99

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	17	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	3	J
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	130	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	.3	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	.3	J
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	.2	J

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

UPSTREAM

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-04

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6215

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. _____ Date Analyzed: 11/09/99

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/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	4	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	.6	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	JB
71-55-6	1,1,1-Trichloroethane	.4	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	.4	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	.8	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	.3	J

VOLATILE ORGANICS ANALYSIS DATA SHEET

DOWNSTREAM

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6218

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. _____ Date Analyzed: 11/09/99

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/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	.6	J
67-64-1	Acetone	5	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	.4	J
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	JB
71-55-6	1,1,1-Trichloroethane	.5	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	.3	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-14 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-06

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7601

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 16 Date Analyzed: 11/11/99

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	27	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	.6	J
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	7	J
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	10	J
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	210	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-15 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-07

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6291

Level: (low/med) MED Date Received: 11/09/99

% Moisture: not dec. 13 Date Analyzed: 11/15/99

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
74-87-3	Chloromethane	28000	U
74-83-9	Bromomethane	28000	U
75-01-4	Vinyl Chloride	28000	U
75-00-3	Chloroethane	28000	U
75-09-2	Methylene Chloride	5800	JB
67-64-1	Acetone	11000	JB
75-15-0	Carbon Disulfide	28000	U
75-35-4	1,1-Dichloroethene	28000	U
75-34-3	1,1-Dichloroethane	28000	U
540-59-0	1,2-Dichloroethene (total)	28000	U
67-66-3	Chloroform	28000	U
107-06-2	1,2-Dichloroethane	28000	U
78-93-3	2-Butanone	4500	J
71-55-6	1,1,1-Trichloroethane	8000	J
56-23-5	Carbon Tetrachloride	28000	U
75-27-4	Bromodichloromethane	28000	U
78-87-5	1,2-Dichloropropane	28000	U
10061-01-5	cis-1,3-Dichloropropene	28000	U
79-01-6	Trichloroethene	14000	J
124-48-1	Dibromochloromethane	28000	U
79-00-5	1,1,2-Trichloroethane	28000	U
71-43-2	Benzene	28000	U
10061-02-6	trans-1,3-Dichloropropene	28000	U
75-25-2	Bromoform	28000	U
108-10-1	4-Methyl-2-Pentanone	28000	U
591-78-6	2-Hexanone	28000	U
127-18-4	Tetrachloroethene	300000	
79-34-5	1,1,2,2-Tetrachloroethane	28000	U
108-88-3	Toluene	2400	J
108-90-7	Chlorobenzene	28000	U
100-41-4	Ethylbenzene	28000	U
100-42-5	Styrene	28000	U
1330-20-7	Xylene (total)	28000	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-150 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-08

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6267

Level: (low/med) MED Date Received: 11/09/99

% Moisture: not dec. 13 Date Analyzed: 11/11/99

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
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	93	J
67-64-1	Acetone	1100	JB
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	290	J
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1500	B
71-55-6	1,1,1-Trichloroethane	1200	J
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1900	
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	18000	
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	350	J
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	160	J
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	660	J

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-12 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-09

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7620

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 13 Date Analyzed: 11/15/99

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
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	35	B
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	.5	J
540-59-0	1,2-Dichloroethene (total)	1	J
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	4	J
71-55-6	1,1,1-Trichloroethane	12	
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	9	J
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	67	
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	1	J
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	3	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

EB-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-10

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6217

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. _____ Date Analyzed: 11/09/99

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
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	5	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	JB
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-13 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-11

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7602

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 16 Date Analyzed: 11/12/99

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	8	JB
75-15-0	Carbon Disulfide	2	J
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	1	J
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	2	J
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	2	J
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	26	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	12	U
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

DOWNSTREAM D

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-12

Sample wt/vol: 5 (g/mL) ML Lab File ID: >06219

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. _____ Date Analyzed: 11/09/99

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/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	.6	J
67-64-1	Acetone	4	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	.4	J
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	3	JB
71-55-6	1,1,1-Trichloroethane	.5	J
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	.3	J

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TB-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-13

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6216

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. _____ Date Analyzed: 11/09/99

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/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
67-64-1	Acetone	4	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	JB
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	.3	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-11 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-14

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7603

Level: (low/med) LOW Date Received: 11/09/99

% Moisture: not dec. 7 Date Analyzed: 11/12/99

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
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	11	U
67-64-1	Acetone	9	JB
75-15-0	Carbon Disulfide	11	U
75-35-4	1,1-Dichloroethene	11	U
75-34-3	1,1-Dichloroethane	11	U
540-59-0	1,2-Dichloroethene (total)	11	U
67-66-3	Chloroform	11	U
107-06-2	1,2-Dichloroethane	11	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	11	U
56-23-5	Carbon Tetrachloride	11	U
75-27-4	Bromodichloromethane	11	U
78-87-5	1,2-Dichloropropane	11	U
10061-01-5	cis-1,3-Dichloropropene	11	U
79-01-6	Trichloroethene	.6	J
124-48-1	Dibromochloromethane	11	U
79-00-5	1,1,2-Trichloroethane	11	U
71-43-2	Benzene	11	U
10061-02-6	trans-1,3-Dichloropropene	11	U
75-25-2	Bromoform	11	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	2	J
79-34-5	1,1,2,2-Tetrachloroethane	11	U
108-88-3	Toluene	11	U
108-90-7	Chlorobenzene	11	U
100-41-4	Ethylbenzene	11	U
100-42-5	Styrene	11	U
1330-20-7	Xylene (total)	11	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

EB-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-15

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6241

Level: (low/med) LOW Date Received: 11/10/99

% Moisture: not dec. _____ Date Analyzed: 11/10/99

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	4	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	JB
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

TB-2

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-16

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6240

Level: (low/med) LOW Date Received: 11/10/99

% Moisture: not dec. _____ Date Analyzed: 11/10/99

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	J
67-64-1	Acetone	2	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	JB
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-8 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-17

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7612

Level: (low/med) LOW Date Received: 11/10/99

% Moisture: not dec. 19 Date Analyzed: 11/12/99

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	12	
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	3	J
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	12	U
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	1	J
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	48	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-3 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-18

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6290

Level: (low/med) MED Date Received: 11/10/99

% Moisture: not dec. 17 Date Analyzed: 11/15/99

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
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	220	JB
67-64-1	Acetone	710	JB
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1400	
71-55-6	1,1,1-Trichloroethane	1400	U
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	5600	
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	1400	U
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	1400	U
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	1400	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-3 ENDRE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-18RE

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6292

Level: (low/med) MED Date Received: 11/10/99

% Moisture: not dec. 17 Date Analyzed: 11/15/99

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
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	90	JB
67-64-1	Acetone	950	JB
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1500	
71-55-6	1,1,1-Trichloroethane	1400	U
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	5000	
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	1400	U
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	1400	U
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	1400	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-1 END

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-19

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6293

Level: (low/med) MED Date Received: 11/10/99

% Moisture: not dec. 17 Date Analyzed: 11/15/99

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
74-87-3	Chloromethane	6200	J
74-83-9	Bromomethane	14000	U
75-01-4	Vinyl Chloride	14000	U
75-00-3	Chloroethane	14000	U
75-09-2	Methylene Chloride	1100	JB
67-64-1	Acetone	11000	JB
75-15-0	Carbon Disulfide	14000	U
75-35-4	1,1-Dichloroethene	14000	U
75-34-3	1,1-Dichloroethane	14000	U
540-59-0	1,2-Dichloroethene (total)	14000	U
67-66-3	Chloroform	14000	U
107-06-2	1,2-Dichloroethane	14000	U
78-93-3	2-Butanone	6100	J
71-55-6	1,1,1-Trichloroethane	14000	U
56-23-5	Carbon Tetrachloride	14000	U
75-27-4	Bromodichloromethane	14000	U
78-87-5	1,2-Dichloropropane	14000	U
10061-01-5	cis-1,3-Dichloropropene	14000	U
79-01-6	Trichloroethene	14000	U
124-48-1	Dibromochloromethane	14000	U
79-00-5	1,1,2-Trichloroethane	14000	U
71-43-2	Benzene	14000	U
10061-02-6	trans-1,3-Dichloropropene	14000	U
75-25-2	Bromoform	14000	U
108-10-1	4-Methyl-2-Pentanone	14000	U
591-78-6	2-Hexanone	14000	U
127-18-4	Tetrachloroethene	240000	
79-34-5	1,1,2,2-Tetrachloroethane	14000	U
108-88-3	Toluene	14000	U
108-90-7	Chlorobenzene	14000	U
100-41-4	Ethylbenzene	14000	U
100-42-5	Styrene	14000	U
1330-20-7	Xylene (total)	14000	U

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

TRIP BLANK-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-20

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6376

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: not dec. _____ Date Analyzed: 11/18/99

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	.6	J
67-64-1	Acetone	7	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	4	JB
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

EB-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: 992987A-21

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6346

Level: (low/med) LOW Date Received: 11/16/99

% Moisture: not dec. _____ Date Analyzed: 11/17/99

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
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	3	JB
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	15	
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	4	JB
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-22

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6473

Level: (low/med) MED Date Received: 11/16/99

% Moisture: not dec. 15 Date Analyzed: 11/22/99

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
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	450	J
67-64-1	Acetone	2300	B
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	1600	
71-55-6	1,1,1-Trichloroethane	1400	U
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	19000	
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	1400	U
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	1400	U
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	1400	U

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-3

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: 992987A-23

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6470

Level: (low/med) MED Date Received: 11/16/99

% Moisture: not dec. 20 Date Analyzed: 11/22/99

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
74-87-3	Chloromethane	1500	U
74-83-9	Bromomethane	1500	U
75-01-4	Vinyl Chloride	1500	U
75-00-3	Chloroethane	1500	U
75-09-2	Methylene Chloride	230	J
67-64-1	Acetone	2800	B
75-15-0	Carbon Disulfide	1500	U
75-35-4	1,1-Dichloroethene	1500	U
75-34-3	1,1-Dichloroethane	1500	U
540-59-0	1,2-Dichloroethene (total)	1500	U
67-66-3	Chloroform	1500	U
107-06-2	1,2-Dichloroethane	1500	U
78-93-3	2-Butanone	1800	
71-55-6	1,1,1-Trichloroethane	1500	U
56-23-5	Carbon Tetrachloride	1500	U
75-27-4	Bromodichloromethane	1500	U
78-87-5	1,2-Dichloropropane	1500	U
10061-01-5	cis-1,3-Dichloropropene	1500	U
79-01-6	Trichloroethene	1500	U
124-48-1	Dibromochloromethane	1500	U
79-00-5	1,1,2-Trichloroethane	1500	U
71-43-2	Benzene	1500	U
10061-02-6	trans-1,3-Dichloropropene	1500	U
75-25-2	Bromoform	1500	U
108-10-1	4-Methyl-2-Pentanone	1500	U
591-78-6	2-Hexanone	1500	U
127-18-4	Tetrachloroethene	15000	
79-34-5	1,1,2,2-Tetrachloroethane	1500	U
108-88-3	Toluene	1500	U
108-90-7	Chlorobenzene	1500	U
100-41-4	Ethylbenzene	1500	U
100-42-5	Styrene	280	J
1330-20-7	Xylene (total)	1500	U

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKO5	106	99	88		0
02	OWNSTREAMMSB	107	98	83		0
03	DOWNSTREAMMS	104	98	88		0
04	OWNSTREAMMSD	107	100	90		0
05	020 ppbQCS	103	95	84		0
06	VBLKOQ	96	96	95		0
07	TRIP BLANK-1	104	102	99		0
08	VBLKO4	96	94	83		0
09	UPSTREAM	98	96	85		0
10	TB-1	97	94	80		0
11	EB-1	106	102	89		0
12	DOWNSTREAM	93	89	80		0
13	DOWNSTREAM D	106	102	88		0
14	VBLKO7	100	99	85		0
15	TB-2	93	94	82		0
16	EB-2	97	96	83		0
17	VBLKOO	93	90	91		0
18	EB-1	95	94	92		0
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Level: (low/med) LOW

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKKS	94	94	88		0
02	LP-14A	97	92	96		0
03	LP-14B	94	92	80		0
04	LP-14C	96	94	83		0
05	LP-14 END	100	97	86		0
06	LP-13 END	96	91	95		0
07	LP-11 END	94	93	98		0
08	VBLKKT	97	101	99		0
09	LP-11 ENDMSB	101	102	107		0
10	020 ppbQCS	102	94	104		0
11	LP-11 ENDMS	102	100	115		0
12	LP-11 ENDMSD	98	102	102		0
13	LP-8 END	97	98	99		0
14	VBLKKU	101	99	95		0
15	LP-12 END	98	100	101		0
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Level: (low/med) MED

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKOI	101	97	89		0
02	LP-3 END	94	116*	86		1
03	LP-15 END	97	95	86		0
04	LP-3 ENDRE	94	116*	90		1
05	LP-1 END	96	96	90		0
06	VBLKO8	98	96	85		0
07	LP-150 END	98	106	87		0
08	VBLKOW	104	105	100		0
09	LP-3	103	103	91		0
10	LP-1	97	110	90		0
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

QC LIMITS

SMC1 (TOL) = Toluene-d8 (84-138)
SMC2 (BFB) = Bromofluorobenzene (59-113)
SMC3 (DCE) = 1,2-Dichloroethane-d4 (70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix Spike - NYSDEC Sample No.: DOWNSTREAM

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	45	90	61-145
Trichloroethene	50	3	51	96	71-120
Benzene	50	.2	50	100	76-127
Toluene	50	0	49	98	76-125
Chlorobenzene	50	0	48	96	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	45	90	0	14	61-145
Trichloroethene	50	51	96	0	14	71-120
Benzene	50	49	98	2	11	76-127
Toluene	50	49	98	0	13	76-125
Chlorobenzene	50	48	96	0	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits.

