SUPPLEMENTAL PRELIMINARY SITE ASSESSMENT

YAPHANK SITE
(SITE REGISTRY NO. 1-52-146)
TOWN OF BROOKHAVEN
SUFFOLK COUNTY, NEW YORK

Prepared for:

METROPOLITAN TRANSPORTATION AUTHORITY
LONG ISLAND RAIL ROAD
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SUPPLEMENTAL PRELIMINARY SITE ASSESSMENT
LONG ISLAND RAIL ROAD
YAPHANK SITE

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1.0 INTRODUCTION

The Long Island Rail Road (LIRR) entered into an Order on Consent with the New York State Department of Environmental Conservation (NYSDEC) on February 23, 1996 to conduct a Preliminary Site Assessment (PSA) of a parcel of property referred to as the Yaphank Site, which is located 0n the Town of Brookhaven, Suffolk County, New York. The site is identified as Site Code 1-52-146 on the NYSDEC Registry of Inactive Hazardous Waste Disposal Sites. The site has been assigned a Class 2a designation, which is defined as a "temporary classification assigned to sites that have inadequate and/or insufficient data for inclusion in any of the other classifications." Dvirka and Bartilucci Consulting Engineers (D&B) was retained by the LIRR to undertake the PSA in order to satisfy the requirements associated with the Order.

The PSA was completed in 1998, and a report documenting the findings, conclusions and recommendations of the PSA was submitted to the NYSDEC in April 1998. The report concluded that additional investigation was required to further delineate the extent of contamination, and specific recommendations were made for a supplemental investigation. It was then conditionally approved in October 1998 provided that supplemental sampling be conducted to provide the NYSDEC with sufficient data for it to make a registry classification decision. This Supplemental PSA report provides a description and presents the findings, conclusions and recommendations associated with the supplemental sampling program undertaken in accordance with the recommendations of the 1998 PSA.

1.1 Project Objective

The objectives of this Supplemental PSA are to further evaluate and identify the presence of any impacted surface soil, subsurface soil and groundwater associated with the Yaphank Site, and to provide NYSDEC with sufficient data for it to make a significant threat determination and properly classify the site on the Registry.

1.2 Site Location, Ownership and Access

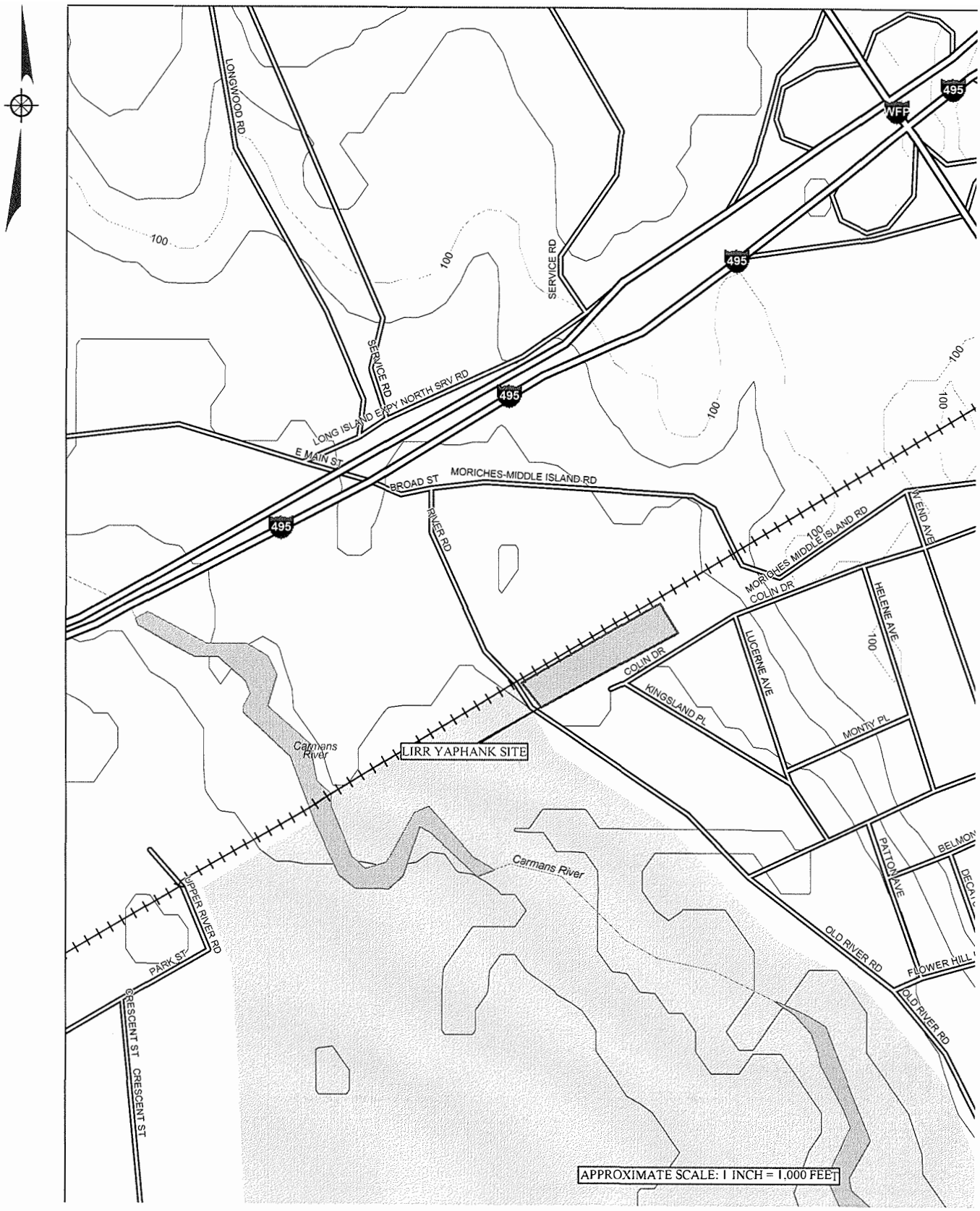
The site is located in Yaphank, Town of Brookhaven, Suffolk County, New York (see Figure 1-1). The parcel of property under evaluation is approximately 3.5 acres in size and is located immediately east of River Road and south of the LIRR Main Line track. The site (Suffolk County tax identification number: Section 640, Block 1, portion of Lot 2) is owned and operated by the LIRR. The site is fenced and the primary access route is via River Road (see Figure 1-2). The site may also be accessed from Colin Drive via the entrance to the adjacent concrete plant.

1.3 Site Description

As previously mentioned, the parcel of property under evaluation is approximately 3.5 acres in size. The site is currently undeveloped and is primarily open space with sparse vegetation. The site is not actively utilized. It appears that the site was formerly used by the LIRR to landfill railroad-related waste. Based on the findings of the PSA and this investigation, the top layer of portions of the site has been noted to contain clinker and slag-like materials that vary in depth from 6 to 24 inches grade below. Portions of the site are also covered with ballast.

To the north of the site, across the Main Line track, is undeveloped property also owned by the LIRR. To the west, on the west side of River Road, is Southaven Park, which is owned by Suffolk County. The Carmens River is approximately 1,000 feet southwest of the site, within the Park, at its closest point. Immediately to the south and east of the property is an active concrete plant/transfer facility (owned by Arriva Transport Corp.). Residential properties occupy the majority of the areas further to the south and east. Brookhaven National Laboratory, a National Priority List (NPL) site, is located approximately one mile to the north of the Yaphank Site.

There is little topographic relief across the site, with the exception of a steep embankment on the southwestern portion of the site, and an underpass beneath an abandoned railroad siding on the northeastern portion of the site. Regional groundwater flow is to the southwest.

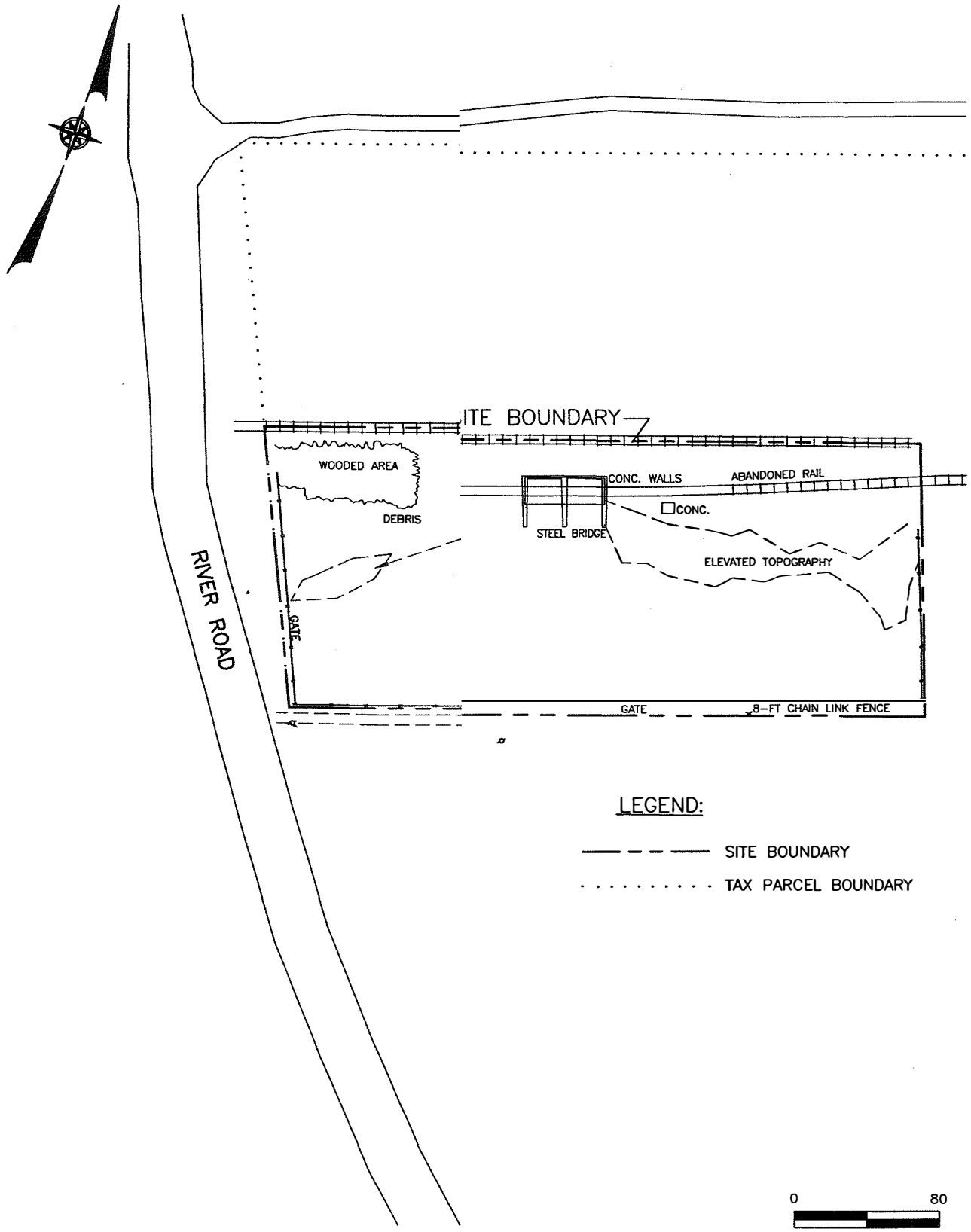


LONG ISLAND RAIL ROAD
YAPHANK SITE

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

SITE LOCATION MAP

FIGURE 1-1



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Dvirka and Bartilucci
Consulting Engineers
A Division of William F. Cosulich Associates,

FIGURE 1-2

1.4 Site History

The following discussion regarding the site history is based upon the findings of the 1998 Preliminary Site Assessment.

There are no known records regarding the prior disposal operations conducted at the Yaphank Site, but anecdotal information indicates that this site was used as a general disposal area for railroad-related waste from the 1950s to the early 1970s. Accordingly, as previously mentioned, the NYSDEC has assigned the site a "2a" classification, which is a temporary classification indicating that additional investigation is required to determine whether conditions at the site constitute a significant threat to the public health or the environment as a result of hazardous waste disposal.

It is believed that the site was used as a disposal area for waste generated from railroad track maintenance activities, as well as possibly from electric and diesel train repair shops. Records of waste type and/or quantities do not exist. Based on information compiled by the LIRR, disposed materials could include batteries, spent drums, scrap metal, railroad ties, coal clinkers, lead paint scrapings, waste liquids and miscellaneous construction debris. As discussed further in Section 3.0 (Physical Characteristics of the Study Area), the primary type of waste encountered during the subsurface soil sampling program included railroad ties and what appear to be coal clinkers.

It is also worthy to note that historical USGS maps depict a "U.S. Reservation" along the eastern side of River Road. Based on a phone interview conducted with a Brookhaven National Laboratory representative, this area was utilized in the early 1900s by the United States Government Atomic Energy Commission as a water supply well field. Groundwater was reportedly pumped from this location to a military installation referred to as Camp Upton, which was located approximately 1 ½ mile to the north. A site inspection conducted to the southwest of the site confirmed the locations of a "drainage swale", "dike" and former building foundation in

this area. The previously mentioned phone interview also confirmed that this building foundation was associated with a former pumping station.

1.5 Overview of Previous Investigations

The LIRR completed a preliminary soil and groundwater sampling program at the site in the early 1990's. As part of that program, thirty-six shallow soil samples were collected (to a maximum depth of 2 feet 8 inches) and analyzed for: Toxicity Characteristic Leaching Procedure (TCLP) parameters; volatile organic compounds (VOCs); semivolatile organic compounds (SVOCs); pesticides; PCBs; pH and metals. Based on a comparison of the analytical results to the Recommended Soil Cleanup Objectives presented in Appendix A of NYSDEC's Technical and Administrative Guidance Memorandum (TAGM) No. 4046, there were numerous exceedances of these objectives. Additionally, more than half of the shallow soil samples analyzed exceeded the TCLP regulatory limit for lead (5 mg/l).

Subsurface sampling and analysis of saturated soil associated with the installation of monitoring wells located outside of the landfilled area is also available from this sampling program. The subsurface soil samples were analyzed for VOCs, SVOCs, pesticides, PCBs, metals, pH, total petroleum hydrocarbons (TPHCs), and TCLP VOCs, SVOCs and metals. Exceedances of the NYSDEC Recommended Soil Cleanup Objectives for metals were detected.

During July and August of 1993, two rounds of groundwater samples were collected from the monitoring wells installed on the southwestern portion of the property. Wells MW-1, MW-2 and MW-3 were sampled in July and August. MW-4 was sampled in August only. The approximate locations of these wells are depicted on Figures 3-1 (Groundwater Contour Map) and 4-3 (Groundwater Exceedance Summary). The analytical data for these sampling events is presented in Appendix A. Samples from these wells were analyzed for VOCs, SVOCs, pesticides, PCBs, metals (July: unfiltered; August: filtered and unfiltered), cyanide, TPHCs, and TCLP VOCs, SVOCs, pesticides and metals. There were no exceedances of groundwater standards/guidelines, with the exception of metals.

The results of analyses of the unfiltered groundwater samples collected in July 1993 from MW-1, MW-2 and MW-3, indicated concentrations of beryllium, cadmium, chromium, copper, lead and zinc above the Class GA Groundwater Standards/Guidelines. The unfiltered samples collected in August 1993 exhibited concentrations of cadmium, lead and zinc in the sample from MW-1, and lead in the sample from MW-4, above the Class GA Groundwater Standards/Guidelines. For the filtered samples, which represent the dissolved constituents present in groundwater and are representative of actual groundwater quality, MW-1, the westernmost well, showed levels of cadmium and zinc above Class GA Groundwater Standards. The filtered samples from MW-3 showed an exceedance for lead; the unfiltered sample did not. This may indicate a reversal of the sample designations, and the concentration of lead in the filtered sample may actually be less than the standard. However, presently, all four wells are structurally damaged, and are considered to be inoperable, therefore, precluding the option of conducting a resampling and analysis for lead in an effort to clarify this apparent discrepancy.

A ground penetrating radar (GPR) study was also attempted in January 1993. However, this study was largely inconclusive due to the inability of the radar to penetrate the metal slag layer overlying the majority of the site.

The LIRR completed a Preliminary Site Assessment (PSA) in April 1998. The associated field program utilized soil borings, test pits and monitoring wells to sample surface and subsurface soils and groundwater. Results of this program indicated elevated levels of constituents of concern in surface and subsurface soil samples collected on-site. Semivolatile organic compounds and metals, including arsenic, copper, lead and mercury, were found above NYSDEC TAGM 4046 recommended soil cleanup objectives in the southwestern low-lying portion of the site. As a result, it was suspected that contamination may have migrated beyond site boundaries to the southwest. Samples collected from soil borings in the elevated portion of the western half of the site also exhibited numerous exceedances of these constituents, as did a sample collected from a soil boring in the central area of the eastern portion of the site and an additional sample collected from a boring in the center of the site. Groundwater at the site,

however, was not determined to have been affected by site conditions, exhibiting only exceedances for the constituents thallium, methylene chloride and sodium. In addition, samples collected from test pits in support of the PSA did not indicate any constituents in excess of the TCLP regulatory levels.

In order to further delineate the extent of existing on-site contamination, recommendations of the PSA included additional on-site surface and subsurface soil sampling. Based on the direction of groundwater flow and contamination identified in the southwest corner of the site, off-site sampling was also recommended to the southwest of the site. Lastly, recommendations were made for the continued sampling of existing monitoring wells and for the installation and sampling of additional monitoring wells. These recommendations were implemented as part of the Supplemental PSA conducted at the site. The sections that follow document the findings of the Supplemental PSA.

2.0 INVESTIGATION METHODS

A number of investigation methods were employed in support of the field program for this Supplemental PSA to further investigate the vertical and horizontal extent of contamination. The field activities included construction and sampling of groundwater monitoring wells, sampling of surface soils, advancing soil borings and sampling of subsurface soils, and surveying of sampling locations.

Upon delivery at the site, and prior to each use, all nondisposable equipment utilized in the subsurface investigation was decontaminated at an on-site temporary decontamination station. The decontamination procedure consisted of an initial manual wash of alconox and tap water in order to remove particulate matter and surface film. The equipment was then steam cleaned utilizing a high pressure steam wash. The rinsate was collected and stored in 55-gallon steel drums staged on-site for subsequent characterization and disposal by the LIRR.

2.1 Surface Soil Sampling

Forty-five surface soil samples were collected in association with this Supplemental PSA at both on-site and off-site locations. The sample locations are shown on Figure 2-1, at the end of this section. Each sample was collected from a depth of 0 to 6 inches below ground surface, with the exception of SS-17, SS-21, SS-28 and SS-29. These surface soil samples were collected from 0 to 3 inches below ground surface due to the presence of either cobbles or slag material at approximately 3 inches below grade. Samples were collected utilizing a dedicated, sterile, disposable polyethylene scoop, and analyzed for target analyte list (TAL) parameters. Generally, the surface soil at the site has been characterized as fine to medium grained sand ranging in color from tan to brown. Elevated PID readings and/or discoloration were not observed in any of the surface soil samples. The physical characteristics of each surface soil sample have been documented on sample information records presented in Appendix B. Analytical results associated with this sampling event are presented in Section 4.

2.2 Subsurface Soil Sampling

Eight soil borings were advanced on-site and three were advanced off-site. Split spoon samples were collected at 5-foot intervals to the water table interface. Each split spoon (a total of 27 samples) was analyzed for TAL parameters. The locations of the soil borings are shown on Figure 2-1.

2.2.1 Borehole Drilling

Boreholes were advanced at 11 locations utilizing 4 1/4-inch hollow stem augers. The boreholes were advanced to the water table with split spoon sampling at 5-foot intervals. Drill cuttings were containerized in 55-gallon drums and staged on-site for subsequent characterization and disposal by the LIRR. Upon completion of each borehole, a cement-bentonite grout was utilized to abandon each soil boring.

2.2.2 Subsurface Soil Sampling

Split spoon samples were collected in the overburden from ground surface to the completion depth of the boreholes at 5-foot intervals. Split spoon samples were screened utilizing a photoionization detector (PID) after retrieval and opening of the spoon. Up to three samples were selected for chemical analysis based upon field observations from each of the borings as part of the subsurface soil sampling program. Following screening, the samples were logged by a geologist and recorded on boring logs. Sample information records and boring logs are provided in Appendix B and C respectively. Analytical results associated with this sampling event are presented in Section 4.

2.3 Monitoring Well Installation

Two monitoring wells (MW-11 and MW-12) were installed upgradient of the site, north of the Main Line tracks, in order to characterize upgradient groundwater quality. In addition, two

monitoring wells (MW-13 and MW-14) were installed along the southern boundary of the property and two monitoring wells were installed off-site to the southwest (MW-15 and MW-16), in order to characterize downgradient groundwater quality. The locations of the groundwater monitoring wells are depicted on Figure 2-1. Each well was screened across the groundwater interface.

2.3.1 Well Borehole Drilling

Boreholes at all six monitoring well locations were drilled using 4 1/4-inch hollow stem augers to a depth of approximately 10 feet below the water table. The depth of the water table was determined by visual observation of saturated soil in split spoon samples and drill cuttings. All drill cuttings were containerized in 55-gallon drums and staged on-site for subsequent characterization and disposal by the LIRR.

2.3.2 Subsurface Soil Sampling

Split spoon soil samples were collected at 5-foot intervals in the overburden from ground surface to the completion depth of the borehole in order to collect subsurface geological information and to verify the appropriate depth for well screen placement. Split spoon soil samples were screened using a photoionization detector (PID) after retrieval and opening of the split spoon. Following screening, the samples were logged by a geologist and observations were recorded on Boring Log Forms. Boring (well) locations are presented on Figure 2-1, and Boring Logs are included in Appendix C.

2.3.3 Monitoring Well Construction

Upon completion of each borehole, Number 1 grade Morie sand pack was placed inside the augers to form an approximate 0.5-foot thick bed at the desired depth of well construction. Each of the monitoring wells was constructed of 2-inch diameter, Schedule 40 PVC, flush-joint riser pipe and 0.010-inch slot well screen. The monitoring wells were constructed with 15 feet of well screen set approximately 10 feet below and 5 feet above the water table. Following the

placement of the sand pack at the base of the borehole, the PVC well screen and riser pipe were assembled and lowered into the casing so that approximately 2 1/2 feet of riser pipe remained above ground surface. A clean Number 1 grade sand pack was then placed into the annular space around the well screen and pipe to a depth of approximately 2 feet above the top of the well screen.

During placement of the sand pack, the 4 1/4-inch diameter hollow stem augers were slowly raised to allow the sand pack to fall into the open borehole and, at the same time, prevent caving of the borehole. Upon completing the sand pack placement, a 2-foot bentonite pellet seal was placed above the sand pack. Water was then placed into the annulus to hydrate the bentonite pellets. The well construction was then halted for a minimum of 30 minutes to allow the pellets to swell and seal the borehole. The remaining annular space was filled with cement-bentonite grout to ground surface.

Each of the wells was completed by leaving approximately 2 1/2 feet of the PVC riser pipe above ground surface enclosed within a locking 4-inch diameter protective steel casing. A concrete pad was installed around each protective casing, and the well identification numbers were marked in the concrete. Table 2-1 presents a summary of the monitoring well specifications. Specific well construction details are presented in the well construction logs in Appendix D.

2.3.4 Monitoring Well Logging

All drilling and monitoring well installations were logged by a geologist. Notes were kept in both bound field books and on drilling and well construction logs. The Modified Burmeister Classification System was utilized to describe soil samples recovered from the borings.

2.3.5 Monitoring Well Development

Well development consisted of surging and pumping the wells using a 2-inch diameter submersible pump. During the surging process, the dedicated polyethylene discharge pipe connected to the submersible pump was raised and lowered throughout the water column in order to

Table 2-1

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MONITORING WELL SPECIFICATIONS

Well/Boring Number	Depth to Borehole Bottom (feet below grade)	Depth to Screen Bottom (feet below grade)	Depth to Screen Top (feet below grade)	Screen Length	Geologic Unit Screened
MW-11	32.5	32	17	15	sand
MW-12	29.5	29	14	15	sand
MW-13	37.5	37	22	15	sand
MW-14	40.5	40	25	15	sand
MW-15	17.5	17	2	15	sand
MW-16	17.5	17	2	15	sand

draw water from all portions of the screen. The wells were pumped at rates between 3 and 5 gallons per minute. The wells were developed until the discharge water was less than 50 nephelometric turbidity units (NTUs). During the development process, the volume of water removed, as well as periodic measurements of pH, temperature, conductivity and turbidity were recorded for each well. Turbidity measurements recorded at the end of well development were less than 10 NTUs for all wells. Well development water was containerized and staged in 55-gallon drums for subsequent characterization and disposal by the LIRR.

2.3.6 Groundwater Level Measurements

Groundwater level measurements were obtained from each monitoring well prior to the groundwater sampling event. Water level measurements were conducted on the same day for all the wells. An electronic water level indicator was used to measure the depth to water from the top of the PVC riser in each well. The measuring points were located on the north side of the PVC riser pipe. Groundwater elevations were calculated after the measuring points were surveyed with respect to the 1988 NAVD - North American Vertical Datum of 1988.

2.4 Groundwater Sampling

The static water level was measured in each well in order to determine the volume of standing water. Purging was then conducted using a dedicated disposable polyethylene bailer and dedicated rope. The purge water was monitored for temperature, pH, conductivity and turbidity. Purging was continued until three to five well volumes of standing water were removed. All purge water was collected and containerized in 55-gallon drums for subsequent characterization and disposal by the LIRR. During the purging of the monitoring wells prior to the collection of groundwater samples, the majority of the wells were still exhibiting elevated turbidity after the removal of the standard three to five well volumes (of standing water) and difficulty was encountered in achieving "stabilized" turbidity measurements. As an example, the turbidity measured at monitoring well MW-15 dropped from 999 NTUs to 5 NTUs after the removal of the second well volume. However, it then increased from 5 NTUs to 691 NTUs after the removal

of the third well volume. As a result, it was determined that it would be prudent to analyze both filtered and unfiltered samples from all monitoring wells.

Groundwater samples were collected from the six monitoring wells installed as part of the Supplemental PSA, as well as the six monitoring wells installed as part of the Preliminary Site Assessment (PSA). The samples collected were analyzed for Target Compound List (TCL +30) and Target Analyte List (TAL) metals (filtered and non-filtered). Analytical results associated with this sampling event are presented in Section 4.

2.5 Air Monitoring

As part of this Supplemental PSA, an air monitoring program was implemented for the protection of the health and safety of on-site workers. The monitoring included collection of ambient/background readings using a Photovac Micro Tip portable photoionization detector (PID). Air monitoring was conducted during borehole drilling and sampling, and well head spaces were monitored during well development purging and sampling. Air monitoring observations were recorded on daily Air Monitoring Forms, presented in Appendix E.

2.6 Surveying and Mapping

Sample locations were surveyed to support the preparation of a sample location map for use in this report. Northing and easting coordinates and elevations were obtained for each boring, monitoring well and surface soil sample, and tied to an assumed coordinate system and datum on the site. Further, topographical information was overlayed onto the map (Figure 2-1) in order to illustrate the relief across the site.

2.7 Health and Safety Program

A Health and Safety Plan was prepared and approved by the NYSDEC in association with the Work Plan for the PSA in order to establish occupational health and safety requirements,

responsibilities and procedures to protect workers during the field investigation. The requirements for worker health and safety were based on the following:

- The Standard Operating Safety Guides. U.S. Environmental Protection Agency (EPA), Office of Emergency and Remedial Response;
- The Occupational Health and Safety Administration (OSHA) Regulations, 29 CFR Parts 1910.120 and 1926;
- Occupational Safety and Health Guidance Manual for Hazardous Waste Site Activities, NIOSH, OSHA, USCG and EPA;
- Health and Safety Procedures for Hazardous Waste Sites. Dvirka and Bartilucci Consulting Engineers; and
- Superfund Amendments and Reauthorization Act (SARA), Title I, Section 126.

2.8 Quality Assurance/Quality Control and Sampling Program

A Quality Assurance and Quality Control (QA/QC) Plan was prepared and approved by the NYSDEC in association with the Work Plan for the PSA which described the detailed sample collection and analytical procedures to be used to ensure the validity of data collected as part of this project. This QA/QC Plan included detailed descriptions of the following:

- Objective and Scope
- Data Usage
- Monitoring Network Design and Rationale
- Monitoring Parameters
- Schedule of Tasks and Outputs
- Project Organization and Responsibility
- Data Quality Requirements and Objectives
- Sampling Procedures

- Decontamination Procedures
- Laboratory Sample Custody Procedures
- Field Management Documentation
- Calibration Procedures and Preventive Maintenance
- Documentation, Data Reduction and Reporting
- Data Validation
- Performance and System Audits
- Corrective Action
- Trip Blanks
- Field Blanks
- Matrix Spikes/Matrix Spike Duplicates
- Method Blanks
- Field Management Forms
- NYSDEC Sample Identification, Preparation and Analysis Summary Forms
- Data Validation Reporting Forms

2.9 Data Validation

Throughout the Supplemental PSA, all aspects of the data validation process were performed in accordance with the procedures outlined in the QA/QC Plan included in the project Work Plan. Mitkem Corporation, a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) and Contract Laboratory Program (CLP) certified laboratory meeting the requirements of the NYSDEC 1995 Analytical Services Protocols (ASP), performed all the chemical analyses for the samples collected during the Supplemental PSA.

Documentation regarding data validation was completed by the laboratory using appropriate NYSDEC forms, which were submitted with the data package as required in the work plan.

Data validation was performed to determine and document analytical data quality in accordance with NYSDEC ASP requirements. The analytical and validation processes were conducted in conformance with the 1995 ASP and are based on the United States Environmental Protection Agency's (USEPA) Contract Laboratory Protocol "Statement of Work" documents and the associated "CLP Functional Guidelines for Data Validation" documents. Data validation forms are presented in Appendix G.

2.10 Water Supply Well Survey

As part of the prior PSA, a private and public water supply well survey was conducted in the vicinity of the site to identify potential receptors that could be impacted by groundwater contamination, if any, that may be migrating from the site.

The survey previously conducted in support of the PSA included: 1) the identification of public water supply wells located within a 1-mile radius of the site; and 2) the identification of residences and commercial/industrial/institutional facilities located within 1/4 mile upgradient and 1/2 mile downgradient of the site that are not currently provided with public water service, and which therefore, could potentially be utilizing private water supply wells. Details and results of this prior survey are summarized in Section 3.

Several activities were conducted as part of this Supplemental PSA to further assess the potential of any receptors being impacted by possible groundwater contamination. These activities are discussed and presented in Section 3.

Section 3

3.0 PHYSICAL CHARACTERISTICS OF THE STUDY AREA

3.1 Overview

The site is located in the Long Island Pine Barrens region and is situated east of Southaven County Park and the Carmans River. The site is underlain by outwash deposits of sand and gravel which comprise the Upper Glacial aquifer. The site is relatively flat, with the exception of several stock piles of soil and concrete debris, and relatively steep slopes comprising changes in elevation of approximately 15 feet near the western property boundary.

River Road runs parallel to the western boundary of the site. Railroad tracks and sidings are present along the northern boundary of the site, including the "so-called" LIRR Main Line which, based on a review of available tax maps and surveys appears to essentially form the northern boundary of the site. To the north of the site, on the north side of the Main Line, is undeveloped property that is also owned by the LIRR. The southern boundary of the site runs parallel to overhead electric power lines. To the south and east of the site is an active concrete plant (owned by Arriva Transport Corp.) and further to the south and east are predominantly residential properties.

3.2 Site Geology

The following section describes the geological features observed during the field activities associated with the prior PSA, as well as this Supplemental PSA.

3.2.1 Topography

Generally, the site can be divided into two distinct topographic regions. The region in the southwestern portion of the site is of lower elevation than the rest of the site, and is relatively flat and consistent with the natural surrounding topography along River Road. The remainder of the site is approximately 15 feet above this grade. The degree to which this topographic relief is due

to pre-existing natural elevations is unknown; however, this increase in elevation is at least in part due to what appears to be the historical landfilling and stockpiling activities conducted at the site. A map illustrating the topographic relief on-site is presented on Figure 2-1.

The fill material on-site can be observed as an outcrop exhibiting sharp, almost vertical, relief at the southwestern corner of the site. The coloration and composition of the outcropping material can be described as multi-colored, ranging from pale yellow to light purple with some green, brown and black. Grain sized ranges from angular medium to coarse gravel with lesser components of subangular to subrounded sand ranging in size from fine to coarse. Additional information regarding geologic characterization of subsurface soil on-site is presented in Section 3.2.2.

3.2.2 Soil Borings

During the subsurface soil sampling component of the Supplemental PSA, 11 soil borings were advanced across the site: one (SB-07) in the low-lying southwestern portion of the site; seven (SB-10 through SB-16) along the southern property boundary; one (SB-09) off site, south of the southern property boundary; and two (SB-06 and SB-08) off-site, along the southwestern perimeter of the site. The following discussion presents a brief profile of the geology encountered at each subsurface soil sampling location. Boring logs are also presented in Appendix C.

Soil Boring SB-06

Soil observed at SB-06 within 8 inches of grade consisted of brown fill made up of poorly sorted sand and gravel with trace red brick fragments. Tan, poorly sorted fine to coarse grained sand was observed from 8 inches to 12 feet below ground surface. Groundwater was encountered approximately 11 feet below ground surface; just above the terminal depth of the boring at 12 feet.

Soil Boring SB-07

Soil observed at SB-07 within 0 to 2 feet below grade consisted of tan to brown fine to medium grained sands with traces of gravel and dark brown ballast. Soil was not recovered from the 2 to 4 foot depth; however, between 4 feet and 12 feet below grade, mostly tan, medium grained soil was observed. Depth to groundwater, based on visual observations, was approximately 11 feet below grade, just above the terminal depth of the boring at 12 feet.

Soil Boring SB-08

Soil within the first 4 feet below grade at SB-08 consists of dry brown fine to medium grained sand and traces of gravel, as well as tan to orange poorly sorted sand and gravel. Soil between 4 and 9 feet below ground surface consists of tan, fine to medium grained sand. Groundwater was observed approximately 9 feet below ground surface.

Soil Boring SB-09

Observations at SB-09 indicate the presence of brown and tan fine to medium grained sand, as well as tan to orange, fine to medium grained sand within the first 4 feet of grade. Tan, medium grained sand makes up most of the material from this point down to the terminal depth of the boring at 20 feet below grade (where groundwater was encountered.)

Soil Boring SB-10

Fill material was observed at SB-10 to a depth of 17 feet below grade that includes brown silty sand and gravel within the first 16 inches of grade, concrete debris at a depth of approximately 5 feet, and brown silty/sandy fill material, containing some wood fragments, at a depth of approximately 9 feet. Between 10 and 13 feet below grade, red brick fragments, wood chips and brown silty sand was observed. The last traces of wood were found at approximately

17 feet below grade. Tan, medium grained sand was then the prominent soil component to the end of the boring, 27 feet below ground surface at the groundwater interface.

Soil Boring SB-11

Observations at SB-11 indicate the presence of fill consisting of brown silty sand within 0-2 feet of grade. It appears that brown angular medium to coarse grained sand exists from 2 to approximately 10 feet below ground surface. Native tan medium to coarse grained sand was observed between 10 feet and 27 feet below grade. Groundwater was encountered at 27 feet below grade at the terminal depth of the boring.

Soil Boring SB-12

Fill material at SB-12 existed to a depth of approximately 5 feet below grade, and consisted mostly of brown, poorly sorted fine to medium grained sand and wood fragments. Brown to black angular fill was also discovered approximately 3 feet below grade. Native brown to orange fine to medium grained sand was found to exist beyond 5 feet below grade and tan medium to coarse grained sand existed from 7 to 29 feet below grade. Groundwater was encountered at approximately 27 feet below ground surface; however, the boring was advanced to 37 feet to allow for the installation of MW-13 within this borehole.

Soil Boring SB-13

Soil was observed at SB-13 consisting of tan and brown fine to medium grained sand and gravel within the first 4 feet below grade. Brown to black silty medium grained sand with traces of gravel existed approximately 5 feet down and tan to orange medium grained sand and traces of gravel was a major sediment component from 7 feet down to 30 feet below grade (the terminal depth of the boring) where groundwater was encountered.

Soil Boring SB-14

Observations at SB-14 indicate the presence of tan dry fine to medium grained sand within the first 8 inches below grade, and black and brown angular, coarse, medium and fine grained sandy fill material about a foot below that. At depths between 3 and 8 feet below ground surface, soil varied among tan to brown medium grained sand to dark brown/black silty sand. Tan medium grained sands were observed from 8 feet below grade to the groundwater interface which was found at 30 feet below the ground surface at the terminal depth of the soil boring.

Soil Boring SB-15

Fill material was observed at SB-15 that included brown silty fine grained sand and some concrete debris which extended about 1.5 feet below grade. In addition, a wooden railroad tie was discovered approximately 4 feet below ground surface and wood fragments were found at approximately 6.5 feet below grade. Dark brown moist granular fill was found at 9 feet, and wood was found again at 10 feet. Between 10 and 30 feet below grade, soil consisted mostly of tan medium grained sand with trace amounts of gravel. Moist soil was reached at 30 feet; however, this boring was advanced beyond this point to 40 feet below grade to allow for the installation of MW-14 within this borehole.

Soil Boring SB-16

Soil was observed at SB-16 consisting of fill material including wood, glass, coal, and metal fragments, and dark brown/black moist silty fine to medium grained sand with traces of gravel. Native soils were found approximately 20 feet below grade and were composed of tan medium grained sand. Groundwater was encountered at 32 feet below ground surface at the termination of the soil boring.

3.2.3 Monitoring Wells

Off-Site Area to the North

The area located to the north of the railroad tracks is upgradient of the area on-site that was previously used for landfilling activities. The upgradient area appeared to be in a relatively undisturbed state, as evidenced by the local vegetation and native flora; however, some disposal activities were noted at grade. Materials disposed of in this area appeared to consist primarily of automotive tires and concrete debris. Generally, the native sediment in this area can be described as medium to coarse grained quartz sand with traces of silt and fine to medium gravel. At the upgradient locations of MW-5, MW-6, MW-11 and MW-12, the upper 2 feet of soil exhibited an orange color, which is typical of native soils in the area. The orange coloration is typically due to the presence of iron.

Southwestern "Low-Lying" Portion of Site

The southwestern portion of the site, where downgradient wells MW-7 and MW-8 were installed, is the generally undisturbed, lower elevation portion of the site. Although this portion of the site is not in the native condition of the upgradient area to the north of the tracks, it was observed to be topographically and geologically similar to local undisturbed conditions. The sediment recovered from MW-7 and MW-8 can be characterized generally as tan quartz sand ranging in grain size from fine to coarse with lesser quantities of fine grain size gravel.

Off-Site to the Southwest

Downgradient wells MW-15 and MW-16 were installed off-site, to the southwest. Sediment encountered at both of these wells consisted of tan, wet poorly sorted sand and gravel and groundwater was found to be less than 4 feet below ground surface at both locations. Sediment in this area can also be considered to be similar to local undisturbed conditions.

Elevated Portion of Site

During the well drilling operations on the elevated portion of the site, fill material was encountered. The fill material at MW-9 appeared to extend to approximately 15 feet below ground surface and was a gray silty sand to rusty brown medium to coarse grained sand. In the general area of MW-9, a significant quantity of concrete-type debris and rubble was present in the first 5 feet of fill material. The fill material at MW-10 appeared to extend to approximately 15 feet below ground surface based upon the auger cuttings generated during well drilling operations. The fill was a poorly sorted brown sand and gravel.

Fill material was also found during the drilling of MW-13 and MW-14 along the south eastern property boundary to depths of 5 and 10 feet, respectively. Brown to black poorly sorted sand and wood fragments primarily made up the fill at both well locations. However, some concrete debris and a wooden railroad tie was also found at MW-14.

3.2.4 Conclusions

Based upon observations recorded during soil boring and monitoring well drilling operations, the general nature and extent of the fill material encountered at the site is discussed below.

The fill material observed during the soil boring portion of the site assessment included brown silty sand ranging in size from fine to coarse with some gravel. Among non-native material documented in the fill unit were bricks, wood and concrete debris. The thickness of the fill varied across the site with the deepest fill unit being found at approximately 20 feet below ground surface, at SB-16, in the southeast corner of the site.

3.3 Site Hydrogeology

Water level measurements and surveyed well elevations are documented in Table 3-1. A groundwater contour map was developed based upon these measurements, and is presented on Figure 3-1. Groundwater flow at the site was found to generally be towards the south. Groundwater ranges in elevation from 19.60 feet above mean sea level (msl) at MW-16 to 22.38 feet above msl at MW-12. As derived by dividing the difference in elevation between two points by the surficial distance between the same two points, the hydraulic gradient varies from approximately .0014 to .0052 feet per foot in the western portion of the site, and is relatively constant and approximately .0028 feet per foot throughout the eastern portion of the site.

3.4 Water Supply Survey

3.4.1 Public Water Supply Wells

As discussed in the PSA Report, based on a review of information on file at the Suffolk County Department of Health Services (SCDHS), there are no public water supply wells located within a 1-mile radius of the site. Public water in this area is supplied by the Suffolk County Water Authority (SCWA) Westhampton and Patchogue District Water Supply Distribution System.

3.4.2 Private Water Supply Wells

The private water supply well survey was comprised of the following activities:

- SCWA database search
- Aerial photograph review
- NYSDEC - registered private water supply well search

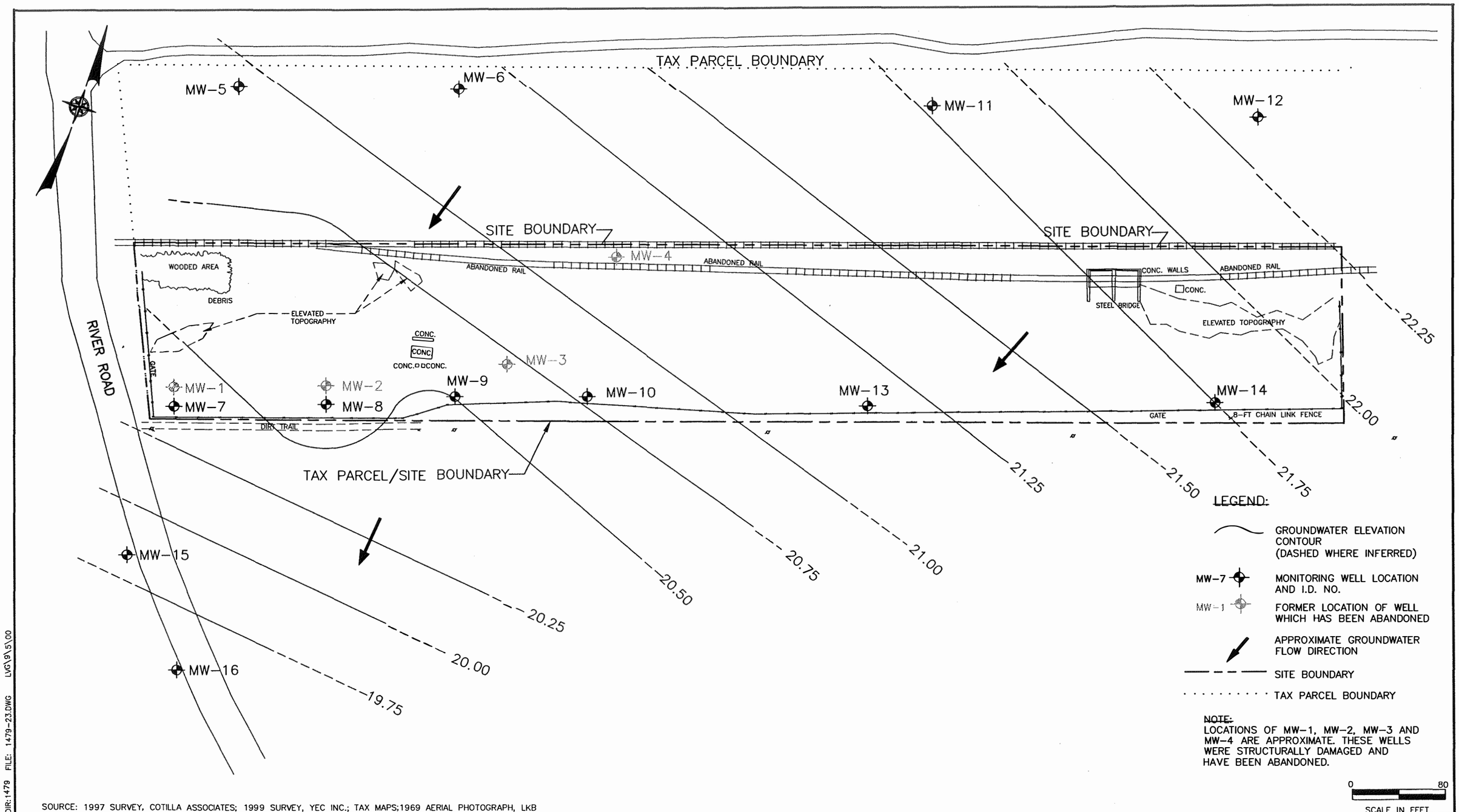
The following discussion presents a summary of the findings of these activities.

Table 3-1

LONG ISLAND RAIL ROAD
YAPHANK SITE
WATER LEVEL MEASUREMENTS AND
SURVEYED WELL ELEVATIONS

Monitoring Well	Ground Elevation (feet)[1]	Top of PVC Elevation (feet)[1]	Depth to Water (feet)[2]	Groundwater Elevation (feet)[1]
MW-5	39.94	42.46	21.52	20.94
MW-6	41.01	43.35	22.22	21.13
MW-7	29.37	31.67	11.27	20.40
MW-8	34.00	36.94	16.33	20.61
MW-9	50.10	52.83	32.33	20.50
MW-10	49.11	52.01	31.14	20.87
MW-11	43.63	46.21	24.44	21.77
MW-12	42.01	44.46	22.08	22.38
MW-13	48.72	51.48	30.33	21.15
MW-14	52.53	55.09	33.34	21.75
MW-15	23.54	23.14	3.34	19.80
MW-16	22.90	22.45	2.85	19.60

[1]Elevation datum 1988 NAVD.
[2]Depth to water from ground surface as measured on July 9, 1999.