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix Spike - NYSDEC Sample No.: LP-11 END Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	54	0	56	104	59-172
Trichloroethene	54	.6	51	93	62-137
Benzene	54	0	53	98	66-142
Toluene	54	0	50	92	59-139
Chlorobenzene	54	0	50	92	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	54	51	94	10	22	59-172
Trichloroethene	54	50	91	2	24	62-137
Benzene	54	52	96	2	21	66-142
Toluene	54	51	94	2	21	59-139
Chlorobenzene	54	49	91	1	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits.

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix Spike - NYSDEC Sample No.: DOWNSTREAM

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	50	100	61-145
Trichloroethene	50	0	49	98	71-120
Benzene	50	0	51	102	76-127
Toluene	50	0	50	100	76-125
Chlorobenzene	50	0	50	100	75-130

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

_____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix Spike - NYSDEC Sample No.: LP-11 END Level:(low/med) LOW

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	SPIKE CONCENTRATION (ug/Kg)	SPIKE % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	57	114	61-145
Trichloroethene	50	0	47	94	71-120
Benzene	50	0	49	98	76-127
Toluene	50	0	48	96	76-125
Chlorobenzene	50	0	48	96	75-130

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

QCS Spike Summary

Spike: K7609.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	23	115	32	156
Bromomethane	20	21	105	66	121
Vinyl Chloride	20	20	100	63	129
Chloroethane	20	20	100	78	119
Methylene Chloride	20	22	110	83	114
Acetone	20	27	135	29	156
Carbon Disulfide	20	22	110	78	119
Vinyl Acetate	20	7	35	16	144
1,1-Dichloroethene	20	23	115	78	122
1,1-Dichloroethane	20	23	115	80	119
1,2-Dichloroethene (total)	40	43	108	84	114
Chloroform	20	21	105	83	114
1,2-Dichloroethane	20	20	100	80	123
2-Butanone	20	16	80	55	146
1,1,1-Trichloroethane	20	22	110	72	128
Carbon Tetrachloride	20	19	95	77	127
Bromodichloromethane	20	19	95	81	118
1,2-Dichloropropane	20	20	100	77	125
cis-1,3-Dichloropropene	20	18	90	74	111
Trichloroethene	20	18	90	82	114
Dibromochloromethane	20	19	95	81	121
1,1,2-Trichloroethane	20	19	95	74	126
Benzene	20	20	100	78	120
trans-1,3-Dichloropropene	20	18	90	80	128
Bromoform	20	17	85	68	134
4-Methyl-2-Pentanone	20	13	65	58	141
2-Hexanone	20	10	50	47	150
Tetrachloroethene	20	19	95	78	118
Toluene	20	21	105	70	140
1,1,2,2-Tetrachloroethane	20	18	90	76	118
Chlorobenzene	20	20	100	77	118
Ethylbenzene	20	20	100	82	113
Styrene	20	18	90	77	118
Xylene (total)	60	62	103	77	120

QCS Spike Summary

Spike: 06234.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	17	85	32	156
Bromomethane	20	14	70	66	121
Vinyl Chloride	20	18	90	63	129
Chloroethane	20	17	85	78	119
Methylene Chloride	20	23	115*	83	114
Acetone	20	13	65	29	156
Carbon Disulfide	20	17	85	78	119
Vinyl Acetate	20	1	5*	16	144
1,1-Dichloroethene	20	21	105	78	122
1,1-Dichloroethane	20	20	100	80	119
1,2-Dichloroethene (total)	40	39	98	84	114
Chloroform	20	19	95	83	114
1,2-Dichloroethane	20	18	90	80	123
2-Butanone	20	10	50*	55	146
1,1,1-Trichloroethane	20	19	95	72	128
Carbon Tetrachloride	20	23	115	77	127
Bromodichloromethane	20	19	95	81	118
1,2-Dichloropropane	20	21	105	77	125
cis-1,3-Dichloropropene	20	19	95	74	111
Trichloroethene	20	20	100	82	114
Dibromochloromethane	20	17	85	81	121
1,1,2-Trichloroethane	20	16	80	74	126
Benzene	20	22	110	78	120
trans-1,3-Dichloropropene	20	18	90	80	128
Bromoform	20	13	65*	68	134
4-Methyl-2-Pentanone	20	10	50*	58	141
2-Hexanone	20	10	50	47	150
Tetrachloroethene	20	21	105	78	118
Toluene	20	21	105	70	140
1,1,2,2-Tetrachloroethane	20	12	60*	76	118
Chlorobenzene	20	21	105	77	118
Ethylbenzene	20	21	105	82	113
Styrene	20	20	100	77	118
Xylene (total)	60	63	105	77	120

4A
VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKO4

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >OM6204 Lab Sample ID: VBLKO4

Date Analyzed: 11/09/99 Time Analyzed: 1025

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	UPSTREAM	992987A-04	>O6215	1741
02	TB-1	992987A-13	>O6216	1815
03	EB-1	992987A-10	>O6217	1850
04	DOWNSTREAM	992987A-05	>O6218	1924
05	DOWNSTREAM D	992987A-12	>O6219	1958
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				

COMMENTS: _____

_____

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKO4

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: VBLKO4

Sample wt/vol: 5 (g/mL) ML Lab File ID: >OM6204

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/09/99

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/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	10	U
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLK05

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >O6226 Lab Sample ID: VBLK05

Date Analyzed: 11/10/99 Time Analyzed: 1057

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	OWNSTREAMMSB	992987A-05MSB	>O6231	1451
02	DOWNSTREAMMS	992987A-05MS	>O6232	1526
03	OWNSTREAMMSD	992987A-05MSD	>O6233	1610
04	020 ppbQCS	020 ppbQCS	>O6234	1651
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				

COMMENTS: _____

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLK05

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: VBLK05

Sample wt/vol: 5 (g/mL) ML Lab File ID: >06226

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/10/99

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	10	U
67-64-1	Acetone	2	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	1	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKO7

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >OM6239 Lab Sample ID: VBLKO7

Date Analyzed: 11/10/99 Time Analyzed: 2051

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TB-2	992987A-16	>O6240	2126
02	EB-2	992987A-15	>O6241	2200
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				

COMMENTS: _____

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKO7

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: VBLKO7

Sample wt/vol: 5 (g/mL) ML Lab File ID: >OM6239

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/10/99

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 1.0

Soil Extract Volume: _____(uL) Soil Aliquot Volume: _____(uL)

CONCENTRATION UNITS:

CAS NO.	COMPOUND	(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	10	U
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >OM6344 Lab Sample ID: VBLKOO

Date Analyzed: 11/17/99 Time Analyzed: 2208

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EB-1	992987A-21	>O6346	2336
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				

COMMENTS: _____

_____

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: VBLKOO

Sample wt/vol: 5 (g/mL) ML Lab File ID: >OM6344

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/17/99

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
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	10	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	5	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKOQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >O6375 Lab Sample ID: VBLKOQ

Date Analyzed: 11/18/99 Time Analyzed: 2248

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	TRIP BLANK-1	992987A-20	>O6376	2324
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				

COMMENTS: _____

_____

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKOQ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) WATER Lab Sample ID: VBLKOQ

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O6375

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 11/18/99

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	10	U
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	4	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A
VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKKS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >K7597 Lab Sample ID: VBLKKS

Date Analyzed: 11/11/99 Time Analyzed: 2105

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-14A	992987A-01	>K7598	2153
02	LP-14B	992987A-02	>K7599	2226
03	LP-14C	992987A-03	>K7600	2259
04	LP-14 END	992987A-06	>K7601	2331
05	LP-13 END	992987A-11	>K7602	0004
06	LP-11 END	992987A-14	>K7603	0037
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS: _____

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKKS

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: VBLKKS

Sample wt/vol: 5 (g/mL) G Lab File ID: >K7597

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 11/11/99

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
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	10	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKKT

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: ____ SDG No.: A2987

Lab File ID: >KM7607 Lab Sample ID: VBLKKT

Date Analyzed: 11/12/99 Time Analyzed: 1317

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-11 ENDMSB	992987A-14MSB	>K7608	1404
02	020 ppbQCS	020 ppbQCS	>K7609	1437
03	LP-11 ENDMS	992987A-14MS	>K7610	1510
04	LP-11 ENDMSD	992987A-14MSD	>K7611	1543
05	LP-8 END	992987A-17	>K7612	1616
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				

COMMENTS: _____

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLKKT

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: VBLKKT

Sample wt/vol: 5 (g/mL) G Lab File ID: >KM7607

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 11/12/99

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
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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKKU

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >KM7619 Lab Sample ID: VBLKKU

Date Analyzed: 11/15/99 Time Analyzed: 1220

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-12 END	992987A-09	>K7620	1318
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				

COMMENTS: _____

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLKKU

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: VBLKKU

Sample wt/vol: 5 (g/mL) G Lab File ID: >KM7619

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 11/15/99

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
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	10	U
67-64-1	Acetone	9	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	1	J
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A
VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKO8

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >OM6259 Lab Sample ID: VBLKO8

Date Analyzed: 11/11/99 Time Analyzed: 1108

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-150 END	992987A-08	>O6267	1701
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				

COMMENTS: _____

_____

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLK08

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: VBLK08

Sample wt/vol: 4 (g/mL) G Lab File ID: >OM6259

Level: (low/med) MED Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 11/11/99

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
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	1200	U
67-64-1	Acetone	290	J
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	150	J
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKOI

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >O6285 Lab Sample ID: VBLKOI

Date Analyzed: 11/15/99 Time Analyzed: 1851

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-3 END	992987A-18	>O6290	2150
02	LP-15 END	992987A-07	>O6291	2230
03	LP-3 ENDRE	992987A-18RE	>O6292	2309
04	LP-1 END	992987A-19	>O6293	2348
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				

COMMENTS: _____

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKOI

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: VBLKOI

Sample wt/vol: 4 (g/mL) G Lab File ID: >O6285

Level: (low/med) MED Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 11/15/99

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
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	180	J
67-64-1	Acetone	360	J
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKOW

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: >OM6465 Lab Sample ID: VBLKOW

Date Analyzed: 11/22/99 Time Analyzed: 1220

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-3	992987A-23	>O6470	1605
02	LP-1	992987A-22	>O6473	1807
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				

COMMENTS: _____

1A NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKOW

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: (soil/water) SOIL Lab Sample ID: VBLKOW

Sample wt/vol: 4 (g/mL) G Lab File ID: >OM6465

Level: (low/med) MED Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 11/22/99

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
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	1200	U
67-64-1	Acetone	910	J
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6203 Date Analyzed:11/09/99

Instrument ID: HP5971O Time Analyzed:0906

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	483860		12.06		2629894		13.35		2333215		18.12	
	UPPER LIMIT	967720		12.56		5259788		13.85		4666430		18.62	
	LOWER LIMIT	241930		11.56		1314947		12.85		1166608		17.62	
	YSDEC SAMPLE NO.												
01	VBLKO4	462298		12.08		2443698		13.37		2076908		18.12	
02	UPSTREAM	556934		12.11		2985416		13.40		2564366		18.15	
03	TB-1	618630		12.11		3160490		13.40		2711321		18.14	
04	EB-1	569487		12.10		2944538		13.39		2500106		18.16	
05	DOWNSTREAM	614981		12.10		3218534		13.39		2806110		18.15	
06	DOWNSTREAM D	581191		12.10		2969491		13.38		2601592		18.15	
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6225 Date Analyzed:11/10/99

Instrument ID: HP5971O Time Analyzed:0938

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	477275	12.10	2610217	13.40	2302474	18.16
	UPPER LIMIT	954550	12.60	5220434	13.90	4604948	18.66
	LOWER LIMIT	238638	11.60	1305108	12.90	1151237	17.66
	YSDEC SAMPLE NO.						
01	VBLKO5	526040	12.11	2713674	13.40	2256080	18.16
02	OWNSTREAMMSB	523245	12.13	2880758	13.40	2427785	18.17
03	DOWNSTREAMMS	588656	12.11	3000056	13.40	2545927	18.17
04	OWNSTREAMMSD	570991	12.13	2936838	13.41	2462322	18.17
05	020 ppbQCS	561057	12.13	3027883	13.41	2560766	18.18
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6238 Date Analyzed:11/10/99