SOURCE: 1997 SURVEY, COTILLA ASSOCIATES; 1999 SURVEY, YEC INC.; TAX MAPS;1969 AERIAL PHOTOGRAPH, LKB

DIR:1479 FILE: 1479-23.DWG LVG\9\5\00

LONG ISLAND RAIL ROAD
YAPHANK SITE

Dvirka and Bartilucci
Consulting Engineers
A Division of William F. Cosulich Associates, P.C.

GROUNDWATER CONTOUR MAP (JULY 1999)

FIGURE 3-1

Section 4

SCWA Database Search

A search of SCWA databases, as well as a review of property classification codes from the Town of Brookhaven Assessors office, was previously performed in support of the PSA. This effort resulted in the identification of 25 properties for which the source of water supply could not be identified. A subsequent review of these databases, as part of this Supplemental PSA, indicated three additional properties for which a source of water supply could not be identified. Details regarding these 28 properties is provided in Table 3-2. As part of the PSA, it was noted that although these properties are potentially utilizing private water supply wells, some of the parcels may be vacant and/or outside the study area (0.25 mile upgradient and 0.5 mile downgradient of site). In order to determine which of these properties remain a concern, Suffolk County tax maps were acquired for the study area. Section, block and lot numbers for the 28 properties were identified on the maps, and as a result, 22 properties were found to be located outside the study area. In a continuing effort to determine the use of groundwater within the study area, a field check was performed in order to determine whether or not the remaining six properties were vacant parcels. The result of this field check indicated that one of these properties, owned by "Suffolk County PCL 2 Department of RL Est-Wetlands" was indeed vacant. The remaining five properties were identified as not being vacant and remained under consideration as properties not utilizing public water. A full description of the methodology used to identify these five properties is presented on Figure 3-2. Three of the five parcels are owned and operated by Arriva Transport Corp. (concrete manufacturing and sand mining). Of the remaining two, one is a residential property and one is an active commercial trucking operation. These properties, as well as their respective distances from the site and location (upgradient/downgradient), are presented in Table 3-3.

Aerial Photograph Review

To further support the private water supply well survey, an aerial photograph of the area, dated January 1999, was used in conjunction with the Suffolk County tax maps to cross reference developed parcels (i.e., with discernable structures) to specific tax parcels. All of the properties

Table 3-2

LONG ISLAND RAIL ROAD
YAPHANK SITE
INVENTORY OF PROPERTIES WITHOUT PUBLIC WATER

Owner	Address	District	Section	Block	Lot	Use	Category
Barcom Corp.	Manor Road*	0200	614.00	01	001.001	120	Field Crops
Hololob Michael & Ruth	Manor Road*	0200	613.00	01	020.001	120	Field Crops
Demaio Roger & Elizabeth & Michael Demaio	77 Park Avenue*	0200	666.00	01	003.002	210	One Family Year-Round Residence
Steven Johnson	Tremont Street*	0200	666.00	01	015.001	210	One Family Year-Round Residence
Mason Edna Foy	1429 Wm Floyd Parkway*	0200	642.00	03	056.005	210	One Family Year-Round Residence
Morrell Edward R.	Park Street*	0200	666.00	01	021.000	210	One Family Year-Round Residence
Nadramia Stephen D. & Mildred	2 Park Road*	0200	666.00	01	005.000	210	One Family Year-Round Residence
Bruni John	26 Park Avenue*	0200	666.00	01	003.004	210	One Family Year-Round Residence
Preferred Gr of Manhattan c/o Evan Metalios	33 Norwood Drive*	0200	708.00	01	036.002	210	One Family Year-Round Residence
Muro Associates Inc.	Longwood Road*	0200	583.00	01	001.000	210	One Family Year-Round Residence
Seibert George H. - Life Est Gloria Horne – Trustee	4 Park Street*	0200	666.00	01	004.000	210	One Family Year-Round Residence
Joseph R. Pizzonia	424 Revilo Avenue*	0200	642.00	03	057.002	210	One Family Year-Round Residence
Kazel Stanley	Main Street	0200	583.00	01	002.001	210	One Family Year-Round Residence
Hololob Michael & Ruth	255 Main Street	0200	613.00	01	018.000	210	One Family Year-Round Residence
Jenna Organization	Wm Floyd Parkway*	0200	642.00	03	057.001	280	Multiple Residences
Notarnicola Peter & Peter Notarnicola Jr.	Colin Drive	0200	642.00	03	036.000	452	Area or Neighborhood Shopping Centers
Goncalves Avelino & Jose	Manor Road*	0200	641.00	01	044.000	484	One Story Small Structure
Suffolk County	LI Expressway*	0200	666.00	01	001.001	652	Office Building
Arriva Transport Corp P.O. Box 1065	400 Moriches Road	0200	641.00	01	020.000	710	Manufacturing and Processing
Arriva Transport Corp P.O. Box 1065	Moriches Middle Island Road	0200	641.00	01	019.000	710	Manufacturing and Processing
Arriva Transport Corp P.O. Box 1065	Colin Drive	0200	641.00	01	018.000	710	Manufacturing and Processing
Suffolk County PCL 2 Dept of RL EST-Wetlands	LI Expressway*	0200	667.00	01	002.000	962	County Owned Public Parks and Recreation Areas
Suffolk County Dept. of Real Estate	Main Street	0200	667.00	01	001.000	962	County Owned Public Parks and Recreation Areas
Brookhaven Town c/o Law Dept	Longwood Road*	0200	583.00	02	001.001	963	City/Town/Village Public Parks and Recreation Areas
Breskel Associates	Wm Floyd Parkway*	0200	584.00	01	001.002	Unk.	Unknown/Not Available
Tudisco Frank and Ors	Moriches Middle Island Road	0200	641.00	01	031.000	215	One Family Year-Round Residence
RA Landholding Corp.	Moriches Middle Island Road	0200	641.00	01	033.000	211	One Family Year-Round Residence
Liguori Frederick	441 Revilo Avenue	0200	642.00	01	020.000	218	One Family Year-Round Residence

*Review indicates that although SCWA identified property within study area, actual distance may exceed 1/2 mile.

Figure 3-2

LONG ISLAND RAIL ROAD
YAPHANK SITE

METHODOLOGY OF DATABASE SURVEY OF PROPERTIES WITHIN STUDY AREA TO IDENTIFY DEVELOPED PARCELS WITHOUT PUBLIC WATER

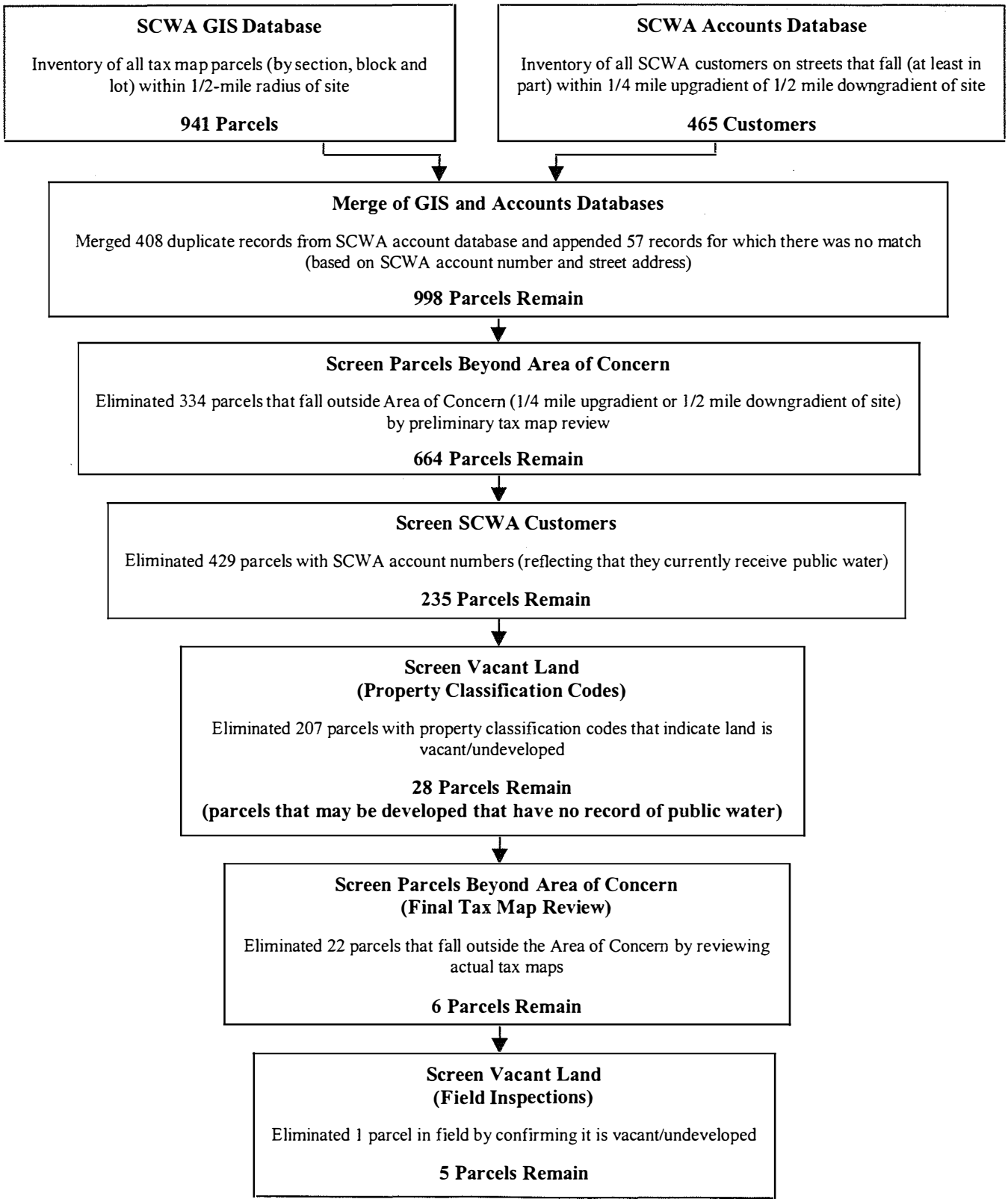


Table 3-3

LONG ISLAND RAIL ROAD YAPHANK SITE
PROPERTIES WITHIN STUDY AREA WITHOUT PUBLIC WATER

Owner	Address	Section	Block	Lot	Distance from Site	Location (upgradient/lateral/downgradient)
Goncalves, Avelino & Jose	Manor Road	641	01	44	adjacent	Lateral
Arriva Transport Corp. P.O. Box 1065	400 Moriches Road	641	01	20	< 1/10 mile	Partially Downgradient
Arriva Transport Corp P.O. Box 1065	Moriches Middle Island Road	641	01	19	< 1/10 mile	Partially Downgradient
Arriva Transport Corp P.O. Box 1065	Colin Drive	641	01	18	adjacent	Partially Downgradient
Liguori, Frederick	441 Revilo Avenue	672	01	20	< 1/2 mile	Lateral

with buildings/dwellings located within approximately 1/3 mile downgradient of the site were matched with their respective section, block and lot numbers. These property numbers were then used to search the Suffolk County Water Authority customer database. All properties showing a SCWA account number in this database were then regarded as currently receiving public water. The methodology used to identify these properties is presented on Figure 3-3. Results of this search, presented in Table 3-4, revealed that all properties containing discernable dwellings and/or buildings within 1/3 mile downgradient were successfully cross-referenced to SCWA account numbers, which would indicate that they are currently using public water. It should be noted that the Arriva Concrete plant was not considered as part of this evaluation since the structures on the portion of this site that is located downgradient of the LIRR property were limited to construction equipment and trailers.

NYSDEC - Registered Private Water Supply Well Search

An additional search was also undertaken as part of this Supplemental PSA to identify all NYSDEC-registered wells within the study area. A full description of the methodology used to perform this search is presented on Figure 3-4. As shown on Figure 3-5, eight wells were identified through this search, most of which appear to be located to the south and east of the site. Information obtained from NYSDEC Well Completion Reports, including owner, address, use of water, and screened interval, has been complied for each of the eight wells and is presented in Table 3-5. The actual Well Completion Reports are included in Appendix E. It should be noted that the existence of a well on this table does not necessarily mean it is currently in use. It is common that NYSDEC well files do not get updated to reflect the abandonment of a particular well. In addition, it is important to point out that a person owning a NYSDEC-registered well may also be an SCWA customer receiving public water. This appeared to be the case for six of the eight wells (NYSDEC Well Numbers 76073, 76949, 77006, 85259, 94785 and 94786) found in this search. Based on their location, the remaining two wells (NYSDEC Well Numbers 14934 and 30324) appear to correspond to two of the five properties previously identified as not receiving public water (the commercial trucking operation currently owned by "Goncalves Avelino and Jose" and the concrete plant currently owned by "Arriva Transport Corp.").

Figure 3-3

LONG ISLAND RAIL ROAD
YAPHANK SITE

METHODOLOGY OF AERIAL PHOTOGRAPH/TAX MAP/SCWA DATABASE REVIEW TO IDENTIFY DEVELOPED PARCELS WITHOUT PUBLIC WATER WITHIN 1/3 MILE DOWNGRADIENT OF SITE

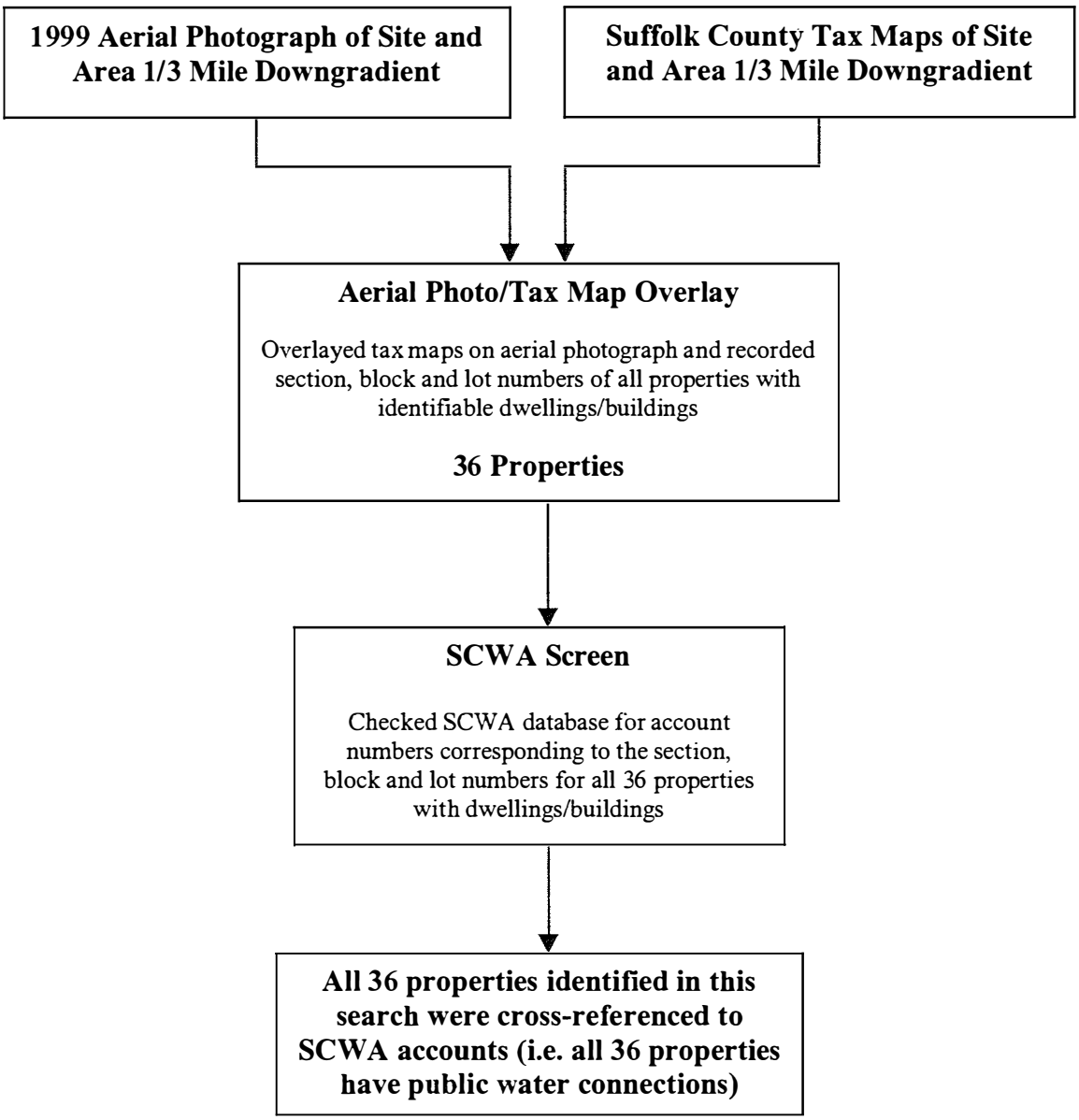


Table 3-4

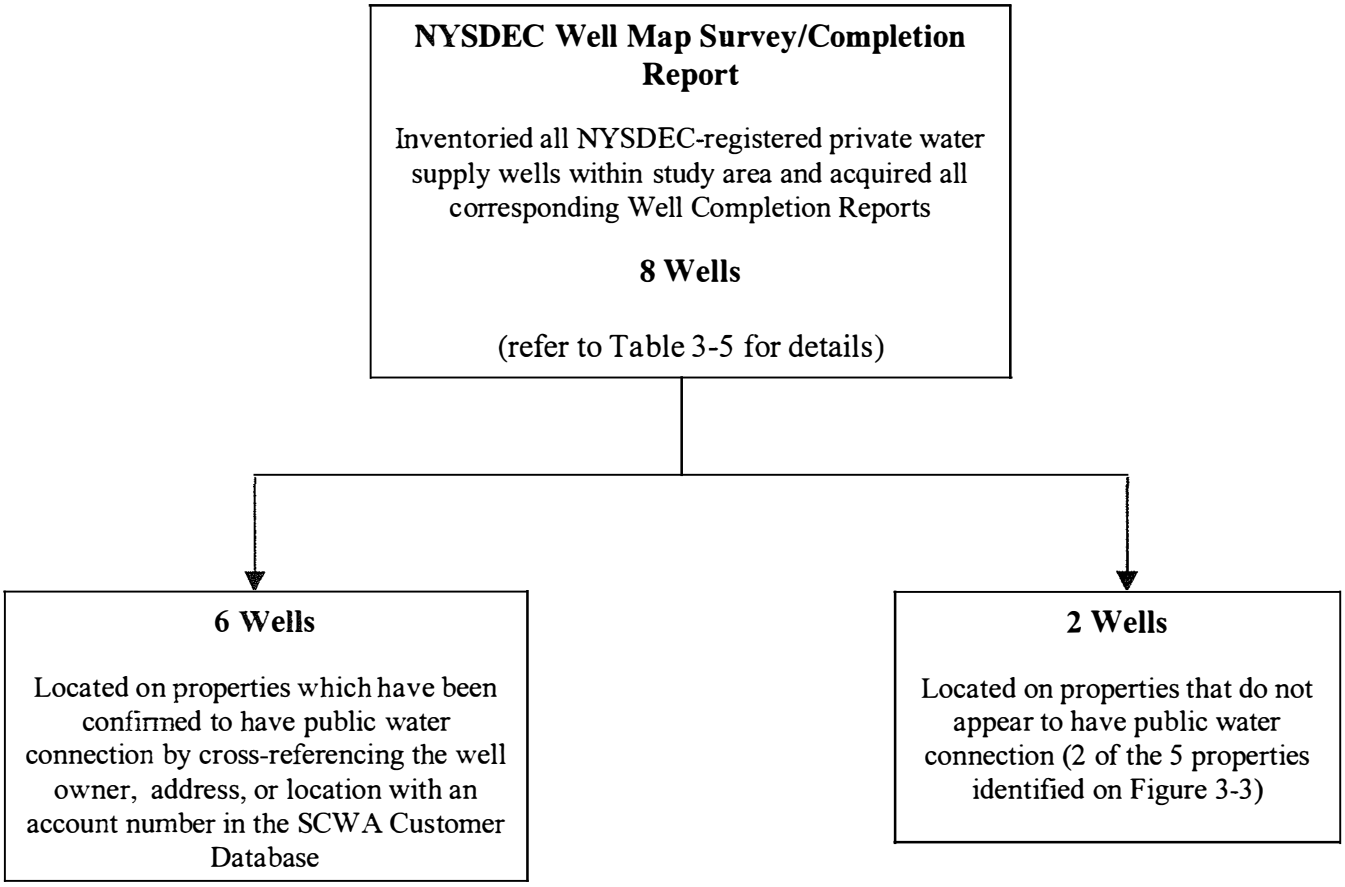
PUBLIC WATER STATUS OF NONVACANT PROPERTIES DEPICTED ON 1999 AERIAL PHOTOGRAPH (within 1/3 of a mile downgradient of site)

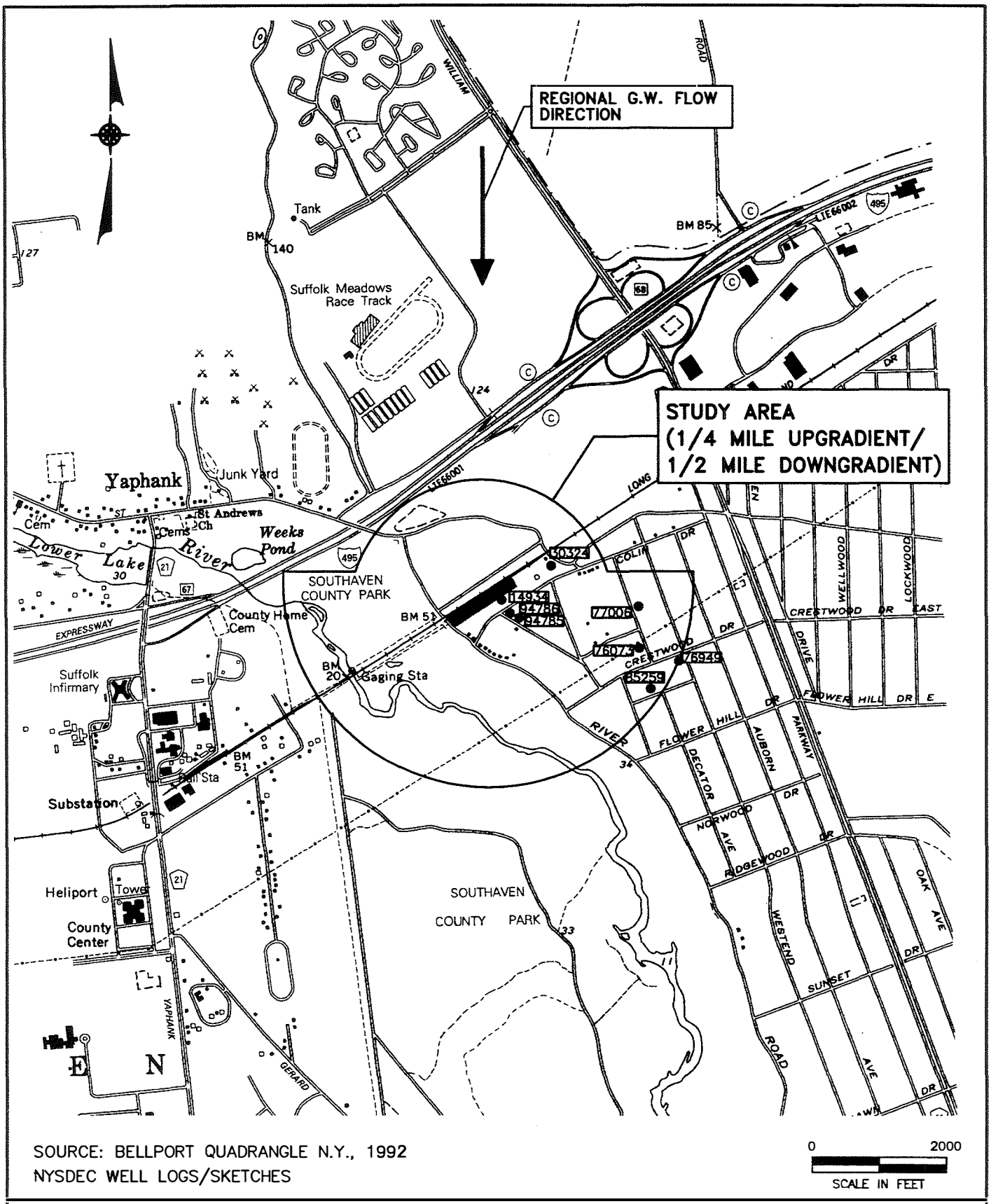
Tax Map Parcel			Suffolk County Water Authority Account
Section	Block	Lot	
668	1	2	Yes
668	1	4.2	Yes
668	1	4.3	Yes
668	1	5	Yes
668	1	20	Yes
668	1	21	Yes
668	1	22	Yes
668	1	24	Yes
668	1	25	Yes
668	1	26	Yes
668	1	27	Yes
668	2	1.2	Yes
668	2	1.3	Yes
668	2	1.4	Yes
641	1	3	Yes
641	1	8	Yes
641	1	9	Yes
641	1	11	Yes
641	3	1	Yes
641	3	10.1	Yes
641	3	10.2	Yes
641	3	10.3	Yes
641	3	14	Yes
641	3	19.2	Yes
641	3	20	Yes
641	3	21	Yes
641	4	44	Yes
641	4	45	Yes
641	4	46	Yes
641	4	47	Yes
641	4	48	Yes
641	4	49	Yes
641	4	50	Yes
641	4	51	Yes
641	4	52	Yes
641	4	53	Yes

Figure 3-4

LONG ISLAND RAIL ROAD
YAPHANK SITE

METHODOLOGY USED TO EVALUATE NYSDEC-REGISTERED PRIVATE WATER SUPPLY WELLS WITHIN STUDY AREA





SOURCE: BELLPORT QUADRANGLE N.Y., 1992
NYSDEC WELL LOGS/SKETCHES

0 2000
SCALE IN FEET

DIR:1479 FILE: LIRRPLATE-2.DWG DGC/04-05-00

LONG ISLAND RAIL ROAD
YAPHANK, SITE

NYSDEC-REGISTERED WELL LOCATION MAP

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FIGURE 3-5

Table 3-5

LIRR - YAPHANK SITE
INVENTORY OF NYSDEC - REGISTERED WELLS
WITHIN STUDY AREA

Well Number	Owner	Address	Use	Pumping Rate (gpm)	Screened Interval	Depth (ft)	Date Completed
14934	Suffolk Sand and Stone Company	Port Jefferson, NY	Washing sand/gravel	200	NA	97	7/19/1956
30324	Acme Concrete and Supply Corp.	Moriches-Middle Island Rd., Yaphank	Industrial	247	99' - 122' 7"	123	5/11/1967
76073	L. Toth	433 Helene Ave., Shirley, NY	Domestic	10	93' - 98'	100	2/6/1984
76949	Donald R. DeWalt	50 Crestwood Dr., Shirley, NY	Domestic	10	94' - 100'	100	6/18/1984
77006	Martin Pastore	432 Helene Ave., Shirley, NY	Domestic	10	90' - 96'	96	7/10/1984
85259	Sayville Construction	103 Buckwell Rd., W. Sayville, NY	Domestic	10	103' - 108'	110	2/24/1987
94785	Terry Burke	25 Surrey Dr., Center Moriches, NY	Domestic	30	58' - 63'	63	6/31/1989
94786	Terry Burke	25 Surrey Dr., Center Moriches, NY	Domestic	25	58' - 63'	63	5/7/1990

As indicated on Figure 3-5, based on a review of NYSDEC records, three wells appear to potentially be located downgradient of the site (well numbers 14934, 94786 and 94785). As a result, a field survey was conducted on April 11, 2000, to confirm the location of these three wells and to interview the associated property owners. Well number 14934, located on Arriva Transport Corporation's property, was found to be mapped incorrectly in the NYSDEC's records. This well is actually located in the extreme northeast corner of this property, in the proximity of well number 30324 (refer to Figure 3-5). As a result, this well is not located downgradient of the site. Furthermore, interviews with a representative of the current property owner revealed that this facility is connected to the public water system and the private water supply well is utilized solely for industrial purposes. Well number 94786 was located on the property formerly owned by Terry Burke. This property is currently owned by Diana and Robert Gutierrez. Based on the field inspection and interviews with the current property owner, it was determined that well number 94786 was previously disconnected, and has never been utilized for any purpose since the current owners acquired the property approximately 4 years ago. NYSDEC records indicate that well number 94785 is also located on the Gutierrez property. No evidence of this well was found on-site during the April 11, 2000, site inspection. The property owners stated that they had no knowledge of the existence of this well. The property owners also reiterated that they have never utilized, nor do they intend to utilize, any private water supply wells on their property. As a result, it appears that well number 94785 may have been abandoned/closed by the former property owner.

Summary of Findings

Due to the overlapping nature of the evaluation of properties without public water (i.e., without SCWA account numbers) and the separate and independent evaluation of parcels of property containing NYSDEC-registered private water supply wells, the findings of this water supply survey have been summarized on Table 3-6 for ease of review. As indicated on Table 3-6, a total of eight property owners have been identified that could potentially be considered at risk if groundwater in the vicinity is determined to be impacted. These property owners have been identified as having a NYSDEC-registered water supply well and/or do not appear to have public

Table 3-6

SUMMARY OF POTENTIAL PRIVATE WATER SUPPLY USERS

Property Owner	Tax Parcel (VOC) Section; Block; Lot	SCWA Account	NYSDEC Registered Private Water Supply Well/ Registered Use/Well Number(s)	Location to Site With Respect to GW Flow
1. Arriva Concrete	641; 01; 18, 19 and 20	No[1]	Yes/"Washing S&G and Fill Trucks"/14934	Portion of Site Downgradient (well is lateral to site)
2. Goncalves Trucking Operation	641; 01; 44	No	Yes/Industrial/30324	Lateral
3. Frederick Liguori	672; 01; 20	No	No/NA/NA	Lateral
4. L. Toth	668; 02; 19	Yes[2]	Yes/Domestic/76073	Lateral
5. M. Pastore	669; 01; 1.2	Yes[2]	Yes/Domestic/77006	Lateral
6. D. DeWalt (as per NYSDEC – Registered Well Completion Report) or Jose Ruiz (as per SCWA Account Database)	669; 01:06	Yes[3]	Yes/Domestic/76949	Lateral
7. Sayville Construction (as per NYSDEC – Registered Well Completion Report), Apple Housing or Bhupendra and Atul Patel (as per SCWA Account Database)	669; 01; 11 or 669; 01; 12.3	Yes[3][4]	Yes/Domestic/85259	Lateral
8. Terry Burke (as per NYSDEC – Registered Well Completion Report)/Robert and Diana Gutierrez (as per SCWA Account Database)	641; 03; 01	Yes[3]	Yes/Domestic/94785 and 94786 (wells are not utilized by property owner)	Downgradient

[1] Although an SCWA account number could not be identified for this site, a representative of Arriva Concrete confirmed that this facility is connected to the public water supply system.

[2] Based on owner name and/or address being cross-referenced to owner name and/or address in SCWA account database.

[3] Based on location of well (as depicted on well location sketch in NYSDEC Completion Report) being cross-referenced with section, lot and block number which, in turn, was cross-referenced to owner name listed in SCWA Account Database.

[4] Location of well (as depicted on well location sketch in NYSDEC Completion Report) was on the border of 2 lots when cross-referenced with section, block and lot number in the SCWA Account Database. Therefore, potential property owners, as listed in the database are: Apple Housing or Bhupendra and Atul Patel.

water. However, it is important to note that only two of these properties are located downgradient of the site with respect to local groundwater flow direction. One of these properties is the Arriva Concrete Plant. As mentioned above, the private water supply well on this property is utilized solely for industrial purposes, and it is not located downgradient of the site. Furthermore, a representative of Arriva Concrete confirmed that this facility is connected to the public water supply system. The other property is the Gutierrez residence located at the intersection of Kingsland Avenue and Colin Drive. NYSDEC records indicate that this property contains two NYSDEC-registered private water supply wells. However, as mentioned above, based on a field inspection and interviews with the property owners, well number 94786 was found to be disconnected and well number 94785 appears to have been abandoned/closed by the former property owner. The current property owners stated that they have never utilized, nor do they intend to utilize, any private water supply wells on their property. This property has also been confirmed to be connected to the public water supply system.

In summary, based on the findings of the above-referenced activities, these were no in-use private water supply wells identified within a half mile radius downgradient of the site. In addition, all occupied dwellings and businesses within a half mile radius downgradient of the site were identified as being connected to the public water supply system.

4.0 FINDINGS

This section presents the findings of the analytical sampling conducted in support of the Supplemental PSA. Soil sample results are compared to the criteria included in Appendix A of the New York State Department of Environmental Conservation (NYSDEC) Technical and Administrative Guidance Memorandum (TAGM) 4046 (referred to in this document as "NYSDEC TAGM criteria"). Since there is no value listed for cyanide in NYSDEC TAGM 4046, the USEPA Generic Soil Screening Level (SSL) has been used for comparison purposes. Groundwater sampling results are compared to the Class GA Groundwater Standards/Guidance Values listed in NYSDEC's Technical and Operational Guidance Series (TOGS) 1.1.1. Analytical results are summarized on Tables 4-1 through 4-6 at the end of this section. Copies of the laboratory analysis sheets are provided in Appendix H. In addition, a summary of the exceedances, by sample location, is illustrated on Figures 4-1, 4-2 and 4-3 at the end of this section for surface soil, subsurface soil and groundwater, respectively.

4.1 Surface Soil Samples

4.1.1 On-site Surface Soil Samples

Forty-one on-site surface soil samples were collected throughout the site as shown on Figure 2-1 of this report. The surface soil samples were analyzed for Target Analyte List (TAL) metals and cyanide. The analytical results are presented on Table 4-1 at the end of this section, and are summarized below. Figure 4-1, also presented at the end of this section, illustrates a summary of surface soil sample exceedances across the site.

4.1.1.1 - Southwestern Low-Lying Portion of Site

Ten surface soil samples (SS-07 through SS-16) were collected on an approximate 25-foot by 25-foot grid in the southwestern low-lying portion of the site. As indicated on Table 4-1, the following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at concentrations ranging up to 1,690 mg/kg) in all 10 samples.

- Copper was detected above the maximum background level of 50 mg/kg (at concentrations ranging up to 1,520 mg/kg) in 8 of the 10 samples (SS-08, SS-10, SS-11, SS-12, SS-13, SS-14, SS-15 and SS-16).

- Lead was detected above the maximum background level of 500 mg/kg (at concentrations ranging up to 55,900 mg/kg) in 8 of the 10 samples (SS-08, SS-10, SS-11, SS-12, SS-13, SS-14, SS-15 and SS-16).

- Mercury was detected above the maximum background level of 0.2 mg/kg (at concentrations of 0.38 mg/kg and 0.49 mg/kg) in 2 of the 10 samples (SS-11 and SS-12, respectively).

- Nickel was detected above the maximum background level of 25 mg/kg (at concentrations of 38.8 mg/kg, 94.4 mg/kg and 35.0 mg/kg) in 3 of the 10 samples (SS-11, SS-12 and SS-16, respectively).

- Selenium was detected above the maximum background level of 3.9 mg/kg (at concentrations of 15.8 mg/kg, 29.4 mg/kg and 14.7 mg/kg) in 3 of the 10 samples (SS-11, SS-12 and SS-16, respectively).

- Zinc was detected above the maximum background level of 50 mg/kg (at concentrations ranging up to 905 mg/kg) in all of the samples except SS-07.

4.1.1.2 - Southern Property Boundary

Nine surface soil samples (SS-37 through SS-45) were collected for analysis of TAL metals and cyanide along the southern boundary of the property. As indicated on Table 4-1, the following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at concentrations of 54.4 mg/kg, 158 mg/kg, 20.5 mg/kg and 7.8 mg/kg) in three of the nine samples (SS-37, SS-38 and SS-39, respectively).

- Copper was detected above the maximum background level of 50 mg/kg (at concentrations of 92.1 mg/kg, 179 mg/kg, 55.5 mg/kg and 213 mg/kg) in four of the nine samples (SS-37, SS-38, SS-44 and SS-45, respectively).

- Lead was detected above the maximum background level of 500 mg/kg (at concentrations of 2,260 mg/kg, 625 mg/kg and 626 mg/kg) in three of the nine samples (SS-37, SS-38 and SS-39, respectively).

- Mercury was detected above the maximum background level of 0.2 mg/kg (at concentrations of 0.6 mg/kg and 0.57 mg/kg) in two of the nine samples (SS-42 and SS-45, respectively).

- Nickel was detected above the maximum background level of 25 mg/kg (at a concentration of 25.1 mg/kg) in 1 of the 10 samples (SS-45).

- Zinc was detected above the maximum background level of 50 mg/kg (at concentrations of 125 mg/kg, 108 mg/kg, 76.9 mg/kg and 322 mg/kg) in four of the nine samples (SS-37, SS-39, SS-40 and SS-45, respectively).

4.1.1.3 - Central Portion of Site (Top of Landfill Area)

Twenty surface soil samples (SS-17 through SS-36) were collected for analysis of TAL metals and cyanide across the central portion of the site previously used for landfilling activities. As indicated on Table 4-1, the following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at concentrations ranging up to 6,460 mg/kg) in 9 of the 20 samples (SS-17, SS-18, SS-19, SS-20, SS-21, SS-27, SS-28, SS-29 and SS-30).

- Chromium was detected above the maximum background level of 50 mg/kg (at a concentration of 50.7 mg/kg) in 1 of the 20 samples (SS-17).

- Copper was detected above the maximum background level of 50 mg/kg (at concentrations ranging up to 1,690 mg/kg) in 10 of the 20 samples (SS-17, SS-18, SS-19, SS-20, SS-23, SS-27, SS-28, SS-30, SS-31 and SS-36).

- Lead was detected above the maximum background level of 500 mg/kg (at concentrations of 71,300 mg/kg, 14,800 mg/kg, 8,050 mg/kg, 630 mg/kg, 84,400 mg/kg and 49,200 mg/kg) in 6 of the 20 samples (SS-17, SS-18, SS-19, SS-20, SS-27 and SS-28, respectively).

- Magnesium was detected above the maximum background level of 5,000 mg/kg (at a concentration of 5,080 mg/kg) in 1 of the 20 samples (SS-32).

- Mercury was detected above the maximum background level of 0.2 mg/kg (at concentrations of 0.52 mg/kg, 0.32 mg/kg, 0.30 mg/kg and 0.80 mg/kg) in 4 of the 20 samples (SS-17, SS-19, SS-27 and SS-28, respectively).

- Nickel was detected above the maximum background level of 25 mg/kg (at concentrations of 138 mg/kg, 42.5 mg/kg, 31.6 mg/kg, 109 mg/kg and 107 mg/kg) in 5 of the 20 samples (SS-17, SS-18, SS-19, SS-27 and SS-28, respectively).

- Selenium was detected above the maximum background level of 3.9 mg/kg (at concentrations of 48.4 mg/kg, 18.7 mg/kg, 9.2 mg/kg, 25.0 mg/kg and 45.9 mg/kg) in 5 of the 20 samples (SS-17, SS-18, SS-19, SS-27 and SS-28, respectively).

- Zinc was detected above the maximum background level of 50 mg/kg (at concentrations ranging up to 997 mg/kg) in 11 of the 20 samples (SS-17, SS-18, SS-19, SS-20, SS-23, SS-26, SS-27, SS-28, SS-30, SS-31 and SS-36).

4.1.2 Off-site Surface Soil Samples

Seven off-site surface soil samples (SS-46 through SS-52) were collected surrounding PSA samples SS-2, SS-3 and SS-6. The samples were analyzed for Target Analyte List (TAL) metals and cyanide. The analytical results are presented on Table 4-1 at the end of this section and are summarized below. The following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at concentrations of 181 mg/kg, 12.1 mg/kg and 18.7 mg/kg) in three of the six samples (SS-49, SS-51 and SS-52, respectively).

- Calcium was detected above the maximum background level of 35,000 mg/kg (at a concentration of 51,400 mg/kg) in one of the six samples (SS-51).

- Copper was detected above the maximum background level of 50 mg/kg (at a concentration of 222 mg/kg) in one of the six samples (SS-49).

- Lead was detected above the maximum background level of 500 mg/kg (at a concentration of 4,920 mg/kg) in one of the six samples (SS-49).

- Selenium was detected above the maximum background level of 3.9 mg/kg (at a concentration of 5.4 mg/kg) in one of the six samples (SS-49).

- Zinc was detected above the maximum background level of 50 mg/kg (at concentrations of 206 mg/kg and 61.1 mg/kg) in two of the six samples (SS-49 and SS-51, respectively).

4.2 Subsurface Soil Samples

4.2.1 On-site Subsurface Soil Samples

As shown on Figure 2-1, a total of eight soil borings were advanced on-site. Split spoon soil samples were collected from each boring at varying intervals, and analyzed for TAL metals and cyanide. The analytical results are presented on Table 4-2, at the end of this section, and are summarized below. Figure 4-2 illustrates a summary of subsurface soil sample exceedances from soil borings.

4.2.1.1 - Southwestern Low-Lying Portion of Site

One soil boring (SB-07) was advanced to the groundwater (approximately 15 feet bgs) in the southwestern low-lying portion of the site. Three split spoon soil samples (SB-07 [0'-2'], SB-07 [5'-7'] and SB-07 [10'-12']) were collected and analyzed from this location. As indicated in Table 4-2, the following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at a concentration of 1,560 mg/kg) in SB-07 (0'-2').
- Cadmium was detected above the maximum background level of 10 mg/kg (at a concentration of 14.8 mg/kg) in SB-07 (0'-2').
- Copper was detected above the maximum background level of 50 mg/kg (at a concentration of 2,300 mg/kg) in SB-07 (0'-2').
- Lead was detected above the maximum background level of 500 mg/kg (at a concentration of 37,100 mg/kg) in SB-07 (0'-2').
- Mercury was detected above the maximum background level of 0.2 mg/kg (at a concentration of 0.36 mg/kg) in SB-07 (0'-2').

- Nickel was detected above the maximum background level of 25 mg/kg (at a concentration of 92.8 mg/kg) in SB-07 (0'-2').

- Selenium was detected above the maximum background level of 3.9 mg/kg (at a concentration of 24.5 mg/kg) in SB-07 (0'-2').

- Zinc was detected above the maximum background level of 50 mg/kg (at a concentration of 1,040 mg/kg) in SB-07 (0'-2').

4.2.1.2 - Southern Property Boundary

As shown on Figure 4-2, seven soil borings (SB-10, SB-11, SB-12, SB-13, SB-14, SB-15 and SB-16) were advanced along the southern property boundary (at approximately 100-foot spacings) with continuous split spoon sampling to the groundwater interface (approximately 35 feet bgs). One sample from each boring was selected for analysis of TAL metals and cyanide. As indicated on Table 4-2, the following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at concentrations of 31.7 mg/kg, 29.2 mg/kg, 23.2 mg/kg, 31.6 mg/kg and 32.1 mg/kg) in 5 of the 7 samples (SB-10 [8'-10'], SB-11 [6'-8'], SB-14 [6'-8'], SB-15 [8'-10'] and SB-16 [12'-14'], respectively).

- Barium was detected above the maximum background level of 600 mg/kg (at concentrations of 863 mg/kg, 632 mg/kg, and 827 mg/kg) in 3 of the 7 samples (SB-10 [8'-10'], SB-11 [6'-8'], and SB-15 [8'-10'], respectively).

- Chromium was detected above the maximum background level of 50 mg/kg (at concentrations of 86 mg/kg, 135 mg/kg, 164 mg/kg and 135 mg/kg) in 4 of the 7 samples (SB-10 [8'-10'], SB-11 [6'-7'], SB-14 [6'-8'] and SB-15 [8'-10'], respectively).

- Copper was detected above the maximum background level of 50 mg/kg (at concentrations ranging up to 3,280 mg/kg) in all 7 samples.

- Lead was detected above the maximum background level of 500 mg/kg (at concentrations of 1,150 mg/kg, 982 mg/kg, 1,480 mg/kg, 1,370 mg/kg and 1,870 mg/kg) in 5 of the 7 samples (SB-10 [8'-10'], SB-11 [6'-8'], SB-14 [6'-8'], SB-15 [8'-10'] and SB-16 [12'-14'], respectively).

- Magnesium was detected above the maximum background level of 5,000 mg/kg (at concentrations of 5,460 mg/kg and 8,940 mg/kg) in 2 of the 7 samples (SB-11 [6'-8'] and SB-15 [8'-10'], respectively).

- Mercury was detected above the maximum background level of 0.2 mg/kg (at concentrations of 0.59 mg/kg, 0.33 mg/kg, 0.44 mg/kg, 0.69 mg/kg and 3.1 mg/kg) in 5 of the 7 samples (SB-10 [8'-10'], SB-11 [6'-8'], SB-14 [6'-8'], SB-15 [8'-10'] and SB-16 [12'-14'], respectively).

- Nickel was detected above the maximum background level of 25 mg/kg (at concentrations of 72.4 mg/kg, 454 mg/kg, 135 mg/kg, 129 mg/kg and 62.5 mg/kg) in 5 of the 7 samples (SB-10 [8'-10'], SB-11 [6'-8'], SB-14 [6'-8'], SB-15 [8'-10'] and SB-16 [12'-14'], respectively).

- Selenium was detected above the maximum background level of 3.9 mg/kg (at concentrations of 11.3 mg/kg, 5.8 mg/kg and 5.0 mg/kg) in 3 of the 7 samples (SB-11 [6'-8'], SB-14 [6'-8'] and SB-16 [12'-14'], respectively).