Instrument ID: HP5971O Time Analyzed:1958

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	498309	12.12	2793866	13.41	2361270	18.17
	UPPER LIMIT	996618	12.62	5587732	13.91	4722540	18.67
	LOWER LIMIT	249154	11.62	1396933	12.91	1180635	17.67
	YSDEC SAMPLE NO.						
01	VBLKO7	480087	12.13	2421122	13.41	2004624	18.17
02	TB-2	612624	12.12	3143594	13.41	2631922	18.17
03	EB-2	612713	12.11	3123333	13.40	2623287	18.17
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6258 Date Analyzed:11/11/99

Instrument ID: HP5971O Time Analyzed:0914

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	554370	12.07	3004306	13.34	2600724	18.12
	UPPER LIMIT	1108740	12.57	6008612	13.84	5201448	18.62
	LOWER LIMIT	277185	11.57	1502153	12.84	1300362	17.62
	YSDEC SAMPLE NO.						
01	VBLKO8	574692	12.06	2976736	13.35	2525767	18.10
02	LP-150 END	558540	12.03	2855591	13.32	2570063	18.10
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >K7596 Date Analyzed:11/11/99

Instrument ID: HP5970K Time Analyzed:2015

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	653422	10.63	2635885	12.96	2065166	18.64
	UPPER LIMIT	1306844	11.13	5271770	13.46	4130332	19.14
	LOWER LIMIT	326711	10.13	1317942	12.46	1032583	18.14
	YSDEC SAMPLE NO.						
01	VBLKKS	694119	10.70	2588676	13.11	2122391	18.62
02	LP-14A	551500	10.70	2247956	13.01	1781026	18.64
03	LP-14B	606569	10.73	2297900	12.97	1837019	18.62
04	LP-14C	630927	10.66	2279524	13.16	1799857	18.67
05	LP-14 END	600607	10.73	2373997	12.97	1810202	18.64
06	LP-13 END	504727	10.83	2090762	13.13	1619327	18.67
07	LP-11 END	586891	10.70	2239232	13.01	1764444	18.69
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >KM7606 Date Analyzed:11/12/99

Instrument ID: HP5970K Time Analyzed:1207

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	629496	10.63	2379754	12.98	1890294	18.62
	UPPER LIMIT	1258992	11.13	4759508	13.48	3780588	19.12
	LOWER LIMIT	314748	10.13	1189877	12.48	945147	18.12
	YSDEC SAMPLE NO.						
01	VBLKKT	692236	10.63	2526242	12.97	1948321	18.62
02	LP-11 ENDMSB	583651	10.68	2415229	13.01	1921922	18.67
03	020 ppbQCS	601884	10.75	2382319	13.08	1878788	18.68
04	LP-11 ENDMS	557759	10.64	2265829	12.99	1795311	18.68
05	LP-11 ENDMSD	608519	10.64	2281390	13.04	1790964	18.69
06	LP-8 END	580807	10.88	2200888	13.16	1734575	18.69
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >KM7618 Date Analyzed:11/15/99

Instrument ID: HP5970K Time Analyzed:1056

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	683153		10.75		2697906		13.07		2156767		18.69	
	UPPER LIMIT	1366306		11.25		5395812		13.57		4313534		19.19	
	LOWER LIMIT	341576		10.25		1348953		12.57		1078384		18.19	
	YSDEC SAMPLE NO.												
01	VBLKKU	681029		10.64		2748727		12.96		2094592		18.64	
02	LP-12 END	601053		10.76		2465817		13.11		1950855		18.73	
03													
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6283 Date Analyzed:11/15/99

Instrument ID: HP5971O Time Analyzed:1721

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	394464	12.04	2241404	13.34	1871966	18.11
	UPPER LIMIT	788928	12.54	4482808	13.84	3743932	18.61
	LOWER LIMIT	197232	11.54	1120702	12.84	935983	17.61
	YSDEC SAMPLE NO.						
01	VBLKOI	430857	12.09	2397840	13.38	2044231	18.11
02	LP-3 END	358568	12.07	1847831	13.36	1501058	18.11
03	LP-15 END	394314	12.08	2196664	13.38	1917604	18.11
04	LP-3 ENDRE	341122	12.08	1857200	13.37	1503008	18.12
05	LP-1 END	378761	12.08	2042258	13.38	1758583	18.13
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6342 Date Analyzed:11/17/99

Instrument ID: HP5971O Time Analyzed:2009

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	333374	12.00	1834073	13.29	1537751	18.05
	UPPER LIMIT	666748	12.50	3668146	13.79	3075502	18.55
	LOWER LIMIT	166687	11.50	917036	12.79	768876	17.55
	YSDEC SAMPLE NO.						
01	VBLKOO	301501	12.01	1666451	13.28	1439938	18.04
02	EB-1	326591	12.01	1790821	13.28	1481038	18.03
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6373 Date Analyzed:11/18/99

Instrument ID: HP5971O Time Analyzed:2049

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	334699	11.96	1798958	13.26	1506381	18.02
	UPPER LIMIT	669398	12.46	3597916	13.76	3012762	18.52
	LOWER LIMIT	167350	11.46	899479	12.76	753190	17.52
	YSDEC SAMPLE NO.						
01	VBLKOQ	287380	11.98	1488426	13.27	1340601	18.00
02	TRIP BLANK-1	336006	11.98	1798328	13.27	1529571	18.02
03							
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 2987A SAS No.: _____ SDG No.: A2987

Lab File ID: (Standard): >OM6463 Date Analyzed:11/22/99

Instrument ID: HP5971O Time Analyzed:1027

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA	#	RT	#	IS2(DFB) AREA	#	RT	#	IS3(CBZ) AREA	#	RT	#
	12 HOUR STD	351870		11.96		2034434		13.27		1731412		18.01	
	UPPER LIMIT	703740		12.46		4068868		13.77		3462824		18.51	
	LOWER LIMIT	175935		11.46		1017217		12.77		865706		17.51	
	YSDEC SAMPLE NO.												
01	VBLKOW	338736		11.98		1836982		13.27		1494774		18.02	
02	LP-3	278757		11.98		1803738		13.27		1416301		18.02	
03	LP-1	273679		11.96		1604977		13.27		1306040		18.02	
04													
05													
06													
07													
08													
09													
10													
11													
12													
13													
14													
15													
16													
17													
18													
19													
20													
21													
22													

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-14 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-06

Level (low/med): LOW Date Received: 11/09/99

% 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	0.64	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	7.4			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	11.8			P
7439-89-6	Iron				NR
7439-92-1	Lead	0.48	U		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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	14.7			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-15 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A298[illegible]

Matrix (soil/water): SOIL Lab Sample ID: 992987A-07

Level (low/med): LOW Date Received: 11/09/99

% Solids: 87

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			P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	10.1			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	530.			P
7439-89-6	Iron				NR
7439-92-1	Lead	134.			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	713.			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

INORGANIC ANALYSES DATA SHEET

1

EPA SAMPLE NO.

LP-150 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-08

Level (low/med): LOW Date Received: 11/09/99

% Solids: 87

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	0.56	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.9			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	86.6			P
7439-89-6	Iron				NR
7439-92-1	Lead	41.0			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	500.			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-12 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-09

Level (low/med): LOW Date Received: 11/09/99

% Solids: 87

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	0.64	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	10.8			P
7439-89-6	Iron				NR
7439-92-1	Lead	4.0			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	53.8			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EB-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): WATER Lab Sample ID: 992987A-10

Level (low/med): LOW Date Received: 11/09/99

% 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				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1.0	U		P
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				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	11.5	B		P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-13 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-11

Level (low/med): LOW Date Received: 11/09/99

% 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	0.58	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1.0	B		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	16.8			P
7439-89-6	Iron				NR
7439-92-1	Lead	0.44	U		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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	8.0			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-11 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-14

Level (low/med): LOW Date Received: 11/09/99

% Solids: 93

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	0.51	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	32.4			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	18.5			P
7439-89-6	Iron				NR
7439-92-1	Lead	2.0			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	10.7			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EB-2

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): WATER Lab Sample ID: 992987A-15

Level (low/med): LOW Date Received: 11/10/99

% 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				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1.0	U		P
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				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	5.6	B		P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-8 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-17

Level (low/med): LOW Date Received: 11/10/99

% 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	0.54	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	12.4			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	26.3			P
7439-89-6	Iron				NR
7439-92-1	Lead	5.4			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	18.7			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-3 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-18

Level (low/med): LOW Date Received: 11/10/99

% Solids: 83

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.71	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	22.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	759.			P
7439-89-6	Iron				NR
7439-92-1	Lead	34.5			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	266.			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-1 END

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-19

Level (low/med): LOW Date Received: 11/10/99

% Solids: 83

Concentration Units (ug/L or mg/kg dry weight): Mg/Kg

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic	0.65	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	38.2			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	236.			P
7439-89-6	Iron				NR
7439-92-1	Lead	19.0			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	111.			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EB-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): WATER Lab Sample ID: 992987A-21

Level (low/med): LOW Date Received: 11/16/99

% 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				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1.0	U		P
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				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	3.6	B		P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-22

Level (low/med): LOW Date Received: 11/16/99

% 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	0.70	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	20.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	121.			P
7439-89-6	Iron				NR
7439-92-1	Lead	10.8			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	59.8			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-3

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix (soil/water): SOIL Lab Sample ID: 992987A-23

Level (low/med): LOW Date Received: 11/16/99

% 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	0.71	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	48.7			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	916.			P
7439-89-6	Iron				NR
7439-92-1	Lead	84.7			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	456.			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A2987

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Cobalt											NR
Copper	1.0	U	-1.5	B	-2.2	B	-3.5	B	0.200	U	P
Iron											NR
Lead	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	3.0	U	3.0	U	5.1	B	3.0	U	0.600	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A2987

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			4.0	U					4.000	U	P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium			2.0	U					2.000	U	P
Cobalt											NR
Copper			-4.0	B					1.000	U	P
Iron											NR
Lead			3.0	U					3.000	U	P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc			3.0	U					3.000	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A2987

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U			P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium	2.0	U	2.0	U	2.0	U	2.0	U			P
Cobalt											NR
Copper	-1.7	B	-2.0	B	-2.3	B	-2.4	B			P
Iron											NR
Lead	3.0	U	3.0	U	3.0	U	3.0	U			P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	3.0	U	3.0	U	-3.2	B	3.0	U			P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A2987

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			4.0	U	4.0	U	4.0	U			P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium			2.0	U	2.0	U	2.0	U			P
Cobalt											NR
Copper			-1.4	B	-2.6	B	-3.4	B			P
Iron											NR
Lead			3.0	U	3.0	U	3.0	U			P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc			3.0	U	-3.1	B	-3.2	B			P
Cyanide											NR

U.S. EPA - CLP

5A
SPIKE SAMPLE RECOVERY

EPA SAMPLE NO.

LP-11 ENDS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 93

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Limit %R	Spiked Sample Result (SSR)	C	Sample Result (SR)	C	Spike Added (SA)	%R	Q	M
Aluminum									NR
Antimony									NR
Arsenic	75-125	7.9060		0.5060	U	7.92	99.9		P
Barium									NR
Beryllium									NR
Cadmium									NR
Calcium									NR
Chromium	75-125	72.6568		32.4019		39.58	101.7		P
Cobalt									NR
Copper	75-125	68.5832		18.4606		49.48	101.3		P
Iron									NR
Lead	75-125	6.4907		1.9850		3.96	113.8		P
Magnesium									NR
Manganese									NR
Mercury									NR
Nickel									NR
Potassium									NR
Selenium									NR
Silver									NR
Sodium									NR
Thallium									NR
Vanadium									NR
Zinc	75-125	103.7394		10.7100		98.95	94.0		P
Cyanide									NR

Comments:

6
DUPLICATES

EPA SAMPLE NO.

LP-11 ENDD

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 2987A SAS No.: _____ SDG No.: A2987

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 93 % Solids for Duplicate: 93

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic		0.5060	U	0.8039	U			P
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium		32.4019		26.6152		19.6		P
Cobalt								NR
Copper	5.0	18.4606		12.1105		41.5		P
Iron								NR
Lead	0.6	1.9850		1.2653		44.3		P
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc	4.0	10.7100		4.3281		84.9		P
Cyanide								NR

Committed To *Your* Success

SAMPLE DATA SUMMARY PACKAGE

CLIENT:	FANNING, PHILLIPS & MOLNAR
PROJECT ID:	CARDWELL CONDENSER
SDG #:	A0038
STL ID:	7000-0038A

7000-0038A
FANNING, PHILLIPS & MOLNAR

Case Narrative

Volatile Organics – Volatile organics were determined by purge and trap GC/MS using NYSDEC '95 Protocols. The instrumentation used was a Tekmar Model 2000/2016 Concentrator/Archon 51 autosampler interfaced with a Hewlett-Packard Model 5971A GC/MS/DS.

Sample Calculation:

Sample ID – MW-12A
Compound – Tetrachloroethene

$\frac{(2344890)(250)(2)}{(2176261)(.402)(5)} = 268.03 = 270$ UG/L.

The percent recoveries for the spike compounds, carbon disulfide, vinyl acetate and 2-butanone were outside criteria limits in the 020PPB_QCS.

Samples MW-12A and MW-12C were analyzed at a dilution of 1:2 due to high target compound concentrations.

No problems were encountered.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

Jeffrey C. Curran

January 24, 2000
Date

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
MW-12A	000038A-01	X					
MW-12C	000038A-02	X					
MW-13A	000038A-03	X					
MW-13A	000038A-03MS	X					
MW-13A	000038A-03MSB	X					
MW-13A	000038A-03MSD	X					
MW-13E	000038A-04	X					
MW-13T	000038A-05	X					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
000038A-01	WATER	01/05/00	01/06/00	N/A	01/12/00
000038A-02	WATER	01/05/00	01/06/00		
000038A-03	WATER	01/05/00	01/06/00		01/12/00
000038A-04	WATER	01/05/00	01/06/00		
000038A-05	WATER	01/05/00	01/06/00		

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKLZ	98	100	94		0
02	MW-13A	98	101	95		0
03	MW-13E	97	100	97		0
04	MW-13T	98	101	97		0
05	VBLKL1	98	104	94		0
06	MW-13AMSB	99	100	95		0
07	MW-13AMS	99	100	95		0
08	MW-13AMSD	99	102	97		0
09	020PPB QCS	98	100	98		0
10	MW-12A	99	104	94		0
11	MW-12C	100	103	94		0
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3A

WATER VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Matrix Spike - NYSDEC Sample No.: MW-13A

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	MS CONCENTRATION (ug/L)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	57	114	61-145
Trichloroethene	50	20	71	102	71-120
Benzene	50	0	53	106	76-127
Toluene	50	0	50	100	76-125
Chlorobenzene	50	0	49	98	75-130

COMPOUND	SPIKE ADDED (ug/L)	MSD CONCENTRATION (ug/L)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	50	56	112	2	14	61-145
Trichloroethene	50	69	98	4	14	71-120
Benzene	50	52	104	2	11	76-127
Toluene	50	48	96	4	13	76-125
Chlorobenzene	50	48	96	2	13	75-130

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits.

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Matrix Spike - NYSDEC Sample No.: MW-13A

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	58	116	61-145
Trichloroethene	50	0	50	100	71-120
Benzene	50	0	54	108	76-127
Toluene	50	0	51	102	76-125
Chlorobenzene	50	0	50	100	75-130

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

QCS Spike Summary

Spike: L9009.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	18	90	32	156
Bromomethane	20	17	85	66	121
Vinyl Chloride	20	18	90	63	129
Chloroethane	20	16	80	78	119
Methylene Chloride	20	20	100	83	114
Acetone	20	16	80	29	156
Carbon Disulfide	20	14	70*	78	119
Vinyl Acetate	20	1	5*	16	144
1,1-Dichloroethene	20	22	110	78	122
1,1-Dichloroethane	20	20	100	80	119
1,2-Dichloroethene (total)	40	39	98	84	114
Chloroform	20	19	95	83	114
1,2-Dichloroethane	20	21	105	80	123
2-Butanone	20	7	35*	55	146
1,1,1-Trichloroethane	20	20	100	72	128
Carbon Tetrachloride	20	19	95	77	127
Bromodichloromethane	20	18	90	81	118
1,2-Dichloropropane	20	19	95	77	125
cis-1,3-Dichloropropene	20	19	95	74	111
Trichloroethene	20	18	90	82	114
Dibromochloromethane	20	18	90	81	121
1,1,2-Trichloroethane	20	18	90	74	126
Benzene	20	20	100	78	120
trans-1,3-Dichloropropene	20	19	95	80	128
Bromoform	20	17	85	68	134
4-Methyl-2-Pentanone	20	18	90	58	141
2-Hexanone	20	15	75	47	150
Tetrachloroethene	20	18	90	78	118
Toluene	20	19	95	70	140
1,1,2,2-Tetrachloroethane	20	18	90	76	118
Chlorobenzene	20	19	95	77	118
Ethylbenzene	20	21	105	82	113
Styrene	20	19	95	77	118
Xylene (total)	60	60	100	77	120

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKLZ

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: >L8985 Lab Sample ID: VBLKLZ

Date Analyzed: 01/11/00 Time Analyzed: 2219

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-13A	000038A-03	>L8988	0025
02	MW-13E	000038A-04	>L8989	0059
03	MW-13T	000038A-05	>L8990	0132
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				

COMMENTS: _____

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKL1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: >L9005 Lab Sample ID: VBLKL1

Date Analyzed: 01/12/00 Time Analyzed: 1357

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971L

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	MW-13AMSB	000038A-03MSB	>L9006	1430
02	MW-13AMS	000038A-03MS	>L9007	1503
03	MW-13AMSD	000038A-03MSD	>L9008	1536
04	020PPB QCS	020PPB QCS	>L9009	1610
05	MW-12A	000038A-01	>L9015	1929
06	MW-12C	000038A-02	>L9016	2002
07				
08				
09				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				
21				
22				
23				
24				
25				
26				
27				
28				
29				
30				

COMMENTS: _____

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: LB894 BFB Injection Date:01/11/00

Instrument ID: HP5971L BFB Injection Time:0932

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	16.0
75	30 - 60 percent of mass 95	36.9
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	6.8
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	63.2
175	5.0 - 9.0 percent of mass 174	4.5 (7.1)1
176	95 - 101 percent of mass 174	62.7 (99.1)1
177	5.0 - 9.0 percent of mass 176	5.4 (8.5)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD200LT	VSTD200LT	>LM8972	01/11/00	1120
02	VSTD100LU	VSTD100LU	>LM8973	01/11/00	1153
03	VSTD050LV	VSTD050LV	>LM8974	01/11/00	1226
04	VSTD020LW	VSTD020LW	>LM8975	01/11/00	1357
05	VSTD010LX	VSTD010LX	>LM8976	01/11/00	1430
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: LB895 BFB Injection Date: 01/11/00

Instrument ID: HP5971L BFB Injection Time: 1938

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	15.6
75	30 - 60 percent of mass 95	36.7
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	8.3
173	Less than 2.9 percent of mass 174	0.0 (0.0)1
174	50 - 120 percent of mass 95	62.8
175	5.0 - 9.0 percent of mass 174	4.7 (7.5)1
176	95 - 101 percent of mass 174	61.3 (97.8)2
177	5.0 - 9.0 percent of mass 176	5.0 (8.1)2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050LZ	VSTD050LZ	>L8984	01/11/00	2109
02	VBLKLZ	VBLKLZ	>L8985	01/11/00	2219
03	MW-13A	000038A-03	>L8988	01/12/00	0025
04	MW-13E	000038A-04	>L8989	01/12/00	0059
05	MW-13T	000038A-05	>L8990	01/12/00	0132
06					
07					
08					
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

5A
VOLATILE ORGANIC INSTRUMENT PERFORMANCE CHECK
BROMOFLUOROBENZENE (BFB)

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: LB898 BFB Injection Date:01/12/0

Instrument ID: HP5971L BFB Injection Time:0922

GC Column: 007-624 ID: 0.53 Heated Purge: (Y/N) N

m/e	ION ABUNDANCE CRITERIA	% RELATIVE ABUNDANCE
50	15 - 40 percent of mass 95	15.8
75	30 - 60 percent of mass 95	37.8
95	Base peak, 100 percent relative abundance	100.0
96	5.0 - 9.0 percent of mass 95	6.2
173	Less than 2.9 percent of mass 174	0.0 0.0 1
174	50 - 120 percent of mass 95	58.4
175	5.0 - 9.0 percent of mass 174	3.3 5.7 1
176	95 - 101 percent of mass 174	56.9 97.5 1
177	5.0 - 9.0 percent of mass 176	4.4 7.7 2

1-Value is % mass 174 2-Value is % mass 176

THIS CHECK APPLIES TO THE FOLLOWING SAMPLES, MS, MSD, BLANKS, AND STANDARDS:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED	TIME ANALYZED
01	VSTD050L1	VSTD050L1	>L9003	01/12/00	1120
02	VBLKL1	VBLKL1	>L9005	01/12/00	1357
03	MW-13AMSB	000038A-03MSB	>L9006	01/12/00	1430
04	MW-13AMS	000038A-03MS	>L9007	01/12/00	1503
05	MW-13AMSD	000038A-03MSD	>L9008	01/12/00	1536
06	020PPB QCS	020PPB QCS	>L9009	01/12/00	1610
07	MW-12A	000038A-01	>L9015	01/12/00	1929
08	MW-12C	000038A-02	>L9016	01/12/00	2002
09					
10					
11					
12					
13					
14					
15					
16					
17					
18					
19					
20					
21					
22					

8A
VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: (Standard): >L8984 Date Analyzed:01/11/00

Instrument ID: HP5971L Time Analyzed:2109

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	351093	11.24	1726834	12.53	1400875	16.64
	UPPER LIMIT	702186	11.74	3453668	13.03	2801750	17.14
	LOWER LIMIT	175546	10.74	863417	12.03	700438	16.14
	YSDEC SAMPLE NO.						
01	VBLKLZ	402077	11.26	2002125	12.56	1629390	16.64
02	MW-13A	383318	11.24	1915603	12.53	1545199	16.64
03	MW-13E	360732	11.23	1812664	12.53	1487058	16.64
04	MW-13T	358655	11.24	1796069	12.54	1475249	16.64
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Lab File ID: (Standard): >L9003 Date Analyzed:01/12/00

Instrument ID: HP5971L Time Analyzed:1120

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	513002	11.26	2529225	12.56	2058797	16.66
	UPPER LIMIT	1026004	11.76	5058450	13.06	4117594	17.16
	LOWER LIMIT	256501	10.76	1264612	12.06	1029398	16.16
	YSDEC SAMPLE NO.						
01	VBLKL1	567108	11.26	2809158	12.57	2293746	16.66
02	MW-13AMSB	516437	11.26	2600847	12.54	2141338	16.64
03	MW-13AMS	534428	11.24	2665703	12.53	2176641	16.64
04	MW-13AMSD	481710	11.24	2453710	12.55	2033120	16.66
05	020PPB QCS	524393	11.26	2619554	12.56	2148815	16.64
06	MW-12A	541595	11.26	2691742	12.54	2176261	16.64
07	MW-12C	537017	11.24	2705237	12.55	2158534	16.64
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

Instrument Detection Limit Report Date:30 Aug 99 22:15 hrs

Instrument:HP5971:L Units: ug/L

	IDL
Chlorodifluoromethane	1
Chloromethane	1
Bromomethane	1
Vinyl Chloride	1
Chloroethane	1
Ethyl Ether	10
Methylene Chloride	2
Ethyl Acetate	5
Acetone	5
1,1,2-Trichlorotrifluoroethane	1
Iodomethane	1
Tert-Butyl-Methylether	1
Carbon Disulfide	1
Acrylonitrile	1
1,1-Dichloroethene	1
Trichlorofluoromethane	1
3-Chloro-1-Propene	4
1,1-Dichloroethane	1
1,2-Dichloroethene (total)t	2
1,2-Dichloroethene (total)c	2
2-Methyl-2-Propenenitrile	4
Chloroform	1
Tetrahydrofuran	3
1,2-Dichloroethane	1
2-Butanone	2
Chloropicrin	1
Bromomethane	1
2-Chloro-1,3-Butadiene	1
1,1,1-Trichloroethane	1
Carbon Tetrachloride	1
Vinyl Acetate	2
Bromodichloromethane	1
1,2-Dichloropropane	1
cis-1,3-Dichloropropene	1
Trichloroethene	1
Methylmethacrylate	2
Dibromochloromethane	1
2-Nitropropane	2
1,1,2-Trichloroethane	2
Benzene	1
trans-1,3-Dichloropropene	1
Bromoform	1
1,2-Dibromoethane	1
2-Chloroethylvinylether	1
1,1,1,2-Tetrachloroethane	1
4-Methyl-2-Pentanone	1
2-Hexanone	1
Tetrachloroethene	2
1,1,2,2-Tetrachloroethane	1
Ethyl Methacrylate	1
Toluene	1
Chlorobenzene	1
Ethylbenzene	1
Styrene	1

Xylene (total)mp	1
Xylene (total)o	1
1,2,3-Trichloropropane	1
1,4-Dichloro-2-Butene	1
1,2-Dibromo-3-chloropropane	1
[illegible]3-Dichlorobenzene	2
[illegible]4-Dichlorobenzene	2
1,2-Dichlorobenzene	1
Pentachloroethane	2