- Zinc was detected above the maximum background level of 50 mg/kg (at concentrations ranging up to 1,840 mg/kg) in all 7 samples.

4.2.2 Off-site Subsurface Soil Boring Samples

As shown on Figure 4-2, three soil borings (SB-06, SB-08 and SB-09) were advanced adjacent to PSA samples SS-02, SS-03 and SS-06 to the groundwater interface (approximately 15 feet bgs, 15 feet bgs and 35 feet bgs, respectively). Split spoon samples were collected at 5-foot intervals and analyzed for TAL metals and cyanide. As indicated in Table 4-2, the following inorganic constituents were detected at concentrations above the Eastern USA Background criteria:

- Arsenic was detected above the maximum background level of 12 mg/kg (at a concentration of 25.2 mg/kg) in 1 of the 10 samples (SB-06 [0'-2']).

- Copper was detected above the maximum background level of 50 mg/kg (at concentrations of 53 mg/kg and 2,300 mg/kg) in 2 of the 10 samples (SB-06 [0'-2'] and SB-08 [0'-2']).

- Lead was detected above the maximum background level of 500 mg/kg (at a concentration of 1,090 mg/kg) in 1 of the 10 samples (SB-06 [0'-2']).

- Zinc was detected above the maximum background level of 50 mg/kg (at a concentration of 77.9 mg/kg) in 1 of the 10 samples (SB-08 [0'-2']).

4.3 Groundwater Samples

4.3.1 On-site Groundwater Samples

As shown on Figure 2-1, six monitoring wells (MW-7, MW-8, MW-9, MW-10, MW-13 and MW-14) were sampled within site boundaries. Samples collected from these wells were analyzed for TAL metals, cyanide, volatile organics, semivolatile organics, pesticides and polychlorinated biphenyls (PCBs). As discussed in Section 2.4, due to the elevated turbidity present in the majority of the wells and difficulty in achieving "stabilized" turbidity measurements during the purging process, each sample was analyzed for metals, both with and without filtering. This was done in order to determine if the detected concentrations of metals were attributable to particulate matter suspended in the groundwater. The analytical results are presented on Tables 4-3 through 4-6, at the end of this section, and are summarized below. Figure 4-3 illustrates a summary of all groundwater exceedances, based on the analysis of filtered samples, by sample location.

4.3.1.1 - Southern Property Boundary

Samples were collected from five monitoring wells (MW-8, MW-9, MW-10, MW-13 and MW-14) along the southern property boundary of the site. As indicated on Tables 4-3 through 4-6, inorganic constituents were not detected above NYSDEC Class GA Groundwater Standards and Guidelines, with the following exception:

- Iron was detected above the NYSDEC Class GA groundwater criteria of 300 ug/l (at a concentration of 559 ug/l) in an analysis of an unfiltered sample from MW-8. However, since iron was not detected above the groundwater criteria in the filtered sample from this well, it was attributable to elevated turbidity.

4.3.1.2 - Southwestern Low-lying Portion of Site

One sample was collected from MW-7 in the southwestern low-lying portion of the site. As indicated on Tables 4-3 through 4-6, inorganic constituents were not detected above NYSDEC Class GA Groundwater Standards and Guidelines, with the following exceptions:

- Antimony was detected above the NYSDEC Class GA groundwater criteria of 3.0 ug/l, at concentrations of 4.6 ug/l and 3.1 ug/l in unfiltered and filtered samples, respectively.
- Iron was detected above the NYSDEC Class GA groundwater criteria of 300 ug/l, at a concentration of 783 ug/l in an unfiltered sample from MW-7. However, iron was not detected above the detection limit in the filtered sample from this well. As a result, the elevated concentration of iron in this well is attributable to elevated turbidity.

4.3.2 Off-site Groundwater Samples

Groundwater samples were collected from six monitoring wells located off-site. Samples collected from all six wells were analyzed for TAL metals, cyanide, volatile organics, semivolatile organics, pesticides and PCBs. As previously discussed, each sample was analyzed for metals both with and without filtering. The analytical results are presented on Tables 4-3 through 4-6, at the end of this section, and are summarized below. Figure 4-3 illustrates a summary of all groundwater exceedances, based on the analysis of filtered samples, by sample location.

4.3.2.1 - Off-site Area North of the Tracks

Four monitoring wells (MW-5, MW-6, MW-11 and MW-12) were installed parallel to the northern property boundary, approximately 150 feet north of the site. As indicated on Tables 4-3 through 4-6, inorganic constituents were not detected above NYSDEC Class GA Groundwater Standards and Guidelines with the following exceptions:

- Iron was detected above the NYSDEC Class GA groundwater criteria of 300 ug/l in unfiltered samples from MW-5 and MW-6 at concentrations of 1,160 ug/l and

564 ug/l, respectively. However, since iron was not detected above the groundwater criteria in the filtered sample from this well, it was attributable to elevated turbidity.

- Manganese was detected above the NYSDEC Class GA groundwater criteria of 300 ug/l in unfiltered and filtered samples from MW-5, at concentrations of 491 ug/l and 417 ug/l, respectively.

4.3.2.2 - Off-site Area Southwest of Site

Two monitoring wells (MW-15 and MW-16) were installed southwest of the site, on the west side of River Road. As indicated on Tables 4-3 through 4-6, inorganic constituents were not detected above NYSDEC Class GA Standards and Guidelines with the following exceptions:

- Antimony was detected above the NYSDEC Class GA groundwater criteria of 3.0 ug/l in unfiltered and filtered samples from MW-15, at concentrations of 8.6 ug/l and 3.5 ug/l, respectively. This constituent was also detected in unfiltered and filtered samples from MW-16, at concentrations of 15.3 ug/l and 3.2 ug/l, respectively.

- Iron was detected above the NYSDEC Class GA groundwater criteria of 300 ug/l, in an unfiltered sample of MW-15, at a concentration of 465 ug/l. However, since iron was not detected above the groundwater criteria in the filtered sample from this well, it was attributable to elevated turbidity.

4.4 Data Validation

Surface soil, subsurface soil and groundwater samples were collected in support of this Supplemental PSA at the Long Island Rail Road (LIRR) Yaphank Site. Soil samples were analyzed for Target Analyte List (TAL) metals and cyanide, and groundwater samples were analyzed for Target Compound List (TCL) volatile organics, TCL semivolatile organics, TCL pesticide/PCBs, TAL metals (total and dissolved) and cyanide. Sample analysis was performed by Mitkem Corporation, a subcontractor to Dvirka and Bartilucci Consulting Engineers, in accordance with New York State Department of Environmental Conservation (NYSDEC) Analytical Services Protocol (ASP) methods.

The data packages submitted by Mitkem Corporation were validated in accordance with NYSDEC Quality Assurance/Quality Control (QA/QC) requirements. All sample results, as

well as QA/QC samples, were reviewed yielding a "100% validation." Copies of the completed data validation forms are included in Appendix G.

The findings of the validation process are summarized below.

All soil sample analyses were completed in accordance with the specified methods and within the required holding times.

The groundwater samples were all analyzed in accordance with the specified methods and within the required holding times.

Methylene chloride and acetone have been qualified as non-detect in the groundwater samples due to laboratory contamination since these contaminants were also detected in the method blanks associated with the samples, and the sample concentrations were less than five times the concentrations found in the blanks.

A review of the laboratory data packages did not reveal any discrepancies and all results are deemed valid and usable for environmental assessment purposes as qualified above.

TABLE 4-1

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	SS-07	SS-08	SS-09	SS-10	SS-11	Instrument Detection Limits	Eastern USA Background Levels
DATE OF COLLECTION	5/14/99	5/14/99	5/14/99	5/14/99	5/17/99		
PERCENT SOLIDS	92.90	98.90	98.80	99.00	97.00		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	1430	2290	3880	3290	3270	20	33000
Antimony	30.9	132	13	93.2	1690	3.0	--
Arsenic	22	78.6	14.4	62.9	713	1.7	3 - 12*
Barium	5.8 B	34.6 B	15.4 B	30.9 B	226	1.4	15 - 600
Beryllium	U	U	U	U	U	0.1	0 - 1.75
Cadmium	0.26 B	U	U	0.071 B	U	0.5	0.1 - 1, (10***)
Calcium	170 B	388 B	444 B	669 B	859 B	14	130 - 35000
Chromium	4.7	5.8	5.5	13.8	21	1.3	1.5 - 40*,(50***)
Cobalt	0.85 B	1.6 B	1.7 B	2.4 B	3.4 B	0.6	2.5 - 60
Copper	15.1	88.9	22.9	75.9	547	0.5	1 - 50
Iron	3090	10100	5710	10600	14400	2.0	2000 - 550000
Lead	338	2130	414	1408	10800	1.9	200 - 500**
Magnesium	236 B	368 B	554 B	557 B	479 B	3.0	100 - 5000
Manganese	36.6	53	92.1	68.9	126	1.0	50 - 5000
Mercury	U	U	U	0.053 B	0.38	0.1	0.001 - 0.2
Nickel	U	8.1	4.8 B	8.6	38.8	0.7	0.5 - 25
Potassium	41.3 B	U	50.3 B	U	119 B	242	8500 - 43000
Selenium	1.4	1.2	0.94	2.2	15.8	3.3	0.1 - 3.9
Silver	U	U	U	U	0.56 B	1.1	--
Sodium	U	U	U	U	148 B	225	6000 - 8000
Thallium	U	U	U	U	1.0 B	3.0	--
Vanadium	4.5 B	8.1 B	10	14.7	27.6	0.5	1 - 300
Zinc	19.6	57.7	29	63.7	905	0.3	9 - 50
Cyanide	U	U	U	U	0.23 B	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	SS-12	SS-13	SS-14	SS-15	SS-16	Instrument Detection Limits	Eastern USA Background Levels
DATE OF COLLECTION	5/14/99	5/14/99	5/14/99	5/14/99	5/17/99		
PERCENT SOLIDS	95.10	99.00	86.00	98.00	95		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	2000	2890	1970	2580	3600	20	33000
Antimony	4750	26.2	183	326	1710	3.0	--
Arsenic	1690	21.2	104	146	668	1.7	3 - 12*
Barium	397	16.7 B	25.3 B	136	391	1.4	15 - 600
Beryllium	U	U	U	U	0.17 B	0.1	0 - 1.75
Cadmium	U	0.094 B	U	U	U	0.5	0.1 - 1, (10***)
Calcium	1510	634 B	238 B	449 B	1870	14	130 - 35000
Chromium	28.7	6.7	5.5	10.0	19.5	1.3	1.5 - 40*,(50***)
Cobalt	8.7 B	1.8 B	1.5 B	1.7 B	3.6 B	0.6	2.5 - 60
Copper	1520	32.8	102	146	516	0.5	1 - 50
Iron	135000	7350	11000	19600	60700	2.0	2000 - 550000
Lead	55900	578	2520	3850	17900	1.9	200 - 500**
Magnesium	350 B	515 B	296 B	364 B	507 B	3.0	100 - 5000
Manganese	214	106	50.1	129	222	1.0	50 - 5000
Mercury	0.49	0.055 B	U	0.057 B	U	0.1	0.001 - 0.2
Nickel	94.4	6.1 B	8.4 B	11.1	35.0	0.7	0.5 - 25
Potassium	403 B	U	U	U	287 B	242	8500 - 43000
Selenium	29.4	U	1.7	2.8	14.7	3.3	0.1 - 3.9
Silver	1.4 B	U	U	U	0.42 B	1.1	--
Sodium	1180	U	U	92.9 B	812	225	6000 - 8000
Thallium	7.7	U	U	U	2.0	3.0	--
Vanadium	32.9	12.5	7.7 B	12.8	28.2	0.5	1 - 300
Zinc	71.7	77.2	55.8	120	552	0.3	9 - 50
Cyanide	0.084 B	U	U	U	U	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID DATE OF COLLECTION PERCENT SOLIDS UNITS	**SS-17** 5/14/99 83.00 mg/kg	**SS-18** 5/14/99 98.00 mg/kg	**SS-19** 5/14/99 68.00 mg/kg	**SS-20** 5/17/99 96.00 mg/kg	**SS-21** 5/17/99 99.00 mg/kg	**Instrument Detection Limits** ug/L	**Eastern USA Background Levels** mg/kg
Aluminum	3,330	1,760	3,550	2340	2630	20	33000
Antimony	10,500	2,600	1,030	22.5	12.7	3.0	--
Arsenic	3000	1030	530	30.2	13.5	1.7	3 - 12*
Barium	588	371	123	67.7	23.4 B	1.4	15 - 600
Beryllium	0.19 B	U	0.22 B	0.3 B	U	0.1	0 - 1.75
Cadmium	U	U	U	U	U	0.5	0.1 - 1, (10***)
Calcium	3,360	4,060	7530	3220	11600	14	130 - 35000
Chromium	50.7	17.7	21.4	34.2	5.5	1.3	1.5 - 40*,(50***)
Cobalt	12.2	5.2 B	6.2 B	7.3 B	2.7 B	0.6	2.5 - 60
Copper	1490	558	512	300	40.5	0.5	1 - 50
Iron	217000	103000	48300	32900	7600	2.0	2000 - 550000
Lead	71300	14800	8050	630	363	1.9	200 - 500**
Magnesium	661 B	580 B	970 B	549 B	1340	3.0	100 - 5000
Manganese	403	297	188	263	97.3	1.0	50 - 5000
Mercury	0.52	0.17	0.32	0.16	U	0.1	0.001 - 0.2
Nickel	138	42.5	31.6	22.7	5.8	0.7	0.5 - 25
Potassium	598 B	148 B	413 B	99.7 B	99.2 B	242	8500 - 43000
Selenium	48.4	18.7	9.2	3.8	U	3.3	0.1 - 3.9
Silver	1.7 B	0.34 B	0.32 B	0.11 B	U	1.1	--
Sodium	1,810	929	U	87.9 B	74.2 B	225	6000 - 8000
Thallium	7.5	2.6	U	U	U	3.0	--
Vanadium	62.7	20.8	32.9	33.4	14.8	0.5	1 - 300
Zinc	700	997	198	206	44.5	0.3	9 - 50
Cyanide	U	U	U	0.23 B	U	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**SS-27**	**SS-28**	**SS-29**	**SS-30**	**SS-31**	**Instrument Detection Limits**	**Eastern USA Background Levels**
DATE OF COLLECTION	5/14/99	5/14/99	5/14/99	5/17/99	5/17/99		
PERCENT SOLIDS	97.00	96.00	80.00	98.00	96.00		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	3,070	800	3,120	3520	6340	20	33000
Antimony	9,180	14,600	16.7	12.3	4.6 B	3.0	--
Arsenic	3060	6460	16.0	14.1	6.8	1.7	3 - 12*
Barium	66.1	400	25.7 B	34 B	28 B	1.4	15 - 600
Beryllium	0.14 B	U	0.16 B	0.18 B	U	0.1	0 - 1.75
Cadmium	U	U	U	0.10 B	U	0.5	0.1 - 1, (10***)
Calcium	2,530	2,090	22,900	29800	12400	14	130 - 35000
Chromium	34.2	41.8	6.6	10.8	7.6	1.3	1.5 - 40*,(50***)
Cobalt	9.9	24.2	2.7 B	3.0 B	8.2 B	0.6	2.5 - 60
Copper	1690	1460	35.1	53.2	84.1	0.5	1 - 50
Iron	196000	252000	6610	8260	16900	2.0	2000 - 550000
Lead	84400	49200	332	432	153	1.9	200 - 500**
Magnesium	526 B	235 B	1,170	2250	3000	3.0	100 - 5000
Manganese	298	248	88.6	135	190	1.0	50 - 5000
Mercury	0.30	0.80	U	U	U	0.1	0.001 - 0.2
Nickel	109	170	10.0	11.3	9.8	0.7	0.5 - 25
Potassium	401 B	346 B	83.8 B	66.6 B	204 B	242	8500 - 43000
Selenium	25.0	45.9	U	U	U	3.3	0.1 - 3.9
Silver	2.5	1.8 B	U	0.16 B	U	1.1	--
Sodium	984	633 B	106 B	162 B	213 B	225	6000 - 8000
Thallium	6.2	7.1	U	U	U	3.0	--
Vanadium	50.5	45.5	11.5	14.2	39.7	0.5	1 - 300
Zinc	615	380	44.9	73.6	175	0.3	9 - 50
Cyanide	U	U	U	U	0.095 B	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**SS-32**	**SS-33**	**SS-34**	**SS-35**	**SS-36**	**Instrument Detection Limits**	**Eastern USA Background Levels**
DATE OF COLLECTION	5/17/99	5/17/99	5/17/99	5/17/99	5/17/99		
PERCENT SOLIDS	97.00	97.00	98.00	99.00	94.00		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	2630	883	1580	2990	6030	20	33000
Antimony	2.0 B	U	U	0.48 B	1.9 B	3.0	--
Arsenic	4.2	1.4 B	1.8	2.8	5.7	1.7	3 - 12*
Barium	11.7 B	6.2 B	14.3 B	41.9	101	1.4	15 - 600
Beryllium	U	U	U	0.2 B	0.24 B	0.1	0 - 1.75
Cadmium	U	U	U	U	0.21 B	0.5	0.1 - 1, (10***)
Calcium	19300	3270	9860	25100	1090	14	130 - 35000
Chromium	4.2	3.3	5.1	8.2	15.4	1.3	1.5 - 40*,(50***)
Cobalt	4.3 B	0.83 B	1.3 B	2.5 B	4.6 B	0.6	2.5 - 60
Copper	32.4	6.3	14.8	29.7	163	0.5	1 - 50
Iron	8750	2180	3550	6550	15200	2.0	2000 - 550000
Lead	53.8	9.3	19.2	57.9	121	1.9	200 - 500**
Magnesium	5080	626 B	610 B	1290	1240	3.0	100 - 5000
Manganese	107	39.5	69.3	108	182	1.0	50 - 5000
Mercury	U	U	U	U	0.048 B	0.1	0.001 - 0.2
Nickel	4.4 B	1.8 B	3.0 B	5.3 B	12.9	0.7	0.5 - 25
Potassium	127 B	U	U	166 B	106 B	242	8500 - 43000
Selenium	U	U	U	U	1.8	3.3	0.1 - 3.9
Silver	U	U	U	0.11 B	0.15 B	1.1	--
Sodium	104 B	52.1 B	86 B	122 B	U	225	6000 - 8000
Thallium	U	U	U	U	U	3.0	--
Vanadium	17.1	2.8 B	6.5 B	9.9	14.7	0.5	1 - 300
Zinc	28.5	10	20.6	49.3	133	0.3	9 - 50
Cyanide	U	U	U	U	U	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**SS-37**	**SS-38**	**SS-39**	**SS-40**	**SS-41**	**Instrument Detection Limits**	**Eastern USA Background Levels**
DATE OF COLLECTION	5/17/99	5/17/99	5/17/99	5/17/99	5/17/99		
PERCENT SOLIDS	90.30	95.00	94.80	98.00	98.00		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	4840	3290	3660	2970	1910	20	33000
Antimony	77.7	423	22.8	4.9 B	15.4	3.0	--
Arsenic	54.4	158	20.5	7.8	6.0	1.7	3 - 12*
Barium	87.5	24.7 B	49.3	23.4 B	10.8 B	1.4	15 - 600
Beryllium	0.26 B	0.17 B	0.19 B	U	U	0.1	0 - 1.75
Cadmium	0.32 B	U	U	U	U	0.5	0.1 - 1, (10***)
Calcium	66000	35800	25800	7970	3430	14	130 - 35000
Chromium	13.3	6.6	11.3	5.1	3.8	1.3	1.5 - 40*,(50***)
Cobalt	3.8 B	2.9 B	3.4 B	4.0 B	1.9 B	0.6	2.5 - 60
Copper	92.1	179	8.15	47.1	14.2	0.5	1 - 50
Iron	14000	8240	13500	8920	4410	2.0	2000 - 550000
Lead	2260	625	626	129	339	1.9	200 - 500**
Magnesium	1890	1270	1640	1510	1220	3.0	100 - 5000
Manganese	182	99	146	131	78.8	1.0	50 - 5000
Mercury	0.075 B	U	0.089	U	U	0.1	0.001 - 0.2
Nickel	15.6	24.4	11.2	7.1 B	3.8 B	0.7	0.5 - 25
Potassium	247 B	51.8 B	126 B	U	U	242	8500 - 43000
Selenium	U	U	U	U	U	3.3	0.1 - 3.9
Silver	0.46 B	0.26 B	0.14 B	U	U	1.1	--
Sodium	282 B	208 B	141 B	56.8 B	U	225	6000 - 8000
Thallium	U	U	U	U	U	3.0	--
Vanadium	18.9	9.4 B	13.2	24.4	6.1 B	0.5	1 - 300
Zinc	125	38.5	108	76.9	18.9	0.3	9 - 50
Cyanide	U	U	0.74 B	U	U	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**SS-42**	**SS-43**	**SS-44**	**SS-45**	**SS-46**	**Instrument Detection Limits**	**Eastern USA Background Levels**
DATE OF COLLECTION	5/17/99	5/17/99	5/17/99	5/17/99	5/17/99		
PERCENT SOLIDS	99.40	92.00	98.00	94.50	90.30		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	946	4140	2960	4100	1600	20	33000
Antimony	0.52 B	U	0.52 B	7.2 B	1.8 B	3.0	--
Arsenic	1.1 B	2.4	3.7	6.6	3.3	1.7	3 - 12*
Barium	8.6 B	29.1 B	62.8	118	5.8 B	1.4	15 - 600
Beryllium	U	0.24 B	0.18 B	0.22 B	U	0.1	0 - 1.75
Cadmium	U	U	U	0.13 B	0.059 B	0.5	0.1 - 1, (10***)
Calcium	6490	50200	15800	20000	379 B	14	130 - 35000
Chromium	4.2	10	11.8	18.6	3.6	1.3	1.5 - 40*,(50***)
Cobalt	1.2 B	2.4 B	2.7 B	7.8 B	0.73 B	0.6	2.5 - 60
Copper	10	15.2	55.5	213	7.0	0.5	1 - 50
Iron	2670	5450	8600	13700	2980	2.0	2000 - 550000
Lead	17.5	26	46	364	54.5	1.9	200 - 500**
Magnesium	1580	2060	1590	3350	337 B	3.0	100 - 5000
Manganese	47.3	103	192	238	60.9	1.0	50 - 5000
Mercury	0.6	U	U	0.57	U	0.1	0.001 - 0.2
Nickel	3.5 B	6.9 B	6.1 B	25.1	2.5 B	0.7	0.5 - 25
Potassium	U	78 B	257 B	195 B	U	242	8500 - 43000
Selenium	U	U	U	U	U	3.3	0.1 - 3.9
Silver	U	0.21 B	U	0.2 B	U	1.1	--
Sodium	73 B	82.3 B	U	121 B	U	225	6000 - 8000
Thallium	U	U	U	U	U	3.0	--
Vanadium	4.7 B	11.5	10	16.1	9.2 B	0.5	1 - 300
Zinc	18.5	26.5	49	322	13.2	0.3	9 - 50
Cyanide	U	U	U	0.067 B	U	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-1 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**SS-47**	**SS-48**	**SS-49**	**SS-50**	**SS-51**	**SS-52**	**Instrument Detection Limits**	**Eastern USA Background Levels**
DATE OF COLLECTION	5/17/99	5/17/99	5/17/99	5/17/99	5/17/99	6/14/99		
PERCENT SOLIDS	92.00	94.50	91.00	93.00	93.60	89.00		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	2190	2700	4180	3470	5830	4800	20	33000
Antimony	9.4 B	7.1 B	288	2.0 B	4.8 B	15.5	3.0	--
Arsenic	8.6	6.1	181	2.7	12.1	18.7	1.7	3 - 12*
Barium	8.3 B	8.3 B	80.4	9.4 B	35.9 B	25.2 B	1.4	15 - 600
Beryllium	U	U	0.17 B	U	0.31 B	0.14 B	0.1	0 - 1.75
Cadmium	U	U	1.5	U	U	0.67 B	0.5	0.1 - 1, (10***)
Calcium	293 B	231 B	2310	160 B	51400	24700	14	130 - 35000
Chromium	3.7	4.3	13.1	4.2	16	10.0	1.3	1.5 - 40*,(50***)
Cobalt	1.2 B	1.0 B	3.2 B	0.88 B	3.3 B	2.3 B	0.6	2.5 - 60
Copper	14.8	16.9	222	15.1	30.8	39.6	0.5	1 - 50
Iron	4280	4830	18500	5270	9930	7900	2.0	2000 - 550000
Lead	284	141	4290	38.4	161	419	1.9	200 - 500**
Magnesium	295 B	339 B	551 B	317 B	2160	988 B	3.0	100 - 5000
Manganese	63.8	35.3	172	28.9	165	73.6	1.0	50 - 5000
Mercury	U	U	0.092	U	U	0.058 B	0.1	0.001 - 0.2
Nickel	3.1 B	2.8 B	21.4	1.9 B	11.2	6.2 B	0.7	0.5 - 25
Potassium	U	U	57.5 B	U	181 B	300 B	242	8500 - 43000
Selenium	U	U	5.4	U	U	1.2	3.3	0.1 - 3.9
Silver	U	U	U	U	0.28 B	0.79 B	1.1	--
Sodium	U	U	135 B	U	148 B	93.1 B	225	6000 - 8000
Thallium	U	U	0.7 B	U	U	U	3.0	--
Vanadium	9.1	9.3 B	15	9.5 B	16.6	15.4	0.5	1 - 300
Zinc	27.3	26.2	206	11.5	61.1	40.8	0.3	9 - 50
Cyanide	0.093 B	U	0.1 B	0.055 B	U	U	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-2

LONG ISLAND RAILROAD YAPHANK SITE
SUBSURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	SB-06	SB-06	SB-06	SB-07	SB-07	Instrument Detection Limits	Eastern USA Background Levels
DEPTH	(0-2)	(5-7)	(8.5-10.5)	(0-2)	(5-7)	--	mg/kg
DATE OF COLLECTION	6/14/99	6/14/99	6/14/99	6/14/99	6/14/99	ug/L	
PERCENT SOLIDS	96.00	99.00	90.00	97.00	99.00		
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg		
Aluminum	1660	1050	713	5530	852	20	33000
Antimony	32.8	0.59 B	U	3210	4.4 B	3.0	--
Arsenic	25.2	0.93 B	U	1560	0.76 B	1.7	3 - 12*
Barium	10 B	3.1 B	2.0 B	465	2.8 B	1.4	15 - 600
Beryllium	0.037 B	0.066 B	0.04 B	0.094 B	0.038 B	0.1	0 - 1.75
Cadmium	0.56 B	0.18 B	U	14.8	0.10 B	0.5	0.1 - 1, (10***)
Calcium	61.7 B	16.7 B	23.3 B	3020	8.6 B	14	130 - 35000
Chromium	2.3	2.4	1.3 B	36.2	1.3 B	1.3	1.5 - 40*,(50***)
Cobalt	0.97 B	2.1 B	0.50 B	12.9	0.91 B	0.6	2.5 - 60
Copper	53	2.2 B	1.2 B	2300	4.6	0.5	1 - 50
Iron	4510	2340	1090	128000	1550	2.0	2000 - 550000
Lead	1090	8.7	3.4	37100	28.2	1.9	200 - 500**
Magnesium	160 B	211 B	257 B	741 B	184 B	3.0	100 - 5000
Manganese	19	160	11.7	505	63.6	1.0	50 - 5000
Mercury	0.13	0.056 B	U	0.36	U	0.1	0.001 - 0.2
Nickel	3.5	2.2 B	1.2 B	92.8	1.6 B	0.7	0.5 - 25
Potassium	U	44.8 B	49.1 B	453 B	U	242	8500 - 43000
Selenium	0.96 B	0.57 B	0.93 B	24.5	U	3.3	0.1 - 3.9
Silver	0.41 B	0.26 B	U	12.1	U	1.1	--
Sodium	U	U	U	3580	U	225	6000 - 8000
Thallium	U	U	U	2.7	U	3.0	--
Vanadium	5.2 B	3.3 B	1.7 B	28.4	1.8 B	0.5	1 - 300
Zinc	24.4	6.9	6.3	1040	5.0	0.3	9 - 50
Cyanide	U	U	U	U	U	1.0	1600****

QUALIFIERS:

U: Constituent analyzed for but not detected.

B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:

--: Not established.

**: Background for metropolitan or suburban areas.

***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.

****: USEPA Generic Soil Screening Level.

[ ] : Value exceeds Eastern USA Background Level.

TABLE 4-2 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SUBSURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	SB-09	SB-09	SB-09	SB-10	SB-11	Instrument Detection Limits	Eastern USA Background Levels
DEPTH	(5-7)	(10-12)	(15-17)	(8-10)	(6-8)		
DATE OF COLLECTION	6/14/99	6/14/99	6/14/99	6/8/99	6/7/99		
PERCENT SOLIDS	98.00	97.00	97.00	82.00	87.00	--	
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	924	790	603	4940	8090	20	33000
Antimony	U	U	U	21.7	20.3	3.0	--
Arsenic	U	0.3 B	0.38 B	31.7	29.2	1.7	3 - 12*
Barium	2.5 B	2.4 B	2.6 B	863	632	1.4	15 - 600
Beryllium	0.058 B	0.055 B	0.076 B	0.4 B	0.26 B	0.1	0 - 1.75
Cadmium	0.1 B	0.085 U	0.48 B	3.7	3.7	0.5	0.1 - 1, (10***)
Calcium	25.4 B	24.3 B	26.9 B	12000	10200	14	130 - 35000
Chromium	1.5 B	1.8	1.9	86	135	1.3	1.5 - 40*,(50***)
Cobalt	0.98 B	0.94 B	1.3 B	13.4	18.8	0.6	2.5 - 60
Copper	1.4 B	1.6 B	9.6	1000	3280	0.5	1 - 50
Iron	1560	1600	1690	64400	110000	2.0	2000 - 550000
Lead	0.74	1.2	2.1	1150	982	1.9	200 - 500**
Magnesium	167 B	250 B	167 B	2570	5460	3.0	100 - 5000
Manganese	48.2	57.4	97.3	530	1220	1.0	50 - 5000
Mercury	0.068 B	0.084 B	U	0.59	0.33	0.1	0.001 - 0.2
Nickel	1.6 B	1.5 B	2.0 B	72.4	454	0.7	0.5 - 25
Potassium	39.8 B	47.0 B	U	659 B	1190	242	8500 - 43000
Selenium	0.55 B	U	0.77 B	3.1	11.3	3.3	0.1 - 3.9
Silver	U	U	U	1.8 B	3.4	1.1	--
Sodium	U	U	U	603 B	1140	225	6000 - 8000
Thallium	U	U	U	1.7 B	1.8 B	3.0	--
Vanadium	2.5 B	2.3 B	2.5 B	290	32.9	0.5	1 - 300
Zinc	5.0	5.0	10.0	764	1170	0.3	9 - 50
Cyanide	U	U	U	0.35 B	0.35 B	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-2 (continued)

LONG ISLAND RAILROAD YAPHANK SITE
SUBSURFACE SOIL SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	SB-12	SB-13	SB-14	SB-15	SB-16	Instrument	Eastern
DEPTH	(2-4)	(4-6)	(6-8)	(8-10)	(12-14)	Detection	USA
DATE OF COLLECTION	6/7/99	6/9/99	6/9/99	6/8/99	6/11/99	Limits	Background
PERCENT SOLIDS	74.00	88.00	87.00	81.00		--	Levels
UNITS	mg/kg	mg/kg	mg/kg	mg/kg	mg/kg	ug/L	mg/kg
Aluminum	2930	2,220	5330	5320	4350	20	33000
Antimony	1.7 B	29.3	23.1	77	23.7	3.0	--
Arsenic	6.8	9.0	23.2	31.6	32.1	1.7	3 - 12*
Barium	50.1	202	479	827	418	1.4	15 - 600
Beryllium	U	0.18 B	0.4 B	0.35 B	0.14 B	0.1	0 - 1.75
Cadmium	0.21 B	1.9	4.6	4.9	10	0.5	0.1 - 1, (10***)
Calcium	1320	3070	6800	18900	12200	14	130 - 35000
Chromium	9.6	21.5	164	135	51.6	1.3	1.5 - 40*,(50***)
Cobalt	2.5 B	3.8 B	14.0	14.6	15.3	0.6	2.5 - 60
Copper	70.7	323	1040	2300	952	0.5	1 - 50
Iron	13300	24500	61900	80000	71800	2.0	2000 - 550000
Lead	87.9	298	1480	1370	1870	1.9	200 - 500**
Magnesium	418 B	927 B	3830	8940	3460	3.0	100 - 5000
Manganese	88.4	203	630	1420	774	1.0	50 - 5000
Mercury	0.092 B	0.11 B	0.44	0.69	3.1	0.1	0.001 - 0.2
Nickel	8.9 B	24.1	135	129	62.5	0.7	0.5 - 25
Potassium	153 B	184 B	573 B	768 B	559 B	242	8500 - 43000
Selenium	U	1.5	5.8	U	5.0	3.3	0.1 - 3.9
Silver	0.76 B	0.92 B	2.6	1.6 B	7.9	1.1	--
Sodium	U	305 B	497 B	1400	3420	225	6000 - 8000
Thallium	U	U	U	1.9 B	1.6 B	3.0	--
Vanadium	12.8	15.6	25.7	34.4	27.3	0.5	1 - 300
Zinc	100	452	920	1840	1310	0.3	9 - 50
Cyanide	1.5	0.09 B	0.29 B	0.24 B	0.36 B	1.0	1600****

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.

Notes:
--: Not established.
**: Background for metropolitan or suburban areas.
***: Proposed revised criteria for cadmium and chromium in TAGM 4046 Appendix A.
****: USEPA Generic Soil Screening Level.
▭ : Value exceeds Eastern USA Background Level.

TABLE 4-3
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**Contract required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/6/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloromethane	U	U	U	U	U	10	5.0 ST
Bromomethane	U	U	U	U	U	10	5.0 ST
Vinyl Chloride	U	U	U	U	U	10	2.0 ST
Chloroethane	U	U	U	U	U	10	5.0 ST
Methylene Chloride	3.0 JB	2.0 JB	U	U	U	10	5.0 ST
Acetone	1.0 JB	1.0 JB	2.0 JB	U	U	10	50 GV
Carbon Disulfide	U	U	U	U	U	10	--
1,1-Dichloroethene	U	U	U	U	U	10	5.0 ST
1,1-Dichloroethane	U	U	U	U	U	10	5.0 ST
1,2-Dichloroethene (Total)	U	U	U	U	U	10	5.0 ST*
Chloroform	U	U	U	U	U	10	7.0 ST
1,2-Dichloroethane	U	U	U	U	U	10	5.0 ST
2-Butanone	U	U	U	U	U	10	50 GV
1,1,1-Trichloroethane	U	U	U	U	U	10	5.0 ST
Carbon Tetrachloride	U	U	U	U	U	10	5.0 ST
Bromodichloromethane	U	U	U	U	U	10	50 GV
1,2-Dichloropropane	U	U	U	U	U	10	5.0 ST
cis-1,3-Dichloropropene	U	U	U	U	U	10	5.0 ST
Trichloroethene	U	U	U	U	U	10	5.0 ST
Dibromochloromethane	U	U	U	U	U	10	50 GV
1,1,2-Trichloroethane	U	U	U	U	U	10	5.0 ST
Benzene	U	U	U	U	U	10	0.7 ST
trans-1,3-Dichloropropene	U	U	U	U	U	10	5.0 ST
Bromoform	U	U	U	U	U	10	50 GV
4-Methyl-2-pentanone	U	U	U	U	U	10	--
2-Hexanone	U	U	U	U	U	10	50 GV
Tetrachloroethene	U	U	U	U	U	10	5.0 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	10	5.0 ST
Toluene	U	U	U	U	U	10	5.0 ST
Chlorobenzene	U	U	U	U	U	10	5.0 ST
Ethylbenzene	U	U	U	U	U	10	5.0 ST
Styrene	U	U	U	U	U	10	5.0 ST
Xylene (total)	U	U	U	U	U	10	5.0 ST*

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Applies to each isomer individually.

TABLE 4-3 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-10**	**MW-11**	**MW-12**	**MW-13**	**MW-14**	**Contract required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/7/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Chloromethane	U	U	U	U	U	10	5.0 ST
Bromomethane	U	U	U	U	U	10	5.0 ST
Vinyl Chloride	U	U	U	U	U	10	2.0 ST
Chloroethane	U	U	U	U	U	10	5.0 ST
Methylene Chloride	U	3.0 JB	3.0 JB	U	3.0 JB	10	5.0 ST
Acetone	U	1.0 JB	1.0 JB	U	3.0 JB	10	50 GV
Carbon Disulfide	U	U	U	U	U	10	--
1,1-Dichloroethene	U	U	U	U	U	10	5.0 ST
1,1-Dichloroethane	U	U	U	U	U	10	5.0 ST
1,2-Dichloroethene (Total)	U	U	U	U	U	10	5.0 ST*
Chloroform	U	1.0 J	1.0 J	U	1.0 J	10	7.0 ST
1,2-Dichloroethane	U	U	U	U	U	10	5.0 ST
2-Butanone	U	U	U	U	U	10	50 GV
1,1,1-Trichloroethane	U	U	U	U	U	10	5.0 ST
Carbon Tetrachloride	U	U	U	U	U	10	5.0 ST
Bromodichloromethane	U	U	U	U	U	10	50 GV
1,2-Dichloropropane	U	U	U	U	U	10	5.0 ST
cis-1,3-Dichloropropene	U	U	U	U	U	10	5.0 ST
Trichloroethene	U	U	U	U	U	10	5.0 ST
Dibromochloromethane	U	U	U	U	U	10	50 GV
1,1,2-Trichloroethane	U	U	U	U	U	10	5.0 ST
Benzene	U	U	U	U	U	10	0.7 ST
trans-1,3-Dichloropropene	U	U	U	U	U	10	5.0 ST
Bromoform	U	U	U	U	U	10	50 GV
4-Methyl-2-pentanone	U	U	U	U	U	10	--
2-Hexanone	U	U	U	U	U	10	50 GV
Tetrachloroethene	U	U	U	U	U	10	5.0 ST
1,1,2,2-Tetrachloroethane	U	U	U	U	U	10	5.0 ST
Toluene	U	U	U	U	U	10	5.0 ST
Chlorobenzene	U	U	U	U	U	10	5.0 ST
Ethylbenzene	U	U	U	U	U	10	5.0 ST
Styrene	U	U	U	U	U	10	5.0 ST
Xylene (total)	U	U	U	U	U	10	5.0 ST*

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Applies to each isomer individually.

TABLE 4-3 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
VOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-15**	**MW-16**				**Contract required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/9/99	7/9/99					
DILUTION FACTOR	1.0	1.0					
UNITS	ug/L	ug/L				ug/L	ug/L
Chloromethane	U	U				10	5.0 ST
Bromomethane	U	U				10	5.0 ST
Vinyl Chloride	U	U				10	2.0 ST
Chloroethane	U	U				10	5.0 ST
Methylene Chloride	U	1.0 JB				10	5.0 ST
Acetone	2.0 JB	U				10	50 GV
Carbon Disulfide	U	U				10	--
1,1-Dichloroethene	U	U				10	5.0 ST
1,1-Dichloroethane	U	U				10	5.0 ST
1,2-Dichloroethene (Total)	U	U				10	5.0 ST*
Chloroform	U	U				10	7.0 ST
1,2-Dichloroethane	U	U				10	5.0 ST
2-Butanone	U	U				10	50 GV
1,1,1-Trichloroethane	U	U				10	5.0 ST
Carbon Tetrachloride	U	U				10	5.0 ST
Bromodichloromethane	U	U				10	50 GV
1,2-Dichloropropane	U	U				10	5.0 ST
cis-1,3-Dichloropropene	U	U				10	5.0 ST
Trichloroethene	U	U				10	5.0 ST
Dibromochloromethane	U	U				10	50 GV
1,1,2-Trichloroethane	U	U				10	5.0 ST
Benzene	U	U				10	0.7 ST
trans-1,3-Dichloropropene	U	U				10	5.0 ST
Bromoform	U	U				10	50 GV
4-Methyl-2-pentanone	U	U				10	--
2-Hexanone	U	U				10	50 GV
Tetrachloroethene	1.0 J	U				10	5.0 ST
1,1,2,2-Tetrachloroethane	U	U				10	5.0 ST
Toluene	U	U				10	5.0 ST
Chlorobenzene	U	U				10	5.0 ST
Ethylbenzene	U	U				10	5.0 ST
Styrene	U	U				10	5.0 ST
Xylene (total)	U	U				10	5.0 ST*

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
J: Compound found at a concentration below the detection limit.

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Applies to each isomer individually.

TABLE 4-4
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**Contract Required**	**NYSDEC Class GA**
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/6/99	7/7/99	**Detection**	**Groundwater**
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	**Limits**	**Standards/Guidelines**
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Phenol	U	U	U	U	U	10	1.0 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	10	1.0 ST
2-Chlorophenol	U	U	U	U	U	10	1.0 ST **
1,3-Dichlorobenzene	U	U	U	U	U	10	5.0 ST
1,4-Dichlorobenzene	U	U	U	U	U	10	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	10	4.7 ST *
2-Methylphenol	U	U	U	U	U	10	1.0 ST **
2,2'-oxybis (1-Chloropropane)	U	U	U	U	U	10	5.0 ST
4-Methylphenol	U	U	U	U	U	10	1.0 ST **
N-Nitroso-di-n-propylamine	U	U	U	U	U	10	--
Hexachloroethane	U	U	U	U	U	10	5.0 ST
Nitrobenzene	U	U	U	U	U	10	5.0 ST
Isophorone	U	U	U	U	U	10	50 GV
2-Nitrophenol	U	U	U	U	U	10	1.0 ST **
2,4-Dimethylphenol	U	U	U	U	U	10	1.0 ST **
2,4-Dichlorophenol	U	U	U	U	U	10	1.0 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	10	5.0 ST
Naphthalene	U	U	U	U	U	10	10 GV
4-Chloroaniline	U	U	U	U	U	10	5.0 ST
Hexachlorobutadiene	U	U	U	U	U	10	5.0 ST
bis(2-Chloroethoxy)methane	U	U	U	U	U	10	5.0 ST
4-Chloro-3-methylphenol	U	U	U	U	U	10	1.0 ST **
2-Methylnaphthalene	U	U	U	U	U	10	--
Hexachlorocyclopentadiene	U	U	U	U	U	10	5.0 ST
2,4,6-Trichlorophenol	U	U	U	U	U	10	1.0 ST **
2,4,5-Trichlorophenol	U	U	U	U	U	25	1.0 ST **
2-Chloronaphthalene	U	U	U	U	U	10	10 GV
2-Nitroaniline	U	U	U	U	U	25	5.0 ST
Dimethylphthalate	U	U	U	U	U	10	50 GV
Acenaphthylene	U	U	U	U	U	10	--
2,6-Dinitrotoluene	U	U	U	U	U	10	5.0 ST
3-Nitroaniline	U	U	U	U	U	25	5.0 ST
Acenaphthene	U	U	U	U	U	10	20 GV

TABLE 4-4 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-05**	**MW-06**	**MW-07**	**MW-08**	**MW-09**	**Contract Required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/6/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2,4-Dinitrophenol	U	U	U	U	U	25	1.0 ST **
4-Nitrophenol	U	U	U	U	U	25	1.0 ST **
Dibenzofuran	U	U	U	U	U	10	--
2,4-Dinitrotoluene	U	U	U	U	U	10	5.0 ST
Diethylphthalate	U	U	U	U	U	10	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	10	--
Fluorene	U	U	U	U	U	10	50 GV
4-Nitroaniline	U	U	U	U	U	25	5.0 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	25	1.0 ST **
N-Nitrosodiphenylamine	U	U	U	U	U	10	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	10	--
Hexachlorobenzene	U	U	U	U	U	10	0.35 ST
Pentachlorophenol	U	U	U	U	U	25	1.0 ST **
Phenanthrene	U	U	U	U	U	10	50 GV
Anthracene	U	U	U	U	U	10	50 GV
Carbazole	U	U	U	U	U	10	--
Di-n-butylphthalate	U	U	U	U	U	10	50 ST
Fluoranthene	U	U	U	U	U	10	50 GV
Pyrene	U	U	U	U	U	10	50 GV
Butylbenzylphthalate	U	U	U	U	U	10	50 GV
3,3'-Dichlorobenzidine	U	U	U	U	U	10	5.0 ST
Benzo(a)anthracene	U	U	U	U	U	10	0.002 GV
Chrysene	U	U	U	U	U	10	0.002 GV
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	10	50 ST
Di-n-octylphthalate	U	U	U	U	U	10	50 GV
Benzo(b)fluoranthene	U	U	U	U	U	10	0.002 GV
Benzo(k)fluoranthene	U	U	U	U	U	10	0.002 GV
Benzo(a)pyrene	U	U	U	U	U	10	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	10	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	10	--
Benzo(g,h,i)perylene	U	U	U	U	U	10	--

QUALIFIERS:
U: Constituent analyzed for but not detected.

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
ND: Not detectable.
* : Value pertains to the sum of the isomers.
**: Value pertains to total phenols.

TABLE 4-4 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE ID DATE OF COLLECTION DILUTION FACTOR UNITS	**MW-10** 7/7/99 1.0 ug/L	**MW-11** 7/7/99 1.0 ug/L	**MW-12** 7/9/99 1.0 ug/L	**MW-13** 7/6/99 1.0 ug/L	**MW-14** 7/7/99 1.0 ug/L	**Contract Required Detection Limits** ug/L	**NYSDEC Class GA Groundwater Standards/Guidelines** ug/L
Phenol	U	U	U	U	U	10	1.0 ST **
bis(2-Chloroethyl)ether	U	U	U	U	U	10	1.0 ST
2-Chlorophenol	U	U	U	U	U	10	1.0 ST **
1,3-Dichlorobenzene	U	U	U	U	U	10	5.0 ST
1,4-Dichlorobenzene	U	U	U	U	U	10	4.7 ST *
1,2-Dichlorobenzene	U	U	U	U	U	10	4.7 ST *
2-Methylphenol	U	U	U	U	U	10	1.0 ST **
2,2'-oxybis (1-Chloropropane)	U	U	U	U	U	10	5.0 ST
4-Methylphenol	U	U	U	U	U	10	1.0 ST **
N-Nitroso-di-n-propylamine	U	U	U	U	U	10	--
Hexachloroethane	U	U	U	U	U	10	5.0 ST
Nitrobenzene	U	U	U	U	U	10	5.0 ST
Isophorone	U	U	U	U	U	10	50 GV
2-Nitrophenol	U	U	U	U	U	10	1.0 ST **
2,4-Dimethylphenol	U	U	U	U	U	10	1.0 ST **
2,4-Dichlorophenol	U	U	U	U	U	10	1.0 ST **
1,2,4-Trichlorobenzene	U	U	U	U	U	10	5.0 ST
Naphthalene	U	U	U	U	U	10	10 GV
4-Chloroaniline	U	U	U	U	U	10	5.0 ST
bis(2-Chloroethoxy)methane	U	U	U	U	U	10	5.0 ST
Hexachlorobutadiene	U	U	U	U	U	10	5.0 ST
4-Chloro-3-methylphenol	U	U	U	U	U	10	1.0 ST **
2-Methylnaphthalene	U	U	U	U	U	10	--
Hexachlorocyclopentadiene	U	U	U	U	U	10	5.0 ST
2,4,6-Trichlorophenol	U	U	U	U	U	10	1.0 ST **
2,4,5-Trichlorophenol	U	U	U	U	U	25	1.0 ST **
2-Chloronaphthalene	U	U	U	U	U	10	10 GV
2-Nitroaniline	U	U	U	U	U	25	5.0 ST
Dimethylphthalate	U	U	U	U	U	10	50 GV
Acenaphthylene	U	U	U	U	U	10	--
2,6-Dinitrotoluene	U	U	U	U	U	10	5.0 ST
3-Nitroaniline	U	U	U	U	U	25	5.0 ST
Acenaphthene	U	U	U	U	U	10	20 GV

TABLE 4-4 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-10**	**MW-11**	**MW-12**	**MW-13**	**MW-14**	**Contract Required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/6/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
2,4-Dinitrophenol	U	U	U	U	U	25	1.0 ST **
4-Nitrophenol	U	U	U	U	U	25	1.0 ST **
Dibenzofuran	U	U	U	U	U	10	--
2,4-Dinitrotoluene	U	U	U	U	U	10	5.0 ST
Diethylphthalate	U	U	U	U	U	10	50 GV
4-Chlorophenyl-phenylether	U	U	U	U	U	10	--
Fluorene	U	U	U	U	U	10	50 GV
4-Nitroaniline	U	U	U	U	U	25	5.0 ST
4,6-Dinitro-2-methylphenol	U	U	U	U	U	25	1.0 ST **
N-Nitrosodiphenylamine	U	U	U	U	U	10	50 GV
4-Bromophenyl-phenylether	U	U	U	U	U	10	--
Hexachlorobenzene	U	U	U	U	U	10	0.35 ST
Pentachlorophenol	U	U	U	U	U	25	1.0 ST **
Phenanthrene	U	U	U	U	U	10	50 GV
Anthracene	U	U	U	U	U	10	50 GV
Carbazole	U	U	U	U	U	10	--
Di-n-butylphthalate	U	U	U	U	U	10	50 ST
Fluoranthene	U	U	U	U	U	10	50 GV
Pyrene	U	U	U	U	U	10	50 GV
Butylbenzylphthalate	U	U	U	U	U	10	50 GV
3,3'-Dichlorobenzidine	U	U	U	U	U	10	5.0 ST
Benzo(a)anthracene	U	U	U	U	U	10	0.002 GV
Chrysene	U	U	U	U	U	10	0.002 GV
bis(2-Ethylhexyl)phthalate	U	U	U	U	U	10	50 ST
Di-n-octylphthalate	U	U	U	U	U	10	50 GV
Benzo(b)fluoranthene	U	U	U	U	U	10	0.002 GV
Benzo(k)fluoranthene	U	U	U	U	U	10	0.002 GV
Benzo(a)pyrene	U	U	U	U	U	10	ND ST
Indeno(1,2,3-cd)pyrene	U	U	U	U	U	10	0.002 GV
Dibenz(a,h)anthracene	U	U	U	U	U	10	--
Benzo(g,h,i)perylene	U	U	U	U	U	10	--

QUALIFIERS:
U: Constituent analyzed for but not detected.

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
ND: Not detectable.
* : Value pertains to the sum of the isomers.
**: Value pertains to total phenols.

TABLE 4-4 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE ID	**MW-15**	**MW-16**				**Contract Required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99					
DILUTION FACTOR	1.0	1.0					
UNITS	ug/L	ug/L				ug/L	ug/L
Phenol	U	U				10	1.0 ST **
bis(2-Chloroethyl)ether	U	U				10	1.0 ST
2-Chlorophenol	U	U				10	1.0 ST **
1,3-Dichlorobenzene	U	U				10	5.0 ST
1,4-Dichlorobenzene	U	U				10	4.7 ST *
1,2-Dichlorobenzene	U	U				10	4.7 ST *
2-Methylphenol	U	U				10	1.0 ST **
2,2'-oxybis (1-Chloropropane)	U	U				10	5.0 ST
4-Methylphenol	U	U				10	1.0 ST **
N-Nitroso-di-n-propylamine	U	U				10	--
Hexachloroethane	U	U				10	5.0 ST
Nitrobenzene	U	U				10	5.0 ST
Isophorone	U	U				10	50 GV
2-Nitrophenol	U	U				10	1.0 ST **
2,4-Dimethylphenol	U	U				10	1.0 ST **
2,4-Dichlorophenol	U	U				10	1.0 ST **
1,2,4-Trichlorobenzene	U	U				10	5.0 ST
Naphthalene	U	U				10	10 GV
4-Chloroaniline	U	U				10	5.0 ST
bis(2-Chloroethoxy)methane	U	U				10	5.0 ST
Hexachlorobutadiene	U	U				10	5.0 ST
4-Chloro-3-methylphenol	U	U				10	1.0 ST **
2-Methylnaphthalene	U	U				10	--
Hexachlorocyclopentadiene	U	U				10	5.0 ST
2,4,6-Trichlorophenol	U	U				10	1.0 ST **
2,4,5-Trichlorophenol	U	U				25	1.0 ST **
2-Chloronaphthalene	U	U				10	10 GV
2-Nitroaniline	U	U				25	5.0 ST
Dimethylphthalate	U	U				10	50 GV
Acenaphthylene	U	U				10	--
2,6-Dinitrotoluene	U	U				10	5.0 ST
3-Nitroaniline	U	U				25	5.0 ST
Acenaphthene	U	U				10	20 GV

TABLE 4-4 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
SEMIVOLATILE ORGANIC COMPOUNDS

SAMPLE ID DATE OF COLLECTION DILUTION FACTOR UNITS	**MW-15** 7/7/99 1.0 ug/L	**MW-16** 7/7/99 1.0 ug/L				**Contract Required Detection Limits** ug/L	**NYSDEC Class GA Groundwater Standards/Guidelines** ug/L
2,4-Dinitrophenol	U	U				25	1.0 ST **
4-Nitrophenol	U	U				25	1.0 ST **
Dibenzofuran	U	U				10	--
2,4-Dinitrotoluene	U	U				10	5.0 ST
Diethylphthalate	U	U				10	50 GV
4-Chlorophenyl-phenylether	U	U				10	--
Fluorene	U	U				10	50 GV
4-Nitroaniline	U	U				25	5.0 ST
4,6-Dinitro-2-methylphenol	U	U				25	1.0 ST **
N-Nitrosodiphenylamine	U	U				10	50 GV
4-Bromophenyl-phenylether	U	U				10	--
Hexachlorobenzene	U	U				10	0.35 ST
Pentachlorophenol	U	U				25	1.0 ST **
Phenanthrene	U	U				10	50 GV
Anthracene	U	U				10	50 GV
Carbazole	U	U				10	--
Di-n-butylphthalate	U	U				10	50 ST
Fluoranthene	U	U				10	50 GV
Pyrene	U	U				10	50 GV
Butylbenzylphthalate	U	U				10	50 GV
3,3'-Dichlorobenzidine	U	U				10	5.0 ST
Benzo(a)anthracene	U	U				10	0.002 GV
Chrysene	U	U				10	0.002 GV
bis(2-Ethylhexyl)phthalate	U	U				10	50 ST
Di-n-octylphthalate	U	U				10	50 GV
Benzo(b)fluoranthene	U	U				10	0.002 GV
Benzo(k)fluoranthene	U	U				10	0.002 GV
Benzo(a)pyrene	U	U				10	ND ST
Indeno(1,2,3-cd)pyrene	U	U				10	0.002 GV
Dibenz(a,h)anthracene	U	U				10	--
Benzo(g,h,i)perylene	U	U				10	--

QUALIFIERS:
U: Constituent analyzed for but not detected.

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
ND: Not detectable.
* : Value pertains to the sum of the isomers.
**: Value pertains to total phenols.

TABLE 4-5
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
PESTICIDES AND PCBs

SAMPLE ID	MW-05	MW-06	MW-07	MW-08	MW-09	Contract Required Detection Limits	NYSDEC Class GA Groundwater Standards/Guidelines
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/6/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PESTICIDES							
alpha-BHC	U	U	U	U	U	0.050	ND ST*
beta-BHC	U	U	U	U	U	0.050	ND ST*
delta-BHC	U	U	U	U	U	0.050	ND ST*
gamma-BHC (Lindane)	U	U	U	U	U	0.050	ND ST*
Heptachlor	U	U	U	U	U	0.050	ND ST*
Aldrin	U	U	U	U	U	0.050	ND ST
Heptachlor Epoxide	U	U	U	U	U	0.050	ND ST*
Endosulfan I	U	U	U	U	U	0.10	--
Dieldrin	U	U	U	U	U	0.10	ND ST
4,4'-DDE	U	U	U	U	U	0.10	ND ST*
Endrin	U	U	U	U	U	0.10	ND ST
Endosulfan II	U	U	U	U	U	0.10	--
4,4'-DDD	U	U	U	U	U	0.10	ND ST*
Endosulfan Sulfate	U	U	U	U	U	0.10	--
4,4'-DDT	U	U	U	U	U	0.10	ND ST*
Methoxychlor	U	U	U	U	U	0.50	35 ST
Endrin Ketone	U	U	U	U	U	0.10	5.0 ST
Endrin Aldehyde	U	U	U	U	U	0.10	5.0 ST
alpha-Chlordane	U	U	U	U	U	0.050	0.1 ST*
gamma-Chlordane	U	U	U	U	U	0.050	0.1 ST*
Toxaphene	U	U	U	U	U	5.0	ND ST
PCBs							
Aroclor-1016	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1221	U	U	U	U	U	2.0	0.1 ST*
Aroclor-1232	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1242	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1248	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1254	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1260	U	U	U	U	U	1.0	0.1 ST*

QUALIFIERS:
U: Constituent analyzed for but not detected.

Notes:
-- : Not established.
ND: Not detectable.
ST: Standard.
* : Value applies to the sum of these substances.

TABLE 4-5 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
PESTICIDES AND PCBs

SAMPLE ID	**MW-10**	**MW-11**	**MW-12**	**MW-13**	**MW-14**	**Contract Required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/9/99	7/7/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
PESTICIDES							
alpha-BHC	U	U	U	U	U	0.050	ND ST*
beta-BHC	U	U	U	U	U	0.050	ND ST*
delta-BHC	U	U	U	U	U	0.050	ND ST*
gamma-BHC (Lindane)	U	U	U	U	U	0.050	ND ST*
Heptachlor	U	U	U	U	U	0.050	ND ST*
Aldrin	U	U	U	U	U	0.050	ND ST
Heptachlor Epoxide	U	U	U	U	U	0.050	ND ST*
Endosulfan I	U	U	U	U	U	0.10	--
Dieldrin	U	U	U	U	U	0.10	ND ST
4,4'-DDE	U	U	U	U	U	0.10	ND ST*
Endrin	U	U	U	U	U	0.10	ND ST
Endosulfan II	U	U	U	U	U	0.10	--
4,4'-DDD	U	U	U	U	U	0.10	ND ST*
Endosulfan Sulfate	U	U	U	U	U	0.10	--
4,4'-DDT	U	U	U	U	U	0.10	ND ST*
Methoxychlor	U	U	U	U	U	0.50	35 ST
Endrin Ketone	U	U	U	U	U	0.10	5.0 ST
Endrin Aldehyde	U	U	U	U	U	0.10	5.0 ST
alpha-Chlordane	U	U	U	U	U	0.050	0.1 ST*
gamma-Chlordane	U	U	U	U	U	0.050	0.1 ST*
Toxaphene	U	U	U	U	U	5.0	ND ST
PCBs							
Aroclor-1016	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1221	U	U	U	U	U	2.0	0.1 ST*
Aroclor-1232	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1242	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1248	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1254	U	U	U	U	U	1.0	0.1 ST*
Aroclor-1260	U	U	U	U	U	1.0	0.1 ST*

QUALIFIERS:
U: Constituent analyzed for but not detected.

Notes:
-- : Not established.
ND: Not detectable.
ST: Standard.
* : Value applies to the sum of these substances.

TABLE 4-5 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
PESTICIDES AND PCBs

SAMPLE ID	**MW-15**	**MW-16**				**Contract Required Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/9/99	7/9/99					
DILUTION FACTOR	1.0	1.0					
UNITS	ug/L	ug/L				ug/L	ug/L
PESTICIDES							
alpha-BHC	U	U				0.050	ND ST*
beta-BHC	U	U				0.050	ND ST*
delta-BHC	U	U				0.050	ND ST*
gamma-BHC (Lindane)	U	U				0.050	ND ST*
Heptachlor	U	U				0.050	ND ST*
Aldrin	U	U				0.050	ND ST
Heptachlor Epoxide	U	U				0.050	ND ST*
Endosulfan I	U	U				0.10	--
Dieldrin	U	U				0.10	ND ST
4,4'-DDE	U	U				0.10	ND ST*
Endrin	U	U				0.10	ND ST
Endosulfan II	U	U				0.10	--
4,4'-DDD	U	U				0.10	ND ST*
Endosulfan Sulfate	U	U				0.10	--
4,4'-DDT	U	U				0.10	ND ST*
Methoxychlor	U	U				0.50	35 ST
Endrin Ketone	U	U				0.10	5.0 ST
Endrin Aldehyde	U	U				0.10	5.0 ST
alpha-Chlordane	U	U				0.050	0.1 ST*
gamma-Chlordane	U	U				0.050	0.1 ST*
Toxaphene	U	U				5.0	ND ST
PCBs							
Aroclor-1016	U	U				1.0	0.1 ST*
Aroclor-1221	U	U				2.0	0.1 ST*
Aroclor-1232	U	U				1.0	0.1 ST*
Aroclor-1242	U	U				1.0	0.1 ST*
Aroclor-1248	U	U				1.0	0.1 ST*
Aroclor-1254	U	U				1.0	0.1 ST*
Aroclor-1260	U	U				1.0	0.1 ST*

QUALIFIERS:
U: Constituent analyzed for but not detected.

Notes:
-- : Not established.
ND: Not detectable.
ST: Standard.
* : Value applies to the sum of these substances.

TABLE 4-6
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**MW-05**	**MW-05F**	**MW-06**	**MW-06F**	**MW-07**	**Instrument Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/7/99	7/7/99	7/9/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	1,120	201	858	350	617	6.0	--
Antimony	U	U	U	U	4.6 B	1.4	3.0 GV
Arsenic	U	U	U	U	10.0	3.0	25 ST
Barium	51.8 B	51.0 B	36.5 B	32.8 B	32.8 B	3.0	1,000 ST
Beryllium	0.34 B	0.28 B	0.44 B	0.36 B	U	0.7	3.0 GV
Cadmium	U	0.56 B	U	U	3.1 B	0.3	5 ST
Calcium	2,390 B	2,760 B	1,160 B	1,170 B	10,400	91.0	--
Chromium	2.6 B	U	1.6 B	U	2.2 B	0.6	50 ST
Cobalt	1.8 B	0.78 B	0.73 B	U	0.65 B	0.4	--
Copper	4.1 B	1.5 B	4.4 B	2.0 B	4.5 B	0.8	200 ST
Iron	1,160	19.0 B	564	23.9 B	783	4.0	300 ST*
Lead	6.3	8.2	11.6	10.6	24.1	1.2	25 ST
Magnesium	1,670 B	1,690 B	836 B	726 B	3,410 B	5.0	35,000 GV
Manganese	491	417	102	77.0	85.3	0.4	300 ST*
Mercury	U	U	U	U	U	0.1	0.7 ST
Nickel	2.5 B	2.8 B	1.7 B	2.7 B	9.6 B	0.6	100 ST
Potassium	U	1,100 B	1,060 B	642 B	1,490 B	242.0	--
Selenium	U	U	U	U	U	5.0	10 ST
Silver	U	U	U	U	2.4 B	0.6	50 ST
Sodium	7,200	8,040	3,810 B	3,820 B	13,900	230.0	20,000 ST
Thallium	U	U	U	U	U	3.0	0.5 GV
Vanadium	2.7 B	0.92 B	1.5 B	0.71 B	1.8 B	0.8	--
Zinc	9.2 B	11.6 B	7.9 B	6.2 B	142	4.0	2,000 GV
Cyanide	2.1 B	NR	1.9 B	NR	U	1.0	200 ST

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NR: Not Required

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Standard for the sum of iron and manganese is 500 ug/L.
▭ : Value exceeds Standard/Guideline.

TABLE 4-6 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**MW-07F**	**MW-08**	**MW-08F**	**MW-09**	**MW-09F**	**Instrument Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/9/99	7/6/99	7/6/99	7/7/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	8.0 B	448	39.3 B	196 B	U	6.0	--
Antimony	3.1 B	U	U	U	U	1.4	3.0 GV
Arsenic	4.1 B	U	U	U	U	3.0	25 ST
Barium	32.7 B	47.3 B	46.0 B	28.4 B	31.2 B	3.0	1,000 ST
Beryllium	U	0.23 B	U	U	U	0.7	3.0 GV
Cadmium	2.4 B	U	U	U	U	0.3	5 ST
Calcium	10,600	8,090	8,610	24,500	25,400	91.0	--
Chromium	U	3.1 B	U	1.8 B	U	0.6	50 ST
Cobalt	U	1.3 B	U	0.68 B	U	0.4	--
Copper	1.7 B	6.6 B	1.1 B	2.1 B	U	0.8	200 ST
Iron	U	559	22.0 B	255	16.9 B	4.0	300 ST*
Lead	6.1	9.3	U	U	U	1.2	25 ST
Magnesium	3,320 B	4,620 B	4,820 B	4,170 B	4,220 B	5.0	35,000 GV
Manganese	19.2	56.8	18.9	47.4	27.1	0.4	300 ST*
Mercury	U	U	U	U	U	0.1	0.7 ST
Nickel	9.4 B	3.6 B	1.9 B	1.5 B	2.9 B	0.6	100 ST
Potassium	1,360 B	1,230 B	22,100	1,890 B	1,190 B	242.0	--
Selenium	U	U	U	U	U	5.0	10 ST
Silver	1.8 B	4.4 B	U	2.7 B	U	0.6	50 ST
Sodium	13,700	15,800	17,100	5,060	5,270	230.0	20,000 ST
Thallium	U	U	U	U	U	3.0	0.5 GV
Vanadium	U	3.7 B	2.1 B	2.5 B	1.9 B	0.8	--
Zinc	138	13.9 B	9.6 B	5.7 B	11.1 B	4.0	2,000 GV
Cyanide	NR	22.6	NR	1.2 B	NR	1.0	200 ST

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NR: Not Required

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Standard for the sum of iron and manganese is 500 ug/L.
▭ : Value exceeds Standard/Guideline.

TABLE 4-6 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**MW-10**	**MW-10F**	**MW-11**	**MW-11F**	**MW-12**	**Instrument Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/7/99	7/7/99	7/7/99	7/7/99	7/7/99		
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0		
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	62.7 B	34.2 B	129 B	81 B	131 B	6.0	--
Antimony	U	U	U	U	U	1.4	3.0 GV
Arsenic	U	U	U	2.8 B	U	3.0	25 ST
Barium	23.2 B	27.0 B	50.1 B	53.5 B	56.4 B	3.0	1,000 ST
Beryllium	0.13 B	0.11 B	0.21 B	0.19 B	0.32 B	0.7	3.0 GV
Cadmium	U	U	U	U	0.93 B	0.3	5 ST
Calcium	11,800	12,700	2,850 B	3,020 B	5,610	91.0	--
Chromium	U	U	U	U	U	0.6	50 ST
Cobalt	U	U	1.0 B	0.72 B	U	0.4	--
Copper	2.0 B	U	3.3 B	1.2 B	2.8 B	0.8	200 ST
Iron	63 B	28.4 B	49.8 B	18.2 B	39.2 B	4.0	300 ST*
Lead	2.8 B	U	4.8	4.0	5.0	1.2	25 ST
Magnesium	3,940 B	4,130 B	1,570 B	1,540 B	1,320 B	5.0	35,000 GV
Manganese	25.9	23.2	197	196	42.2	0.4	300 ST*
Mercury	U	U	U	U	U	0.1	0.7 ST
Nickel	1.2 B	1.4 B	2.4 B	2.9 B	2.6 B	0.6	100 ST
Potassium	1,460 B	1,870 B	746 B	694 B	662 B	242.0	--
Selenium	5.5	U	U	U	U	5.0	10 ST
Silver	2.1 B	U	U	U	U	0.6	50 ST
Sodium	6,090	6,790	8,690	8,520	9,930	230.0	20,000 ST
Thallium	U	U	U	U	U	3.0	0.5 GV
Vanadium	2.0 B	1.9 B	1.1 B	1.1 B	1.0 B	0.8	--
Zinc	7.6 B	5.6 B	7.1 B	7.8 B	26.3	4.0	2,000 GV
Cyanide	1.2 B	NR	1.2 B	NR	1.6 B	1.0	200 ST

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NR: Not Required

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Standard for the sum of iron and manganese is 500 ug/L.

TABLE 4-6 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**MW-12F**	**MW-13**	**MW-13F**	**MW-14**	**MW-14F**	**Instrument**	**NYSDEC Class GA**
DATE OF COLLECTION	7/7/99	7/7/99	7/7/99	7/7/99	7/7/99	**Detection**	**Groundwater**
DILUTION FACTOR	1.0	1.0	1.0	1.0	1.0	**Limits**	**Standards/Guidelines**
UNITS	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L	ug/L
Aluminum	105 B	140 B	23.9 B	30.9 B	U	6.0	--
Antimony	U	U	U	U	U	1.4	3.0 GV
Arsenic	U	U	U	U	U	3.0	25 ST
Barium	70.2 B	32.5 B	31.9 B	17.1 B	21.4 B	3.0	1,000 ST
Beryllium	0.33 B	0.14 B	0.12 B	U	U	0.7	3.0 GV
Cadmium	0.96 B	U	U	U	U	0.3	5 ST
Calcium	6,660	12,800	13,400	7,390	8,110	91.0	--
Chromium	U	1.6 B	U	U	U	0.6	50 ST
Cobalt	U	U	U	U	U	0.4	--
Copper	4.6 B	2.9 B	U	1.5 B	1.9 B	0.8	200 ST
Iron	23.0 B	126	14.3 B	43.3 B	15.3 B	4.0	300 ST*
Lead	3.5	U	U	4.3	3.2	1.2	25 ST
Magnesium	1,430 B	2,150 B	2,140 B	1,670 B	1,730 B	5.0	35,000 GV
Manganese	42.6	33.9	27.4	12.1 B	10.9 B	0.4	300 ST*
Mercury	U	0.15	U	U	U	0.1	0.7 ST
Nickel	2.8 B	1.4 B	1.4 B	U	1.2 B	0.6	100 ST
Potassium	905 B	830 B	1,190 B	790 B	843 B	242.0	--
Selenium	U	U	U	U	U	5.0	10 ST
Silver	U	U	U	U	U	0.6	50 ST
Sodium	11,000	6,210	6,200	7,310	7,580	230.0	20,000 ST
Thallium	U	U	U	U	U	3.0	0.5 GV
Vanadium	1.3 B	1.4 B	0.93 B	1.1 B	1.1 B	0.8	--
Zinc	32.8	15.8 B	13.2 B	7.4 B	8.8 B	4.0	2,000 GV
Cyanide	NR	1.9 B	NR	1.8 B	NR	1.0	200 ST

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NR: Not Required

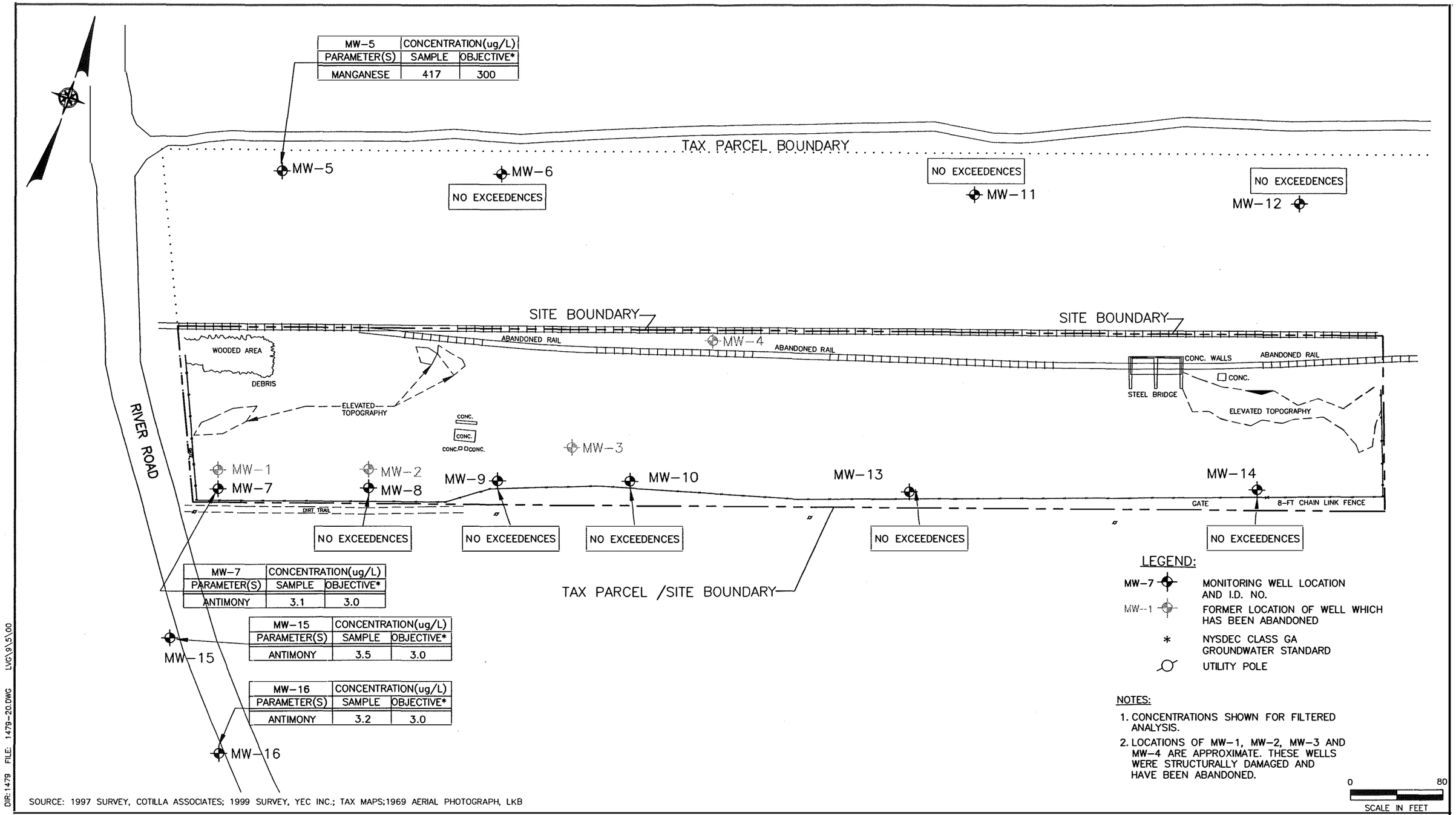
Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Standard for the sum of iron and manganese is 500 ug/L.

TABLE 4-6 (continued)
LONG ISLAND RAILROAD YAPHANK SITE
GROUNDWATER SAMPLING RESULTS
TAL METALS AND CYANIDE

SAMPLE ID	**MW-15**	**MW-15F**	**MW-16**	**MW-16F**		**Instrument Detection Limits**	**NYSDEC Class GA Groundwater Standards/Guidelines**
DATE OF COLLECTION	7/9/99	7/9/99	7/9/99	7/9/99			
DILUTION FACTOR	1.0	1.0	1.0	1.0			
UNITS	ug/L	ug/L	ug/L	ug/L		ug/L	ug/L
Aluminum	420	U	564	U		6.0	--
Antimony	8.6 B	3.5 B	15.3 B	3.2 B		1.4	3.0 GV
Arsenic	14.6	4.3 B	16.4	9.0 B		3.0	25 ST
Barium	33.4 B	34.2 B	28.6 B	33.0 B		3.0	1,000 ST
Beryllium	U	U	U	U		0.7	3.0 GV
Cadmium	5.2	4.7 B	1.9 B	0.78 B		0.3	5 ST
Calcium	18,500	18,100	23,200	21,900		91.0	--
Chromium	1.3 B	U	2.3 B	U		0.6	50 ST
Cobalt	0.57 B	U	1.6 B	U		0.4	--
Copper	1.5 B	1.1 B	2.8 B	U		0.8	200 ST
Iron	465	7.4 B	471	86.2 B		4.0	300 ST*
Lead	8.2	9.8	9.5	13.7		1.2	25 ST
Magnesium	5,420	5,250	8,900	8,400		5.0	35,000 GV
Manganese	52.0	18.2	116	60.5		0.4	300 ST*
Mercury	U	U	U	U		0.1	0.7 ST
Nickel	21.2 B	20.7 B	3.3 B	1.8 B		0.6	100 ST
Potassium	2,280 B	2,200 B	3,010 B	2,660 B		242.0	--
Selenium	U	U	U	U		5.0	10 ST
Silver	2.4 B	1.8 B	2.6 B	2.1 B		0.6	50 ST
Sodium	14,100	13,800	16,200	15,400		230.0	20,000 ST
Thallium	U	U	U	U		3.0	0.5 GV
Vanadium	1.7 B	U	2.7 B	U		0.8	--
Zinc	168	155	9.6 B	4.0 B		4.0	2,000 GV
Cyanide	U	NR	U	NR		1.0	200 ST

QUALIFIERS:
U: Constituent analyzed for but not detected.
B: Constituent concentration is less than the CRDL, but greater than the IDL.
NR: Not Required

Notes:
-- : Not established.
GV: Guidance Value.
ST: Standard.
* : Standard for the sum of iron and manganese is 500 ug/L.
▭ : Value exceeds Standard/Guideline.



MW-5	CONCENTRATION(ug/L)	
PARAMETER(S)	SAMPLE	OBJECTIVE*
MANGANESE	417	300

MW-7	CONCENTRATION(ug/L)	
PARAMETER(S)	SAMPLE	OBJECTIVE*
ANTIMONY	3.1	3.0

MW-15	CONCENTRATION(ug/L)	
PARAMETER(S)	SAMPLE	OBJECTIVE*
ANTIMONY	3.5	3.0

MW-16	CONCENTRATION(ug/L)	
PARAMETER(S)	SAMPLE	OBJECTIVE*
ANTIMONY	3.2	3.0

LONG ISLAND RAIL ROAD
YAPHANK SITE

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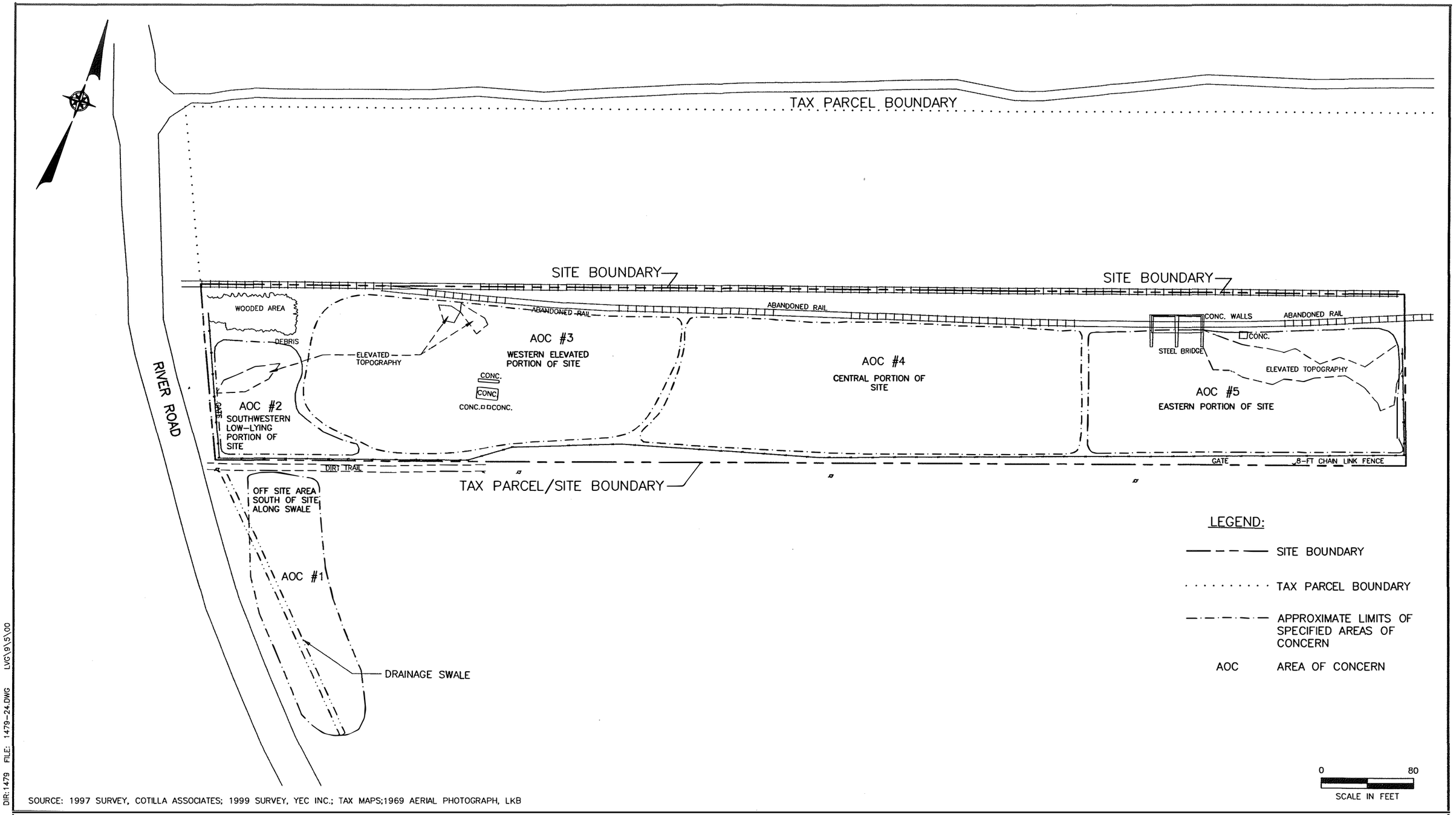
SUMMARY OF GROUNDWATER EXCEEDENCES

FIGURE 4-3

Section 5



SOURCE: 1997 SURVEY, COTILLA ASSOCIATES; 1999 SURVEY, YEC INC.; TAX MAPS;1969 AERIAL PHOTOGRAPH, LKB

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LONG ISLAND RAIL ROAD
YAPHANK SITE

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AREA OF CONCERN MAP

FIGURE 5-1

5.0 CONCLUSIONS AND RECOMMENDATIONS

This section presents the conclusions drawn from the results of the Supplemental PSA as well as recommendations for additional field investigation activities to further delineate the extent of contamination identified during the PSA and Supplemental PSA sampling programs, a possible interim remedial measure (IRM), and a Focused Feasibility Study and Exposure Assessment to identify an appropriate long-term remedial strategy for the property. Due to the fact that an additional sampling program is being recommended, the following discussion refers to the recommended additional activities hereafter as a Focused Remedial Investigation (RI).

The goal of this Supplemental PSA was to "further delineate the extent of contamination identified in the PSA." The site has been assigned a Class 2a designation by the New York State Department of Environmental Conservation, implying that there is insufficient data for it to be assigned to any of the other classifications. The sampling conducted in support of this Supplemental PSA has supplied additional information, which we believe when utilized in conjunction with the data obtained as part of the recommended Focused RI will allow the LIRR to petition the Department to consider the closure of the site and ultimately its reclassification to a Class 4 or 5 designation. A Class 4 designation indicates that a site has been properly closed but requires continued operation, maintenance and/or monitoring. A Class 5 designation also indicates that a site has been properly closed, however, it also states that the site does not require continued operation, maintenance and/or monitoring. The LIRR intends to manage future site investigation and remediation of the site under a NYSDEC Voluntary Cleanup Program.

The Supplemental PSA field program consisted of the installation of groundwater monitoring wells, advancing soil borings and the collection of surface soil, subsurface soil and groundwater samples. A public and private water supply survey was previously conducted in support of the PSA. Additional activities were conducted in support of the Supplemental PSA with regard to the evaluation of private water supply sources in the neighborhoods surrounding the site. The purpose of the private water supply survey was to identify and confirm sources of potable and nonpotable water supply for the residential, commercial and industrial establishments in the vicinity of the site, particularly with regard to those establishments located

downgradient and lateral to the site. The objective of conducting the additional evaluation of private water supply sources was to further identify and assess the potential for a contaminant pathway to exist from the Yaphank Site to human receptors.

5.1 Conclusions

This section presents the conclusions of the study based on the results of the Supplemental PSA, as well as providing recommendations to achieve the goals of the program as stated above, the reclassification and ultimately, delisting of the site. In summary, we recommend the following:

- "Hot spot" delineation
- "Hot spot" removal as part of an Interim Remedial Measure
- Focused feasibility study
- Exposure assessment

We believe that these activities will assist in identifying an appropriate long-term remedial strategy for the site.

For discussion purposes, the site has been subdivided into several areas that each exhibit similar characteristics regarding the concentration and distribution of contaminants of concern. Figure 5-1 presents these subdivisions as five areas of concern. The following sections provide a discussion of the conclusions of the Supplemental PSA organized by Area of Concern.

5.1.1 Area of Concern #1 - Off-site Area to the South of Site along Drainage Swale

Although the analytical results associated with the majority of the off-site surface soil samples did not exhibit adverse impacts from the site, one sample, collected at sample location SS-49, did indicate levels of arsenic and lead above Eastern USA Background Levels (at concentrations of 181 mg/kg and 4,290 mg/kg, respectively). Based on topographic conditions at

SS-49, it is suspected that runoff associated with this area leads to a drainage "swale" which exists south of the southwest corner of the site, approximately 20 feet east of River Road. This drainage swale runs parallel to River Road and extends approximately 200 feet south of the site. A narrow (approximately 1-foot wide) concrete dike, running east and west, was also found to exist approximately 85 feet south of the site. The western end of this dike was observed to be located at the drainage swale. Field observations, however, could not confirm whether this dike extends underground or terminates at its most visible eastern point, approximately 15 feet east of the swale. In addition, what appeared to be the remnants of a 15-foot by 30-foot buried concrete building foundation exists approximately 5 feet east of the easternmost end of the dike. As discussed in Section 1.0, these three structures (drainage swale, dike, and former building foundation) appear to be associated with groundwater supply well pumping operations which were formerly conducted in the area, to provide potable water to the former Camp Upton military installation. Nonetheless, it appears that additional surface and subsurface soil sampling is warranted within the swale, diked area, and rectangular building foundation to determine if any site-generated contamination has migrated to these areas via storm water runoff.

5.1.2 Area of Concern #2 - Southwestern Low-lying Portion of Site

Elevated levels of a number of constituents of concern, including arsenic at a concentration of 1,690 mg/kg, lead at a concentration of 55,900 mg/kg, and mercury at a concentration of 0.49 mg/kg, were found in surface and shallow subsurface soil (within the first 2 feet of grade) in this area. Subsurface soils sampled from 5 to 7 feet below grade at three locations within this area, however, did not show any constituents above Eastern USA Background Levels. Existing contamination in this area therefore appears to be restricted to within the first 5 feet below grade.

The northern portion of this area of concern has not been sampled. Due to the fact that many of the site's highest concentrations of constituents of concern have been found adjacent to this area (to the south and east), it appears likely that additional contamination may exist in this northern, topographically similar, area. As a result, additional surface and subsurface soil sampling appears to be warranted in this area.

5.1.3 Area of Concern #3 - Western Elevated Portion of Site

Surface soil samples collected as part of this site assessment indicate that some of the site's highest levels of constituents of concern are found in this area. Three subsurface samples collected in association with the PSA have also confirmed the existence of subsurface soil contamination to a depth of up to 12 feet below grade (deepest sample collected). Many constituents, including arsenic, lead and mercury, have been detected above Eastern USA Background Levels at concentrations as high as 6,490 mg/kg, 84,400 mg/kg and 0.80 mg/kg, respectively. It appears that the horizontal extent of surface soil contamination has been sufficiently delineated in this Area of Concern (see Figure 5-1); however, additional subsurface soil sampling appears to be warranted throughout this area in order to determine the terminal depth of affected soil.

5.1.4 Area of Concern #4 - Central Portion of Site

Surface soil sampled in this portion of the site appeared to contain much fewer constituents of concern above Eastern USA Background Levels. Subsurface soil samples, collected along the southern boundary of this area, also appeared to contain much fewer exceedances with the exception of samples collected at SB-10 and SB-11, in the southwestern portion of this area of concern. "Landfilled" materials appeared to exist up to 17 feet below grade in the area around these two borings. A subsurface soil sample collected in the center of this Area of Concern (during the PSA), also indicated constituents of concern above the referenced criteria. As a result, additional subsurface soil sampling appears to be warranted in the central and southwestern portions of this area of concern to determine the vertical and horizontal distribution of impacted subsurface soil.

5.1.5 Area of Concern #5 - Eastern Portion of Site

The analytical results of surface soil sampled across the eastern portion of the site appear to be the least problematic. The northern and central portion of this area only contained a few

samples with elevated levels of zinc and copper. Two isolated samples collected along the southern border, however, were found to contain levels of mercury above the referenced criteria of 0.2 mg/kg. One sample (SS-45), collected in the southeast corner of the site, contained mercury at a concentration of 0.6 mg/kg. The other sample (SS-42) was collected approximately 600 feet from the eastern border of the site and contained a mercury concentration of 0.57 mg/kg.

However, subsurface soil samples collected along the southern boundary of the eastern portion of the site were found to contain a number of constituents of concern at elevated concentrations to an approximate depth of 14 feet below grade. Soil Boring SB-16 in the southeastern corner of the site was noted as having the greatest depth of apparently "landfilled" materials (approximately 20 feet below grade) found on-site. During the PSA, impacted subsurface soil was also found to exist in the central portion of this area of concern.

Based on the above discussion, additional sampling appears to be warranted in the central and southern sections of this area of concern in order to determine the vertical and horizontal extent of contaminated soil.

5.1.6 Groundwater

As indicated by the results of the PSA, as well as the Supplemental PSA, groundwater has not been adversely impacted by the "landfilling" activities believed to have occurred at the site.

Concentrations of iron above the NYSDEC Class GA standard were detected in unfiltered samples collected from upgradient wells MW-5 and MW-6, on-site wells MW-7 and MW-8, and downgradient wells MW-15 and MW-16. In filtered samples, however, iron was detected well below the Class GA standard in all six wells. As a result, the elevated concentrations of this constituent detected in unfiltered samples from these six wells appear to be attributable to elevated turbidity. In addition, based on the concentrations of iron in upgradient well MW-5, the elevated concentration of iron detected in on-site well MW-7 does not appear to be attributable to the site.

Manganese concentrations above the NYSDEC Class GA Standard were also detected in unfiltered samples from MW-6, MW-7, MW-8, MW-15 and MW-16. However, manganese was not detected above the standard in the filtered samples. As a result, the elevated concentrations of this constituent detected in unfiltered samples from these wells can also be attributed to elevated turbidity. In monitoring well MW-5, an elevated concentration of manganese was detected in both an unfiltered and filtered sample. However, because exceedances for this parameter were not detected in filtered samples from downgradient monitoring wells MW-7, MW-15 and MW-16, the concentration of manganese found at this location (MW-5) does not appear to be attributable to the site.

Antimony was detected at a concentration of 3.1 ug/l (slightly exceeding the Class GA standard of 3.0 ug/l) in a filtered sample collected from monitoring well MW-7 (located in the southwest corner of the site). Slightly elevated concentrations of this constituent were also detected in filtered samples from off-site, downgradient monitoring wells MW-15 and MW-16 (at 3.5 ug/l and 3.2 ug/l, respectively). However, the concentrations of these constituents do not appear to warrant further investigation, particularly since the water supply survey discussed in Section 3.4 did not identify any private water supply users to the southwest of the site.

Additional exceedances of individual chemical constituents were not found in either filtered or unfiltered samples collected from upgradient monitoring wells MW-11 and MW-12, located to the north of the eastern half of the site; MW-13 and MW-14, located along the southern border of the eastern half of the site; or MW-9 and MW-10, located in the western/central portion of the site, along the southern border.

Based on a review of groundwater monitoring data collected to date, groundwater does not appear to have been adversely impacted by site conditions.