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-12A

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Matrix: (soil/water) WATER Lab Sample ID: 000038A-01

Sample wt/vol: 5 (g/mL) ML Lab File ID: >L9015

Level: (low/med) LOW Date Received: 01/06/00

% Moisture: not dec. _____ Date Analyzed: 01/12/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 2.0

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	20	U
74-83-9	Bromomethane	20	U
75-01-4	Vinyl Chloride	20	U
75-00-3	Chloroethane	20	U
75-09-2	Methylene Chloride	20	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	20	U
75-35-4	1,1-Dichloroethene	20	U
75-34-3	1,1-Dichloroethane	20	U
540-59-0	1,2-Dichloroethene (total)	3	J
67-66-3	Chloroform	20	U
107-06-2	1,2-Dichloroethane	20	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	20	U
56-23-5	Carbon Tetrachloride	20	U
75-27-4	Bromodichloromethane	20	U
78-87-5	1,2-Dichloropropane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
79-01-6	Trichloroethene	8	J
124-48-1	Dibromochloromethane	20	U
79-00-5	1,1,2-Trichloroethane	20	U
71-43-2	Benzene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
75-25-2	Bromoform	20	U
108-10-1	4-Methyl-2-Pentanone	2	J
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	270	
79-34-5	1,1,2,2-Tetrachloroethane	20	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	.7	J
100-41-4	Ethylbenzene	20	U
100-42-5	Styrene	.4	J
1330-20-7	Xylene (total)	.6	J

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-12C

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Matrix: (soil/water) WATER Lab Sample ID: 000038A-02

Sample wt/vol: 5 (g/mL) ML Lab File ID: >L9016

Level: (low/med) LOW Date Received: 01/06/00

% Moisture: not dec. _____ Date Analyzed: 01/12/00

GC Column: 007-624 ID: 0.53 (mm) Dilution Factor: 2.0

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	20	U
74-83-9	Bromomethane	20	U
75-01-4	Vinyl Chloride	20	U
75-00-3	Chloroethane	20	U
75-09-2	Methylene Chloride	20	U
67-64-1	Acetone	20	U
75-15-0	Carbon Disulfide	20	U
75-35-4	1,1-Dichloroethene	20	U
75-34-3	1,1-Dichloroethane	20	U
540-59-0	1,2-Dichloroethene (total)	4	J
67-66-3	Chloroform	20	U
107-06-2	1,2-Dichloroethane	20	U
78-93-3	2-Butanone	20	U
71-55-6	1,1,1-Trichloroethane	20	U
56-23-5	Carbon Tetrachloride	20	U
75-27-4	Bromodichloromethane	20	U
78-87-5	1,2-Dichloropropane	20	U
10061-01-5	cis-1,3-Dichloropropene	20	U
79-01-6	Trichloroethene	8	J
124-48-1	Dibromochloromethane	20	U
79-00-5	1,1,2-Trichloroethane	20	U
71-43-2	Benzene	20	U
10061-02-6	trans-1,3-Dichloropropene	20	U
75-25-2	Bromoform	20	U
108-10-1	4-Methyl-2-Pentanone	20	U
591-78-6	2-Hexanone	20	U
127-18-4	Tetrachloroethene	260	
79-34-5	1,1,2,2-Tetrachloroethane	20	U
108-88-3	Toluene	20	U
108-90-7	Chlorobenzene	20	U
100-41-4	Ethylbenzene	20	U
100-42-5	Styrene	20	U
1330-20-7	Xylene (total)	20	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW-13E

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0038A SAS No.: _____ SDG No.: A0038

Matrix: (soil/water) WATER Lab Sample ID: 000038A-04

Sample wt/vol: 5 (g/mL) ML Lab File ID: >L8989

Level: (low/med) LOW Date Received: 01/06/00

% Moisture: not dec. _____ Date Analyzed: 01/12/00

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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

Committed To Your Success

SAMPLE DATA SUMMARY PACKAGE

CLIENT:	FANNING PHILLIPS & MOLNAR
PROJECT ID:	CARDWELL CONDENSER
P.O.	370-94-02
SDG #:	A0116
STL ID:	7000-0116A

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements					
		*VOA GC/MS Method #	*BNA GC/MS Method #	*VOA GC Method #	*Pest PCBs Method #	*Metals	*Other
LP-1	000116A-01	X				X	
LP-1	000116A-01D					X	
LP-1	000116A-01MS	X					
LP-1	000116A-01MSB	X					
LP-1	000116A-01MSD	X					
LP-1	000116A-01S					X	
LP-150	000116A-02	X				X	
LP-15	000116A-03	X				X	
LP-3	000116A-04	X				X	
EB-5	000116A-05	X				X	
TB-5	000116A-06	X					

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOLATILE (VOA)
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd at Lab	Date Extracted	Date Analyzed
000116A-01	SOIL	01/19/00	01/20/00	N/A	01/25/00
000116A-02	SOIL	01/19/00	01/20/00		01/26/00
000116A-03	SOIL	01/19/00	01/20/00		
000116A-04	SOIL	01/19/00	01/20/00		
000116A-05	WATER	01/19/00	01/20/00		01/25/00
000116A-06	WATER	01/19/00	01/20/00		

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
000116A-01	SOIL	AS-NCLP4.0	01/20/00	1/27/00
000116A-01	SOIL	CR-NCLP4.0	01/20/00	
000116A-01	SOIL	CU-NCLP4.0	01/20/00	
000116A-01	SOIL	MET-NCLP4.0-MISC	01/20/00	
000116A-01	SOIL	PB-NCLP4.0	01/20/00	
000116A-01	SOIL	ZN-NCLP4.0	01/20/00	
000116A-02	SOIL	AS-NCLP4.0	01/20/00	
000116A-02	SOIL	CR-NCLP4.0	01/20/00	
000116A-02	SOIL	CU-NCLP4.0	01/20/00	
000116A-02	SOIL	MET-NCLP4.0-MISC	01/20/00	
000116A-02	SOIL	PB-NCLP4.0	01/20/00	
000116A-02	SOIL	ZN-NCLP4.0	01/20/00	
000116A-03	SOIL	AS-NCLP4.0	01/20/00	
000116A-03	SOIL	CR-NCLP4.0	01/20/00	
000116A-03	SOIL	CU-NCLP4.0	01/20/00	
000116A-03	SOIL	MET-NCLP4.0-MISC	01/20/00	
000116A-03	SOIL	PB-NCLP4.0	01/20/00	
000116A-03	SOIL	ZN-NCLP4.0	01/20/00	
000116A-04	SOIL	AS-NCLP4.0	01/20/00	
000116A-04	SOIL	CR-NCLP4.0	01/20/00	
000116A-04	SOIL	CU-NCLP4.0	01/20/00	

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
INORGANIC ANALYSES

Laboratory Sample ID	Matrix	Metals Requested	Date Rec'd at Lab	Date Analyzed
000116A-04	SOIL	MET-NCLP4.0-MISC	01/20/00	1/27/00
000116A-04	SOIL	PB-NCLP4.0	01/20/00	"
000116A-04	SOIL	ZN-NCLP4.0	01/20/00	"
000116A-05	WATER	AS-NCLP4.0	01/20/00	1/27/00
000116A-05	WATER	CR-NCLP4.0	01/20/00	"
000116A-05	WATER	CU-NCLP4.0	01/20/00	"
000116A-05	WATER	MET-NCLP4.0-MISC	01/20/00	"
000116A-05	WATER	PB-NCLP4.0	01/20/00	"
000116A-05	WATER	ZN-NCLP4.0	01/20/00	"

Committed To Your Success

7000-0116A
FANNING PHILLIPS & MOLNAR

Case Narrative

Sample Receipt – All samples were received in good condition and at proper temperature.

Metals – ICAP metals were determined by ICP using a TJA61E trace ICAP following the USEPA CLP 4.0 SOW.

No problems occurred during analysis. All appropriate protocols were employed. All data appears to be consistent.

Volatile Organics – Volatile organics were determined by purge and trap GC/MS using guidance provided in Method 5030B/8260B. The instrumentation used was a Tekmar Model 2000/2016 Concentrator interfaced with a Hewlett Packard Model 5970A/5971A GC/MS/DS.

Sample Calculation:

Sample ID –LP-15
Compound –Tetrachloroethene

$$\frac{(2637627)(250)}{(3403175)(.650)(5)(.78)} = 76.43 = 76 \text{ UG/KG.}$$

Sample LP-1 was analyzed as a medium level soil due to high target compound concentrations.

I certify that this data package is in compliance with the terms and conditions of this contract, both technically and for completeness, for other than the conditions detailed above. Release of the data contained in this hardcopy data package and in the computer-readable data submitted on diskette has been authorized by the Laboratory Manager or his designee, as verified by the following signature.

J. C. Curran for

Jeffrey C. Curran
Laboratory Manager

January 31, 2000
Date

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-1

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) SOIL Lab Sample ID: 000116A-01

Sample wt/vol: 4 (g/mL) G Lab File ID: >O7763

Level: (low/med) MED Date Received: 01/20/00

% Moisture: not dec. 13 Date Analyzed: 01/25/00

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
74-87-3	Chloromethane	1400	U
74-83-9	Bromomethane	1400	U
75-01-4	Vinyl Chloride	1400	U
75-00-3	Chloroethane	1400	U
75-09-2	Methylene Chloride	1400	U
67-64-1	Acetone	610	J
75-15-0	Carbon Disulfide	1400	U
75-35-4	1,1-Dichloroethene	1400	U
75-34-3	1,1-Dichloroethane	1400	U
540-59-0	1,2-Dichloroethene (total)	1400	U
67-66-3	Chloroform	1400	U
107-06-2	1,2-Dichloroethane	1400	U
78-93-3	2-Butanone	2500	
71-55-6	1,1,1-Trichloroethane	1400	U
56-23-5	Carbon Tetrachloride	1400	U
75-27-4	Bromodichloromethane	1400	U
78-87-5	1,2-Dichloropropane	1400	U
10061-01-5	cis-1,3-Dichloropropene	1400	U
79-01-6	Trichloroethene	1400	U
124-48-1	Dibromochloromethane	1400	U
79-00-5	1,1,2-Trichloroethane	1400	U
71-43-2	Benzene	1400	U
10061-02-6	trans-1,3-Dichloropropene	1400	U
75-25-2	Bromoform	1400	U
108-10-1	4-Methyl-2-Pentanone	1400	U
591-78-6	2-Hexanone	1400	U
127-18-4	Tetrachloroethene	3500	
79-34-5	1,1,2,2-Tetrachloroethane	1400	U
108-88-3	Toluene	1400	U
108-90-7	Chlorobenzene	1400	U
100-41-4	Ethylbenzene	1400	U
100-42-5	Styrene	1400	U
1330-20-7	Xylene (total)	1400	U

1A

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

LP-150

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) SOIL Lab Sample ID: 000116A-02

Sample wt/vol: 5 (g/mL) G Lab File ID: >K8908

Level: (low/med) LOW Date Received: 01/20/00

% Moisture: not dec. 15 Date Analyzed: 01/26/00

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	17	B
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	.9	J
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	.4	J
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	16	
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	.4	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-15

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) SOIL Lab Sample ID: 000116A-03

Sample wt/vol: 5 (g/mL) G Lab File ID: >K8909

Level: (low/med) LOW Date Received: 01/20/00

% Moisture: not dec. 22 Date Analyzed: 01/26/00

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
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	1	J
67-64-1	Acetone	6	JB
75-15-0	Carbon Disulfide	13	U
75-35-4	1,1-Dichloroethene	13	U
75-34-3	1,1-Dichloroethane	13	U
540-59-0	1,2-Dichloroethene (total)	14	
67-66-3	Chloroform	13	U
107-06-2	1,2-Dichloroethane	13	U
78-93-3	2-Butanone	3	J
71-55-6	1,1,1-Trichloroethane	13	U
56-23-5	Carbon Tetrachloride	13	U
75-27-4	Bromodichloromethane	13	U
78-87-5	1,2-Dichloropropane	13	U
10061-01-5	cis-1,3-Dichloropropene	13	U
79-01-6	Trichloroethene	4	J
124-48-1	Dibromochloromethane	13	U
79-00-5	1,1,2-Trichloroethane	13	U
71-43-2	Benzene	.5	J
10061-02-6	trans-1,3-Dichloropropene	13	U
75-25-2	Bromoform	13	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	76	
79-34-5	1,1,2,2-Tetrachloroethane	13	U
108-88-3	Toluene	.4	J
108-90-7	Chlorobenzene	13	U
100-41-4	Ethylbenzene	13	U
100-42-5	Styrene	13	U
1330-20-7	Xylene (total)	.3	J

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

LP-3

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) SOIL Lab Sample ID: 000116A-04