5.1.7 Water Supply Survey

As discussed in Section 3.0, an extensive public and private water supply survey was conducted in association with the PSA and this Supplemental PSA. A total of eight property

owners have been identified as having a NYSDEC-registered water supply well and/or do not appear to have public water. However, it is important to note that only two of these properties appear to be located downgradient of the site with respect to local groundwater flow direction. One of these properties is the Arriva Concrete Plant. As mentioned above, the private water supply well on this property is utilized solely for industrial purposes, and it is not located downgradient of the site. Furthermore, a representative of Arriva Concrete confirmed that this facility is connected to the public water supply system. The other property is the Gutierrez residence located at the intersection of Kingsland Avenue and Colin Drive. NYSDEC records indicate that this property contains two NYSDEC-registered private water supply wells. However, based on a field inspection and interviews with the property owners, well number 94786 was found to be disconnected and well number 94785 appears to have been abandoned/closed by the former property owner. The current property owners stated that they have never utilized, nor do they intend to utilize, any private water supply wells on their property. This property has also been confirmed to be connected to the public water supply system.

5.2 Recommendations

As indicated in Section 5.1, additional investigation of surface and subsurface soil appears to be warranted on and off-site in order to determine the nature and extent of existing contamination. Taking into consideration the past use of this site and the observed environmental conditions, it generally appears that the long-term remediation of this site should be managed in a similar manner to that of a former landfill site. Considering the ultimate goal of site closure, reclassification and delisting, upon successful delineation of all site-related impacted soil, recommendations will likely consist of excavation and proper off-site disposal of soil, coupled with the effective "capping" of the site in a manner consistent with future railroad use of the property.

Subsequent to the implementation of the previously discussed delineation activities, and prior to developing a long-term remedial strategy for the site, it is recommended that a "focused" feasibility study be undertaken. This study would address the appropriate engineering

alternatives available to properly close the site and prevent the migration of contaminants to environmental receptors at and adjacent to the site. In addition, as part of the feasibility study, an assessment of possible human and environmental exposure to contamination would be undertaken to determine an appropriate degree of remediation. The following sections provide a discussion of the recommendations regarding each of the defined areas of environmental concern at the LIRR Yaphank site.

5.2.1 Area of Concern #1 - Off-site Area to the South of Site along Drainage Swale

It is suspected that additional surface soil contamination may exist within the drainage swale, diked area and former building foundation south of the site. In order to characterize and delineate the extent of any possible contamination existing within these areas, additional off-site surface and subsurface soil sampling is recommended within the swale, as well as at its southern endpoint, and in the vicinity of the diked area and former concrete building foundation.

This is the only area of concern associated with the site that may include an off-site component. As such, the goal is to delineate any possible contamination in a manner that would allow for the possible implementation of an interim remedial measure (IRM) at this location in the near term. If soil contamination is identified within the drainage swale, we believe an effective IRM would consist of the "hot spot" excavation and removal of contaminated soil with off-site transportation and disposal to a permitted facility.

5.2.2 Area of Concern #2 - Southwestern Low-lying Portion of Site

As mentioned in Section 5.1, elevated levels of a number of inorganic constituents exist within the southern component of the Southwestern Low-lying Portion of the Site to a depth of between 2 and 5 feet below grade. Surface and subsurface soils within the northern component of the Southwestern Low-lying Portion of the Site have not been sampled as part of this Supplemental PSA or the PSA. Due to the elevated levels of inorganic constituents detected adjacent to this area (to the south and east), additional surface and subsurface soil sampling is recommended within this portion of the site to characterize and delineate any potential

contamination. Upon successful delineation of any potentially impacted soil in this area, an IRM would likely be recommended in association with AOC #1. This would include excavation and proper off-site disposal of the affected soils within this southwestern low-lying portion of the site.

5.2.3 Area of Concern #3 - Western Elevated Portion of Site

As discussed in Section 5.1, it appears that the horizontal extent of surface soil contamination has been sufficiently delineated within this area of concern. The vertical (subsurface) extent of contamination, however, has not been delineated at this time. Previous subsurface soil sampling (conducted during the PSA) has shown elevated levels of numerous constituents of concern down to 12 feet below grade (deepest sample collected) within this area of concern. In order to determine the vertical extent of contamination, additional subsurface soil sampling is recommended within this portion of the site. Upon the successful vertical characterization and delineation of contaminated soil in this area, it appears that the most severely impacted soils in this portion of the site may require excavation and disposal, and the entire area of concern may warrant a cover engineered in a manner that would be consistent with the future use of the site, that is, continued railroad utilization. This will prevent any potential exposure to existing on-site contamination and restrict the potential leaching of contamination into the groundwater.

5.2.4 Area of Concern #4 - Central Portion of Site

As previously discussed, surface soil in this portion of the site appeared to contain only a limited number of constituents of concern above Eastern USA Background Levels. However, subsurface soil samples collected along the southern boundary of the site within this area of concern (soil borings SB-10 and SB-11) contained several inorganic constituents (including arsenic, chromium, lead and mercury) above the referenced criteria. A sample collected during the PSA, in the center of this portion of the site, also identified numerous constituents above referenced criteria. As a result, additional subsurface soil sampling is recommended around the two borings (SB-10 and SB-11) and within the central portion of the site in order to further

delineate the horizontal and vertical extent of impacted soil in this area. When subsurface soil contamination within this portion of the site is successfully delineated, the most severely impacted soil may warrant excavation and disposal, and the entire area will also most likely warrant a cover engineered in a manner that would be consistent with the future use of the site. This will prevent any potential exposure to existing on-site contamination and restrict the potential leaching of contaminants into the groundwater.

5.2.5 Area of Concern #5 - Eastern Portion of Site

Based on sampling conducted as part of this site assessment, surface soil located within the northern and central portions of the eastern side of the site do not appear to have been adversely impacted. However, subsurface soils within the southern portion of this area of concern were found to contain a number of inorganic constituents above referenced criteria to depths of 14 feet below grade. In addition, a subsurface sample previously collected in the central portion of this area of concern during the PSA indicated numerous exceedances. As a result, additional subsurface soil sampling is recommended within the central and southern areas of the eastern portion of the site to further delineate the vertical and horizontal distribution of existing subsurface soil contamination. When subsurface soil contamination within this portion of the site is successfully delineated, the most severely impacted soil may warrant excavation and disposal, and the entire area will also most likely warrant a cover engineered in a manner that would be consistent with the future use of the site. This will prevent any potential exposure to existing on-site contamination and restrict the potential leaching of contaminants into the groundwater.

5.2.6 Groundwater

As previously concluded, groundwater on-site and off-site has not been found to be adversely impacted by site conditions. However, since groundwater presents the most likely exposure pathway between the site and any human receptors, it is recommended that the existing on-site and off-site groundwater monitoring wells be sampled as part of the Focused RI.

Appendix A

APPENDIX A

HISTORICAL GROUNDWATER SAMPLING RESULTS
JUNE/AUGUST 1993

TABLE 1-6
YAPHANK SITE HISTORICAL SAMPLING RESULTS
EXCEEDANCES OF NYSDEC STANDARDS/GUIDANCE
VALUES FOR METALS IN GROUNDWATER
JULY 2, 1993

Monitoring Well #	MW-1	MW-2	MW-3	CLASS GA GROUNDWATER STANDARD/GUIDANCE VALUE (ug/L)
EPA Method 600 (ug/L)				
Beryllium	7	5	4	3 GV
Cadmium	15	6	ND	10 GV
Chromium	140	110	95	50 ST
Copper	550	330	300	200 ST
Lead	270	110	200	25 ST
Zinc	1300	480	640	300 ST

Notes:
1. Source: Galson Laboratories Analytical Report dated July 26, 1993.
2. ND - Compound analyzed for but not detected.
3. GV - Guidance Value.
4. ST - Standard.
5. : Value Exceeds Standard/Guidance Value.

TABLE 1-7
YAPHANK SITE HISTORICAL SAMPLING RESULTS
EXCEEDANCES OF NYSDEC STANDARDS/GUIDANCE
VALUES FOR METALS IN GROUNDWATER
AUGUST 1993

Monitoring Well #	MW-1	MW-1F (Filtered)	MW-2	MW-2F (Filtered)	MW-3	MW-3F (Filtered)	MW-4	MW-4F (Filtered)	CLASS GA GROUNDWATER STANDARD/GUIDANCE VALUE (ug/L)
EPA Method 600 (ug/L)									
Cadmium	14	13	ND	ND	ND	ND	ND	ND	10 ST
Chromium	10	ND	11	ND	ND	ND	11	ND	50 ST
Lead	40	ND	15	ND	9	60	35	ND	25 ST
Zinc	1100	970	230	70	ND	ND	290	26	300 ST

Notes:
1. Source: Galson Laboratories August 6, 1993 report.
2. Based on the fact that the lead results for MW-3 are greater for the filtered sample as compared to the unfiltered, it is possible that the results were misreported or the samples were mislabeled.
3. ND - Compound analyzed for but not detected.
4. GV - Guidance Value.
5. ST - Standard.
6. : Value Exceeds Standard/Guidance Value.

APPENDIX B

SAMPLE INFORMATION RECORDS

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-7

FIELD SAMPLE I.D. NUMBER SS-7 DATE 5-17-99

TIME 1340 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy Soil, lower section of site next to gate opening.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-8

FIELD SAMPLE I.D. NUMBER SS-8 DATE 5-17-99

TIME 1350 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/FID READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy Soil, lower section of site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YARDTANK SAMPLE CREW Robert Gentner

SAMPLE LOCATION/WELL NO. SS-9

FIELD SAMPLE I.D. NUMBER _____ DATE 5-17-99

TIME 1355 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface - 0-6" OTHER (Describe, e.g., septage leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/FID READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED: TAL including Cyanide

REMARKS: Hard soil with rocks in area

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunter

SAMPLE LOCATION/WELLNO. SS-10

FIELD SAMPLE I.D. NUMBER SS-10 DATE 5-17-99

TIME 1455 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED: TAL

Including cyanide

REMARKS: Sandy soil, middle of lower site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-11

FIELD SAMPLE I.D. NUMBER SS-11 DATE 5-17-99

TIME 1440 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface - 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL

Including cyanide

REMARKS: Sandy soil, middle of lower site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-12

FIELD SAMPLE I.D. NUMBER SS-12 DATE 5-17-99

TIME 1410 WEATHER clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface - 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL

including cyanide

REMARKS: Sandy Soil with rocks, lower section of site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW Robert Gautzer

SAMPLE LOCATION/WELL NO. SS-13

FIELD SAMPLE I.D. NUMBER SS-13 DATE 5-17-99

TIME 1500 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION

CONSTITUENTS TO BE ANALYZED: TAL Including Cyanide

REMARKS: Sand dust, dark grey in color, low site, Next to Southern fence and river road

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-14

FIELD SAMPLE I.D. NUMBER SS-14 DATE 5-17-99

TIME 1420 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL

including cyanide

REMARKS: Sandy soil next to southern boundary fence, lower section of site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-15

FIELD SAMPLE I.D. NUMBER SS-15 DATE 5-17-99

TIME 1425 WEATHER clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL

Including Cyanide

REMARKS: Sandy soil next to southern boundry fence, lower section of site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunter

SAMPLE LOCATION/WELLNO. SS-17

FIELD SAMPLE I.D. NUMBER SS-17 DATE 5-14-99

TIME 1405 WEATHER Clear TEMPERATURE 72°F

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0"-3" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED: TAL including Cyanide

REMARKS: Soil was brownish-red with clinker and slag material, south of snow fence and Railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunter

SAMPLE LOCATION/WELLNO. SS-17 MDS & MD

FIELD SAMPLE I.D. NUMBER SS-17 MDS & MD DATE 5/14/99

TIME 1405 WEATHER Clear TEMPERATURE 72°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-3" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION Clinker and slag material

CONSTITUENTS TO BE ANALYZED: TAL including cyanide

REMARKS: Samples brownish red, with clinker and slag material, North side of site by Rail Road tracks, south of Snow fence and Rail Road tracks

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-18

FIELD SAMPLE I.D. NUMBER SS-18 DATE 5-14-99

TIME 1430 WEATHER Clear TEMPERATURE 72°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Large slag, clinker & sandy soil southside of snow fence and Railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunther

SAMPLE LOCATION/WELLNO. SS-19

FIELD SAMPLE I.D. NUMBER SS-19 DATE 5-14-99

TIME 1445 WEATHER Clear TEMPERATURE 72°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Dark brown soil, with small rocks in first 6" layer of sample area, South of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-20

FIELD SAMPLE I.D. NUMBER SS-20 DATE 5-17-99

TIME 1010 WEATHER _____ TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy Soil grey in color, south of snow fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE 21RR YAPHANK SAMPLE CREW Robert Gautier

SAMPLE LOCATION/WELLNO. SS-21

FIELD SAMPLE I.D. NUMBER SS-21 DATE 5-17-95

TIME 1020 WEATHER Clear TEMPERATURE

SAMPLE TYPE:

GROUNDWATER – SEDIMENT –

SURFACE WATER – AIR –

SOIL Surface 0-3" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER – MEASUREMENT METHOD –

DEPTH OF WELL – MEASUREMENT METHOD –

VOLUME REMOVED – REMOVAL METHOD –

FIELD TEST RESULTS:

COLOR pH ODOR NONE

TEMPERATURE (°F) SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL

Including Cyanide

REMARKS: Sandy soil with rock in soil layer, could not penetrate below 3 inches. South of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-22

FIELD SAMPLE I.D. NUMBER SS-22 DATE 5-17-99

TIME 1105 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL
Including Cyanide

REMARKS: Sandy soil grey in color, south of sewer fence and railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-23

FIELD SAMPLE I.D. NUMBER SS-23 DATE 5-17-99

TIME 1120 WEATHER clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED: TAL including cyanide

REMARKS: Rocky soil grey in color, south of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-24

FIELD SAMPLE I.D. NUMBER SS-24 DATE 5-17-99

TIME 1150 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL Including Cyanide

REMARKS: Rocky soil in area & grey sandy soil, south of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-25

FIELD SAMPLE I.D. NUMBER SS-25 DATE 5-17-99

TIME 1220 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED:

TAL

Including cyanide

REMARKS: Sandy soil, south of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-26

FIELD SAMPLE I.D. NUMBER SS-26 DATE 5-17-99

TIME 1230 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy soil South of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-27

FIELD SAMPLE I.D. NUMBER SS-27 DATE 5-14-99

TIME 1420 WEATHER clear TEMPERATURE 72° F

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER _____ AIR _____

SOIL Surface (Soil) 0-6" OTHER (Describe, e.g., septage,leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL
Including cyanide

REMARKS: Sandy soil, south of snow fence and railroad tracks

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-28

FIELD SAMPLE I.D. NUMBER SS-28 DATE 5-14-99

TIME 1435 WEATHER Clear TEMPERATURE 72°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-3" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Brown Sandy soil, large slag and clinker, middle of site, South of Silver fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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

Date: _____

SAMPLE INFORMATION RECORD

Site: LIRR YAPHANK **Sample Crew:** _____

Sample Location/Well No. SS-29

Field Sample I.D. Number SS-29 **Time** 1455

Weather _____ **Temperature** 72°

Sample Type:

Groundwater — **Sediment** —

Surface Water/Stream — **Air** —

Soil Surface 0-3' **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water — **Measurement Method** —

Depth of Well — **Measurement Method** —

Volume Removed — **Removal Method** —

Field Test Results

Color — **pH** — **Odor** NONE

Temperature (°F) — **Specific Conductance (umhos/cm)** —

Other (OVA, Methane Meter, etc. PID reading 0.0

Constituents Sampled

TAL

Including cyanide

Remarks:

Soil grey in color, south of snow fence only able to go to 3 inches due to hard rocky surface

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ =0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-30

FIELD SAMPLE I.D. NUMBER SS-30 DATE 5-17-99

TIME 1000 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe. e.g., septage.leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide.

REMARKS: Sandy Soil grey in color. middle of site, south of Snow fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-31

FIELD SAMPLE I.D. NUMBER SS-31 DATE 5-17-99

TIME 1030 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED: TAL including Cyanide

REMARKS: Sandy soil grey in color roots in top soil layer middle of site, south of snow fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-32

FIELD SAMPLE I.D. NUMBER SS-32 DATE 5-17-99

TIME 1055 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage/leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR None

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy grey soil, small rocks in soil layer middle of site, south of snow fence

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-33

FIELD SAMPLE I.D. NUMBER SS-33 DATE 5-17-99

TIME 1110 WEATHER Clear TEMPERATURE 65

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy soil, grey in color, middle of site South of snow fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-34

FIELD SAMPLE I.D. NUMBER SS-34 DATE 5-17-99

TIME 1140 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy soil, middle of site, South of snow fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-35

FIELD SAMPLE I.D. NUMBER SS-35 DATE 5-17-99

TIME 1210 WEATHER Clear TEMPERATURE 65°C

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No staining

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy Soil grey in color, middle of site, south of snow fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-36

FIELD SAMPLE I.D. NUMBER SS-36 DATE 5-17-99

TIME 1225 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR None

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy Soil, middle of site, South of Snow fence.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-37

FIELD SAMPLE I.D. NUMBER SS-37 DATE 5-17-99

TIME 0915 WEATHER Clear TEMPERATURE 63°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface (Soil) 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy Soil South side of site North of chain link fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunther

SAMPLE LOCATION/WELLNO. SS-38

FIELD SAMPLE I.D. NUMBER SS-38 DATE 5-17-99

TIME 0920 WEATHER Clear TEMPERATURE 63°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy Soil grey in color, South side of site North of chain link fence

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-38 MD & MDS

FIELD SAMPLE I.D. NUMBER SS-38 MD & MDS DATE 5/17/99

TIME 0920 WEATHER Clear TEMPERATURE 63°

SA PLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate) —

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No staining

CONSTITUENTS TO BE ANALYZED: TAL including cyanide

REMARKS: Sandy soil gray in color, southside of site, North of chain link fence

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-39

FIELD SAMPLE I.D. NUMBER SS-39 DATE 5-17-99

TIME 0940 WEATHER clear TEMPERATURE 63°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED: TAL including cyanide

REMARKS: Sandy soil grey in color, southside of site north of chain link fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-40

FIELD SAMPLE I.D. NUMBER SS-40 DATE 5-17-99

TIME 1035 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy soil grey in color, small rocks in soil layer South side of Site, north of Chain Link fence.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-41

FIELD SAMPLE I.D. NUMBER SS-41 DATE 5-17-99

TIME 1045 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~-READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED:

TAL
Including Cyanide

REMARKS: Sandy soil grey in color, south side of site, north of chainlink fence

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunter

SAMPLE LOCATION/WELLNO. SS-42

FIELD SAMPLE I.D. NUMBER SS-42 DATE 5-17-99

TIME 1125 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy soil grey in color, South side of site, north of Chain Link fence

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-43

FIELD SAMPLE I.D. NUMBER SS-43 DATE 5-17-99

TIME 1155 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate) —

WELL INFORMATION (fill out for groundwater samples): —

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy soil, south side of Sub, north of fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-44

FIELD SAMPLE I.D. NUMBER SS-44 DATE 5-17-99

TIME 1200 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION No Staining

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Small rocks mixed with sandy soil

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE C EW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-45

FIELD SAMPLE I.D. NUMBER SS-45 DATE 5-17-99

TIME 1235 WEATHER Clear TEMPERATURE 65°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) SPECIFIC CONDUCTANCE (umhos/cm)

TURBIDITY —

PID/[redacted] READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy Soil grey in Color, south side of site, north of Chain link fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-46

FIELD SAMPLE I.D. NUMBER SS-46 DATE 5-17-99

TIME 1335 WEATHER Clear TEMPERATURE 70°C

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~BB~~READING 0.0 VISUAL DESCRIPTION NO Staining

CONSTITUENTS TO BE ANALYZED:

TAL

including cyanide

REMARKS: Hard packed soil under leaves, sandy soil below 2 inches, west of River Road

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gunter

SAMPLE LOCATION/WELLNO. SS-46MD & SS 46MSD

FIELD SAMPLE I.D. NUMBER SS-46MD & SS-46MSD DATE 5-17-99

TIME 1335 WEATHER clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER – SEDIMENT –

SURFACE WATER – AIR –

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER – MEASUREMENT METHOD –

DEPTH OF WELL – MEASUREMENT METHOD –

VOLUME REMOVED – REMOVAL METHOD –

FIELD TEST RESULTS:

COLOR – pH – ODOR NONE

TEMPERATURE (°F) – SPECIFIC CONDUCTANCE (umhos/cm) –

TURBIDITY –

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Hard packed soil under leaves, sandy soil below 2 inches, West of River Road.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-47

FIELD SAMPLE I.D. NUMBER SS-47 DATE 5-17-99

TIME 1510 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/FID READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Sandy soil under leaves on ground, west of River Road.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-48

FIELD SAMPLE I.D. NUMBER SS-48 DATE 5-17-99

TIME 1535 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/[redacted]READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including cyanide

REMARKS: Sandy soil, south of chain fence and lower site

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE REW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-49

FIELD SAMPLE I.D. NUMBER SS-49 DATE 5-17-99

TIME 1535 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~PID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL including Cyanide

REMARKS: Dark gray Soil, south of chain fence off of lower site

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794.PM4

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantner

SAMPLE LOCATION/WELLNO. SS-50

FIELD SAMPLE I.D. NUMBER SS-50 DATE 5-17-99

TIME 1520 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER — SEDIMENT —

SURFACE WATER — AIR —

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER — MEASUREMENT METHOD —

DEPTH OF WELL — MEASUREMENT METHOD —

VOLUME REMOVED — REMOVAL METHOD —

FIELD TEST RESULTS:

COLOR — pH — ODOR NONE

TEMPERATURE (°F) — SPECIFIC CONDUCTANCE (umhos/cm) —

TURBIDITY —

PID/~~FID~~ READING 0.0 VISUAL DESCRIPTION NO STAINING

CONSTITUENTS TO BE ANALYZED:

TAL

including Cyanide

REMARKS: Dark grey soil, south of chain fence off of lower site.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW Robert Gantzer

SAMPLE LOCATION/WELLNO. SS-51

FIELD SAMPLE I.D. NUMBER SS-51 DATE 5-17-99

TIME 1330 WEATHER Clear TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER – SEDIMENT –

SURFACE WATER – AIR –

SOIL Surface 0-6" OTHER (Describe, e.g., septage,leachate)

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER – MEASUREMENT METHOD –

DEPTH OF WELL – MEASUREMENT METHOD –

VOLUME REMOVED – REMOVAL METHOD –

FIELD TEST RESULTS:

COLOR – pH – ODOR NONE

TEMPERATURE (°F) – SPECIFIC CONDUCTANCE (umhos/cm) –

TURBIDITY –

PID/FID READING 0.0 VISUAL DESCRIPTION No staining

CONSTITUENTS TO BE ANALYZED: TAL including cyanide

REMARKS: Sandy soil south side of chain link fence

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR-0794 PM4

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

Date: _____

SAMPLE INFORMATION RECORD

Site: LIRR Yaphank **Sample Crew:** K. Klaus

Sample Location/Well No. SS-52

Field Sample I.D. Number SS-52 **Time** 12:00

Weather overcast wind S 0-5 mph **Temperature** 70°

Sample Type:

Groundwater _____ **Sediment** _____

Surface Water/Stream _____ **Air** _____

Soil Surface **Other (describe, i.e. water, septage, etc.)** _____

Well Information (fill out for groundwater samples)

Depth to Water _____ **Measurement Method** _____

Depth of Well _____ **Measurement Method** _____

Volume Removed _____ **Removal Method** _____

Field Test Results

Color _____ **pH** _____ **Odor** _____

Temperature (°F) _____ **Specific Conductance (umhos/cm)** _____

Other (OVA, Methane Meter, etc. _____

Constituents Sampled

TAL metals

cyanide

Remarks:

Well Casing Volumes

GAL/FT	1¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1½ =0.10	2½ " = 0.24	3½ = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-5

FIELD SAMPLE I.D. NUMBER MW-5 DATE 7/7/99

TIME 15:15 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 21.5 MEASUREMENT METHOD sonic tape

DEPTH OF WELL 32.21 MEASUREMENT METHOD sonic tape

VOLUME REMOVED 3X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 4.69 ODOR no

TEMPERATURE (°~~F~~C) 11.5 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .091 ms/cm, Turbidity = 132 NTU

CONSTITUENTS SAMPLED:

	SVOC	Pesticides	TAL metals
	VOC	PCBs	cyanide

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW RK/ID

SAMPLE LOCATION/WELLNO. MW-6

FIELD SAMPLE I.D. NUMBER MW-6 DATE 7/7/

TIME 14:45 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 22.17 MEASUREMENT METHOD Sonic tape

DEPTH OF WELL 32.28 MEASUREMENT METHOD Sonic tape

VOLUME REMOVED 4X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 4.50 ODOR no

TEMPERATURE (°C) 13 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) Conductivity = .051 ms/cm, Turbidity = 249 NTU

CONSTITUENTS SAMPLED: TAL Metals, SVOC, pesticides, cyanide, VOC, PCBs

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELL NO. MW-7

FIELD SAMPLE I.D. NUMBER MW-7 DATE 7/9/99

TIME 11:45 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER + SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 11.27 MEASUREMENT METHOD Sonic tape

DEPTH OF WELL 24.57 MEASUREMENT METHOD " "

VOLUME REMOVED 3x REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.87 ODOR no

TEMPERATURE (°C) 13.5 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .152 ms/cm, Turbidity = 5 NTU

CONSTITUENTS SAMPLED:

	SVOC	Cyanide	Pestikides
	VOC	TAL metals	PCB

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-08

FIELD SAMPLE I.D. NUMBER MW-08 DATE 7/6/99

TIME 16:15 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 16.31 MEASUREMENT METHOD Sonic tape

DEPTH OF WELL 26.45 MEASUREMENT METHOD " "

VOLUME REMOVED 5X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR Clear pH 4.69 ODOR no

TEMPERATURE (°~~F~~C) 12.6 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .191 mS/cm, turbidity = 102 NTU
Salinity 0.00

CONSTITUENTS SAMPLED:

	VOC	TAL metals	PCB
	SVOC	pesticides	cyanide

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELL NO. MW-9

FIELD SAMPLE I.D. NUMBER MW-9 DATE 7/7/99

TIME 8:15 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 32.31 MEASUREMENT METHOD sonic tape

DEPTH OF WELL 42.37 MEASUREMENT METHOD " "

VOLUME REMOVED 4X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 6.02 ODOR no

TEMPERATURE (°~~F~~ C) 11.8 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) Conductivity = .205 ms/cm, turbidity = 73 NTU

CONSTITUENTS SAMPLED:

	VOC	TAL metals	pestisides
	SVOC	cyanide	PCBs

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-10

FIELD SAMPLE I.D. NUMBER MW-10 DATE 7/7/99

TIME 9:00 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 31.11 MEASUREMENT METHOD Sonic tape

DEPTH OF WELL 42.28 MEASUREMENT METHOD " "

VOLUME REMOVED 4X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.94 ODOR no

TEMPERATURE (°C) 12.1 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) Conductivity = .133 ms/cm, Turbidity = 89 NTU

CONSTITUENTS SAMPLED:

	TAL metals	SVOC	Pesticides
	Cyanide	VOC	PCBs

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KC/ID

SAMPLE LOCATION/WELLNO. MW-11

FIELD SAMPLE I.D. NUMBER MW-11 DATE 7/7/99

TIME 13:00 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 24.40 MEASUREMENT METHOD sonic tape

DEPTH OF WELL 34.57 MEASUREMENT METHOD sonic tape

VOLUME REMOVED 4X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.42 ODOR no

TEMPERATURE (°~~F~~ C) 12.6 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .096 ms/cm, turbidity = 167 NTU

CONSTITUENTS SAMPLED:

	TAL metals	PCB	SVOC
	cyanide	Pesticides	VOC

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-12

FIELD SAMPLE I.D. NUMBER MW-12 DATE 7/7/99

TIME 12:30 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 22.05 MEASUREMENT METHOD Sonic tape

DEPTH OF WELL 31.82 MEASUREMENT METHOD " "

VOLUME REMOVED 4X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.32 ODOR no

TEMPERATURE (°~~F~~C) 12.4 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .122 mS/cm, turbidity = 145 NT

CONSTITUENTS SAMPLED:

	SVOC	TAL metals	PCB
	VOC	cyanide	Pesticides.

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-13

FIELD SAMPLE I.D. NUMBER MW-13 DATE 7/7/99

TIME 10:15 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 30.28 MEASUREMENT METHOD sonic tape

DEPTH OF WELL 41.08 MEASUREMENT METHOD " "

VOLUME REMOVED 4X REMOVAL METHOD Submersible pump

FIELD TEST RESULTS:

COLOR clear pH 5.89 ODOR no

TEMPERATURE (°C) 12.9 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .129 ms/cm, turbidity = 240 NTU

CONSTITUENTS SAMPLED:

	VOC	TAL metals	pesticides
	SVOC	cyanide	PCBs

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/EA

SAMPLE LOCATION/WELLNO. MW-14

FIELD SAMPLE I.D. NUMBER MW-14 DATE 7/7/99

TIME 11:15 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 33.30 MEASUREMENT METHOD sonic tape

DEPTH OF WELL 43.10 MEASUREMENT METHOD " "

VOLUME REMOVED 3X REMOVAL METHOD Submersible pump.

FIELD TEST RESULTS:

COLOR clear pH 6.09 ODOR no

TEMPERATURE (°~~F~~C) 13.2 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .100 ms/cm, Turbidity = 325 NTU

CONSTITUENTS SAMPLED:

	SVOC	pesticides	TAL metals
	VOC	PCB	cyanide

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-15

FIELD SAMPLE I.D. NUMBER MW-15 DATE 7/9/99

TIME 10:45 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 3.34 MEASUREMENT METHOD sonic tape

DEPTH OF WELL 17.00 MEASUREMENT METHOD " "

VOLUME REMOVED 4/X REMOVAL METHOD Submersible pump.

FIELD TEST RESULTS:

COLOR clear pH 6.07 ODOR no

TEMPERATURE (°F) 16.6 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ /

OTHER (OVA, Methane meter, etc.) Conductivity = .203 ms/cm, turbidity = 55 NTU

CONSTITUENTS SAMPLED:

	TAL metals	PCB	VOC
	Cyanide	Pesticides	SVOC

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW KK/ID

SAMPLE LOCATION/WELLNO. MW-16

FIELD SAMPLE I.D. NUMBER MW-16 DATE 7/9/99

TIME 10:15 WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUNDWATER X SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER 2.85 MEASUREMENT METHOD Sonic tape

DEPTH OF WELL 17.0 MEASUREMENT METHOD " "

VOLUME REMOVED _____ REMOVAL METHOD submersible pump

FIELD TEST RESULTS:

COLOR clear pH 6.07 ODOR no

TEMPERATURE (°~~F~~C) 14.6 ~~SPECIFIC CONDUCTANCE (umhos/cm)~~ _____

OTHER (OVA, Methane meter, etc.) conductivity = .235 ms/cm, turbidity = 10 NTU

CONSTITUENTS SAMPLED:

	SVOC	PCB	cyanide
	VOC	Pesticides	TAL metals

REMARKS: _____

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-6

FIELD SAMPLE I.D. NUMBER SB-6 (0-2) DATE 6/14/99

TIME 9:50 WEATHER overcast, some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED:

TAL metals Cyanide

REMARKS: Brown fill, poorly sorted sand and gravel, traces of red Brick.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-06

FIELD SAMPLE I.D. NUMBER SB-06 (5-7) DATE 6/14/99

TIME 10:00 WEATHER overcast, some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals cyanide

REMARKS: Tan to medium grained sand

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-06

FIELD SAMPLE I.D. NUMBER SB-06 (8.5-10.5) DATE 6/14/99

TIME 10:10 WEATHER overcast, early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals Cyanide

REMARKS: Tan poorly sorted fine to coarse grained sand.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-07

FIELD SAMPLE I.D. NUMBER SB-7 (0-2) DATE 6/14/99

TIME 9:20 WEATHER 70° overcast Some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAI metals cyanide

REMARKS: Tan to brown fine to medium grained sand / Traces of gravel. Dark brown Ballast, gravel, sand.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

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SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-7

FIELD SAMPLE I.D. NUMBER SB-7 (5-7) DATE 6/14/99

TIME 1130 WEATHER overcast, some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAI metals cyanide

REMARKS: Tan medium grained sand w/ traces of fine gravel

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE CIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-07

FIELD SAMPLE I.D. NUMBER SB-07 (10-12) DATE 6/14/99

TIME 9:40 WEATHER Overcast, some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals Cyanide

REMARKS: Tan medium grained sand (moist at bottom of sample rec.)

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-08

FIELD SAMPLE I.D. NUMBER SB-08 (0-2) DATE 6/14/99

TIME 10:30 WEATHER Overcast Some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals Cyanide

REMARKS: Dry Brown. fine to medium grained sand, traces of gravel.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

S TE LIRR Yaphank SAMPL CREW LAWES

SAMPLE LOCATION/WELLNO. SB-08

FIELD SAMPLE I.D. NUMBER SB-08 (5-7) DATE 6/14/99

TIME 10:40 WEATHER overcast some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAI metals cyanide

REMARKS: tan fine to medium grained sand

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-08

FIELD S MPLE I.D. NUMBER SB-08 (8-9) DATE 6/14/99

TIME 10:50 WEATHER overcast some rain early TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAI metals cyanide

REMARKS: Tan medium grained Sand

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-09

FIELD SAMPLE I.D. NUMBER SB09 (0-2) DATE 6/14/99

TIME 11:05 WEATHER overcast early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals cyanide

REMARKS: tan to orange fine to medium grained silty sand

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-09

FIELD SAMPLE I.D. NUMBER SB-09 (5-7) DATE 6/14/99

TIME 1115 WEATHER overcast some early rain TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals Cyanide

REMARKS: Tan medium grained Sand w/ Traces of Coarse Sand

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-09

FIELD SAMPLE I.D. NUMBER SB-09 (10-12) DATE 6/14/99

TIME 11:25 WEATHER overcast, some rain early TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL Metals Cyanide

REMARKS: Tan medium grained sand / Traces of coarse sand/fine gravel

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW CAWES.

SAMPLE LOCATION/WELLNO. SB-09

FIELD SAMPLE I.D. NUMBER SB-09 (15-17) DATE 6/11/99

TIME 11:30 WEATHER overcast some early sun TEMPERATURE 70°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals

Cyanide

REMARKS: dry tan medium grained sand / Traces of course sand and gravel.

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR YAPHANK SAMPLE CREW CAWES

SAMPLE LOCATION/WELLNO. SB-10

FIELD SAMPLE I.D. NUMBER SB-10 (8-10) DATE 6/8/99

TIME 14:25 WEATHER Hot, humid, Sunny TEMPERATURE 90°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals cyanide

REMARKS: Brown silty sand, some wood fragments, fill

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-11

FIELD SAMPLE I.D. NUMBER SB-11 (6-8) DATE 6/7/99

TIME 14:10 WEATHER Hot, Sunny humid TEMPERATURE 85°-90°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAI Metals Cyanide

REMARKS: Brown to Red, Rusty, medium to coarse angular Sand

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-12

FIELD SAMPLE I.D. NUMBER SB-12 (2-4) DATE 6/7/99

TIME 10:00 AM WEATHER Hot, Sunny Humid TEMPERATURE 85°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL X Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL Metals cyanide

REMARKS: Brown, fine to medium Sand (upper 6 in)
Brown to black angular fill, some silt Fine to medium Sand (10.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-13

FIELD SAMPLE I.D. NUMBER SB-13 (4-6) DATE 6/9/99

TIME 9:30 WEATHER Sunny, Hot TEMPERATURE 85°-90°
wind N-NW 0-5

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAI metals Cyanide

REMARKS: Brown to Black Silty medium grained sand, Traces of gravel.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-14

FIELD SAMPLE I.D. NUMBER SB-14 (6-8) DATE 6/9/99

TIME 12:45 WEATHER Sunny, hot TEMPERATURE 85°-90°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umhos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL metals Cyanide

REMARKS: Brown to Black Silty Sand
TAN to orange medium Sand

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELLNO. SB-15

FIELD SAMPLE I.D. NUMBER SB-15 (8-10) DATE 6/8/99

TIME 9:40 WEATHER Hot Humid TEMPERATURE 95°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil Boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL Metals Cyanide

REMARKS: Dark Brown moist angular fill

WELL CASING VOLUMES

GAL/FT				
	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

DVIRKA AND BARTILUCCI

SAMPLE INFORMATION RECORD

SITE LIRR Yaphank SAMPLE CREW LAWES

SAMPLE LOCATION/WELL NO. SB-16

FIELD SAMPLE I.D. NUMBER SB-16 (12-14) DATE 6/11/99

TIME 10:20 WEATHER cooler TEMPERATURE 75°

SAMPLE TYPE:

GROUNDWATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL Soil boring OTHER (Describe, i.e., septage, leachate) _____

WELL INFORMATION (fill out for groundwater samples):

DEPTH TO WATER _____ MEASUREMENT METHOD _____

DEPTH OF WELL _____ MEASUREMENT METHOD _____

VOLUME REMOVED _____ REMOVAL METHOD _____

FIELD TEST RESULTS:

COLOR _____ pH _____ ODOR _____

TEMPERATURE (°F) _____ SPECIFIC CONDUCTANCE (umbos/cm) _____

OTHER (OVA, Methane meter, etc.) _____

CONSTITUENTS SAMPLED: TAL Metals Cyanide

REMARKS: Dark brown to black moist Silty Fine to medium grained sand trace gravel and coal fragments.

WELL CASING VOLUMES

GAL/FT	1-1/4" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-1/2" = 0.10	2-1/2" = 0.24	3-1/2" = 0.50	6" = 1.46

SIR

APPENDIX C

BORING LOGS

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-06 **Sheet** 1 **of** 1 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/12/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/14/99	**Boring Completion Depth:** 12 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-	(0-2) 1	GP	NA	41"	0.0 0.0 0.0 0.0	Upper 8" Brown Fill –poorly sorted sand and gravel, trace red brick Lower 33" Tan, silty, fine to medium sand	
-2-							
-3-							
-4-							
-5-							
-6-	(5-7) 2	GP	N/A	40"	0.0 0.0 0.0 0.0	Tan, fine to medium sand	
-7-							
-8-							
-9-	(8.5 - 10.5) 3	GP	N/A	46"	0.0 0.0 0.0	Tan poorly sorted, fine to coarse sand, grout borehole	
-12-						Grout borehole EOB 12" Lower 18" wet	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 0-2
5-7
8.5-10.5

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-07 **Sheet** 1 **of** 1 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/12/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/14/99	**Boring Completion Depth:** 12 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-	1 (0-2)	GP	NA	16"	0.0 0.0 0.0	Upper 5" Tan to brown, fine to medium sand, trace gravel Mid 4" Dark brown ballast/ gravel/sand Lower 7" Tan, silty, fine to medium sand, trace gravel	
-2-							
-3-	2-4	GP	N/A	0		no recovery 2-4	
-4-							
-5-							
-6-	4-8 2 (5-7)	GP	N/A	40"		Tan medium sand, trace fine gravel	
-7-							
-8-							
-9-							
-11-	8-12 3 (10-12)	GP	N/A	46"		Tan medium sand	
-12-						Grout borehole Lower 14" wet - EOB	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 0-2 +MS/MSD
5-7
8.5-10.5

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-08 **Sheet** 1 **of** 1 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/14/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/14/99	**Boring Completion Depth:** 10 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-	1 (0-2)	GP	NA	42"	0.0 0.0 0.0 0.0	Upper 12" Dry, brown, fine to medium sand, trace gravel Lower 30" Tan-orange, poorly sorted, sand and gravel	
-2-							
-3-							
-4-							
-5-							
-6-	2 (5-7)	GP	N/A	42"	0.0 0.0 0.0 0.0	Tan, fine to medium sand	
-7-							
-8-							
-9-	3 (8-9)	GP	N/A	24"	0.0 0.0 0.0	Lower 10" wet, tan, medium sand	
-10-						Grout borehole	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 0-2
5-7
8-9

Dvirka and Bartilucci
CONSULTING ENGINEERS

Project No.: 1479-A10
Project Name: LIRR Yaphank

Boring No.: SB-09
Sheet 1 **of** 2 .
By: KCK

Drilling Contractor: B&B
Driller: Kevin McGourty
Drill Rig: Geoprobe
Date Started: 6/14/99

Geologist: Keith Klaus
Drilling Method: HSA
Drive Hammer Weight: 140 lb
Date Completed: 6/14/99

Boring Completion Depth: 20
Ground Surface Elevation: N/A
Boring Diameter: 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-	1 (0-2)	GP	NA	43"	0.0 0.0 0.0 0.0	Upper 5" Brown to tan fine to medium sand Lower 38" Tan-orange, fine, silty, medium sand	
-2-							
-3-							
-4-							
-5-							
-6-	2 (5-7)	GP	N/A	38"	0.0 0.0 0.0 0.0	Tan, medium sand, trace coarse sand	
-7-							
-8-							
-9-							
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 0-2
5-7
10-12
15-17

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-09 **Sheet** 2 **of** 2 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/14/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/14/99	**Boring Completion Depth:** 20 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-	3 (10-12)	GP	N/A	46"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand/fine gravel	
-12-							
-13-		GP	N/A	40"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand and fine gravel	
-14-							
-15-							
-16-	4 (15-17)	GP	N/A	46"	0.0 0.0 0.0	Upper 12" dry, tan, medium sand, trace coarse sand and gravel Lower – WET – Same	
-17-							
-18-							
-19-							
-20-						EOB at 20 Grout hole	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-10 **Sheet** 1 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/8/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	10,12 12,20	16"	0.0 0.0 0.0	Brown, silty, sand and gravel	
-2-							
-3-		SS	4,5 5,9	0		No recovery	
-4-							
-5-		SS	25,7 8,8	3"	0.0	Concrete debris	
-6-							
-7-		SS	4,3 3,3	0		no recovery	
-8-							
-9-	1	SS	6,9 8,9	13	0.0 0.0	Fill, brown, silty sand, some wood fragments (RR ties)	
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 8-10

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-10 **Sheet** 2 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/8/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	10,16 16,20	3"	0.0	Red brick fragments and wood	
-12-							
-13-		SS	7,8 10,15	1"	0.0	Wood chips and brown silty sand	
-14-							
-15-		SS	10,12 15,17	0		No recovery	
-16-							
-17-		SS	12,15 22,26	8"	0.0 0.0	Upper 2" Wood Lower 6" Tan, medium sand	
-18-							
-19-		SS	8,10 14,14	23"	0.0 0.0 0.0 0.0	Tan, medium sand	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-10 **Sheet** 3 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/8/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	10,12 12,17	20"	0.0 0.0 0.0 0.0	Tan, medium sand	
-22-							
-23-		SS	9,13 14,16	18"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand	
-24-							
-25-		SS	8,15 17,21	19"	0.0 0.0 0.0 0.0	Tan, medium sand, trace medium gravel	
-26-							
-27-		SS	21,24 24,24	19"	0.0 0.0 0.0 0.0	Tan, medium to coarse, wet sand, trace medium to coarse gravel	
-28-							
-29-							
-30-						EOB Grout borehole	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-11 **Sheet** 1 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/7/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/7/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Soil Sample Type	Soil Sample Blows Per 6"	Soil Sample Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	12,18 20,31	12"	0.0 0.0	Brown, silty sand, fill	
-2-							
-3-		SS	4,5 5,7	8"	0.0 0.0	Brown, angular, medium to coarse sand, some black silt	
-4-							
-5-		SS	3,3 4,4	0"		no recovery	
-6-							
-7-	1	SS	6,6 5,7	8"	0.0 0.0	Brown to red/rusty, medium to coarse, angular sand	
-8-							
-9-		SS	7,8 9,9	10	0.0 0.0	Upper 7" moist, brown to red/rusty, medium to coarse angular sand Lower 3" brown to tan, silty, fine sand, moist	
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 6-8

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-11 **Sheet** 2 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/7/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/7/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	9,11 15,17	4"	0.0	Tan, moist, fine to medium sand and silt	
-12-							
-13-		SS	8,8 10,12	18"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand	
-14-							
-15-		SS	12,14 14,16	7	0.0 0.0	Tan, medium to coarse sand	
-16-							
-17-		SS	14,17 17,21	8"	0.0 0.0	Tan, medium to coarse sand	
-18-							
-19-		SS	9,10 10,17	19"	0.0 0.0 0.0 0.0	Tan, medium sand	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-11 **Sheet** 3 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/7/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/7/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	8,11	21"	0.0 0.0 0.0 0.0	Tan, fine to medium sand	
-22-							
-23-		SS	6,7 6,8	17"	0.0 0.0 0.0	Tan, medium to coarse sand	
-24-							
-25-		SS	5,5 7,8	22"	0.0 0.0 0.0 0.0	Tan, medium to coarse sand	
-26-							
-27-		SS	6,9 13,15	3"	0.0	Wet, poorly sorted sand and gravel	
-28-							
-29-							
-30-						EOB Grout borehole	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-12/MW-13 **Sheet** 1 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/7/99	**Geologist:** Keith Klaus **Drilling Method:** HAS **Drive Hammer Weight:** 140 lb **Date Completed:** 6/7/99	**Boring Completion Depth:** 37 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	4,8 10,16	18"	0.0 0.0 0.0 0.0	Brown, poorly sorted sand, fine to medium, some silt, wood fragments	
-2-							
-3-	1	SS	4,3 3,8	10"	0.0 0.0	Upper 6" Brown, fine to medium sand Lower 4" Brown to black, angular fill, some silt, fine to medium sand	
-4-							
-5-		SS	2,2 2,2	11"	0.0 0.0	Upper 5" Brown to black, fine to medium sand Lower 6" Brown to orange, fine to medium sand, native	
-6-							
-7-		SS	3,3 3,5	17"	0.0 0.0 0.0	Tan to brown, medium sand, trace fine gravel, native	
-8-							
-9-		SS	3,5 5,7	20	0.0 0.0 0.0 0.0	Brown to tan, medium sand, trace fine gravel, moist	
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample from 2-4

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-12/MW13 **Sheet** 2 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/7/99	**Geologist:** Keith Klaus **Drilling Method:** HAS **Drive Hammer Weight:** 140 lb **Date Completed:** 6/7/99	**Boring Completion Depth:** 28 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	7,9 9,8	10"	0.0 0.0	Tan, medium to coarse sand	
-12-							
-13-		SS	6,6 7,8	20"	0.0 0.0 0.0 0.0	Tan, medium sand, trace fine and coarse sand	
-14-							
-15-		SS	3,5 6,6	20"	0.0 0.0 0.0 0.0	Tan, medium sand, trace coarse sand	
-16-							
-17-		SS	5,5 7,8	18"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand	
-18-							
-19-		SS	5,7 7,10	17"	0.0 0.0 0.0	Tan, fine to medium sand, trace coarse sand	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-12/MW-13 **Sheet** 3 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/7/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/7/99	**Boring Completion Depth:** 37 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	5,7 7,7	16"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand	
-22-							
-23-		SS	6,8 8,10	18"	0.0 0.0 0.0	Tan, medium sand	
-24-							
-25-		SS	11,10 11,13	16"	0.0 0.0 0.0	Tan, medium sand	
-26-							
-27-		SS	6,6 8,20	16"	0.0 0.0 0.0	Upper 4" dry, tan, medium sand Lower 12" wet, tan, medium sand	
-28-							
-29-							
-30-						End of split spooning Drill to 37" set well MW-13	

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-13 **Sheet** 1 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/9/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 30 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Soil Sample Type	Soil Sample Blows Per 6"	Soil Sample Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	17,24 29,34	16"	0.0 0.0 0.0	Tan to brown, fine to medium sand, trace coarse sand with gravel	
-2-							
-3-		SS	7,12 13,15	10"	0.0 0.0	Upper 8" Brown, silty, fine sand, trace gravel Lower 2" Same-black	
-4-							
-5-		SS	4,4 5,7	17"	0.0 0.0 0.0	Upper 10" Brown to black, silty, medium sand, trace gravel Lower 7" Tan to orange, medium sand, trace gravel	
-6-							
-7-		SS	4,6 5,5	0		no recovery 6-8	
-8-							
-9-		SS	7,8 7,6	0.0	6"	Tan, medium sand	
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample upper 10" of 4-6

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-13 **Sheet** 2 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/9/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 30 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	3,3 6,9	14"	0.0 0.0 0.0	Tan, medium sand	
-12-							
-13-		SS	5,6 8,1	20"	0.0 0.0 0.0	Tan, medium sand, trace coarse sand and fine gravel	
-14-							
-15-		SS	4,7 9,13	18"	0.0 0.0 0.0	Tan, medium sand, trace fine gravel	
-16-							
-17-		SS	5,5 7,8	15"	0.0 0.0 0.0	Tan, medium sand	
-18-							
-19-		SS	5,7 8,9	18"	0.0 0.0 0.0	Tan, fine to medium sand, trace fine gravel	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-13 **Sheet** 3 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** Geoprobe **Date Started:** 6/9/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 30 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	5,7 7,7	18"	0.0 0.0 0.0	Tan, fine medium sand, trace fine gravel	
-22-							
-23-		SS	4,5 9,9	17"	0.0 0.0 0.0	Tan, fine to medium sand, trace fine gravel	
-24-							
-25-		SS	5,8 11,14	21"	0.0 0.0 0.0 0.0	Tan, fine to medium sand, trace fine gravel	
-26-							
-27-		SS	7,11 12,16	20"	0.0 0.0 0.0 0.0	Tan, medium sand, trace fine gravel	
-28-							
-29-		SS	5,6 8,11	19"	0.0 0.0 0.0 0.0	Tan, medium sand, trace fine sand and medium gravel Lower 13" wet	
-30-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

EOB
Grout hole

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-14 **Sheet** 1 **of** 3 . **By:** KCK
Drilling Contractor: LAWES **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 6/9/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 30' **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	12,15 18,22	18"	0.0 0.0 0.0	Upper 8" Tan, dry, fine, medium sand Lower 10" Black to brown granular fill, angular, coarse, medium and fine sand	
-2-							
-3-		SS	10,13 15,17	14"	0.0 0.0 0.0	Black to dark brown, silty granular fill, medium to coarse sand	
-4-							
-5-		SS	4,4 5,7	19	0.0 0.0 0.0	Upper 12" Tan to brown medium sand Lower 7" Dark brown to black, silty sand	
-6-							
-7-	1	SS	12,10 8,8	12	0.0 1.1 0.0	Upper 6" Brown to black silty sand Lower 6" Tan to orange, medium sand	
-8-							
-9-		SS	4,4 4,6	18	0.0 0.0 0.0	Tan medium sand, trace gravel	
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 6-8

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-14 **Sheet** 2 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 6/9/99	**Geologist:** Keith Klaus **Drilling Method:** HAS **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 30' **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	6,8 9,12	6"	0.0	Fill , tan medium sand, rock in tip	
-12-							
-13-		SS	6,6 7,9	13	0.0 0.0 0.0	Tan, fine to medium sand	
-14-							
-15-		SS	9,12 13,16	6"	0.0	Tan, fine to medium sand	
-16-							
-17-		SS	22,12 13,17	6"	0.0	Tan, medium sand	
-18-							
-19-		SS	5,6 9,7	18	0.0 0.0 0.0	Tan, fine to medium sand	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-14 **Sheet** 3 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 6/9/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/9/99	**Boring Completion Depth:** 30' **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	5,7 8,10	16	0.0 0.0 0.0	Tan, fine to medium sand, trace fine gravel	
-22-							
-23-		SS	9,11 1,16	16	0.0 0.0 0.0	Tan, fine to medium sand, trace fine gravel	
-24-							
-25-		SS	9,6 7,0	17	0.0 0.0 0.0	Tan, medium sand, trace fine gravel	
-26-							
-27-		SS	7,9 12,13	20"	0.0 0.0 0.0	Tan, fine to medium sand, trace gravel	
-28-							
-29-		SS	6,6 7,8	16	0.0 0.0 0.0	Upper 6" Tan, fine to medium sand, trace dry gray clay Lower 10" Tan, brown, wet, fine to medium sand, trace gravel	
-30-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

EOB at 30" grout barehole

BORING LOG

Dvirka and Bartilucci CONSULTING ENGINEERS	Project No.: 1479-A10 Project Name: LIRR Yaphank	Boring No.: SB15/MW14 Sheet 1 of 3 . By: KCK
Drilling Contractor: LAWES **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 06/08/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140lb **Date Completed:** 06/08/99	**Boring Completion Depth:** 40' **Ground Surface Elevation:** NA **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (feet)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	21, 35, 44, 50	18"	0.0, 0.0, 0.0, 0.0	Brown, silty, fine sand, some concrete debris	
-2-							
-3-		SS	4, 3, 5, 7	0	--	No recovery	
-4-							
-5-		SS	12, 47, 40, 22	16"	15.1, 25.8, 30.6	Wood railroad tie, creosote odor	
-6-							
-7-		SS	7, 7, 8, 6	3"	28.1	Ground-up wood fragments	
-8-							
-9-	1	SS	4, 4, 5, 5	19"	15.7, 30.1, 30.5	Dark brown, moist, granular fill	
-10-							

Sample Types:
SS = Split Spoon
GP = Geoprobe Sampler
HA = Hand Auger
CC = Concrete Core

NOTES: Sample 8-10 + MS/MSD

BORING LOG

Dvirka and Bartilucci CONSULTING ENGINEERS	Project No.: 1479-A10 Project Name: LIRR Yaphank	Boring No.: SB15/MW14 Sheet 2 of 3 . By: KCK
Drilling Contractor: LAWES Driller: Kevin McGourty Drill Rig: B-61 Date Started: 06/08/99	Geologist: Keith Klaus Drilling Method: HSA Drive Hammer Weight: 140lb Date Completed: 06/08/99	Boring Completion Depth: 40' Ground Surface Elevation: NA Boring Diameter: 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (feet)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	3, 4, 4, 5	3"	0.0, ,	Wood	
-12-							
-13-		SS	5, 4, 4, 4	0"	--	No recovery	
-14-							
-15-		SS	7, 9, 13, 15	15"	0.0, 0.0, 0.0	Tan, medium sand, trace course sand	
-16-							
-17-		SS	4, 6, 6, 6	8"	0.0 0.0	Tan, medium sand, trace course sand	
-18-							
-19-		SS	4, 7, 8, 10	21"	0.0, 0.0, 0.0	Tan, medium sand, trace course sand	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

BORING LOG

Dvirka and Bartilucci CONSULTING ENGINEERS	Project No.: 1479-A10 Project Name: LIRR Yaphank	Boring No.: SB15/MW14 Sheet 3 of 3 . By: KCK
Drilling Contractor: LAWES **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 06/08/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140lb **Date Completed:** 06/08/99	**Boring Completion Depth:** 40' **Ground Surface Elevation:** NA **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (feet)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	4, 5, 5, 7	17"	0.0, 0.0, 0.0,	Tan to brown, medium sand, trace gravel	
-22-							
-23-		SS	7, 9, 11, 11	10"	0.0, 0.0	Tan, medium sand, trace course gravel	
-24-							
-25-		SS	5, 5, 6, 8	21"	0.0, 0.0, 0.0, 0.0	Tan, medium sand, trace medium gravel	
-26-							
-27-		SS	7, 11, 13, 18	18"	0.0, 0.0, 0.0	Tan, medium sand, trace gravel	
-28-							
-29-		SS	6, 6, 9, 7	15"	0.0, 0.0, 0.0	Tan, medium sand, trace gravel, lower 3" wet	
-30-							

Sample Types:
SS = Split Spoon
GP = Geoprobe Sampler
HA = Hand Auger
CC = Concrete Core

NOTES: Drill to 40' to set well

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-16 **Sheet** 1 **of** 3 . **By:** KCK
Drilling Contractor: LAWES **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 6/11/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/11/99	**Boring Completion Depth:** 32 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-0-							
-1-		SS	8,9 11,14	17"	0.0	Upper 7" Tan, gray, fine to medium sand and glass debris Lower 10" Dark brown, silty, fine to coarse granular fill – coal fragments	
-2-							
-3-		SS	5,3 3,4	10"	0.0	Dark brown to light black, silty, fine to coarse sand fill (some gravel size) granular black material	
-4-							
-5-		SS	2,2 3,4	5	0.0	Black, dark brown, silty, fine to coarse sand, trace gravel	
-6-							
-7-		SS	2,3 2,2	6"	0.0	Dark brown to black, soft, medium / fine sand, trace gravel-fill	
-8-							
-9-		SS	4,5 5,7	3	0.0	Brown, moist, dark brown, medium fine sand, trace gravel and wood fragments.	
-10-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Sample 12-14

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-16 **Sheet** 2 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 6/11/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/11/99	**Boring Completion Depth:** 32 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-10-							
-11-		SS	3,3 2,5	8"	0.0	Dark brown, black, moist, silty, fine to medium sand, trace gravel	
-12-							
-13-	1	SS	7,6 4,5	9"	0.0	Dark brown to black, moist, silty, fine to medium sand, trace gravel and coal frags	
-14-							
-15-		SS	4,5 5,8	17"	0.0	Upper 7" Fill, black granular coal fragments and brown, silty, fine to medium sand Lower 10" Tan, brown, silty, fine to medium sand, trace fine gravel	
-16-							
-17-		SS	7,5 7,7	6"	0.0	Tan, fine to medium sand, trace silt and fine gravel	
-18-							
-19-		SS	6,7 8,8	6"	0.0	Tan, fine to medium sand, trace silt metal fragments in bottom of spoon	
-20-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

NOTES:

Dvirka and Bartilucci CONSULTING ENGINEERS	**Project No.:** 1479-A10 **Project Name:** LIRR Yaphank	**Boring No.:** SB-16 **Sheet** 3 **of** 3 . **By:** KCK
Drilling Contractor: B&B **Driller:** Kevin McGourty **Drill Rig:** B-61 **Date Started:** 6/11/99	**Geologist:** Keith Klaus **Drilling Method:** HSA **Drive Hammer Weight:** 140 lb **Date Completed:** 6/11/99	**Boring Completion Depth:** 32 **Ground Surface Elevation:** N/A **Boring Diameter:** 10"

Depth (ft.)	Soil Sample No.	Type	Blows Per 6"	Rec. (ft.)	PID Per 6" (ppm)	Sample Description	USCS
-20-							
-21-		SS	4,4 6,8	18"	0.0	White/Gray/Tan native medium sand, some gravel	
-22-							
-23-		SS	7,7 9,13	15	0.0	Tan, medium sand	
-24-							
-25-		SS	4,5 8,9	16	0.0	Tan, medium sand	
-26-							
-27-		SS	7,10 12,14	14"	0.0	Tan, medium sand dry	
-28-		SS	8,8 10,13	18"	0.0	Tan, dry medium sand	
-29-		SS	6,6 9,9	10	0.0	Tan, medium sand, Lower 1" wet	
-30-							

Sample Types:
SS = Split Spoon
HA = Hand Auger
GP = Geoprobe Sampler
CC = Concrete Core

EOB at 32" grout hole

APPENDIX D

WELL CONSTRUCTION LOGS

WELL CONSTRUCTION LOGS FOR WELLS INSTALLED AS PART OF THE PRELIMINARY SITE ASSESSMENT (APRIL, 1998)

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-5

Total Depth: 32.27' Surface Elevation: 40.14' Top Riser Elevation: 42.45'

Water Levels (Depth, Date, Time): 21.52', 7/9/99, 07:30 Date Installed: 10/29/97

Riser	Dia.	2"	Material	PVC	Length		
Screen	Dia.	2"	Material	PVC	Length	15	Slot Size 010
Protective Casing	Dia.	4"	Material	Steel	Length		

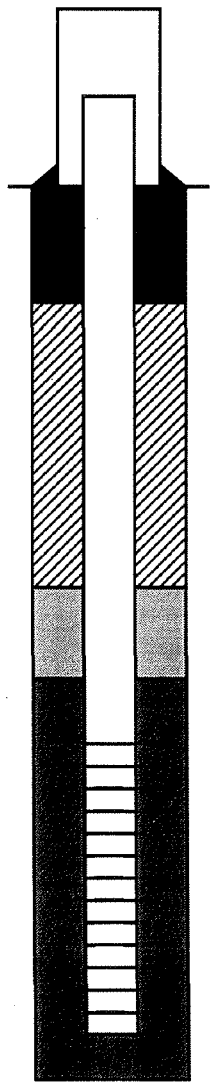
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold Bentonite

Sand Pack Type: Morie
Size: #1



_____ Protective Casing Stickup

_____ Riser Stickup

Ground Surface

1 Bottom Surface Seal

10 Top Seal

12 Top Sand Pack

15 Top Screen

30 Bottom Screen

32 Total Depth of Boring

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

Well Construction Log

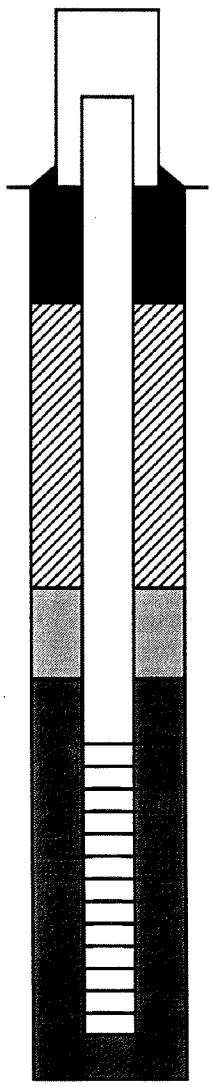
Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-6

Total Depth: 32.22' Surface Elevation: 41.21' Top Riser Elevation: 43.40'

Water Levels (Depth, Date, Time): 22.22', 7/9/99, 07:30 Date Installed: 10/29/97

Riser	Dia.	2"	Material	PVC	Length	14 + 2	
Screen	Dia.	2"	Material	PVC	Length	15	Slot Size 010
Protective Casing	Dia.	4"	Material	Steel	Length	6'	

SCHEMATIC



Protective Casing Stickup

Riser Stickup

Ground Surface

Surface Seal Type: Cement

1 Bottom Surface Seal

Grout Type: Cement/Bentonite

10 Top Seal

Seal Type: Pure Gold Bentonite

12 Top Sand Pack

15 Top Screen

Sand Pack Type: Morie-Unimin
Size: #1

30 Bottom Screen

32 Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A05 Well No. MW-7

Total Depth: 24.35' Surface Elevation: 29.35' Top Riser Elevation: 31.44'

Water Levels (Depth, Date, Time): 11.27', 7/9/99, 07:30 Date Installed: 10/23/97

Riser	Dia. 2"	Material PVC	Length				
Screen	Dia. 2"	Material PVC	Length 15		Slot Size 10		
Protective Casing	Dia. 4"	Material Steel	Length				

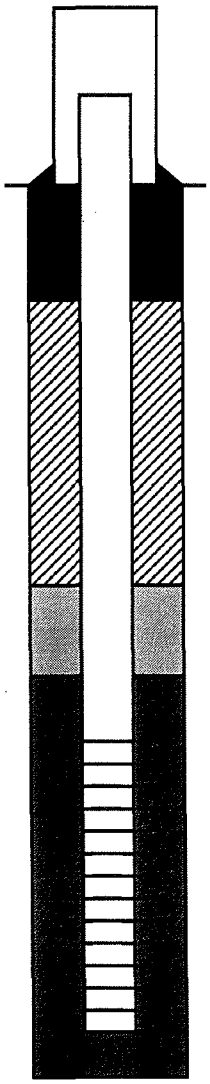
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold
Bentonite

Sand Pack Type: Morie
Size: #1



_____ Protective Casing Stickup

_____ Riser Stickup

Ground Surface

1 Bottom Surface Seal

3 Top Seal

5 Top Sand Pack

7 Top Screen

22 Bottom Screen

23 Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A05 Well No. MW-8

Total Depth: 26.52' Surface Elevation: 33.97' Top Riser Elevation: 36.68'

Water Levels (Depth, Date, Time): 16.33', 7/9/99, 07:30 Date Installed: 10/23/97

Riser	Dia.	2"	Material	PVC	Length		
Screen	Dia.	2"	Material	PVC	Length	15	Slot Size 10
Protective Casing	Dia.	4"	Material	Steel	Length		

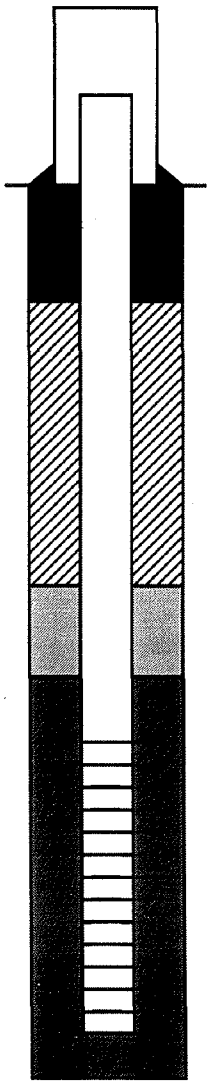
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold
Bentonite

Sand Pack Type: Morie-
Size: #1



	Protective Casing Stickup
	Riser Stickup
	Ground Surface
1	Bottom Surface Seal
11	Top Seal
13	Top Sand Pack
15	Top Screen
25	Bottom Screen
26	Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No.: 1479 Well No.: MW-9

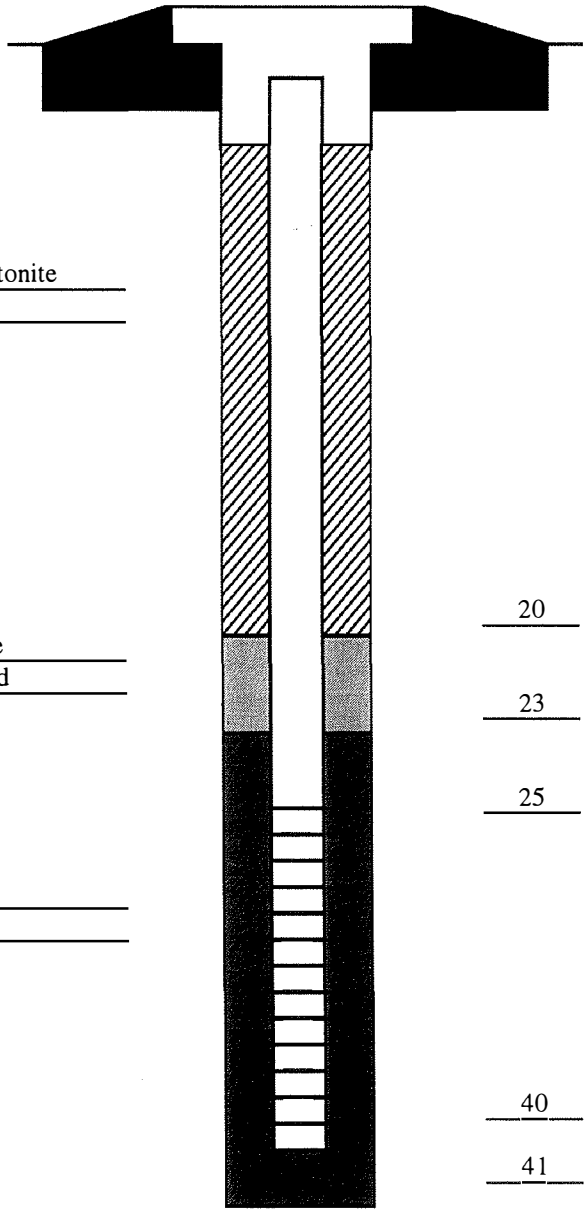
Total Depth: 42.34' Surface Elevation: 50.04' Top Riser Elevation: 52.68'

Water Levels (Depth, Date, Time): 32.33', 7/9/99, 07:30 Date Installed: 10/28/97

Riser	Dia. 2"	Material PVC	Length			
Screen	Dia 2"	Material PVC	Length 15		Slot Size 010	
Prot CSG	Dia.	Material Steel				

SCHEMATIC

Surface Seal Type: Cement



Ground Surface
Riser Elevation
1 Bottom Surface Seal

Grout Type: Cement/Bentonite

Seal Type: Bentonite
Pure Gold

Sand Pack Type: Morie-
Size: #1

20 Top Seal

23 Top Sand Pack

25 Top Screen

40 Bottom Screen

41 Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No.: 1479 Well No.: MW-10

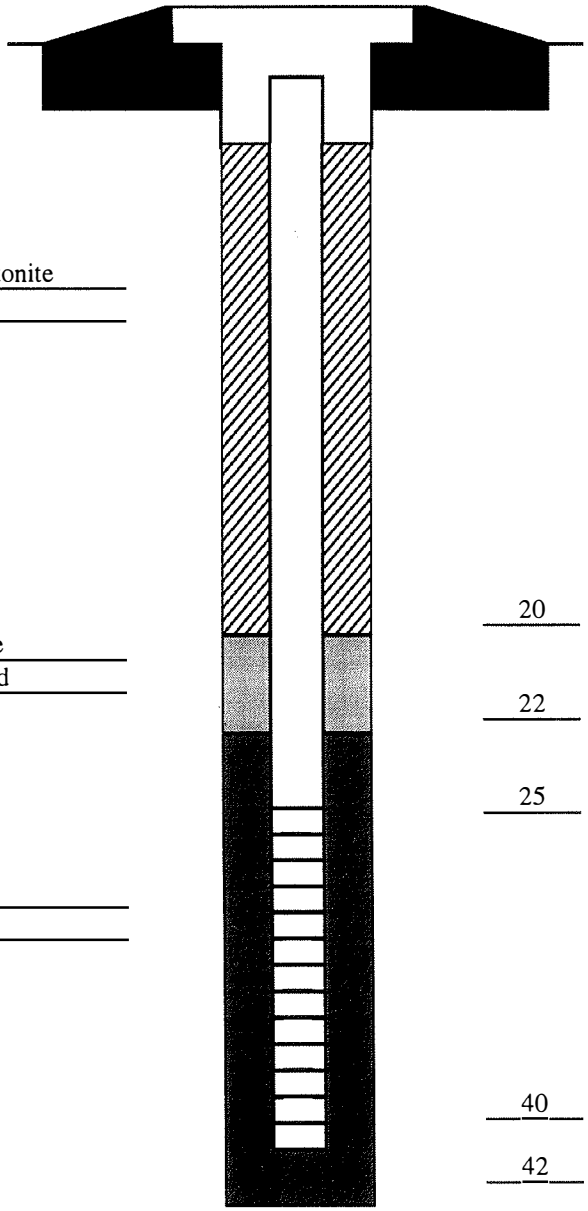
Total Depth: 42.25' Surface Elevation: 49.10' Top Riser Elevation: 51.86'

Water Levels (Depth, Date, Time): 31.14', 7/9/99, 07:30 Date Installed: 10/28/97

Riser	Dia.	2"	Material	PVC	Length		
Screen	Dia.	2"	Material	PVC	Length	15	Slot Size 010
Prot CSG	Dia	4"	Steel	Steel			

SCHEMATIC

Surface Seal Type: Cement



Ground Surface
Riser Elevation
1 Bottom Surface Seal

Grout Type: Cement/bentonite

Seal Type: Bentonite
Pure Gold

Sand Pack Type: Morie
Size: #1

20 Top Seal

22 Top Sand Pack

25 Top Screen

40 Bottom Screen

42 Total Depth of Boring

WELL CONSTRUCTION LOGS FOR
WELLS INSTALLED AS PART OF
THE SUPPLEMENTAL PRELIMARY SITE ASSESSMENT
(SEPTEMBER, 1999)

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-11

Total Depth: 32 Surface Elevation: 43.63 Top Riser Elevation: 46.21

Water Levels (Depth, Date, Time): 24.44,7/9/99, 07:30 Date Installed: 6/16/99

Riser	Dia. 2"	Material PVC	Length 17 + 3				
Screen	Dia. 2"	Material PVC	Length 15	Slot Size 0.010"			
Protective Casing	Dia. 6"	Material Steel	Length 6'				

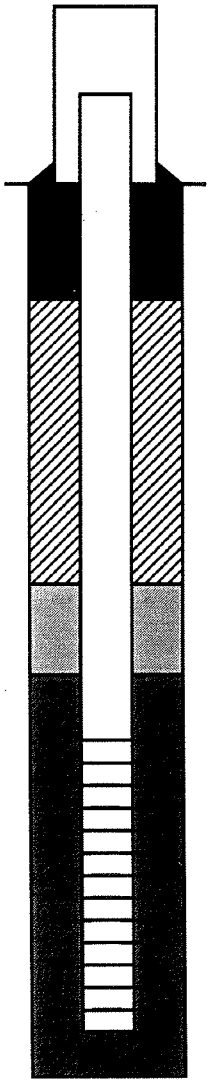
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold Bentonite

Sand Pack Type: Morie-Unimin
Size: #1



2.78 Protective Casing Stickup

2.58 Riser Stickup

Ground Surface

.5 Bottom Surface Seal

13 Top Seal

15 Top Sand Pack

17 Top Screen

32 Bottom Screen

32.5 Total Depth of Boring

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Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-12

Total Depth: 29 Surface Elevation: 42.01 Top Riser Elevation: 44.46

Water Levels (Depth, Date, Time): 22.08, 7/9/99, 07:30 Date Installed: 6/16/99

Riser	Dia. 2"	Material PVC	Length 14 + 2				
Screen	Dia. 2"	Material PVC	Length 15	Slot Size 0.010"			
Protective Casing	Dia. 6"	Material Steel	Length 6'				

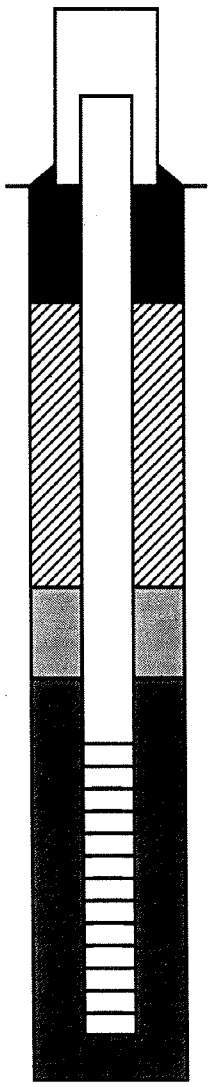
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold Bentonite

Sand Pack Type: Morie-Unimin
Size: #1



2.60 Protective Casing Stickup

2.45 Riser Stickup

Ground Surface

.5 Bottom Surface Seal

10 Top Seal

12 Top Sand Pack

14 Top Screen

29 Bottom Screen

29.5 Total Depth of Boring

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Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-13

Total Depth: 37 Surface Elevation: 48.72 Top Riser Elevation: 51.48

Water Levels (Depth, Date, Time): 30.33, 7/9/99, 07:30 Date Installed: 6/17/99

Riser	Dia. 2"	Material PVC	Length				
Screen	Dia. 2"	Material PVC	Length 15		Slot Size 0.010"		
Protective Casing	Dia. 4"	Material Steel	Length				

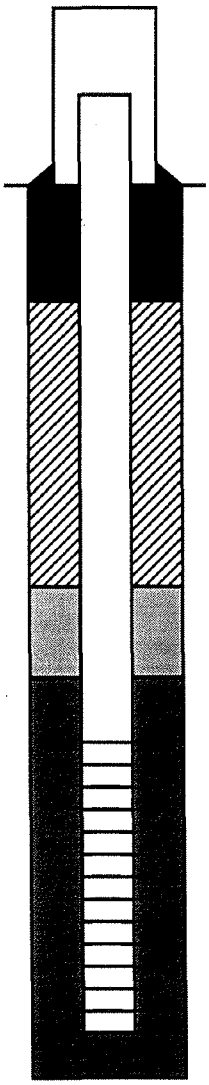
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold
Bentonite Chips

Sand Pack Type: Morie-Unimin
Size: #1



2.9 Protective Casing Stickup

2.76 Riser Stickup

Ground Surface

.5 Bottom Surface Seal

18 Top Seal

20 Top Sand Pack

22 Top Screen

37 Bottom Screen

37.5 Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-14

Total Depth: 40 Surface Elevation: 52.53 Top Riser Elevation: 55.09

Water Levels (Depth, Date, Time): 33.34, 7/9/99, 07:30 Date Installed: 6/8/99

Riser	Dia. 2"	Material	PVC	Length	25		
Screen	Dia. 2"	Material	PVC	Length	15	Slot Size	0.010"
Protective Casing	Dia. 6"	Material	Steel	Length	6'		

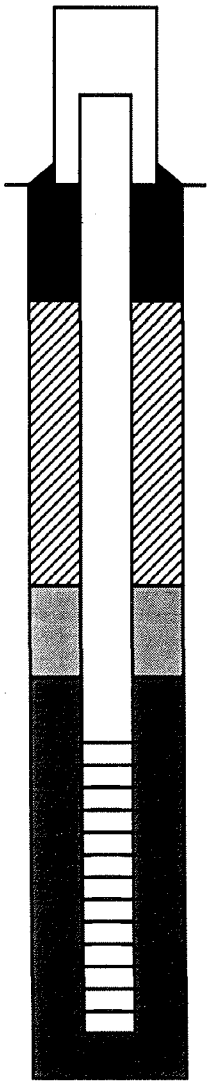
SCHEMATIC

Surface Seal Type: Cement

Grout Type: Cement/Bentonite

Seal Type: Pure Gold
Bentonite Chips

Sand Pack Type: Morie-Unimin
Size: #1



2.74 Protective Casing Stickup

2.56 Riser Stickup

Ground Surface

.5 Bottom Surface Seal

20 Top Seal

22 Top Sand Pack

25 Top Screen

40 Bottom Screen

40.5 Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-15

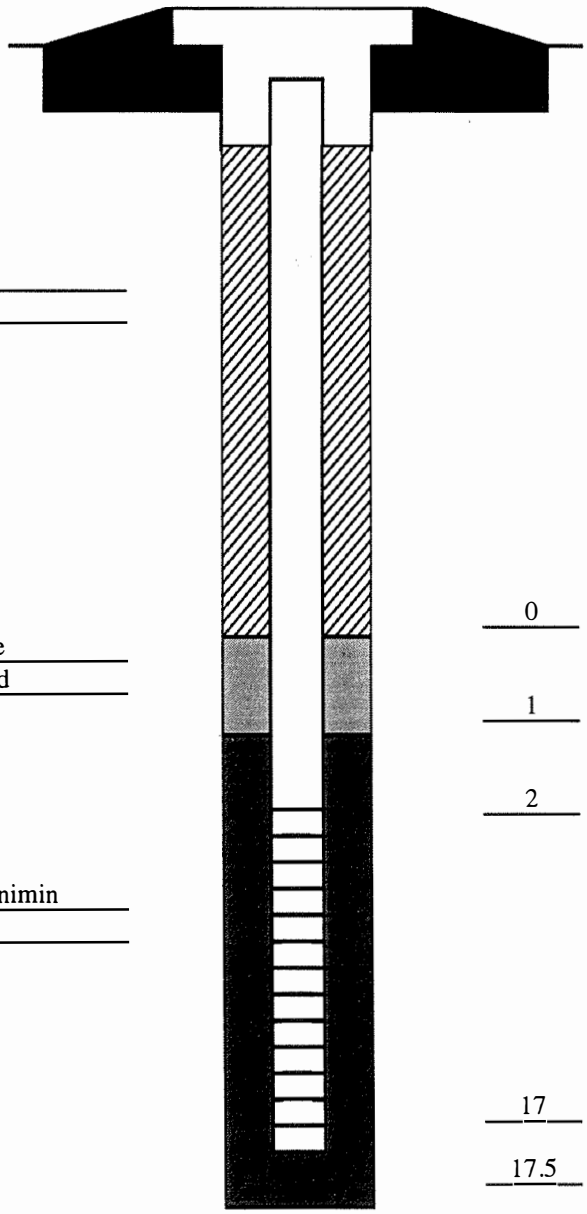
Total Depth: 17.01 Surface Elevation: 23.54 Top Riser Elevation: 23.14

Water Levels (Depth, Date, Time): 3.34, 7/9/99, 07:30 Date Installed: 6/15/99

Riser	Dia. 2"	Material	PVC	Length	2		
Screen	Dia. 2"	Material	PVC	Length	15	Slot Size	0.010"

SCHEMATIC

Surface Seal Type: Cement



Ground Surface
23.14 Riser Elevation
0 Bottom Surface Seal

Grout Type: Bentonite, Pure Gold

Seal Type: Bentonite, Pure Gold

Sand Pack Type: Morie-Unimin
Size: #1

0 Top Seal

1 Top Sand Pack

2 Top Screen

17 Bottom Screen

17.5 Total Depth of Boring

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

Well Construction Log

Site: LIRR Yaphank Job No. 1479-A10 Well No. MW-16

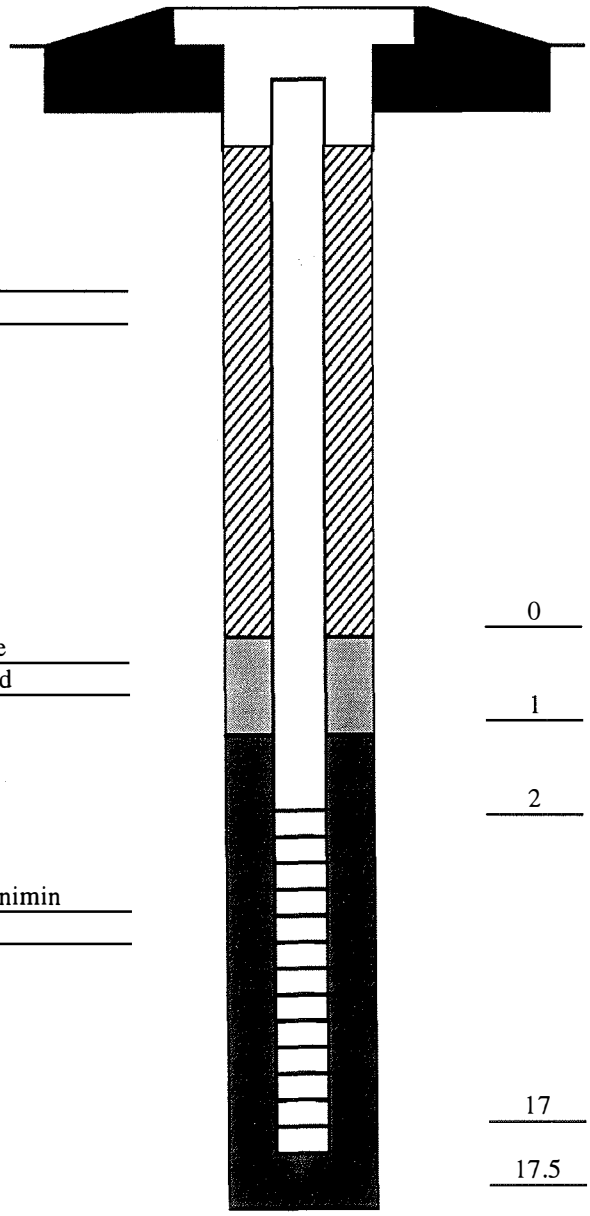
Total Depth: 17 Surface Elevation: 22.90 Top Riser Elevation: 22.45

Water Levels (Depth, Date, Time): 2.85, 7/9/99, 07:30 Date Installed: 6/15/99

Riser	Dia. 2"	Material	PVC	Length	2		
Screen	Dia. 2"	Material	PVC	Length	15	Slot Size	0.010"

SCHEMATIC

Surface Seal Type: Cement



Ground Surface
22.45 Riser Elevation
0 Bottom Surface Seal

Grout Type: Bentonite, Pure Gold

Seal Type: Bentonite, Pure Gold

Sand Pack Type: Morie-Unimin
Size: #1

0 Top Seal

1 Top Sand Pack

2 Top Screen

17 Bottom Screen

17.5 Total Depth of Boring

APPENDIX E

DAILY AIR MONITORING FORMS

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

Date: 5-18-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: Micro Tip PID

Recorded by: Richard Russell

Calibration Date: 5-18-99

Weather Conditions: Clear, Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
1515	lowers. side of River Road		0.0	
	Background			
1520	SS-16		0.0	Breathing Zone
			1.5	off surface soil
			3.5	In 6" Borehole

Recording Procedures/Remarks: PID readings may have been impacted by high humidity conditions and damp soil

D&B_AMF/kb

Rev. 03/09/98

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: MicroTip PID

Recorded by: Robert Gantzer

Calibration Date: 5-17-99

Weather Conditions: Sunny Clear, 70°

Time	Location	Wind Speed and Direction	PID Reading	Observations
1400	lower site by River Road	0 southeast	0.0	
	Background			
1430	lower site by River Road	0 southeast	0.0	
1500	lower site by River Road	0 southeast	0.0	
	Background			
1530	lower site by River Road	0 southeast	0.0	
	Background			

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: Micro T.P PID

Recorded by: Robert Gantzer

Calibration Date: 5-17-99

Weather Conditions: Clear, Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
1520	SS-50	0 South/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" Borehole
1535	SS-49	0 South/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" Borehole
1545	SS-48	0 South/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" Borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: Micro Tip PID

Recorded by: Robert Gantzer

Calibration Date: 5-17-99

Weather Conditions: Clear Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
1420	SS-14	0 south/east	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1425	SS-15	0 south/east	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1440	SS-11	0 south/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1455	SS-10	0 South/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1500	SS-13	0 south/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1510	SS-47	0 southeast	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank
Project Number: 1479
Instrument: Micro Tip PID
Recorded by: Robert Gantzer
Calibration Date: 5-17-99
Weather Conditions: Clear Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
1330	SS-51	0 South/east	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1335	SS-46	0 South/east	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1340	SS-7	0 South/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1350	SS-8	0 South/east	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1355	SS-9	0 Southeast	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1410	SS-12	0 South/east	0.0	Breathing Zone
			0.0	Off Surface Soil
			0.0	In 6" borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank
Project Number: 1479
Instrument: Micro Tip PID
Recorded by: Robert Gantzer
Calibration Date: 5-17-99
Weather Conditions: Clear Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
1210	SS-35	0 East	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1220	SS-25	0 East	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1225	SS-36	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1230	SS-26	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1235	SS-45	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1330	SS-51	0 South/East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank
Project Number: 1479
Instrument: Micro Tip PID
Recorded by: Robert Gantzer
Calibration Date: 5-17-99
Weather Conditions: Clear Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
1120	SS-23	0 East	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1125	SS-42	0 East	0.0	Breathing Zone
			0.0	off surface Soil
			0.0	In 6" borehole
1140	SS-34	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1150	SS-24	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1155	SS-43	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole
1200	SS-44	0 East	0.0	Breathing Zone
			0.0	off Surface Soil
			0.0	In 6" borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: Micro Tip PID

Recorded by: Robert Gautzer

Calibration Date: 5-17-99

Weather Conditions: clear, cloudy

Time	Location	Wind Speed and Direction	Reading	Observations
1030	SS-31	0 East	0.0	Breathing Zone
			0.0	off surface soil
			0.0	In 6" borehole
1035	SS-40	0 East	0.0	Breathing Zone
			0.0	off surface soil
			0.0	In 6" borehole
1045	SS-41	0 East	0.0	Breathing Zone
			0.0	off surface soil
			0.0	In 6" borehole
1055	SS-32	0 East	0.0	Breathing Zone
			0.0	off surface soil
			0.0	In 6" borehole
1100	SS-22	0 East	0.0	Breathing Zone
			0.0	off surface soil
			0.0	In 6" borehole
1110	SS-33	0 East	0.0	Breathing Zone
			0.0	off surface soil
			0.0	In 6" borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: MicroTip PID

Recorded by: Robert Gantzer

Calibration Date: 5-17-99

Weather Conditions: clear, Sunny

Time	Location	Wind Speed and Direction	Reading	Observations
0915	SS-37	0 East	0.0	Breathing zone
			0.0	off Surface soil
			0.0	IN 6" borehole
0925	SS-38	0 East	0.0	Breathing zone
			0.0	off Surface soil
			0.0	In 6" borehole
0940	SS-39	0 East	0.0	Breathing zone
			0.0	off surface soil
			0.0	In 6" borehole
1000	SS-30	0 East	0.0	Breathing zone
			0.0	off Surface soil
			0.0	In 6" borehole
1010	SS-20	0 East	0.0	Breathing zone
			0.0	off Surface soil
			0.0	In 6" borehole
1020	SS-21	0 East	0.0	Breathing zone
			0.0	off surface soil
			0.0	In 6" borehole

Recording Procedures/Remarks:

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

Date: 5-17-99

AIR MONITORING FORM

Project Name: LIRR Yaphank

Project Number: 1479

Instrument: MicroTip PID

Recorded by: Robert Gantzer

Calibration Date: 5-17-99

Weather Conditions: Sunny, Clear

Time	Location	Wind Speed and Direction	PID Reading	Observations
0910	Midsite	0 East	0.0	
	Background			
0930	Midsite	0 East	0.0	
	Background			
1000	Midsite	0 East	0.0	
	Background			
1030	Midsite	0 East	0.0	
	Background			
1100	East side of site	0 East	0.0	
	Background			
1130	East side of site	0 East	0.0	
	Background			
1200	East side of site	0 East	0.0	
	Background			
1230	East side of site	0 East	0.0	
	Background			
1330	lower site by River Road	0 East	0.0	
	Background			

Recording Procedures/Remarks:

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: IRR Yaphank

DATE: 6/7/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: MiniRAM/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/7/99

WEATHER CONDITIONS: Hot sunny humid 80-90

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
930	Upwind SB-12	W-S	Dust/PID/O_2/Tox/LEL .31/0.0/21.1/0/0	
1015		W-S	.078/0.0/21.3/0/0	
1100		W-S	.067/0.0/21.1/0/0	
1145		W-S	.027/0.0/21.1/0/0	
	SB-11			
1340		W-S	.041/0.0/21.4/0/0	
1430		W-S	.039/0.0/21.3/0/0	
1550		W-S	.032/0.0/21.3/0/0	
	SB-15 6/8			

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/7/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: miniRam/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/7/99

WEATHER CONDITIONS: Hot Sunny humid 80-90

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
930	Work Zone SB-12	W-S	DUST/PID/O_2/TOX/LEL .21/0.0/21.1/0/0	
1015		W-S	.46/0.0/21.3/0/0	Truck traffic
1100		W-S	.38/0.0/21.3/0/0	
1145		W-S	.26/0.0/21.2/0/0	
	SB-11			
1310		W-S	.32/0.0/21.4/0/0	
1425		W-S	.29/0.0/21.4/0/0	
1555		W-S	.28/0.0/21.4/0/0	
	SB-15 6/8			

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/7/99

PROJECT NUMBER: 1479-410

INSTRUMENT: MiniRam/PID Multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/7/99

WEATHER CONDITIONS: Hot Sunny humid 80-90

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
~~935~~	DownWind SB-12	W-S	Dust/PID/O_2/Tox/LEL	
955		W-S	.12/0.0/21.0/0/0	
1020		W-S	.081/0.0/21.1/0/0	Truck Traffic
1105		W-S	.067/0.0/21.2/0/0	
1150		W-S	.037/0.0/21.1/0/0	
	SB-11			
1345		W-S	.341/0.0/21.4/0/0	
1415		W-S	.058/0.0/21.4/0/0	
1555		W-S	.026/0.0/21.4/0/0	
	SB-15			

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: IRR Yaphank DATE: 6/8/99

PROJECT NUMBER: 1479-A10 INSTRUMENT: MiniRAM/PID/ multimeter

RECORDED BY: Keith Klaus CALIBRATION DATE: 6/8

WEATHER CONDITIONS: Hot Sunny humid 90°+

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Upwind	W-0-5	Dust/PID/O_2/Tox/LEL	
800	SB-15		.041/0.0/21.1/0/0	
900			.64/0.0/21.3/0/0	
1000			.58/0.0/21.4/0/0	
1100			.44/0.0/21.4/0/0	
1400	SB-10	W 5-10	.51/0.0/21.4/0/0	
1500	SB-10	W 5-10	.47/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/8/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: miniRam/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/8