Sample wt/vol: 5 (g/mL) G Lab File ID: >K8910

Level: (low/med) LOW Date Received: 01/20/00

% Moisture: not dec. 17 Date Analyzed: 01/26/00

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
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	12	U
75-15-0	Carbon Disulfide	12	U
75-35-4	1,1-Dichloroethene	12	U
75-34-3	1,1-Dichloroethane	12	U
540-59-0	1,2-Dichloroethene (total)	12	U
67-66-3	Chloroform	12	U
107-06-2	1,2-Dichloroethane	12	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	12	U
56-23-5	Carbon Tetrachloride	12	U
75-27-4	Bromodichloromethane	12	U
78-87-5	1,2-Dichloropropane	12	U
10061-01-5	cis-1,3-Dichloropropene	12	U
79-01-6	Trichloroethene	12	U
124-48-1	Dibromochloromethane	12	U
79-00-5	1,1,2-Trichloroethane	12	U
71-43-2	Benzene	.2	J
10061-02-6	trans-1,3-Dichloropropene	12	U
75-25-2	Bromoform	12	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	4	J
79-34-5	1,1,2,2-Tetrachloroethane	12	U
108-88-3	Toluene	.5	J
108-90-7	Chlorobenzene	12	U
100-41-4	Ethylbenzene	12	U
100-42-5	Styrene	12	U
1330-20-7	Xylene (total)	12	U

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

EB-5

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) WATER Lab Sample ID: 000116A-05

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O7761

Level: (low/med) LOW Date Received: 01/20/00

% Moisture: not dec. _____ Date Analyzed: 01/25/00

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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

TB-5

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) WATER Lab Sample ID: 000116A-06

Sample wt/vol: 5 (g/mL) ML Lab File ID: >O7762

Level: (low/med) LOW Date Received: 01/20/00

% Moisture: not dec. _____ Date Analyzed: 01/25/00

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	10	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	1	J
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

2A

WATER VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKOL	102	98	106		0
02	LP-1MSB	102	100	113		0
03	020ppb QCS	106	103	108		0
04	VBLKON	99	97	99		0
05	EB-5	103	101	104		0
06	TB-5	106	103	95		0
07						
08						
09						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						
21						
22						
23						
24						
25						
26						
27						
28						
29						
30						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(88-110)
SMC2 (BFB)	= Bromofluorobenzene	(86-115)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(76-114)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Level: (low/med) LOW

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKKE	98	100	93		0
02	LP-150	100	96	84		0
03	LP-15	100	100	98		0
04	LP-3	110	91	91		0
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						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

2B

SOIL VOLATILE SYSTEM MONITORING COMPOUND RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Level: (low/med) MED

	NYSDEC SAMPLE NO.	SMC1 (TOL) #	SMC2 (BFB) #	SMC3 (DCE) #	OTHER	TOT OUT
01	VBLKOO	98	95	98		0
02	LP-1	105	106	100		0
03	LP-1MS	99	100	96		0
04	LP-1MSD	100	103	104		0
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						

		QC LIMITS
SMC1 (TOL)	= Toluene-d8	(84-138)
SMC2 (BFB)	= Bromofluorobenzene	(59-113)
SMC3 (DCE)	= 1,2-Dichloroethane-d4	(70-121)

Column to be used to flag recovery values

* Values outside of contract required QC limits

3B

SOIL VOLATILE MATRIX SPIKE/MATRIX SPIKE DUPLICATE RECOVERY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix Spike - NYSDEC Sample No.: LP-1 Level: (low/med) MED

COMPOUND	SPIKE ADDED (ug/Kg)	SAMPLE CONCENTRATION (ug/Kg)	MS CONCENTRATION (ug/Kg)	MS % REC #	QC. LIMITS REC.
1,1-Dichloroethene	7200	0	7600	106	59-172
Trichloroethene	7200	0	6500	90	62-137
Benzene	7200	0	7600	106	66-142
Toluene	7200	0	6600	92	59-139
Chlorobenzene	7200	0	6600	92	60-133

COMPOUND	SPIKE ADDED (ug/Kg)	MSD CONCENTRATION (ug/Kg)	MSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
1,1-Dichloroethene	7200	7600	106	0	22	59-172
Trichloroethene	7200	6200	86	4	24	62-137
Benzene	7200	8100	112	6	21	66-142
Toluene	7200	6600	92	0	21	59-139
Chlorobenzene	7200	6700	93	1	21	60-133

Column to be used to flag recovery and RPD values with an asterisk

* Values outside of QC limits.

RPD: 0 out of 5 outside limits
Spike Recovery: 0 out of 10 outside limits

COMMENTS: _____

3-ASP

VOLATILE MATRIX SPIKE BLANK RECOVERY SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix Spike - NYSDEC Sample No.: LP-1

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	SPIKE CONCENTRATION (ug/L)	SPIKE % REC #	QC. LIMITS REC.
1,1-Dichloroethene	50	0	51	102	61-145
Trichloroethene	50	0	40	80	71-120
Benzene	50	0	52	104	76-127
Toluene	50	0	48	96	76-125
Chlorobenzene	50	0	46	92	75-130

Column to be used to flag recovery with an asterisk

* Values outside of QC limits.

Spike Recovery: 0 out of 5 outside limits

COMMENTS: _____

_____

QCS Spike Summary

Spike: 07749.D

Compound	Spike Amount	Spike Result	Rec	Low	High
Chloromethane	20	18	90	32	156
Bromomethane	20	14	70	66	121
Vinyl Chloride	20	16	80	63	129
Chloroethane	20	15	75*	78	119
Methylene Chloride	20	18	90	83	114
Acetone	20	13	65	29	156
Carbon Disulfide	20	12	60*	78	119
Vinyl Acetate	20	0	0*	16	144
1,1-Dichloroethene	20	18	90	78	122
1,1-Dichloroethane	20	20	100	80	119
1,2-Dichloroethene (total)	40	34	85	84	114
Chloroform	20	18	90	83	114
1,2-Dichloroethane	20	18	90	80	123
2-Butanone	20	16	80	55	146
1,1,1-Trichloroethane	20	20	100	72	128
Carbon Tetrachloride	20	20	100	77	127
Bromodichloromethane	20	19	95	81	118
1,2-Dichloropropane	20	19	95	77	125
cis-1,3-Dichloropropene	20	19	95	74	111
Trichloroethene	20	15	75*	82	114
Dibromochloromethane	20	19	95	81	121
1,1,2-Trichloroethane	20	19	95	74	126
Benzene	20	23	115	78	120
trans-1,3-Dichloropropene	20	20	100	80	128
Bromoform	20	18	90	68	134
4-Methyl-2-Pentanone	20	16	80	58	141
2-Hexanone	20	14	70	47	150
Tetrachloroethene	20	16	80	78	118
Toluene	20	17	85	70	140
1,1,2,2-Tetrachloroethane	20	17	85	76	118
Chlorobenzene	20	17	85	77	118
Ethylbenzene	20	17	85	82	113
Styrene	20	17	85	77	118
Xylene (total)	60	52	87	77	120

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKKE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: >K8907 Lab Sample ID: VBLKKE

Date Analyzed: 01/26/00 Time Analyzed: 1925

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

Instrument ID: HP5970K

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-150	000116A-02	>K8908	2009
02	LP-15	000116A-03	>K8909	2042
03	LP-3	000116A-04	>K8910	2116
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				

COMMENTS: _____

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLKKE

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) SOIL Lab Sample ID: VBLKKE

Sample wt/vol: 5 (g/mL) G Lab File ID: >K8907

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 01/26/00

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
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	10	U
67-64-1	Acetone	4	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKOL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: >OM7740 Lab Sample ID: VBLKOL

Date Analyzed: 01/24/00 Time Analyzed: 2137

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-1MSB	000116A-01MSB	>O7748	0302
02	020ppb QCS	020ppb QCS	>O7749	0337
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				

COMMENTS: _____

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLKOL

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) WATER Lab Sample ID: VBLKOL

Sample wt/vol: 5 (g/mL) ML Lab File ID: >OM7740

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/24/00

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	10	U
67-64-1	Acetone	5	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	4	J
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKON

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: >OM7759 Lab Sample ID: VBLKON

Date Analyzed: 01/25/00 Time Analyzed: 1607

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	EB-5	000116A-05	>O7761	1717
02	TB-5	000116A-06	>O7762	1752
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				

COMMENTS: _____

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

VBLKON

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) WATER Lab Sample ID: VBLKON

Sample wt/vol: 5 (g/mL) ML Lab File ID: >OM7759

Level: (low/med) LOW Date Received: _____

% Moisture: not dec. _____ Date Analyzed: 01/25/00

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	10	U
67-64-1	Acetone	8	J
75-15-0	Carbon Disulfide	10	U
75-35-4	1,1-Dichloroethene	10	U
75-34-3	1,1-Dichloroethane	10	U
540-59-0	1,2-Dichloroethene (total)	10	U
67-66-3	Chloroform	10	U
107-06-2	1,2-Dichloroethane	10	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	10	U
56-23-5	Carbon Tetrachloride	10	U
75-27-4	Bromodichloromethane	10	U
78-87-5	1,2-Dichloropropane	10	U
10061-01-5	cis-1,3-Dichloropropene	10	U
79-01-6	Trichloroethene	10	U
124-48-1	Dibromochloromethane	10	U
79-00-5	1,1,2-Trichloroethane	10	U
71-43-2	Benzene	10	U
10061-02-6	trans-1,3-Dichloropropene	10	U
75-25-2	Bromoform	10	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	10	U
79-34-5	1,1,2,2-Tetrachloroethane	10	U
108-88-3	Toluene	10	U
108-90-7	Chlorobenzene	10	U
100-41-4	Ethylbenzene	10	U
100-42-5	Styrene	10	U
1330-20-7	Xylene (total)	10	U

4A

VOLATILE METHOD BLANK SUMMARY

NYSDEC SAMPLE NO.

VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: >OM7760 Lab Sample ID: VBLKOO

Date Analyzed: 01/25/00 Time Analyzed: 1643

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

Instrument ID: HP5971O

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS AND MSD:

	NYSDEC SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	TIME ANALYZED
01	LP-1	000116A-01	>O7763	1826
02	LP-1MS	000116A-01MS	>O7766	2013
03	LP-1MSD	000116A-01MSD	>O7767	2047
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				

COMMENTS: _____

1A

NYSDEC SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET

VBLKOO

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix: (soil/water) SOIL Lab Sample ID: VBLKOO

Sample wt/vol: 4 (g/mL) G Lab File ID: >OM7760

Level: (low/med) MED Date Received: _____

% Moisture: not dec. 0 Date Analyzed: 01/25/00

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
74-87-3	Chloromethane	1200	U
74-83-9	Bromomethane	1200	U
75-01-4	Vinyl Chloride	1200	U
75-00-3	Chloroethane	1200	U
75-09-2	Methylene Chloride	1200	U
67-64-1	Acetone	1200	U
75-15-0	Carbon Disulfide	1200	U
75-35-4	1,1-Dichloroethene	1200	U
75-34-3	1,1-Dichloroethane	1200	U
540-59-0	1,2-Dichloroethene (total)	1200	U
67-66-3	Chloroform	1200	U
107-06-2	1,2-Dichloroethane	1200	U
78-93-3	2-Butanone	1200	U
71-55-6	1,1,1-Trichloroethane	1200	U
56-23-5	Carbon Tetrachloride	1200	U
75-27-4	Bromodichloromethane	1200	U
78-87-5	1,2-Dichloropropane	1200	U
10061-01-5	cis-1,3-Dichloropropene	1200	U
79-01-6	Trichloroethene	1200	U
124-48-1	Dibromochloromethane	1200	U
79-00-5	1,1,2-Trichloroethane	1200	U
71-43-2	Benzene	1200	U
10061-02-6	trans-1,3-Dichloropropene	1200	U
75-25-2	Bromoform	1200	U
108-10-1	4-Methyl-2-Pentanone	1200	U
591-78-6	2-Hexanone	1200	U
127-18-4	Tetrachloroethene	1200	U
79-34-5	1,1,2,2-Tetrachloroethane	1200	U
108-88-3	Toluene	1200	U
108-90-7	Chlorobenzene	1200	U
100-41-4	Ethylbenzene	1200	U
100-42-5	Styrene	1200	U
1330-20-7	Xylene (total)	1200	U

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: (Standard): >OM7739 Date Analyzed:01/24/00

Instrument ID: HP5971O Time Analyzed:2042

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	339705	12.00	1717459	13.29	1308193	18.06
	UPPER LIMIT	679410	12.50	3434918	13.79	2616386	18.56
	LOWER LIMIT	169852	11.50	858730	12.79	654096	17.56
	YSDEC SAMPLE NO.						
01	VBLKOL	285474	12.00	1463881	13.29	1110773	18.06
02	LP-1MSB	259287	12.02	1295485	13.31	1001755	18.08
03	020ppb QCS	253567	12.02	1106299	13.31	960197	18.08
04							
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: (Standard): >OM7758 Date Analyzed:01/25/00