WEATHER CONDITIONS: Hot Sunny humid 90°+

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Work Zone	W-0-5	DUST/PID/O_2/TOX/LEL	
	SB-15			
815			.31/0.0/21.1/0/0	
905			.68/0.0/21.3/0/0	
1005			.57/0.0/21.4/0/0	
1100			.42/0.0/21.4/0/0	
1400	SB-10	W-5-10	.53/0.0/21.4/0/0	
1505		W 5-10	.49/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank DATE: 6/ /99

PROJECT NUMBER: 1479-410 INSTRUMENT: MiniRam/PID Multimeter

RECORDED BY: Keith Klaus CALIBRATION DATE: 6/8

WEATHER CONDITIONS: Hot Sunny humid 90°+

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Down Wind	W-0-5	Dust/PID/O2/Tox/LEL	
~~SB15~~	SB-15			
820			.047/0.0/21.1/0/0	
910			.29/0.0/21.3/0/0	
1010			.29/0.0/21.4/0/0	
1105			.32/0.0/21.4/0/0	
1105	SB-10	W-5-10	.48/0.0/21.4/0/0	
1515		W 5-10	.46/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: IRR Yaphank

DATE: 6/9/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: MiniRAM/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/9/99

WEATHER CONDITIONS: Sunny Hot 85-90

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Upwind	N-NW 0-5	Dust/PID/O_2/Tox/LEL	
910	SB 13		.044/0.0/21.4/0/0	
955			.027/0.0/21.4/0/0	
1100			.039/0.0/21.4/0/0	
1220	SB14		.031/0.0/21.4/0/0	
1305			.036/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/9/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: miniRam/PID / multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/9/99

WEATHER CONDITIONS: Sunny Hot 85-90

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Work Zone SB13	N/NW 0-5	DUST/PID/O_2/TOX/LEL	
~~SB~~ 910			.022/00/21.4/0/0	
955			.31/0.0/21.4/0/0	
1100			.028/0.0/21.4/0/0	
1220	SB14		.029/0.0/21.4/0/0	
1305			.039/00/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank DATE: 6/9/99

PROJECT NUMBER: 1479-410 INSTRUMENT: Mini Ram/PID Multimeter

RECORDED BY: Keith Klaus CALIBRATION DATE: 6/9/99

WEATHER CONDITIONS: Sunny Hot 85-90

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Down Wind SB-13	N-NW-0-5	Dust/PID/O2/Tox/LEL	
0915			.37/0.0/21.4/0/0	
1000			.02/0.0/21.4/0/0	
1105			.00/0.0/21.4/0/0	
1225	SB 14		.03/0.0/21.4/0/0	
1310			.00/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: IRR Yaphank

DATE: 6/11/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: MiniRAM/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/11/99

WEATHER CONDITIONS: Cooler - 75° Clear

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Upwind SB-16	East 0-5	Dust/PID/O_2/Tox/LEL	
940			.027/0.0/21.4/0/0	
1020			.036/0.0/21.4/0/0	
1100			.025/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/11/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: miniRam/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/11/99

WEATHER CONDITIONS: 75° Clear

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Work Zone	E-O-S	DUST/PID/O_2/TOX/LEL	
940	SB-16		.031/0.0/21.4/0/0	
1020			.030/0.0/21.4/0/0	
1100			.027/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/11/99

PROJECT NUMBER: 1479-410

INSTRUMENT: MiniRam/PID Multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/11/99

WEATHER CONDITIONS: 75° Clear

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Down Wind SB-16	E-O-S	Dust/PID/O2/Tox/LEL	
940			031/0.0/21.4/0/0	
1025			017/0.0/21.4/0/0	
1100			025/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: IRR Yaphank

DATE: 6/14/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: MiniRAM/PID/ multi meter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/14/99

WEATHER CONDITIONS: Overcast 70

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
905	Upwind	S-0-5	Dust/PID/O_2/Tox/LEL	
~~SB-7~~	SB-7		.031/0.0/21.4/0/0	
~~905~~ 930			.034/0.0/21.4/0/0	
	SB06			
950			.031/0.0/21.4/0/0	
1015			.033/0.0/21.4/0/0	
	SB08			
1035			.032/0.0/21.4/0/0	
			.037/0.0/21.4/0/0	
	SB-09			
1110			.034/0.0/21.4/0/0	
1130			.034/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMP

DVTRKA
AND
BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/14/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: miniRam/PID / multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/14/99

WEATHER CONDITIONS: Overcast 70°

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Work Zone	S-0-S	DUST/PID/O_2/TOX/LEL	
0905	SB-7		.27/0.0/21.4/0/0	
935			.33/0.0/21.4/0/0	
	SB-6			
950			.31/0.0/21.4/0/0	
1010			.34/0.0/21.4/0/0	
	SB-08			
1035			.30/0.0/21.4/0/0	
			.32/0.0/21.4/0/0	
	SB-09			
1110			.27/0.0/21.4/0/0	
1135			.26/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank DATE: 6/14/99

PROJECT NUMBER: 1479-410 INSTRUMENT: MiniRam/PID Multimeter

RECORDED BY: Keith Klaus CALIBRATION DATE: 6/14/99

WEATHER CONDITIONS: 70° Overcast

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	DownWind	S-O-S	Dust/PID/O2/Tox/LEL	
~~SB-7~~	SB-7			
0910			.26/0.0/21.4/0/0	
9410			.031/0.0/21.4/0/0	
	SB-6			
955			.27/0.0/21.4/0/0	
1010			.38/0.0/21.4/0/0	
	SB-08			
1035			.36/0.0/21.4/0/0	
			.34/0.0/21.4/0/0	
	SB-09			
1115			.21/0.0/21.4/0/0	
1140			.25/0.0/21.4/0/0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: IRR Yaphank

DATE: 6/15/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: MiniRAM/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/15/99

WEATHER CONDITIONS: Clear Warm 70

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Upwind	N-05	Dust/PID/O_2/Tox/LEL	
	MW-15		027/0.0	
910			27/0.0	
930			26/0.0	
1000			34/0.0	
	MW-16			
1030			027/0.0	
1045			129/0.0	
1115			027/0.0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank

DATE: 6/15/99

PROJECT NUMBER: 1479-A10

INSTRUMENT: miniRam/PID/multimeter

RECORDED BY: Keith Klaus

CALIBRATION DATE: 6/15/99

WEATHER CONDITIONS: Clear Warm 70°+

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Work Zone MW-15	N 0-5	DUST/PID/O_2/TOX/LEL	
915			.28/0.0	
930			.31/0.0	
1010			.27/0.0	
	MW-16			
1030			.27/0.0	
1045			.27/0.0	
1115			.29/0.0	

RECORDING PROCEDURES/REMARKS:

AMF

DVIRKA AND BARTILUCCI

AIR MONITORING FORM

PROJECT NAME: LIRR Yaphank DATE: 6/15/99

PROJECT NUMBER: 1479-410 INSTRUMENT: MiniRam/PID Multimeter

RECORDED BY: Keith Klux CALIBRATION DATE: 6/15/99

WEATHER CONDITIONS: Warm Clear

TIME	LOCATION	WIND SPEED AND DIRECTION	READING	OBSERVATIONS
	Down Wind MW-15	N-O-S	Dust/PID/O2/Tox/LEL	
915			.27/0.0	
920			.29/0.0	
1010			.27/0.0	
	MW-16			
1030			.27/0.0	
1045			.31/0.0	
1115			.26/0.0	

RECORDING PROCEDURES/REMARKS:

AMF

APPENDIX F

NYSDEC WELL COMPLETION REPORTS

Report Monthly

County SUFFOLK

ORIGINAL—TO COMMISSION

State of New York
Department of Conservation
Division of Water Resources

Well No. W-2559 5-30324
(see preliminary report)

LOG

Ground Surf., El. ~123 ft. above sea

COMPLETION REPORT—LONG ISLAND WELL

Owner ACME CONCRETE + Supply CORP.

Address MORICHES-MIDDLE ISLAND Rd.

Location of well YAPANK

Dept of well below surface 123' feet

Depth to ground water from surface 30' feet

Casings:

Diameter 6" in. ... in. ... in. ... in.

Length 104 ft. ... ft. ... ft. ... ft.

Sealing GRAVEL & LEAD PACK

Casings removed NONE.

Screens: Make JOHNSON Openings 20 SLOT

Diameter 6" INLET in. ... in. ... in. ... in.

Length 23'7" ft. ... ft. ... ft. ... ft.

Depth to top from top of casing 99' ft.

Pumping Test: Date 5/11/67 Test or permanent pump? PERM

Duration of Test ... days ... hours

Maximum Discharge 250 gallons per minute

Static level prior to test No CHECK ft. ... in. below top of casing

Level during Max. Pumping ft. ... in. below top of casing

Maximum Drawdown NO CHECK ft.

Approx. time of return to normal level after cessation of pumping IMMEDIATE hours ... minutes

Pump Installed:

Type SUB Make STA-RITE Model No. 190R613

Motive power ELE Make STA-RITE H.P. 10

Capacity 247 g.p.m. against 100 ft. of discharge head

No. bowls or stages 6 ± 320 ft. of total head

Drop Line: Diameter 3" in. Length 84' ft.

Suction Line: Diameter ... in. Length ... ft.

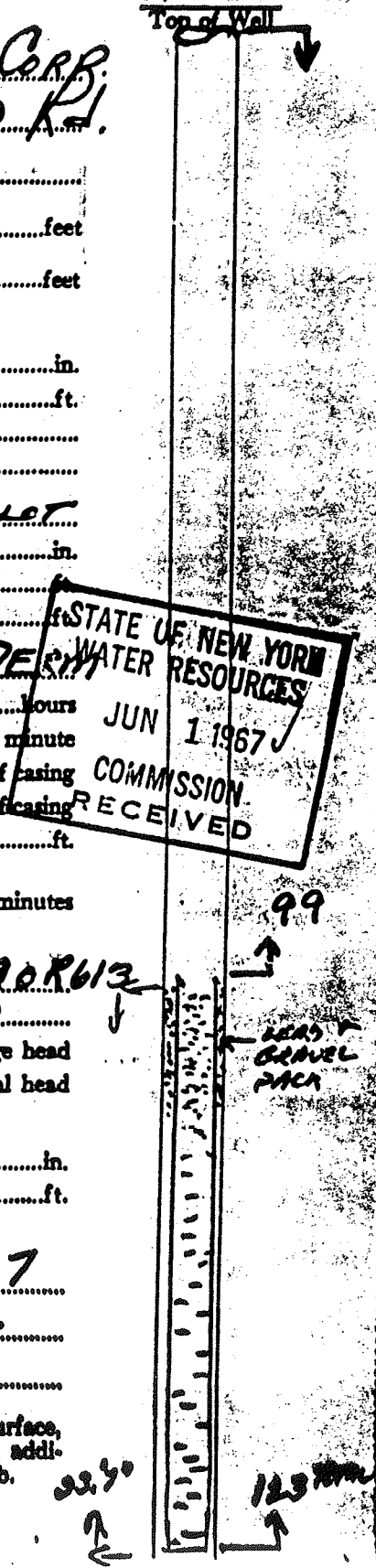
Use of water INDUSTRIAL

Work started 4/23/67 Completed 5/11/67

Date MAY 31, 67 Driller R Carlo

License No. 241

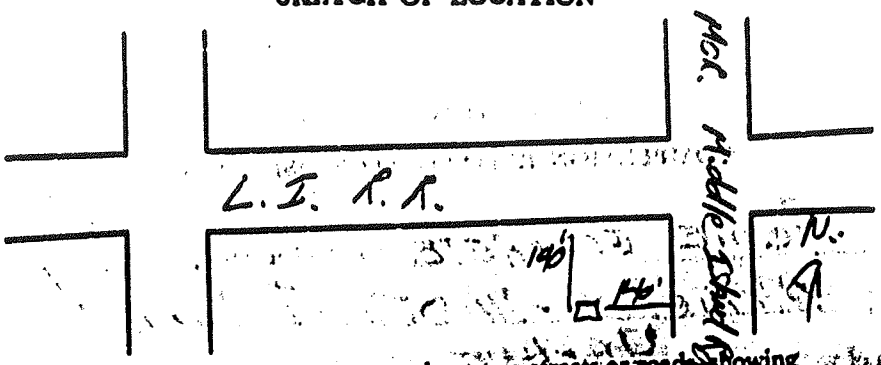
STATE OF NEW YORK WATER RESOURCES JUN 1 1967 COMMISSION RECEIVED



NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

See Instructions as to Well Drillers' Licenses and Reports—pp. 5-7.

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

S-76073
Well No.

COMPLETION REPORT — LONG ISLAND WELL

P Toth 445-2[illegible]

ADDRESS: 433 Hebron Ave Shirley

LOCATION OF WELL: (same) To Cellar

Ground Surface: ft. _____ ft. above MSL

ft.

DEPTH OF WELL BELOW SURFACE: 100 ft.

DEPTH TO GROUND WATER FROM SURFACE: 74 ft.

CASINGS

DIAMETER	4 in.	in.	in.	in.
LENGTH	95 ft.	ft.	ft.	ft.

SEALING: pitless

CASINGS REMOVED:

SCREENS

MAKE: Mustang #6

OPENINGS: 10 slot

DIAMETER	4 in.	in.	in.	in.
LENGTH	5 ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING: 93

PUMPING TEST

DATE:

TEST OR PERMANENT PUMP:

DURATION OF TEST: days hours

MAXIMUM DISCHARGE: gallons per min.

STATIC LEVEL PRIOR TO TEST: ft. in. below top of casing

LEVEL DURING MAXIMUM PUMPING: ft. in. below top of casing

MAXIMUM DRAWDOWN: ft.

Approximate time of return to normal level after cessation of pumping: hrs. min.

PUMP INSTALLED

TYPE: jet	MAKE: Stelite	MODEL NO.
MOTIVE POWER: elec	MAKE: Stelite	H.P.: 1

CAPACITY: 10 g.p.m. against ft. of discharge head

NUMBER BOWLS OR STAGES: ft. of total head

DROP LINE: pipe	SUCTION LINE
DIAMETER: 1 in.	DIAMETER: in.
LENGTH: 80 ft.	LENGTH: ft.

METHOD OF DRILLING: ☐ rotary ☐ cable tool ☐ other _____

USE OF WATER: dom

WORK STARTED: 2/6/84

COMPLETED: 2/6/84

DATE: 2/10/84

DRILLER: M Carle

REGISTRATION NO.: [illegible]

TOP OF WELL

0 loam

5 sand

74 water

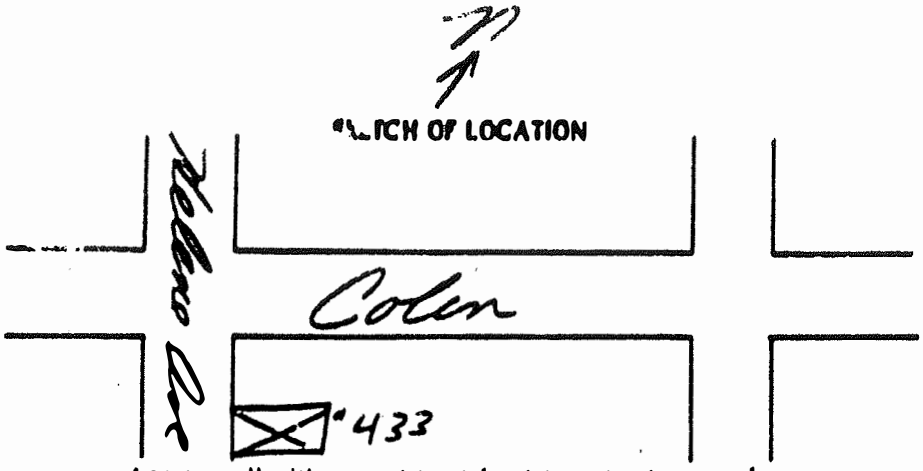
93 gravel w/ screen

100

*NOTE: Show log of well - materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See instructions as to Well Drillers' Certificates of Registration and Reports, Pages 5 - 7.

ORIGINAL - Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.
Show North Point

Check the Town in which the project is located:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☒ Brookhaven
- ☐ East Hampton
- ☐ Huntington
- ☐ Islip
- ☐ Riverhead
- ☐ Shelter Island
- ☐ Smithtown
- ☐ Southampton
- ☐ Southold

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

County Suffolk

Well Number S-94786

COMPLETION REPORT—LONG ISLAND WELL

OWNER: Terry Burke

ADDRESS: 25 Surrey Dr Center Moriches, N.Y 11934

LOCATION OF WELL: W/S Kensington Ave Shirley N.Y.

DEPTH OF WELL BELOW SURFACE: 63'

DEPTH TO GROUNDWATER FROM SURFACE: 14'

CASINGS

DIAMETER	4 in.	in.	in.	in.
LENGTH	58 ft.	ft.	ft.	ft.

SEALING: well Cap

CASINGS REMOVED: S

SCREENS

MAKE	Johnson S/S	OPENINGS	10 slot
DIAMETER	3 3/4 in.	in.	in.	in.
LENGTH	5 ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING:

PUMPING TEST

DATE:

TEST OR PERMANENT PUMP?

DURATION OF TEST: days | hours

MAXIMUM DISCHARGE: 20 gallons per min.

STATIC LEVEL PRIOR TO TEST: ft. | in. below top of casing

LEVEL DURING MAXIMUM PUMPING: in. below top of casing

MAXIMUM DRAWDOWN: ft.

Approximate time of return to normal level after cessation of pumping: hours | min.

RECEIVED JUN 6 1990 NYSDEC

PUMP INSTALLED

TYPE: Jet	MAKE: Goulds	MODEL NUMBER: 18E
MOTIVE POWER: Electric	MAKE: Franklin	H.P. 3/4

CAPACITY: 25 g.p.m. against 40 ft. of discharge head

NUMBER OF BOWLS OR STAGES: ft. of total head

DROP LINE	SUCTION LINE
DIAMETER: 1 in.	DIAMETER: in.
LENGTH: 40 ft.	LENGTH: ft.

METHOD OF DRILLING: ☐ rotary ☑ cable tool ☐ other

USE OF WATER: Domestic

WORK STARTED: 1/11/90

COMPLETED: 5/7/90

DATE: 6/4/90

DRILLER: Scott Morarch

LICENSE NUMBER: 1674

* NOTE: Show log of well materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See instructions as to Well Driller's License and Reports. Page 5-7.

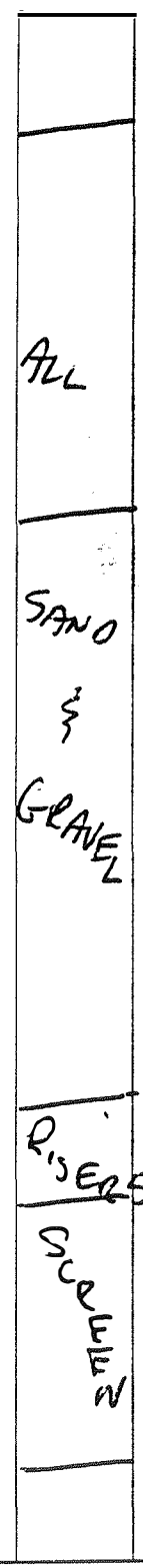
*LOG

Ground Surface

EL. _____ ft. above sea

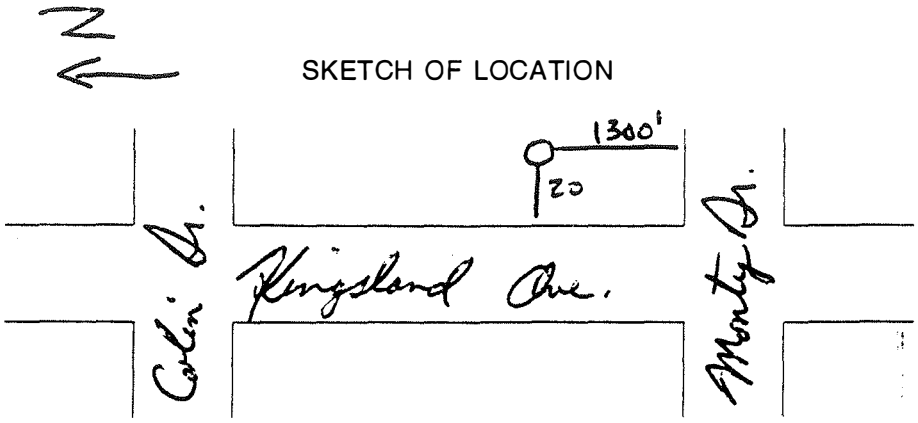
^ / v _____ ft.

TOP OF WELL



ORIGINAL—Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

CHECK THE TOWN IN WHICH THE PROJECT IS LOCATED:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☑ Brookhaven
- ☐ East Hampton
- ☐ Huntington
- ☐ Islip
- ☐ Riverhead
- ☐ Shelter Island
- ☐ Smithtown
- ☐ Southampton
- ☐ Southold

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

County Suffolk

Well Number S-94785

COMPLETION REPORT—LONG ISLAND WELL

OWNER Terry Burke

ADDRESS 25 Surrey Dr Center Moriches NY 11934

LOCATION OF WELL N/S Kingsland Ave, Shirley NY

DEPTH OF WELL BELOW SURFACE 63'

DEPTH TO GROUNDWATER FROM SURFACE 15'

*LOG

Ground Surface

EL. _____ ft. above sea

^ _____ ft.
v

TOP OF WELL

CASINGS

DIAMETER	4" in.	in.	in.	in.
LENGTH	59 ft.	ft.	ft.	ft.

SEALING: Well Cap

CASINGS REMOVED: 4'

SCREENS

MAKE	Johnson S/S	OPENINGS	10 Slot
DIAMETER	3 3/4 in.	in.	in.	in.
LENGTH	5 ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING: 58

RECEIVED SEP 5 1989 NYSDEC

PUMPING TEST

DATE: 8/23/89

TEST OR ~~PERMANENT PUMP~~?

DURATION OF TEST: days | hours

MAXIMUM DISCHARGE: 30 gallons per min.

STATIC LEVEL PRIOR TO TEST: ft. | in. below top of casing

LEVEL DURING MAXIMUM PUMPING: | in. below top of casing

MAXIMUM DRAWDOWN: ft.

Approximate time of return to normal level after cessation of pumping: hours | min.

PUMP INSTALLED

TYPE: Sub	MAKE: Goulds	MODEL NUMBER: 18 E
MOTIVE POWER: Electric	MAKE: Franklin	H.P.: 3/4

CAPACITY: 30 g.p.m. against 50 ft. of discharge head

NUMBER OF BOWLS OR STAGES: ft. of total head

DROP ~~LINE~~ pipe	SUCTION LINE
DIAMETER: 1 in.	DIAMETER: in.
LENGTH: 40 ft.	LENGTH: ft.

METHOD OF DRILLING: ☐ rotary ☑ cable tool ☐ other _____

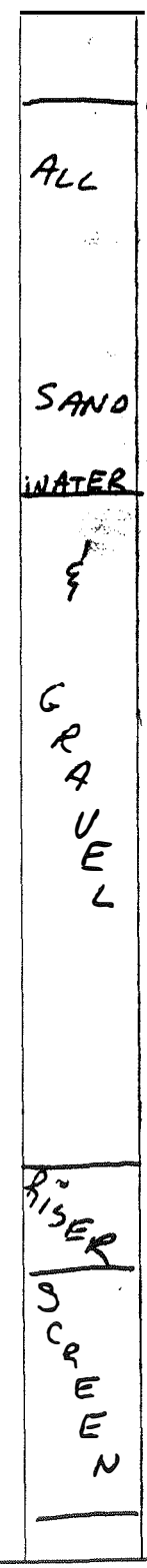
USE OF WATER: Domestic

WORK STARTED: 6/30/89

COMPLETED: 6/31/89

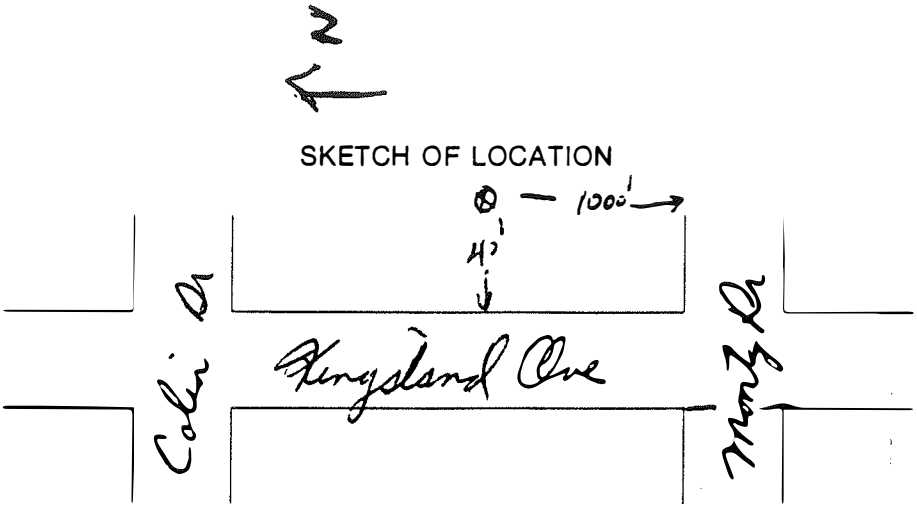
DATE: 8/30/89 DRILLER: Scott Moravik LICENSE NUMBER: 1674

* **NOTE:** Show log of well materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See Instructions as to Well Driller's License and Reports. Page 5-7.



ORIGINAL—Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

CHECK THE TOWN IN WHICH THE PROJECT IS LOCATED:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☑ Brookhaven
- ☐ East Hampton
- ☐ Huntington
- ☐ Islip
- ☐ Riverhead
- ☐ Shelter Island
- ☐ Smithtown
- ☐ Southampton
- ☐ Southold

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

County Suffolk

Well Number S-85259

COMPLETION REPORT—LONG ISLAND WELL

OWNER: Sayville Constr 58183	*LOG Ground Surface EL. _____ ft. above sea
ADDRESS: 103 Buckwell Rd W Sayville	
LOCATION OF WELL: Belmont Dr Mastic	^ v _____ ft.
DEPTH OF WELL BELOW SURFACE: 110	DEPTH TO GROUNDWATER FROM SURFACE: 70

CASINGS

DIAMETER	4 in.	in.	in.	in.
LENGTH	105 ft.	ft.	ft.	ft.

SEALING: pitless

CASINGS REMOVED:

SCREENS

MAKE	Mustang SS	OPENINGS	10 slot
DIAMETER	4 in.	in.	in.	in.
LENGTH	5 ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING: 103

PUMPING TEST

DATE:

TEST OR PERMANENT PUMP?:

DURATION OF TEST: days | hours

MAXIMUM DISCHARGE: gallons per min.

STATIC LEVEL PRIOR TO TEST: ft. | in. below top of casing

LEVEL DURING MAXIMUM PUMPING: in. below top of casing

MAXIMUM DRAWDOWN: ft.

Approximate time of return to normal level after cessation of pumping: hours | min.

PUMP INSTALLED

TYPE: sub	MAKE: Redjacket	MODEL NUMBER:
MOTIVE POWER: elec	MAKE: Redjacket	H.P.: 1

CAPACITY: 10 g.p.m. against | ft. of discharge head

NUMBER OF BOWLS OR STAGES: | ft. of total head

DROP LINE	SUCTION LINE
DIAMETER: 1 in.	DIAMETER: in.
LENGTH: 90 ft.	LENGTH: ft.

METHOD OF DRILLING: ☐ rotary ☐ cable tool ☐ other _____

USE OF WATER: dom

WORK STARTED: 2/24/87

COMPLETED: 2/24/87

DATE: 3/18/87 | DRILLER: M Casale | LICENSE NUMBER: 241

TOP OF WELL

0

70 — sand + gravel — water

103 — top of screen

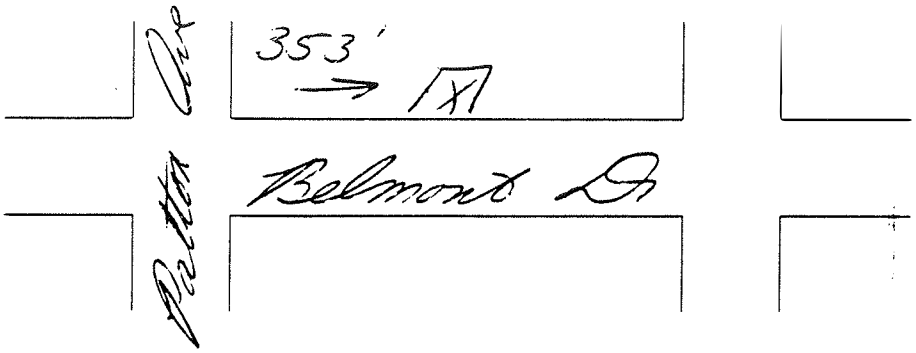
110

* **NOTE:** Show log of well materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See instructions as to Well Driller's License and Reports. Page 5-7.

WATER UNIT DEC REGION 1

ORIGINAL—Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

CHECK THE TOWN IN WHICH THE PROJECT IS LOCATED:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☒ Brookhaven
- ☐ East Hampton
- ☐ Huntington
- ☐ Islip
- ☐ Riverhead
- ☐ Shelter Island
- ☐ Smithtown
- ☐ Southampton
- ☐ Southold

STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

COMPLETION REPORT – LONG ISLAND WELL

5-76962
Well No.

OWNER: Donald R. DeNoto
ADDRESS: 50 Crestwood Drive Shirley, NY
LOCATION OF WELL: 50 Crestwood Drive - approx. 100' off Brile Ave

DEPTH OF WELL BELOW SURFACE: 100 ft.
DEPTH TO GROUND WATER FROM SURFACE: 62 ft.

CASINGS

DIAMETER	4 in.	in.	in.	in.
LENGTH	94 ft.	ft.	ft.	ft.

SEALING:
CASINGS REMOVED:

SCREENS

MAKE: Johnson
OPENINGS: .012

DIAMETER	3 1/2 in.	in.	in.	in.
LENGTH	6 ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING:

PUMPING TEST

DATE:
TEST OR PERMANENT PUMP: Permanent
DURATION OF TEST: days hours
MAXIMUM DISCHARGE: gallons per min.
STATIC LEVEL PRIOR TO TEST: ft. in. below top of casing
LEVEL DURING MAXIMUM PUMPING: ft. in. below top of casing
MAXIMUM DRAWDOWN: ft.
Approximate time of return to normal level after cessation of pumping: hrs. min.

PUMP INSTALLED

TYPE: Submersible
MAKE: Goulds
MODEL NO.: 10ET07412
MOTIVE POWER: Electric
MAKE:
H.P.: 3/4
CAPACITY: 10 g.p.m. against ft. of discharge head
NUMBER BOWLS OR STAGES: ft. of total head

DROP LINE

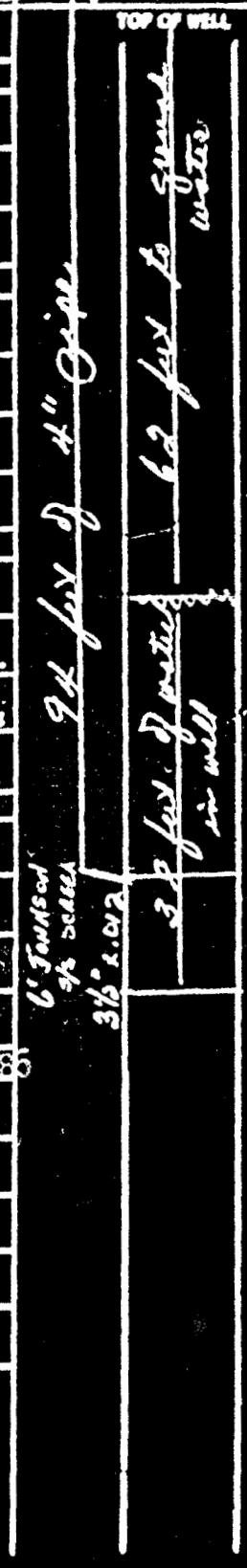
DIAMETER: 1 in.
LENGTH: 80 ft.

SUCTION LINE

DIAMETER: in.
LENGTH: ft.

METHOD OF DRILLING: ☐ rotary ☒ cable tool ☐ other
USE OF WATER: Domestic & Sanitary
WORK STARTED: 6/14/84
COMPLETED: 6/15/84
DATE: 6-7-85
DRILLER: Zeller Brothers
LICENSE NO.: 9

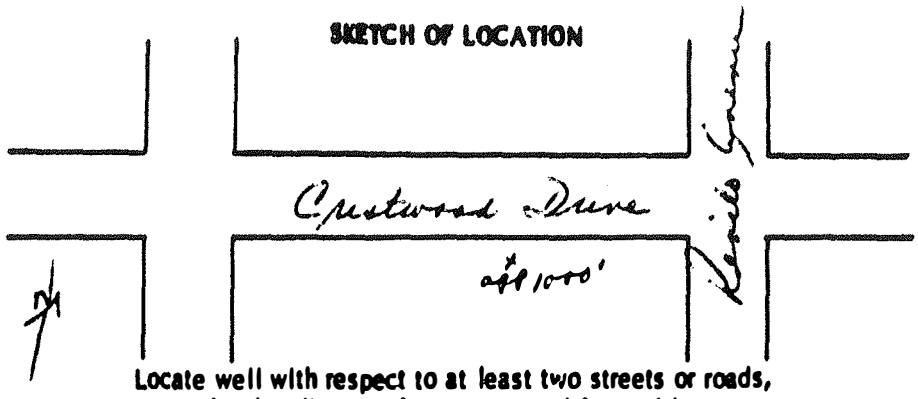
*LOG
Ground Surface
El. ft. above sea
ft.



*NOTE: Show log of well - materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See instructions as to Well Drillers' Licenses and Reports. Pages 5 - 7.

ORIGINAL – Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.
Show North Point

Check the Town in which the project is located:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☒ Brookhaven
- ☐ East Hampton
- ☐ Huntington
- ☐ Islip
- ☐ Riverhead
- ☐ Shelter Island
- ☐ Smithtown
- ☐ Southampton
- ☐ Southold

Suffolk County

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

S-77006 Well No.

COMPLETION REPORT – LONG ISLAND WELL

OWNER: Martin Pastore	
ADDRESS: 432 Helene Avenue N. Babylon N.Y.	
LOCATION OF WELL: E/S Helene Ave. bet Colin Dr. & Crestwood Dr.	
DEPTH OF WELL BELOW SURFACE: 96 ft.	DEPTH TO GROUND WATER FROM SURFACE: 63 ft.

CASINGS

DIAMETER	4 in.	in.	in.	in.
LENGTH	90 ft.	ft.	ft.	ft.

SEALING: | CASINGS REMOVED:

SCREENS

MAKE	Johnson	OPENINGS	.012
DIAMETER	3½ in.	in.	in.	in.
LENGTH	6 ft.	ft.	ft.	ft.

DEPTH TO TOP FROM TOP OF CASING:

PUMPING TEST

DATE:	TEST OR PERMANENT PUMP? Permanent
DURATION OF TEST: days / hours	MAXIMUM DISCHARGE: gallons per min.
STATIC LEVEL PRIOR TO TEST: ft. / in. below top of casing	LEVEL DURING MAXIMUM PUMPING: ft. / in. below top of casing
MAXIMUM DRAWDOWN: ft.	Approximate time of return to normal level after cessation of pumping: hrs. / min.

PUMP INSTALLED

TYPE: Submersible	MAKE: Goulds	MODEL NO.: 13EM1041.2
MOTIVE POWER: Electric	MAKE:	H.P.: 1
CAPACITY: 10 g.p.m. against		ft. of discharge head
NUMBER BOWLS OR STAGES:		ft. of total head

DROP LINE	SUCTION LINE
DIAMETER: 1 in.	DIAMETER: in.
LENGTH: 77 ft.	LENGTH: ft.

METHOD OF DRILLING: ☐ rotary ☒ cable tool ☐ other _____

USE OF WATER: Domestic & Sanitary

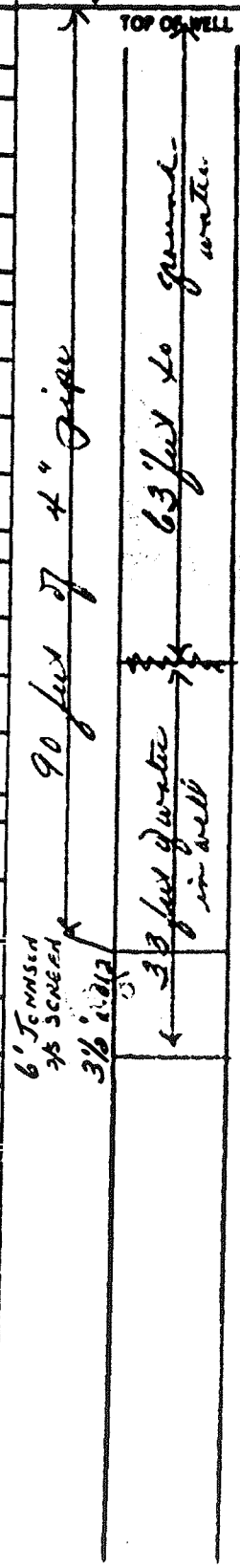
WORK STARTED: 7-9-84 | COMPLETED: 7-10-84

DATE	DRILLER	LICENSE NO.
6-1-85	Justin Brown	9

*LOG

Ground Surface El. _____ ft. above sea

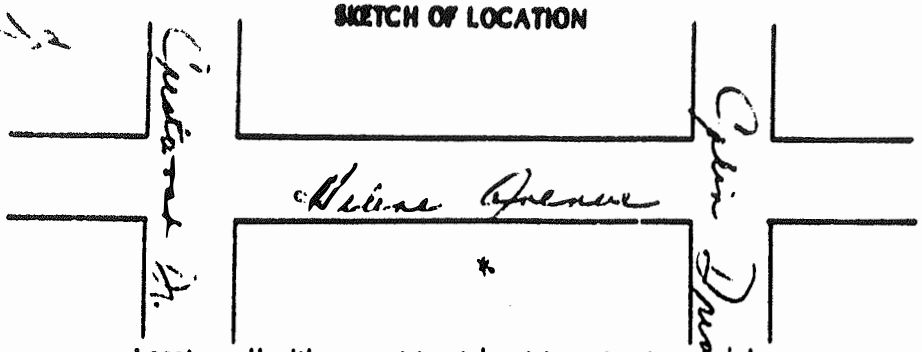
A _____ ft.



*NOTE: Show log of well - materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job. See Instructions as to Well Drillers' Licenses and Reports. Pages 5 - 7.

ORIGINAL – Environmental Conservation Copy

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.
Show North Point

Check the Town in which the project is located:

Nassau County:

- ☐ Hempstead
- ☐ North Hempstead
- ☐ Oyster Bay

Suffolk County:

- ☐ Babylon
- ☐ Huntington
- ☐ Shelter Island
- ☐ Southold
- ☒ Brookhaven
- ☐ Islip
- ☐ Smithtown
- ☐ East Hampton
- ☐ Riverhead
- ☐ Southampton

County SUFFOLK

w. 1552

ORIGINAL—TO COMMISSION

State of New York
Department of Conservation
Division of Water Power and Control
COMPLETION REPORT—LONG ISLAND WELL

Well No. S-14934
(on preliminary report)

LOG

Ground Surf., ...ft. above sea

....ft.

Top of Well

0-20-FLL
20-97-ALL
SAND + GRAVEL

J	
W	
S	✓
O R	✓
F	

Owner SUFFOLK SAND & STONE CO.

Address PORT JEFFERSON, L.I.

Location of well Mi. EAST OF YAPHANK STA.

Depth of well below surface 97 feet

Depth to ground water from surface 38 feet

CASINGS:

Diameter 8 in. ....in. ....in. ....in.
Length 87 ft. ....ft. ....ft. ....ft.
Sealing ....
Casings removed ....

SCREENS: Make Johnson Openings 40

Diameter 8 in. ....in. ....in. ....in.
Length 10 ft. ....ft. ....ft. ....ft.
Depth to top from top of casing ....ft.

PUMPING TEST: Date .... Test or permanent pump? ✓

Duration of Test ....days ....hours
Maximum Discharge 200 gallons per minute
Static level prior to test ....ft. ....in. below top of casing
Level during Max. Pumping ....ft. ....in. below top of casing
Maximum Drawdown ....ft.
Approx. time of return to normal level after cessation of pumping ....hours ....minutes

PUMP INSTALLED:

Type Turbine Make Deming Model No. ....
Motive power Elect Make .... H.P. 15
Capacity 200 g.p.m. against } ....ft. of discharge head
No. bowls or stages 18 } ....ft. of total head

DROP LINE: SUCTION LINE:

Diameter ....in. ....in.
Length ....ft. ....ft.

Use of water Wash S. + G. + Soil Trucks

Work started June 14-1956 Completed Aug. 7-1956

Date Jan. 31-1957 Driller Duffield Const. Co.

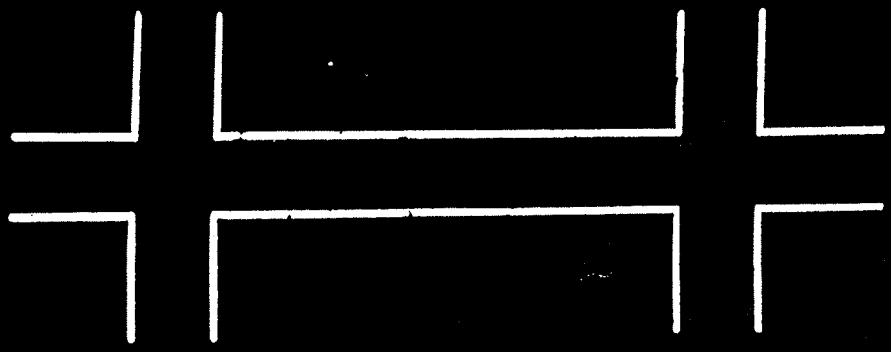
License No. 14

STATE OF NEW YORK
WATER POWER AND
FEB 4 - 1957 ✓
CONTROL COMMISSION
RECEIVED

NOTE: Show log of well—materials encountered, with depth below ground surface, water bearing beds and water levels in each, casings, screens, pump, additional pumping tests and other matters of interest. Describe repair job.

See Instructions as to Well Drillers' Licenses and Reports—pp. 5-7.

SKETCH OF LOCATION



Locate well with respect to at least two streets or roads, showing distance from corner and front of lot.

Show North Point

APPENDIX G

DATA VALIDATION FORMS

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

I. Data Deliverable Requirements

A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: Reports 60830A & 60830B

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

I. Holding times

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
SS45	5/18/99		6/99	NO
SS51				
SS46				
SS7				
SS8				
SS9				
SS12				
SS14				
SS15				
SS37				
SS39				
SS30				
SS20				
SS21				
SS31				
SS40				
SS41				
SS32				
SS22				
SS33				

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

I. Holding times (cont)

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
SS38	5/18/99		6/99	NO
SS23				
SS42				
SS34				
SS24				
SS43				
SS44				
SS35				
SS25				
SS36				
SS26				
SS11				
SS10				
SS13				
SS47				
SS50				
SS49				
SS48				

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

Associated Samples: _____

II. Initial Calibration

1. Were all initial instrument calibrations performed?

   Yes

   Comments:

2. Were the initial calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

3. Were the initial calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

Associated Samples: _____

III. Continuing Calibration

1. Were the continuing calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the continuing calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

IV. Blank Summary

A. Method Blanks

1. Was a method blank prepared and analyzed at the contract specified frequency?

   Yes

2. Were all the analytes below the CRDL in the method blank?

   Yes

Comments:

B. Calibration Blanks

1. Were all initial and continuing calibration blanks analyzed at the contract specified frequency/

   Yes

2. Were all the analytes below the CRDL in all the calibration blanks?

   Yes

Comments:

~~Selenium found in 1 of the calibration blanks~~ RP

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

V. Duplicate Analysis

1. Was a duplicate prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were control limits for the relative percent differences (RPD) met for each analyte?

   No

   Comments:

RP ~~Antimony 23.8%, copper 93.8%, iron 29.2%,mercury 70.7%.~~

For sample values >5 times the CRDL, the RPD control limit is ±20%.

For sample values >5 times the CRDL, the RPD control limit is ±CRDL.

If sample results were outside of the control limits, all data associated with that duplicate sample should have been flagged with a "*".

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

VI. Matrix Spike Analysis

1. Was a matrix spike prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the matrix spike recoveries within the contract specified control limits (75-125%)?

   Yes

   If "No", note analytes _____

   Data should have been flagged with "N" for analytes out of control limits. If the sample concentration exceeds the spike concentration by a factor of four or more, no flag is required.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

VII. ICP Interference Check Sample Summary

1. Was the ICP serial dilution analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the serial dilution differences within the contract specified limits of ±w 10%?

   Yes

   Comments:

3. Was the ICP CRDL check standard analyzed at the contract specified frequency for the analytes required?

   Yes

   Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

VII. ICP Interference Check Sample Summary (continued):

4. Was the ICP interference check sample analyzed at the contract specified frequency:

   Yes

Comments:

5. Were the ICP interference check sample results within the control limit of ±w-20% of the mean value?

   Yes

If "No", not analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

VIII. Laboratory Control Sample Analysis

1. Was a laboratory control sample analyzed at the contract required frequency?

   Yes

   Comments:

2. Were the percent recoveries within the control limits of 80-120% (except for Ag and Sb) for each analyte?

   No

   Comments:

RP

~~Sodium had a % recovery of 49.8% and 39.1%~~ Result was within ~~limits of 100-700 but not within specified recovery requirements~~

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

I. Data Deliverable Requirements

A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: Report 60851 & 61027

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

I. Holding times

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
SS-16	5/20/99			NO
SB10 (8-10)	6/9/99			NO
SB11 (6-8)	6/9/99			NO
SB12 (2-4)	6/9/99			
SB15 (8-10)	6/9/99			

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

Associated Samples: _____

II. Initial Calibration

1. Were all initial instrument calibrations performed?

   Yes

   Comments:

2. Were the initial calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

3. Were the initial calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

Associated Samples: _____

III. Continuing Calibration

1. Were the continuing calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

_____

_____

_____

2. Were the continuing calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

IV. Blank Summary

A. Method Blanks

1. Was a method blank prepared and analyzed at the contract specified frequency?

   Yes

2. Were all the analytes below the CRDL in the method blank?

   Yes

Comments:

B. Calibration Blanks

1. Were all initial and continuing calibration blanks analyzed at the contract specified frequency/

   Yes

2. Were all the analytes below the CRDL in all the calibration blanks?

   Yes

Comments:
Selenium found in 1 of the calibration blanks

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

V. Duplicate Analysis

1. Was a duplicate prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were control limits for the relative percent differences (RPD) met for each analyte?