Instrument ID: HP5971O Time Analyzed:1453

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) N

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	263786	12.11	1368153	13.39	1002270	18.16
	UPPER LIMIT	527572	12.61	2736306	13.89	2004540	18.66
	LOWER LIMIT	131893	11.61	684076	12.89	501135	17.66
	YSDEC SAMPLE NO.						
01	VBLKON	228328	12.10	1156293	13.39	818263	18.16
02	VBLKOO	225864	12.11	1160121	13.40	818094	18.16
03	EB-5	239742	12.10	1078272	13.39	905300	18.16
04	TB-5	237346	12.11	984273	13.41	876211	18.16
05	LP-1	228624	12.09	950362	13.40	837060	18.16
06	LP-1MS	257792	12.09	1095502	13.39	981174	18.16
07	LP-1MSD	246888	12.09	1101861	13.39	942819	18.16
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

8A

VOLATILE INTERNAL STANDARD AREA AND RT SUMMARY

Lab Name: STL/CT Contract: _____

Lab Code: IEACT Case No.: 0116A SAS No.: _____ SDG No.: A0116

Lab File ID: (Standard): >K8906 Date Analyzed:01/26/00

Instrument ID: HP5970K Time Analyzed:1840

GC Column: 007-624 ID: 0.53 (mm) Heated Purge: (Y/N) Y

		IS1(BCM) AREA #	RT #	IS2(DFB) AREA #	RT #	IS3(CBZ) AREA #	RT #
	12 HOUR STD	1015514	10.76	4141234	13.06	3525647	18.68
	UPPER LIMIT	2031028	11.26	8282468	13.56	7051294	19.18
	LOWER LIMIT	507757	10.26	2070617	12.56	1762824	18.18
	YSDEC SAMPLE NO.						
01	VBLKKE	976343	10.82	3809945	13.08	3363149	18.70
02	LP-150	1046474	11.11	3925888	13.32	3168079	18.77
03	LP-15	1007385	10.80	4014863	13.06	3403175	18.70
04	LP-3	736159	11.20	3544977	13.34	2782489	18.74
05							
06							
07							
08							
09							
10							
11							
12							
13							
14							
15							
16							
17							
18							
19							
20							
21							
22							

IS1 (BCM) = Bromochloromethane
IS2 (DFB) = 1,4-Difluorobenzene
IS3 (CBZ) = Chlorobenzene-d5

AREA UPPER LIMIT = +100% of internal standard area
AREA LOWER LIMIT = - 50% of internal standard area
RT UPPER LIMIT = +0.50 minutes of internal standard RT
RT LOWER LIMIT = -0.50 minutes of internal standard RT

Column used to flag values outside QC limits with an asterisk.
* Values outside of QC limits.

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-1

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix (soil/water): SOIL Lab Sample ID: 000116A-01

Level (low/med): LOW Date Received: 01/20/00

% Solids: 80.5

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	0.75	B		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	20.6			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	55.1			P
7439-89-6	Iron				NR
7439-92-1	Lead	4.5			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	13.2			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

_____

_____

_____

_____

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-150

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix (soil/water): SOIL Lab Sample ID: 000116A-02

Level (low/med): LOW Date Received: 01/20/00

% 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	0.66	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	9.3			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	15.3			P
7439-89-6	Iron				NR
7439-92-1	Lead	1.5			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	13.7			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-15

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix (soil/water): SOIL Lab Sample ID: 000116A-03

Level (low/med): LOW Date Received: 01/20/00

% Solids: 82

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	0.74	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	9.5			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	14.3			P
7439-89-6	Iron				NR
7439-92-1	Lead	1.4			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	15.1			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1
INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

LP-3

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix (soil/water): SOIL Lab Sample ID: 000116A-04

Level (low/med): LOW Date Received: 01/20/00

% Solids: 92.2

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	0.85	U		P
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	32.0			P
7440-48-4	Cobalt				NR
7440-50-8	Copper	61.0			P
7439-89-6	Iron				NR
7439-92-1	Lead	4.9			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				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	16.2			P
57-12-5	Cyanide				NR

Color Before: BROWN Clarity Before: OPAQUE Texture: _____

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

1

INORGANIC ANALYSES DATA SHEET

EPA SAMPLE NO.

EB-5

Lab Name: STL Contract: _____

Lab Code: STL Case No.: 0116A SAS No.: _____ SDG No.: A0116

Matrix (soil/water): WATER Lab Sample ID: 000116A-05

Level (low/med): LOW Date Received: 01/20/00

% 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				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	2.0	U		P
7440-48-4	Cobalt				NR
7440-50-8	Copper	6.1	B		P
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				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	4.3	B		P
57-12-5	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A0116

Preparation Blank Matrix (soil/water): SOIL

Preparation Blank Concentration Units (ug/L or mg/kg): MG/KG

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U	0.800	U	P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium	2.0	U	2.0	U	2.0	U	2.0	U	0.400	U	P
Cobalt											NR
Copper	1.0	U	1.0	U	1.0	U	1.0	U	0.500	B	P
Iron											NR
Lead	3.0	U	3.0	U	3.0	U	3.0	U	0.600	U	P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	3.0	U	3.0	U	3.0	U	3.0	U	1.432	B	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL . Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A0116

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			4.0	U	4.0	U			4.000	U	P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium			2.0	U	2.0	U			2.000	U	P
Cobalt											NR
Copper			1.0	U	1.0	U			1.000	U	P
Iron											NR
Lead			3.0	U	3.0	U			3.000	U	P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc			3.0	U	3.0	U			3.000	U	P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A0116

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic	4.0	U	4.0	U	4.0	U	4.0	U			P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium	2.0	U	2.0	U	2.0	U	2.0	U			P
Cobalt											NR
Copper	1.0	U	1.0	U	1.0	U	1.0	U			P
Iron											NR
Lead	3.0	U	3.0	U	3.0	U	3.0	U			P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc	3.0	U	3.0	U	3.0	U	3.0	U			P
Cyanide											NR

U.S. EPA - CLP

3
BLANKS

Lab Name: STL Contract: _____

Lab Code: STL Case No.: _____ SAS No.: _____ SDG No.: A0116

Preparation Blank Matrix (soil/water): WATER

Preparation Blank Concentration Units (ug/L or mg/kg): UG/L

Analyte	Initial Calibration Blank (ug/L)	C	Continuing Calibration Blank (ug/L) 1	C	2	C	3	C	Prepa-ration Blank	C	M
Aluminum											NR
Antimony											NR
Arsenic			4.0	U	4.0	U	4.0	U			P
Barium											NR
Beryllium											NR
Cadmium											NR
Calcium											NR
Chromium			2.0	U	2.0	U	2.0	U			P
Cobalt											NR
Copper			1.0	U	1.0	U	1.0	U			P
Iron											NR
Lead			3.0	U	3.0	U	3.0	U			P
Magnesium											NR
Manganese											NR
Mercury											NR
Nickel											NR
Potassium											NR
Selenium											NR
Silver											NR
Sodium											NR
Thallium											NR
Vanadium											NR
Zinc			3.0	U	3.0	U	3.0	U			P
Cyanide											NR

6
DUPLICATES

EPA SAMPLE NO.

LP-1D

Lab Name: STL Contract:

Lab Code: STL Case No.: 0116A SAS No.: SDG No.: A0116

Matrix: SOIL Level (low/med): LOW

% Solids for Sample: 80.48 % Solids for Duplicate: 80.35

Concentration Units (ug/L or mg/kg dry weight): MG/KG

Analyte	Control Limit	Sample (S)	C	Duplicate (D)	C	RPD	Q	M
Aluminum								NR
Antimony								NR
Arsenic		0.7522	B	0.7827	U	200.0		P
Barium								NR
Beryllium								NR
Cadmium								NR
Calcium								NR
Chromium		20.5588		22.5566		9.3		P
Cobalt								NR
Copper		55.1073		56.4744		2.4		P
Iron								NR
Lead		4.4736		3.8708		14.4		P
Magnesium								NR
Manganese								NR
Mercury								NR
Nickel								NR
Potassium								NR
Selenium								NR
Silver								NR
Sodium								NR
Thallium								NR
Vanadium								NR
Zinc	3.9	13.1595		11.3324		14.9		P
Cyanide								NR

APPENDIX B

WASTE DISPOSAL MANIFESTS

FPM

NOTE TO TRANSPORTER

BILL OF LADING NO. 14023

TRANSPORTATION OF NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL

FACILITY: THE EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, N.J. 08527
(732) 657-1103
(732) 657-9230 FAX

MAIL: THE EARLE ENVIRONMENTAL CORP.
P.O. DRAWER 43
FARMINGDALE, N.J. 07727

BILL OF LADING

GENERATOR:
NAME Cardwell Condenser
ADDRESS: 30 East Montauk Hwy
Lindenhurst, NY

SITE:
NAME: Same
ADDRESS:

CONTACT/
PHONE NO. Allied (516) 867-6452

CONTACT/
PHONE NO.

TRANSPORTER: Dedicated Logistics Inc.

CONSULTANT: Allied (Steve)

PRIMARY CONTAMINATE OF CONCERN:

( ) GAS ( ) JET FUEL
(X) OIL ( ) CRUDE OIL
( ) KEROSENE ( ) LUBRICATING OIL

TOTAL QUANTITY (TONS):

ANALYSIS REQUIRED:

(X) TPH (X) FLASH POINT
( ) VOC (X) PCB
(X) TCLP METALS ( ) OTHER TESTS REQUESTED
(X) REACTIVITY ( ) OTHER TESTS REQUESTED
(X) CORROSIVITY

GENERATOR SIGNATURE: DATE: 3/9/00

TRANSPORTER SIGNATURE: LICENSE PLATE # DATE:

FACILITY SIGNATURE: DATE: 3.09.00

TIME DRIVER ON SITE: OFF SITE:

PROJECT MANAGER SIGNATURE:

NOTE TO TRANSPORTER

14021

BILL OF LADING NO.

TRANSPORTATION OF NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL

FACILITY: THE EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, N.J. 08527
(732) 657-1103
(732) 657-9230 FAX

MAIL: THE EARLE ENVIRONMENTAL CORP.
P.O. DRAWER 43
FARMINGDALE, N.J. 07727

BILL OF LADING

GENERATOR:
NAME Cardwell Condenser

ADDRESS: 80 East Montauk Hwy

Lindenhurst, NY

CONTACT/
PHONE NO. Allied (516) 867-6452

SITE:
NAME: Same

ADDRESS:

CONTACT/
PHONE NO.

TRANSPORTER: Dedicated Logistics Inc.

CONSULTANT: Allied (Steve)

PRIMARY CONTAMINATE OF CONCERN:

( ) GAS ( ) JET FUEL
(X) OIL ( ) CRUDE OIL
( ) KEROSENE ( ) LUBRICATING OIL

TOTAL QUANTITY (TONS):

ANALYSIS REQUIRED:

(X) TPH (X) FLASH POINT
( ) VOC (X) PCB
(X) TCLP METALS ( ) OTHER TESTS REQUESTED
(X) REACTIVITY ( ) OTHER TESTS REQUESTED
(X) CORROSIVITY

GENERATOR SIGNATURE: DATE:

TRANSPORTER SIGNATURE: LICENSE PLATE # DATE:

FACILITY SIGNATURE: DATE: 3-9-00

TIME DRIVER ON SITE: OFF SITE:

PROJECT MANAGER SIGNATURE:

NOTE TO TRANSPORTER

BILL OF LADING NO. 14026

TRANSPORTATION OF NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL

FACILITY: THE EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, N.J. 08527
(732) 657-1103
(732) 657-9230 FAX

MAIL: THE EARLE ENVIRONMENTAL CORP.
P.O. DRAWER 43
FARMINGDALE, N.J. 07727

BILL OF LADING

GENERATOR:
NAME Cardwell Condenser
ADDRESS: 80 East Montauk Hwy
Lindenhurst, NY
CONTACT/
PHONE NO. Allied (516) 867-6452

SITE:
NAME: Same
ADDRESS:
CONTACT/
PHONE NO.

TRANSPORTER: Dedicated Logistics Inc.

CONSULTANT: Allied (Steve)

PRIMARY CONTAMINATE OF CONCERN:

( ) GAS ( ) JET FUEL TOTAL QUANTITY (TONS):
(X) OIL ( ) CRUDE OIL
( ) KEROSENE ( ) LUBRICATING OIL

ANALYSIS REQUIRED:

(X) TPH (X) FLASH POINT
( ) VOC (X) PCB
(X) TCLP METALS ( ) OTHER TESTS REQUESTED
(X) REACTIVITY ( ) OTHER TESTS REQUESTED
(X) CORROSIVITY

GENERATOR SIGNATURE: DATE: 3/9/00

TRANSPORTER SIGNATURE: 286214 LICENSE PLATE # DATE: 3-9-00

FACILITY SIGNATURE: DATE: 3-9-00

TIME DRIVER ON SITE: 8:00 In OFF SITE:

PROJECT MANAGER SIGNATURE:

NOTE TO TRANSPORTER

BILL OF LADING NO. 14024

TRANSPORTATION OF NON-HAZARDOUS PETROLEUM CONTAMINATED SOIL

FACILITY: THE EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, N.J. 08527
(732) 657-1103
(732) 657-9230 FAX

MAIL: THE EARLE ENVIRONMENTAL CORP.
P.O. DRAWER 43
FARMINGDALE, N.J. 07727

PO 138

BILL OF LADING

GENERATOR:
NAME Cardwell Condenser
ADDRESS: 80 East Montauk Hwy
Lindenhurst, NY
CONTACT/
PHONE NO. Allied (516) 867-6452

SITE:
NAME: Same
ADDRESS:
CONTACT/
PHONE NO.

TRANSPORTER: Dedicated Logistics Inc.

CONSULTANT: Allied (Steve)

PRIMARY CONTAMINATE OF CONCERN:

( ) GAS ( ) JET FUEL TOTAL QUANTITY (TONS):
(X) OIL ( ) CRUDE OIL
( ) KEROSENE ( ) LUBRICATING OIL

ANALYSIS REQUIRED:

(X) TPH (X) FLASH POINT
( ) VOC (X) PCB
(X) TCLP METALS ( ) OTHER TESTS REQUESTED
(X) REACTIVITY ( ) OTHER TESTS REQUESTED
(X) CORROSIVITY

GENERATOR SIGNATURE: DATE: 3/7/00

TRANSPORTER SIGNATURE: DATE: 3-9-00
LICENSE PLATE #

FACILITY SIGNATURE: DATE: 3-10-00

TIME DRIVER ON SITE: OFF SITE:

PROJECT MANAGER SIGNATURE:

THE WALTER R. EARLE CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527
(732)657-8551

ORIGINAL

SOLD TO: EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527

RECEIVE FROM: CARDWELL CONDENSER
80 EAST MONTAUK HIGHWAY
LINDENHURST, NY

J.M.F. #:

Job: 40264 PO:

TIME	DATE	PLANT #	CUSTOMER #	TICKET #	TYPE MATERIAL	TRUCK #
13:31	03/09/00	WRE	0000248	000475	JR66 SOIL	DLI15

PRODUCT # - NAME / LOAD # - ACCUMULATED TOTALS (TONS)		
JR66 SOIL	004- 134.740 122.235	Tons Mg

TRUCK WEIGHT IN TONS		
GROSS	TARE	
50.460 TN	17.510 TN	32.950
45.777 Mg	15.885 Mg	29.892

WEIGHMASTER: JAMES S. TAYLOR

DRIVER: RECVD. BY:

ALL WEIGHTS ARE IN POUNDS UNLESS OTHERWISE SPECIFIED

Recycled

INSPECTOR'S SIGNATURE

LOAD TOTAL 659

THE WALTER R. EARLE CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527
(732)657-8551

ORIGINAL

SOLD TO: EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527

RECEIVE CARDWELL CONDENSER
FROM: 80 EAST MONTAUK HIGHWAY
LINDENHURST, NY

J.M.F. #:

Job: 40264 PO:

TIME	DATE	PLANT #	CUSTOMER #	TICKET #	TYPE MATERIAL	TRUCK #
13:28	03/09/00	WRE	0000248	000474	JR66 SOIL	DLI12

PRODUCT # - NAME / LOAD # - ACCUMULATED TOTALS (TONS)		
JR66 SOIL	003- 101.790 92.343	Tons Mg

TRUCK WEIGHT IN TONS		
GROSS	TARE	NET
42.530 TN	13.760 TN	28.770 T
38.583 Mg	12.483 Mg	26.100 M

WEIGHMASTER: JAMES S. TAYLOR

DRIVER _____ RECVD. BY _____

ALL WEIGHTS ARE IN POUNDS UNLESS OTHERWISE SPECIFIED

Recycled

INSPECTOR'S SIGNATURE DLI

LOAD TOTAL 57540

THE WALTER R. EARLE CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527
(732)657-8551

ORIGINAL

SOLD TO: EARLE ENVIRONMENTAL CORP,
COUNTY ROUTE 547
JACKSON, NJ 08527

RECEIVE CARDWELL CONDENSER
FROM: 80 EAST MONTAUK HIGHWAY
LINDENHURST, NY

J.M.F. #:

Job: 40264 PO:

TIME	DATE	PLANT #	CUSTOMER #	TICKET #	TYPE MATERIAL	TRUCK #
12:30	03/03/00	WRE	0000248	000467	JR66 SOIL	TAK21

PRODUCT # - NAME / LOAD # - ACCUMULATED TOTALS (TONS)		
JR66 SOIL	002- 73.020 66.243	Tons Mg

TRUCK WEIGHT IN TONS		
GROSS	TARE	NET
56.240 TN	17.500 TN	38.740 TI
51,021 Mg	15.876 Mg	35.145 M

WEIGHMASTER: JAMES S. TAYLOR

DRIVER _____ RECVD. BY _____

ALL WEIGHTS ARE IN POUNDS UNLESS OTHERWISE SPECIFIED

Recycled

INSPECTOR'S SIGNATURE

LOAD TOTAL 77480

THE WALTER R. EARLE CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527
(732) 657-8551

ORIGINAL

SOLD TO: EARLE ENVIRONMENTAL CORP.
COUNTY ROUTE 547
JACKSON, NJ 08527

RECEIVE FROM: CARDWELL CONDENSER
80 EAST MONTAUK HIGHWAY
LINDENHURST, NY

J.M.F. #:

Job: 40264 PO:

TIME	DATE	PLANT #	CUSTOMER #	TICKET #	TYPE MATERIAL	TRUCK #
12:28	03/09/00	WRE	0000248	000466	JR66 SOIL	TAK037

PRODUCT # - NAME / LOAD # - ACCUMULATED TOTALS (TONS)		
JR66 SOIL	001- 34.280 31.099	Tons Mg

TRUCK WEIGHT IN TONS		
GROSS	TARE	NET
47.330 TN	13.050 TN	34.280 T
42.937 Mg	11.839 Mg	31.099 M

WEIGHMASTER: JAMES B. TAYLOR

DRIVER _____ RECVD. BY _____

ALL WEIGHTS ARE IN POUNDS UNLESS OTHERWISE SPECIFIED

Recycled

INSPECTOR'S SIGNATURE

LOAD TOTAL 68560

APPENDIX C

BORING LOGS AND WELL SAMPLING FORMS

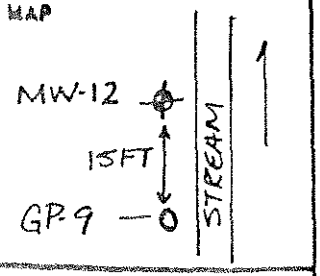
FPM

DRILLING LOG

Fanning, Phillips & Molnor
Engineers
Rochester New York

PROJECT Cardwell
LOCATION Lindenhurst W.O. No. 370-94-02
WELL No. MW-12 TOTAL DEPTH 16 FT DIAMETER 8 IN
SURFACE ELEV. – WATER LEVEL INITIAL – 24-hrs –
SCREEN DIA. 2 IN LENGTH 12 FT SLOT SIZE 0.02 IN
CASING DIA. 2 IN LENGTH 4 FT TYPE SCH 40 PVC
DRILLING COMP. DRILLING METHOD HSA
DRILLER Bob LOG BY GSM/EPM DATE DRILLED 12/16/99

SKETCH MAP



NOTES

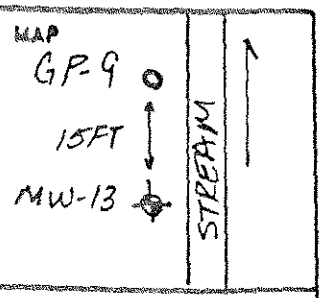
DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1–20			Sp.	0-6 FT Sp. Brown. Poorly graded fine sand with fine gravel. Trace coarse gravel-sized concrete blocks. Moist. No solvent or petroleum odors or staining.
			Sp.	6-19 FT Sp. Brown. Fine sand, trace medium to coarse sand. Wet. No staining or odors.
			Sp.	DTW = 6 FT BGS.
				1.5 bags of well gravel (#2) screened interval 4-16 FT
				Riser 0-4 FT
				well gravel from 3-19 FT
				Bentonite From 2-3 FT (hydrated)
				Lock P761
				Developed well
				Backfill 0.5-2 Ft
				Concrete surface seal & flush manhole

DRILLING LOG

Fanning, Phillips & Molnar
Engineers
Hackensack, New York

PROJECT Cardwell
LOCATION Cinderhurst W.O. No. 370-94-02
WELL No. MW-13 TOTAL DEPTH 16FT DIAMETER 8IN
SURFACE ELEV. — WATER LEVEL INITIAL — 24-hrs —
SCREEN DIA. 2IN LENGTH 12FT SLOT SIZE 0.02IN
CASING DIA. 2IN LENGTH 4FT TYPE SCH 40 PVC
DRILLING COMP. DRILLING METHOD HSA
DRILLER Bob LOG BY GSM/FPM DATE DRILLED 11/16/89

SKETCH MAP



NOTES

DEPTH (FEET)	SAMPLE NUMBER	WELL CONSTRUCTION	GRAPHIC LOG	DESCRIPTION/SOIL CLASSIFICATION (COLOR, TEXTURE, STRUCTURES)
1–5			SP.	0-6 FT Sp. Brown. Poorly Graded Fine Sand with trace fine to medium gravel. Moist. No solvent or petroleum staining or odors.
6–10			SP.	6-17.5 FT Sp. Brown. Fine sand. Trace medium to coarse sand. Wet. no stains or odors.
11–17			SP.	DTW = 6FT 1 bag of #2 well gravel 1 bag of Bentonite chips - hydrated Screen - 4-16 FT Risa - 0-4 FT well gravel 3-17.5 Ft bentonite 2-3 Ft backfill 0.5-2 Ft Concrete surface seal & flush manhole Lock # P761 Developed well
18–20				

WELL SAMPLING DATA FORM

CLIENT Cardwell

PROJECT NO. 370-94-02

LOCATION Cinderhurst

WELL NO. MW-12 WELL TYPE 2" ø PVC

DATE 1/5/00 START TIME 1115

WEATHER sun 40° FINISH TIME 1125

SAMPLED BY GSM

DEPTH TO BOTTOM OF WELL 16.51 FT.

DEPTH TO WATER 4.86 FT.

HEIGHT OF WATER COLUMN 11.65 FT.

WATER VOLUME IN CASING 1.9 GAL.

WATER VOLUME TO BE PURGED 5.6 GAL.

WATER VOLUME PURGED 8.0 GAL.

PURGE DATE 1/5/00

PURGE METHOD Whale Pump

PHYSICAL APPEARANCE/COMMENTS

FIELD MEASUREMENTS

TIME (gal)	pH	mS COND	°F TEMP	FTU turb pH
2	6.14	300	58	96
4	6.23	310	58	15.14
6	6.21	290	58	2.76

SAMPLING AND ANALYTICAL METHODS

Disp bailer / TCL VOCs

LABORATORY NAME AND LOCATION

STL Monroe, CT

WELL SAMPLING DATA FORM

CLIENT Cardinal

PROJECT NO. 370-94-02

LOCATION Lindenhurst

WELL NO. MW-13 WELL TYPE 2" ϕ PVC

DATE 1/5/00 START TIME 1135

WEATHER Sun 40° FINISH TIME 1145

SAMPLED BY GSM

DEPTH TO BOTTOM OF WELL (N) 17.18 FT.

DEPTH TO WATER (N) 4.62 FT.

HEIGHT OF WATER COLUMN 12.56 FT.

WATER VOLUME IN CASING 2.1 GAL.

WATER VOLUME TO BE PURGED 6.1 GAL.

WATER VOLUME PURGED 8.0 GAL.

PURGE DATE 1/5/00

PURGE METHOD Whale Pump

PHYSICAL APPEARANCE/COMMENTS

FIELD MEASUREMENTS

TIME (gal)	pH	COND (uS)	TEMP (°F)	Ph (FTU typ 6)
2	6.26	280	58	76
4	6.13	270	58	10.47
6.5	6.09	260	58	4.03

SAMPLING AND ANALYTICAL METHODS

Disp Lab/w / TCL VOCs

LABORATORY NAME AND LOCATION

STL Monroe, CT

Headquarters

909 Marconi Avenue
Ronkonkoma, New York 11779
(631) 737-6200
(718) 767-3337

Branch Offices

225 Brookley Road
Suite 520
Rome, New York 13441
(315) 336-7721

8000 IH 10 West
Suite 600
San Antonio, TX 78230
(210) 366-8002

505 West Riverside
Suite 500
Spokane, Washington 99201
(509) 252-5079

445 Contractor's Road
Edwards, CA 93523
(661) 258-1060