   No

   Comments:
   Antimony 23.8%, copper 93.8%, iron 29.2%,mercury 70.7%.

   For sample values >5 times the CRDL, the RPD control limit is ±20%.

   For sample values >5 times the CRDL, the RPD control limit is ±CRDL.

   If sample results were outside of the control limits, all data associated with that duplicate sample should have been flagged with a "*".

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

VI. Matrix Spike Analysis

1. Was a matrix spike prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the matrix spike recoveries within the contract specified control limits (75-125%)?

   Yes

   If "No", note analytes _____

   Data should have been flagged with "N" for analytes out of control limits. If the sample concentration exceeds the spike concentration by a factor of four or more, no flag is required.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

VII. ICP Interference Check Sample Summary

1. Was the ICP serial dilution analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the serial dilution differences within the contract specified limits of ±w 10%?

   Yes

   Comments:

3. Was the ICP CRDL check standard analyzed at the contract specified frequency for the analytes required?

   Yes

   Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

VII. ICP Interference Check Sample Summary (continued):

4. Was the ICP interference check sample analyzed at the contract specified frequency:

   Yes

Comments:

5. Were the ICP interference check sample results within the control limit of ±w-20% of the mean value?

   Yes

If "No", not analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/29/99

VIII. Laboratory Control Sample Analysis

1. Was a laboratory control sample analyzed at the contract required frequency?

   Yes

   Comments:

2. Were the percent recoveries within the control limits of 80-120% (except for Ag and Sb) for each analyte?

   No

   Comments:

Sodium had a % recovery of 49.8% and 39.1% Result was within limits 0f 100-700 but not within specified recovery requirements

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

I. Data Deliverable Requirements

A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: Report 61045 & 61066

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

I. Holding times

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
SB-13 (4-6)	6/10/99			NO
SB-14 (6-8)	6/10/99			NO
SB-16 (12-14)	6/12/99	6/14/99 –6/18/99	6/18-6/24	NO

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

Associated Samples: _____

II. Initial Calibration

1. Were all initial instrument calibrations performed?

   Yes

   Comments:

2. Were the initial calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

3. Were the initial calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yaphank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

Associated Samples: _____

III. Continuing Calibration

1. Were the continuing calibration verification standards analyzed at the contract specified frequency?

   Yes

Comments:

_____

_____

_____

2. Were the continuing calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

IV. Blank Summary

A. Method Blanks

1. Was a method blank prepared and analyzed at the contract specified frequency?

   Yes

2. Were all the analytes below the CRDL in the method blank?

   Yes

Comments:

B. Calibration Blanks

1. Were all initial and continuing calibration blanks analyzed at the contract specified frequency/

   Yes

2. Were all the analytes below the CRDL in all the calibration blanks?

   Yes

Comments:
Mercury found in calibration blank at .4 ug/l and prep blank at .12 ug/l

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

Site specific qc not included in this SDG

V. Duplicate Analysis

1. Was a duplicate prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were control limits for the relative percent differences (RPD) met for each analyte?

   Yes

   Comments:

For sample values >5 times the CRDL, the RPD control limit is ±20%.

For sample values >5 times the CRDL, the RPD control limit is ±CRDL.

If sample results were outside of the control limits, all data associated with that duplicate sample should have been flagged with a "*".

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

Sit specific qc not included in this SDG

VI. Matrix Spike Analysis

1. Was a matrix spike prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the matrix spike recoveries within the contract specified control limits (75-125%)?

   Yes

   If "No", note analytes _____

   Data should have been flagged with "N" for analytes out of control limits. If the sample concentration exceeds the spike concentration by a factor of four or more, no flag is required.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

VII. ICP Interference Check Sample Summary

1. Was the ICP serial dilution analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the serial dilution differences within the contract specified limits of ±w 10%?

   Yes

   Comments:

3. Was the ICP CRDL check standard analyzed at the contract specified frequency for the analytes required?

   Yes

   Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

VII. ICP Interference Check Sample Summary (continued):

4. Was the ICP interference check sample analyzed at the contract specified frequency:

   Yes

Comments:

5. Were the ICP interference check sample results within the control limit of ±w-20% of the mean value?

   Yes

If "No", not analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 7/28/99

VIII. Laboratory Control Sample Analysis

1. Was a laboratory control sample analyzed at the contract required frequency?

   Yes

   Comments:

2. Were the percent recoveries within the control limits of 80-120% (except for Ag and Sb) for each analyte?

   No

   Comments:

Sodium had a % recovery of 39.1 % result was within limits 0f 100-700 but not recovery Requirements.

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

I. Data Deliverable Requirements

A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: Report 61083

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

I. Holding times

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
SB-07(0-2)	6/15/99		6/99	NO
SB-07(5-7)				
SB-07(10-12)				
SB-06(0-2)				
SB-06(5-7)				
SB-06(8.5-10.5)				
SB-08(0-2)				
SB-08(5-7)				
SB-08(8-9)				
SB-09(0-2)				
SB-09(5-7)				
SB-09(10-12)				
SB-09(15-17)				
SS-52				

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

Associated Samples: _____

II. Initial Calibration

1. Were all initial instrument calibrations performed?

   Yes

   Comments:

2. Were the initial calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

3. Were the initial calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

Associated Samples: _____

III. Continuing Calibration

1. Were the continuing calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the continuing calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

IV. Blank Summary

A. Method Blanks

1. Was a method blank prepared and analyzed at the contract specified frequency?

   Yes

2. Were all the analytes below the CRDL in the method blank?

   Yes

Comments:

B. Calibration Blanks

1. Were all initial and continuing calibration blanks analyzed at the contract specified frequency/

   Yes

2. Were all the analytes below the CRDL in all the calibration blanks?

   Yes

Comments:
Selenium found in 1 of the calibration blanks

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

V. Duplicate Analysis

1. Was a duplicate prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were control limits for the relative percent differences (RPD) met for each analyte?

   No

   Comments:

   ~~Antimony 23.8%, copper 93.8%, iron 29.2%,mercury 70.7%~~. RP 8/13

   For sample values >5 times the CRDL, the RPD control limit is ±20%.

   For sample values >5 times the CRDL, the RPD control limit is ±CRDL.

   If sample results were outside of the control limits, all data associated with that duplicate sample should have been flagged with a "*".

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

VI. Matrix Spike Analysis

1. Was a matrix spike prepared and analyzed at the contract specified frequency?

   Yes

Comments:

2. Were the matrix spike recoveries within the contract specified control limits (75-125%)?

   Yes

If "No", note analytes _____

Data should have been flagged with "N" for analytes out of control limits. If the sample concentration exceeds the spike concentration by a factor of four or more, no flag is required.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

VII. ICP Interference Check Sample Summary

1. Was the ICP serial dilution analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the serial dilution differences within the contract specified limits of ±w 10%?

   Yes

   Comments:

3. Was the ICP CRDL check standard analyzed at the contract specified frequency for the analytes required?

   Yes

   Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/13/99

VII. ICP Interference Check Sample Summary (continued):

4. Was the ICP interference check sample analyzed at the contract specified frequency:

   Yes

Comments:

5. Were the ICP interference check sample results within the control limit of ±w-20% of the mean value?

   Yes

If "No", not analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/13/99

VIII. Laboratory Control Sample Analysis

1. Was a laboratory control sample analyzed at the contract required frequency?

   Yes

   Comments:

2. Were the percent recoveries within the control limits of 80-120% (except for Ag and Sb) for each analyte?

   No

   Comments:

RP 8/13 ~~Sodium had a % recovery of 49.8%~~ and 39.1% Result was ~~within limits Of 100-700~~ but ~~not within specified recovery requirements~~

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank RP

Laboratory Name: Mitkem

Reviewer: R. Petrella

Date of Review: 8/12/99

I. Data Deliverable Requirements

A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: SDG 61276

Samples were analyzed for TCL, TAL, CN and dissolved metals

Methylene chloride and acetone found as blank contaminants.

Pesticide/ PCB analysis - no compounds found

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

II. Holding Times

Sample I.D.	Date Received	Date Extracted	Date Analyzed	Holding Time Exceeded?
MW-8	7/9/99	7/12,13	VOA 7/15,7/27, BNA P\P 7/20	NO
MW-9	7/9/99			
TB	7/9/99			
MW-10	7/9/99			
MW-13	7/9/99			
MW-14	7/9/99		VOA 7/17	
MW-12	7/9/99			
MW-11	7/9/99			
MW-6	7/9/99			
MW-5	7/9/99			

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank

Laboratory Name: Mitkem

Reviewer: R. Petrella RP

Date of Review: 8/12/99

Fraction: VOA, BNA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V1C2490	YES	INITIAL
2. V1C4130	YES	SAMPLES
3. V5B2460B	YES	INITIAL
4. V5B3280	YES	SAMPLES
5. V5B3330A	YES	BLANKS
6.		
7. S1A9464	YES	INITIAL
8. S1B0137	YES	SAMPLES
9.		
10.		

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA, BNA

IV. Initial Calibration Summary (GC/MS)
Bold pertains to semivolatile

Date of Calibration: 5/13/99, 6/29/99 - BNA

A. Standard Data Files **V** **B**

			V	**B**
Standard 1 ID:	V1C2495, S1A9467	Conc:	10,	20
Standard 2 ID:	V1C2494, S1A9465	Conc:	20,	50
Standard 3 ID:	V1C2491, S1A9469	Conc:	50,	80
Standard 4 ID:	V1C2493, S1A9468	Conc:	100,	120
Standard 5 ID:	V1C2492, S1A9466	Conc:	200,	160

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank

Laboratory Name: Mitkem

Reviewer: R. Petrella

Date of Review: 8/12/99

Fraction: VOA, BNA

Date of Calibration: 5/13/99 , 6/29/99-BNA

IV. Initial Calibration Summary (continued)

2. All CCC met Criteria ?

Yes

Comments:

Calculate a CCC % RSD

C. 1. Was the tune for the initial calibration acceptable ?

Yes

2. Was the calibration conducted within 12 hours of the tune

Yes

Comments:

D. Overall assessment of the initial calibration:
(list the associated samples)

All initial calibrations met contract requirements

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

Fraction: VOA **BNA – 6/29/99**

Bold pertains to BNA

VI. Continuing Calibration Summary (GC/MS)

Date of Initial Calibration: 5/13/99,6/19/99

Date of Continuing Calibration: 7/15/99,7/17/99,7/20/99,**7/27/99** File ID: V1C4131,V5B3281,V5B3331A,**S1B0138**

A. 1. All SPCC met criteria ?

Yes No

Calculate a SPCC RRF

Comments:

2. All CCC met criteria ?

Yes No

Calculate a CCC % D

Comments:

B. Overall assessment of Continuing Calibration
(list associated samples)

DATA VALIDATION – ORGANICS

Site Name: LIRR – Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA,BNA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes – VOA, BNA

If No, please note below

Sample	Internal Standard Outside Limits	Amount Above Contract Requirement	Comments

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

Fraction: VOA

IX. Blank Summary

Date/Time of Analysis: _____ File ID: _____

Compound	Concentration	≤ CROL	Comments
VBLK1Q 7/15	MECL2 2ug/l		if detected compounds flagged B on data sheets - considered non-detect due to laboratory contamination.
VBLK5H 7/17	MeCl2 8 ug/l		
	Acetone 5 ug/l		
	2-hexanone 1 ug/l		
VBLK5J	Acetone 2 ug/l		
	2-hexanone 1 ug/l		
SBLK1A	No compounds found		

List the samples associated with this method blank.

_____

_____

_____

_____

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA, BNA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

Yes

If No, please note below.

Sample	Surrogate Compound Outside Recovery Limits	Amount Above Contract Requirement	Comments

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA, BNA

XI. Matrix Spike/Matrix Spike Duplication Summary

Sample ID: MW-10 Matrix: WATER

Did the MS/MSD recovery data meet the contract recommended requirements ?

Yes – VOA, BNA

If No, please note below.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

I. Holding times

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
MW-8	7/9/99		8/2/99	NO
MW-9	7/9/99			
TB	7/9/99			
MW-10	7/9/99			
MW-13	7/9/99			
MW-14	7/9/99			
MW-12	7/9/99			
MW-11	7/9/99			
MW-6	7/9/99			
MW-5	7/9/99			

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

Associated Samples: _____

II. Initial Calibration

1. Were all initial instrument calibrations performed?

   Yes

   Comments:

2. Were the initial calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

3. Were the initial calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Associated Samples: _____

III. Continuing Calibration

1. Were the continuing calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the continuing calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

IV. Blank Summary

A. Method Blanks

1. Was a method blank prepared and analyzed at the contract specified frequency?

   Yes

2. Were all the analytes below the CRDL in the method blank?

   Yes

Comments:

B. Calibration Blanks

1. Were all initial and continuing calibration blanks analyzed at the contract specified frequency/

   Yes

2. Were all the analytes below the CRDL in all the calibration blanks?

   Yes

Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

V. Duplicate Analysis

1. Was a duplicate prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were control limits for the relative percent differences (RPD) met for each analyte?

   Yes

   Comments:

For sample values >5 times the CRDL, the RPD control limit is ±20%.

For sample values >5 times the CRDL, the RPD control limit is ±CRDL.

If sample results were outside of the control limits, all data associated with that duplicate sample should have been flagged with a "*".

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

VI. Matrix Spike Analysis

1. Was a matrix spike prepared and analyzed at the contract specified frequency?

   Yes

Comments:

2. Were the matrix spike recoveries within the contract specified control limits (75-125%)?

   Yes

If "No", note analytes 2 elements Hg and CN at 72% no qualifications required

Data should have been flagged with "N" for analytes out of control limits. If the sample concentration exceeds the spike concentration by a factor of four or more, no flag is required.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

VII. ICP Interference Check Sample Summary

1. Was the ICP serial dilution analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the serial dilution differences within the contract specified limits of ±w 10%?

   Yes

   Comments:

3. Was the ICP CRDL check standard analyzed at the contract specified frequency for the analytes required?

   Yes

   Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

VII. ICP Interference Check Sample Summary (continued):

4. Was the ICP interference check sample analyzed at the contract specified frequency:

   Yes

Comments:

5. Were the ICP interference check sample results within the control limit of ±w-20% of the mean value?

   Yes

If "No", not analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

VIII. Laboratory Control Sample Analysis

1. Was a laboratory control sample analyzed at the contract required frequency?

   Yes

   Comments:

2. Were the percent recoveries within the control limits of 80-120% (except for Ag and Sb) for each analyte?

   Yes

   Comments:

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

I. Data Deliverable Requirements

A. Legible	Yes
B. Paginated	Yes
C. Arranged in order	Yes
D. Consistent dates	Yes
E. Case Narrative	Yes
F. Chain-of-Custody Record	Yes
G. Sample Data Complete	Yes
H. Standard Date Complete	Yes
I. Raw QC Data Complete	Yes

Comments: SDG 61286

Samples were analyzed for TCL, TAL, CN and dissolved metals

Methylene chloride and acetone found as blank contaminants.

Pesticide/ PCB analysis - no compounds found

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

II. Holding Times

Sample I.D.	Date Received	Date Extracted	Date Analyzed	Holding Time Exceeded?
MW-16	7/10/99	7/12/99	7/17,7/27, SVOC	NO
			AP 7/20	
MW-15	7/10/99			
FB	7/10/99			
MW-7	7/10/99			
TB	7/10/99			

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank

Laboratory Name: Mitkem

Reviewer: R. Petrella

Date of Review: 8/12/99

Fraction: VOA, BNA

III. Tune Summary

Tune File I.D. Number	Acceptable ?	Comments
1. V5B2460B	YES	INITIAL
2. V5B3280	YES	SAMPLES
3. V5B3330A	YES	BLANKS
4.		
5. S1A9464	YES	INITIAL
6. S1B0137	YES	SAMPLES
7. S1B0159	YES	SAMPLES
8.		
9.		
10.		

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA, BNA

IV. Initial Calibration Summary (GC/MS)

Date of Calibration: 6/19/99, 6/29/99 - BNA

A. Standard Data Files **V** **B**

			V	**B**
Standard 1 ID:	V5B2462, S1A9467	Conc:	10,	20
Standard 2 ID:	V5B2463, S1A9465	Conc:	20,	50
Standard 3 ID:	V5B2461, S1A9469	Conc:	50,	80
Standard 4 ID:	V5B2464, S1A9468	Conc:	100,	120
Standard 5 ID:	V5B2465, S1A9466	Conc:	200,	160

B. 1. All SPCC met Criteria ?

Yes

2. Calculate a SPCC average RRF

Comments:

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank

Laboratory Name: Mitkem

Reviewer: R. Petrella

Date of Review: 8/12/99

Fraction: VOA, BNA

Date of Calibration: 5/13/99 , 6/29/99-BNA

IV. Initial Calibration Summary (continued)

2. All CCC met Criteria ?

Yes

Comments: _____

Calculate a CCC % RSD

C. 1. Was the tune for the initial calibration acceptable ?

Yes

2. Was the calibration conducted within 12 hours of the tune

Yes

Comments: _____

D. Overall assessment of the initial calibration:
(list the associated samples)

All initial calibrations met contract requirements

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA **BNA – 6/29/99**

Bold pertains to BNA

VI. Continuing Calibration Summary (GC/MS)

Date of Initial Calibration: ,6/19/99

Date of Continuing Calibration: 7/17/99,7/20/99,**7/27/99,7/28/99** File ID: V5B3281,V5B3331A,**S1B0138,S1B0160**

A. 1. All SPCC met criteria ?

Yes No

Calculate a SPCC RRF

Comments:

2. All CCC met criteria ?

Yes No

Calculate a CCC % D

Comments:

B. Overall assessment of Continuing Calibration (list associated samples)

DATA VALIDATION – ORGANICS

Site Name: LIRR – Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA,BNA

VIII. Internal Standard Area Summary (GC/MS)

Were all internal standard peak areas within the contract limits ?

Yes – VOA, BNA

If No, please note below

Sample	Internal Standard Outside Limits	Amount Above Contract Requirement	Comments

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

Fraction: VOA

IX. Blank Summary

Date/Time of Analysis: _____ File ID: _____

Compound	Concentration	< CROL	Comments
VBLK1Q 7/15	MECL2 2ug/l		
VBLK5H 7/17	MeCl2 8 ug/l		
	Acetone 5 ug/l		
	2-hexanone 1 ug/l		
VBLK5J	Acetone 2 ug/l		
	2-hexanone 1 ug/l		
SBLK1A	No compounds found		

List the samples associated with this method blank.

_____

_____

_____

_____

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Fraction: VOA, BNA

X. Surrogate Recovery Summary

Were all surrogate recoveries within the contract limits ?

Yes

If No, please note below.

Sample	Surrogate Compound Outside Recovery Limits	Amount Above Contract Requirement	Comments

DATA VALIDATION – ORGANICS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

Fraction: VOA, BNA

XI. Matrix Spike/Matrix Spike Duplication Summary

Sample ID: MW-10 Matrix: WATER

Did the MS/MSD recovery data meet the contract recommended requirements ?

Yes – VOA, BNA

If No, please note below.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

I. Holding times

Sample	Date Received	Date Digested	Date Analyzed	Holding Time Exceeded?
MW-16	7/10/99		8/2/99	NO
MW-15	7/10/99		↓	↓
FB	7/10/99			
MW-7	7/10/99			

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

Associated Samples: _____

II. Initial Calibration

1. Were all initial instrument calibrations performed?

   Yes

   Comments:

_____

_____

_____

2. Were the initial calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

_____

_____

_____

3. Were the initial calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

Associated Samples: _____

III. Continuing Calibration

1. Were the continuing calibration verification standards analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the continuing calibration results within the control limits listed below?

   For tin and mercury: 80-120% of the true value
   For all other metals: 90-110% of the true value

   Yes

   If "No", note analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

IV. Blank Summary

A. Method Blanks

1. Was a method blank prepared and analyzed at the contract specified frequency?

   Yes

2. Were all the analytes below the CRDL in the method blank?

   Yes

Comments:

B. Calibration Blanks

1. Were all initial and continuing calibration blanks analyzed at the contract specified frequency/

   Yes

2. Were all the analytes below the CRDL in all the calibration blanks?

   Yes

Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

V. Duplicate Analysis

1. Was a duplicate prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were control limits for the relative percent differences (RPD) met for each analyte?

   Yes

   Comments:

For sample values >5 times the CRDL, the RPD control limit is ±20%.

For sample values >5 times the CRDL, the RPD control limit is ±CRDL.

If sample results were outside of the control limits, all data associated with that duplicate sample should have been flagged with a "*".

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

VI. Matrix Spike Analysis

1. Was a matrix spike prepared and analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the matrix spike recoveries within the contract specified control limits (75-125%)?

   Yes

   If "No", note analytes _____

   Data should have been flagged with "N" for analytes out of control limits. If the sample concentration exceeds the spike concentration by a factor of four or more, no flag is required.

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella RP Date of Review: 8/12/99

VII. ICP Interference Check Sample Summary

1. Was the ICP serial dilution analyzed at the contract specified frequency?

   Yes

   Comments:

2. Were the serial dilution differences within the contract specified limits of ±w 10%?

   Yes

   Comments:

3. Was the ICP CRDL check standard analyzed at the contract specified frequency for the analytes required?

   Yes

   Comments:

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

VII. ICP Interference Check Sample Summary (continued):

4. Was the ICP interference check sample analyzed at the contract specified frequency:

   Yes

Comments:

5. Were the ICP interference check sample results within the control limit of ±w-20% of the mean value?

   Yes

If "No", not analytes _____

DATA VALIDATION – METALS

Site Name: LIRR - Yapank Laboratory Name: Mitkem

Reviewer: R. Petrella Date of Review: 8/12/99

VIII. Laboratory Control Sample Analysis

1. Was a laboratory control sample analyzed at the contract required frequency?

   Yes

   Comments:

2. Were the percent recoveries within the control limits of 80-120% (except for Ag and Sb) for each analyte?

   Yes

   Comments:

APPENDIX H

LABORATORY DATA

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS7

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830004_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 92.9___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1430			P
7440-36-0	Antimony	30.9		N	P
7440-38-2	Arsenic	22.0			P
7440-39-3	Barium	5.8	B		P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.26	B		P
7440-70-2	Calcium	170	B		P
7440-47-3	Chromium	4.7			P
7440-48-4	Cobalt	0.85	B		P
7440-50-8	Copper	15.1			P
7439-89-6	Iron	3090			P
7439-92-1	Lead	338		E	P
7439-95-4	Magnesium	236	B		P
7439-96-5	Manganese	36.6			P
7439-97-6	Mercury	0.049	U		CV
7440-02-0	Nickel	2.7	B		P
7440-09-7	Potassium	41.3	U		P
7782-49-2	Selenium	1.4			P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	39.3	U		P
7440-28-0	Thallium	0.51	U		P
7440-62-2	Vanadium	4.5	B		P
7440-66-6	Zinc	19.6			P
	Cyanide	0.048	U		C

Color Before: BROWN_____ Clarity Before: __ Texture: MED___

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS8

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830005_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 98.9___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2290			P
7440-36-0	Antimony	132		N	P
7440-38-2	Arsenic	78.6			P
7440-39-3	Barium	34.6	B		P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.056	U		P
7440-70-2	Calcium	388	B		P
7440-47-3	Chromium	5.8			P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	88.9			P
7439-89-6	Iron	10100			P
7439-92-1	Lead	2130		E	P
7439-95-4	Magnesium	368	B		P
7439-96-5	Manganese	53.0			P
7439-97-6	Mercury	0.040	U		CV
7440-02-0	Nickel	8.1			P
7440-09-7	Potassium	45.3	U		P
7782-49-2	Selenium	1.2			P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	43.1	U		P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	8.1	B		P
7440-66-6	Zinc	57.7			P
	Cyanide	0.045	U		C

Color Before: BROWN_____ Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS9

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A

Matrix (soil/water): SOIL Lab Sample ID: 60830006

Level (low/med): MED Date Received: 05/18/99

% Solids: 98.8

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3880			P
7440-36-0	Antimony	13.0		N	P
7440-38-2	Arsenic	14.4			P
7440-39-3	Barium	15.4	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.050	U		P
7440-70-2	Calcium	444	B		P
7440-47-3	Chromium	5.5			P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	22.9			P
7439-89-6	Iron	5710			P
7439-92-1	Lead	414		E	P
7439-95-4	Magnesium	554	B		P
7439-96-5	Manganese	92.1			P
7439-97-6	Mercury	0.042	U		CV
7440-02-0	Nickel	4.8	B		P
7440-09-7	Potassium	50.3	B		P
7782-49-2	Selenium	0.94			P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	38.2	U		P
7440-28-0	Thallium	0.50	U		P
7440-62-2	Vanadium	10.0			P
7440-66-6	Zinc	29.0			P
	Cyanide	0.046	U		C

Color Before: WHITE\BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS10

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830033_____

Level (low/med): MED____ Date Received: 05/18/99
% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3290			P
7440-36-0	Antimony	93.2			P
7440-38-2	Arsenic	62.9		*N	P
7440-39-3	Barium	30.9	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.071	B		P
7440-70-2	Calcium	669	B		P
7440-47-3	Chromium	13.8			P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	75.9		*N	P
7439-89-6	Iron	10600		*	P
7439-92-1	Lead	1408		*	P
7439-95-4	Magnesium	557	B		P
7439-96-5	Manganese	68.9			P
7439-97-6	Mercury	0.053	B		CV
7440-02-0	Nickel	8.6			P
7440-09-7	Potassium	18.9	U		P
7782-49-2	Selenium	2.2			P
7440-22-4	Silver	0.094	U		P
7440-23-5	Sodium	36.0	U		P
7440-28-0	Thallium	0.47	U		P
7440-62-2	Vanadium	14.7			P
7440-66-6	Zinc	63.7			P
	Cyanide	0.049	U	N	C

Color Before: BROWN_____ Clarity Before: _____ Texture: MED___

Color After: LT._YELLOW Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS11

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830032_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 97.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3270			P
7440-36-0	Antimony	1690			P
7440-38-2	Arsenic	713		*N	P
7440-39-3	Barium	226			P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.055	U		P
7440-70-2	Calcium	859	B		P
7440-47-3	Chromium	21.0			P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	547		*N	P
7439-89-6	Iron	14400			P
7439-92-1	Lead	10800		*	P
7439-95-4	Magnesium	479	B		P
7439-96-5	Manganese	126			P
7439-97-6	Mercury	0.38		N	CV
7440-02-0	Nickel	38.8			P
7440-09-7	Potassium	119	B		P
7782-49-2	Selenium	15.8			P
7440-22-4	Silver	0.56	B		P
7440-23-5	Sodium	148	B		P
7440-28-0	Thallium	1.0	B		P
7440-62-2	Vanadium	27.6			P
7440-66-6	Zinc	905			P
	Cyanide	0.23	B	N	C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS12

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830007_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 95.1___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2000			P
7440-36-0	Antimony	4750		N	P
7440-38-2	Arsenic	1690			P
7440-39-3	Barium	397			P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.056	U		P
7440-70-2	Calcium	1510			P
7440-47-3	Chromium	28.7			P
7440-48-4	Cobalt	8.7	B		P
7440-50-8	Copper	1520			P
7439-89-6	Iron	135000			P
7439-92-1	Lead	55900		E	P
7439-95-4	Magnesium	350	B		P
7439-96-5	Manganese	214			P
7439-97-6	Mercury	0.49			CV
7440-02-0	Nickel	94.4			P
7440-09-7	Potassium	403	B		P
7782-49-2	Selenium	29.4			P
7440-22-4	Silver	1.4	B		P
7440-23-5	Sodium	1180			P
7440-28-0	Thallium	7.7			P
7440-62-2	Vanadium	32.9			P
7440-66-6	Zinc	71.7			P
	Cyanide	0.084	B		C

Color Before: BROWN_____ Clarity Before: __ Texture: MED___

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS13

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830034_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2890			P
7440-36-0	Antimony	26.2			P
7440-38-2	Arsenic	21.2		*N	P
7440-39-3	Barium	16.7	B		P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.094	B		P
7440-70-2	Calcium	634	B		P
7440-47-3	Chromium	6.7			P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	32.8		*N	P
7439-89-6	Iron	7350		*	P
7439-92-1	Lead	578		*	P
7439-95-4	Magnesium	515	B		P
7439-96-5	Manganese	106			P
7439-97-6	Mercury	0.055	B		CV
7440-02-0	Nickel	6.1	B		P
7440-09-7	Potassium	47.0	U		P
7782-49-2	Selenium	0.97	U		P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	44.7	U		P
7440-28-0	Thallium	0.58	U		P
7440-62-2	Vanadium	12.5			P
7440-66-6	Zinc	77.2			P
	Cyanide	0.048	U	N	C

Color Before: BROWN_____ Clarity Before: _____ Texture: MED___

Color After: LT._YELLOW Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60803A

Matrix (soil/water): SOIL Lab Sample ID: 60830008

Level (low/med): MED Date Received: 05/18/99

% Solids: 86.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1970			P
7440-36-0	Antimony	183		N	P
7440-38-2	Arsenic	104			P
7440-39-3	Barium	25.3	B		P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.066	U		P
7440-70-2	Calcium	238	B		P
7440-47-3	Chromium	5.5			P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	102			P
7439-89-6	Iron	11000			P
7439-92-1	Lead	2520		E	P
7439-95-4	Magnesium	296	B		P
7439-96-5	Manganese	50.1			P
7439-97-6	Mercury	0.045	U		NR
7440-02-0	Nickel	8.4	B		P
7440-09-7	Potassium	53.6	U		P
7782-49-2	Selenium	1.7			P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	50.9	U		P
7440-28-0	Thallium	0.66	U		P
7440-62-2	Vanadium	7.7	B		P
7440-66-6	Zinc	55.8			P
	Cyanide	0.048	U		C

Color Before: BROWN Clarity Before: Texture: COARSE

Color After: LT.YELLOW Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
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NYSDEC SAMPLE NO.

SS15

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830009_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2580			P
7440-36-0	Antimony	326		N	P
7440-38-2	Arsenic	146			P
7440-39-3	Barium	136			P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.051	U		P
7440-70-2	Calcium	449	B		P
7440-47-3	Chromium	10.0			P
7440-48-4	Cobalt	1.7	B		P
7440-50-8	Copper	146			P
7439-89-6	Iron	19600			P
7439-92-1	Lead	3850		E	P
7439-95-4	Magnesium	364	B		P
7439-96-5	Manganese	129			P
7439-97-6	Mercury	0.057	B		NR
7440-02-0	Nickel	11.1			P
7440-09-7	Potassium	41.5	U		P
7782-49-2	Selenium	2.8			P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	92.9	B		P
7440-28-0	Thallium	0.51	U		P
7440-62-2	Vanadium	12.8			P
7440-66-6	Zinc	120			P
	Cyanide	0.048	U		C

Color Before: BROWN_____ Clarity Before: __ Texture: FINE__

Color After: LT.YELLOW_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS16

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: 11522__ Case No.: _____ SAS No.: _____ SDG No.: 60851__

Matrix (soil/water): SOIL___ Lab Sample ID: 60851001_____

Level (low/med): LOW____ Date Received: 05/20/99_

% Solids: 95.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3600			P
7440-36-0	Antimony	1710			P
7440-38-2	Arsenic	668			P
7440-39-3	Barium	391			P
7440-41-7	Beryllium	0.17	B		P
7440-43-9	Cadmium	0.043	U		P
7440-70-2	Calcium	1870			P
7440-47-3	Chromium	19.5			P
7440-48-4	Cobalt	3.6	B	E	P
7440-50-8	Copper	516			P
7439-89-6	Iron	60700		E	P
7439-92-1	Lead	17900			P
7439-95-4	Magnesium	507	B		P
7439-96-5	Manganese	222			P
7439-97-6	Mercury	0.28	U		CV
7440-02-0	Nickel	35.0		E	P
7440-09-7	Potassium	287	B		NR
7782-49-2	Selenium	14.7			P
7440-22-4	Silver	0.42	B		P
7440-23-5	Sodium	812			P
7440-28-0	Thallium	2.0			P
7440-62-2	Vanadium	28.2		E	P
7440-66-6	Zinc	552			P
	Cyanide	0.041	U		C

Color Before: BROWN_____ Clarity Before: CLEAR__ Texture: _____

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS17

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 60818

Matrix (soil/water): SOIL Lab Sample ID: 60818001

Level (low/med): MED Date Received: 05/15/99

% Solids: 83.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3330		*	P
7440-36-0	Antimony	10500			P
7440-38-2	Arsenic	3000		*	P
7440-39-3	Barium	588		N	P
7440-41-7	Beryllium	0.19	B		P
7440-43-9	Cadmium	0.063	U	N	P
7440-70-2	Calcium	3360		*	P
7440-47-3	Chromium	50.7			P
7440-48-4	Cobalt	12.2			P
7440-50-8	Copper	1490			P
7439-89-6	Iron	217000			P
7439-92-1	Lead	71300			P
7439-95-4	Magnesium	661	B		P
7439-96-5	Manganese	403		*N	P
7439-97-6	Mercury	0.52		*	CV
7440-02-0	Nickel	138		N	P
7440-09-7	Potassium	598	B		P
7782-49-2	Selenium	48.4		*	P
7440-22-4	Silver	1.7	B		P
7440-23-5	Sodium	1810			P
7440-28-0	Thallium	7.5			P
7440-62-2	Vanadium	62.7			P
7440-66-6	Zinc	700		*	P
	Cyanide	0.057	U		C

Color Before: BROWN Clarity Before: _____ Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS18

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 60818__

Matrix (soil/water): SOIL___ Lab Sample ID: 60818003_____

Level (low/med): MED____ Date Received: 05/15/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1760		*	P
7440-36-0	Antimony	2600			P
7440-38-2	Arsenic	1030		*	P
7440-39-3	Barium	371		N	P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.052	U	N	P
7440-70-2	Calcium	4060		*	P
7440-47-3	Chromium	17.7			P
7440-48-4	Cobalt	5.2	B		P
7440-50-8	Copper	558			P
7439-89-6	Iron	103000			P
7439-92-1	Lead	14800			P
7439-95-4	Magnesium	580	B		P
7439-96-5	Manganese	297		*N	P
7439-97-6	Mercury	0.17		*	CV
7440-02-0	Nickel	42.5		N	P
7440-09-7	Potassium	148	B		P
7782-49-2	Selenium	18.7		*	P
7440-22-4	Silver	0.34	B		P
7440-23-5	Sodium	929			P
7440-28-0	Thallium	2.6			P
7440-62-2	Vanadium	20.8			P
7440-66-6	Zinc	997		*	P
	Cyanide	0.050	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS19

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 60818

Matrix (soil/water): SOIL Lab Sample ID: 60818005

Level (low/med): MED Date Received: 05/15/99

% Solids: 68.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3550		*	P
7440-36-0	Antimony	1030			P
7440-38-2	Arsenic	530		*	P
7440-39-3	Barium	123		N	P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	0.077	U	N	P
7440-70-2	Calcium	7530		*	P
7440-47-3	Chromium	21.4			P
7440-48-4	Cobalt	6.2	B		P
7440-50-8	Copper	512			P
7439-89-6	Iron	48300			P
7439-92-1	Lead	8050			P
7439-95-4	Magnesium	970	B		P
7439-96-5	Manganese	188		*N	P
7439-97-6	Mercury	0.32		*	CV
7440-02-0	Nickel	31.6		N	P
7440-09-7	Potassium	413	B		P
7782-49-2	Selenium	9.2		*	P
7440-22-4	Silver	0.32	B		P
7440-23-5	Sodium	59.3	U		P
7440-28-0	Thallium	0.77	U		P
7440-62-2	Vanadium	32.9			P
7440-66-6	Zinc	198		*	P
	Cyanide	0.070	U		C

Color Before: BLACK Clarity Before: _____ Texture: COARSE

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS20

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830014_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 96.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2340			P
7440-36-0	Antimony	22.5		N	P
7440-38-2	Arsenic	30.2			P
7440-39-3	Barium	67.7			P
7440-41-7	Beryllium	0.30	B		P
7440-43-9	Cadmium	0.045	U		P
7440-70-2	Calcium	3220			P
7440-47-3	Chromium	34.2			P
7440-48-4	Cobalt	7.3	B		P
7440-50-8	Copper	300			P
7439-89-6	Iron	32900			P
7439-92-1	Lead	630		E	P
7439-95-4	Magnesium	549	B		P
7439-96-5	Manganese	263			P
7439-97-6	Mercury	0.16			CV
7440-02-0	Nickel	22.7			P
7440-09-7	Potassium	99.7	B		P
7782-49-2	Selenium	3.8			P
7440-22-4	Silver	0.11	B		P
7440-23-5	Sodium	87.9	B		P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	33.4			P
7440-66-6	Zinc	206			P
	Cyanide	0.23	B		C

Color Before: BLACK_____ Clarity Before: __ Texture: FINE__

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS-21

60830015

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830015_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2630			P
7440-36-0	Antimony	12.7		N	P
7440-38-2	Arsenic	13.5			P
7440-39-3	Barium	23.4	B		P
7440-41-7	Beryllium	0.11	U		P
7440-43-9	Cadmium	0.041	U		P
7440-70-2	Calcium	11600			P
7440-47-3	Chromium	5.5			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	40.5			P
7439-89-6	Iron	7600			P
7439-92-1	Lead	363		E	P
7439-95-4	Magnesium	1340			P
7439-96-5	Manganese	97.3			P
7439-97-6	Mercury	0.051	U		CV
7440-02-0	Nickel	5.8			P
7440-09-7	Potassium	99.2	B		P
7782-49-2	Selenium	0.69	U		P
7440-22-4	Silver	0.082	U		P
7440-23-5	Sodium	74.2	B		P
7440-28-0	Thallium	0.41	U		P
7440-62-2	Vanadium	14.8			P
7440-66-6	Zinc	44.5			P
	Cyanide	0.043	U		C

Color Before: GREY_____ Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS22

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830020_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1110			P
7440-36-0	Antimony	5.2	B	N	P
7440-38-2	Arsenic	3.4			P
7440-39-3	Barium	7.7	B		P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.052	U		P
7440-70-2	Calcium	5480			P
7440-47-3	Chromium	3.6			P
7440-48-4	Cobalt	1.2	B		P
7440-50-8	Copper	12.7			P
7439-89-6	Iron	3340			P
7439-92-1	Lead	41.4		E	P
7439-95-4	Magnesium	726	B		P
7439-96-5	Manganese	47.9			P
7439-97-6	Mercury	0.048	U		CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	42.1	U		P
7782-49-2	Selenium	0.87	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	56.4	B		P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	5.6	B		P
7440-66-6	Zinc	14.3			P
	Cyanide	0.042	U		C

Color Before: BROWN_____ Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS23

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830022

Level (low/med): MED Date Received: 05/18/99

% Solids: 99.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2910			P
7440-36-0	Antimony	4.8			P
7440-38-2	Arsenic	6.9		*N	P
7440-39-3	Barium	27.3	B		P
7440-41-7	Beryllium	0.2	B		P
7440-43-9	Cadmium	0.4	B		P
7440-70-2	Calcium	6140			P
7440-47-3	Chromium	7.3			P
7440-48-4	Cobalt	4.5	B		P
7440-50-8	Copper	63.7		*N	P
7439-89-6	Iron	9480		*	P
7439-92-1	Lead	151		*	P
7439-95-4	Magnesium	2740			P
7439-96-5	Manganese	154			P
7439-97-6	Mercury	0.040	U		CV
7440-02-0	Nickel	9.3			P
7440-09-7	Potassium	153	B		P
7782-49-2	Selenium	0.99	U		P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	45.6	U		P
7440-28-0	Thallium	0.59	U		P
7440-62-2	Vanadium	14.5			P
7440-66-6	Zinc	104			P
	Cyanide	0.051	U	N	C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: LT.YELLOW Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS24

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830025_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 100.0__

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	860			P
7440-36-0	Antimony	0.61	B		P
7440-38-2	Arsenic	1.8		*N	P
7440-39-3	Barium	12.0	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.049	U		P
7440-70-2	Calcium	2340			P
7440-47-3	Chromium	3.7			P
7440-48-4	Cobalt	1.5	B		P
7440-50-8	Copper	42.5		*N	P
7439-89-6	Iron	3630		*	P
7439-92-1	Lead	31.0		*	P
7439-95-4	Magnesium	742	B		P
7439-96-5	Manganese	51.3			P
7439-97-6	Mercury	0.043	U		CV
7440-02-0	Nickel	3.7	B		P
7440-09-7	Potassium	39.7	U		P
7782-49-2	Selenium	0.82	U		P
7440-22-4	Silver	0.098	U		P
7440-23-5	Sodium	37.7	U		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	3.7	B		P
7440-66-6	Zinc	32.5			P
	Cyanide	0.052	B	N	C

Color Before: BROWN/WHITE Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS25

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830029_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1920			P
7440-36-0	Antimony	0.26	U		P
7440-38-2	Arsenic	1.3	B	*N	P
7440-39-3	Barium	9.1	B		P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.051	U		P
7440-70-2	Calcium	8810			P
7440-47-3	Chromium	3.8			P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	5.0		*N	P
7439-89-6	Iron	3400		*	P
7439-92-1	Lead	6.8		*	P
7439-95-4	Magnesium	824	B		P
7439-96-5	Manganese	67.1			P
7439-97-6	Mercury	0.046	U		CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	41.5	U		P
7782-49-2	Selenium	0.86	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	75.4	B		P
7440-28-0	Thallium	0.51	U		P
7440-62-2	Vanadium	5.4	B		P
7440-66-6	Zinc	13.0			P
	Cyanide	0.051	U	N	C

Color Before: BROWN/WHITE Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS26

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830031

Level (low/med): MED Date Received: 05/18/99

% Solids: 76.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3720			P
7440-36-0	Antimony	1.6	B		P
7440-38-2	Arsenic	3.5		*N	P
7440-39-3	Barium	52.9			P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	0.060	U		P
7440-70-2	Calcium	31000			P
7440-47-3	Chromium	7.6			P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	45.6		*N	P
7439-89-6	Iron	6820		*	P
7439-92-1	Lead	104		*	P
7439-95-4	Magnesium	1990			P
7439-96-5	Manganese	108			P
7439-97-6	Mercury	0.053	U		CV
7440-02-0	Nickel	8.8			P
7440-09-7	Potassium	127	B		P
7782-49-2	Selenium	1.0	U		P
7440-22-4	Silver	0.18	B		P
7440-23-5	Sodium	126	B		P
7440-28-0	Thallium	0.60	U		P
7440-62-2	Vanadium	9.9	B		P
7440-66-6	Zinc	93.2			P
	Cyanide	0.047	U	N	C

Color Before: BROWN/GREY Clarity Before: Texture: COARSE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS27

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 60818__

Matrix (soil/water): SOIL___ Lab Sample ID: 60818002_____

Level (low/med): MED____ Date Received: 05/15/99_

% Solids: 97.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3070		*	P
7440-36-0	Antimony	9180			P
7440-38-2	Arsenic	3060		*	P
7440-39-3	Barium	66.1		N	P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.049	U	N	P
7440-70-2	Calcium	2530		*	P
7440-47-3	Chromium	34.2			P
7440-48-4	Cobalt	9.9			P
7440-50-8	Copper	1690			P
7439-89-6	Iron	196000			P
7439-92-1	Lead	84400			P
7439-95-4	Magnesium	526	B		P
7439-96-5	Manganese	298		*N	P
7439-97-6	Mercury	0.30		*	CV
7440-02-0	Nickel	109		N	P
7440-09-7	Potassium	401	B		P
7782-49-2	Selenium	25.0		*	P
7440-22-4	Silver	2.5			P
7440-23-5	Sodium	984			P
7440-28-0	Thallium	6.2			P
7440-62-2	Vanadium	50.5			P
7440-66-6	Zinc	615		*	P
	Cyanide	0.051	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS28

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 60818__

Matrix (soil/water): SOIL___ Lab Sample ID: 60818004_____

Level (low/med): MED____ Date Received: 05/15/99_

% Solids: 96.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	800		*	P
7440-36-0	Antimony	14600			P
7440-38-2	Arsenic	6460		*	P
7440-39-3	Barium	400		N	P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.054	U	N	P
7440-70-2	Calcium	2090		*	P
7440-47-3	Chromium	41.8			P
7440-48-4	Cobalt	24.2			P
7440-50-8	Copper	1460			P
7439-89-6	Iron	252000			P
7439-92-1	Lead	49200			P
7439-95-4	Magnesium	235	B		P
7439-96-5	Manganese	248		*N	P
7439-97-6	Mercury	0.80		*	CV
7440-02-0	Nickel	170		N	P
7440-09-7	Potassium	346	B		P
7782-49-2	Selenium	45.9		*	P
7440-22-4	Silver	1.8	B		P
7440-23-5	Sodium	633	B		P
7440-28-0	Thallium	7.1			P
7440-62-2	Vanadium	45.5			P
7440-66-6	Zinc	380		*	P
	Cyanide	0.049	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS29

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 60818__

Matrix (soil/water): SOIL___ Lab Sample ID: 60818006_____

Level (low/med): MED____ Date Received: 05/15/99_

% Solids: 80.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3120		*	P
7440-36-0	Antimony	16.7			P
7440-38-2	Arsenic	16.0		*	P
7440-39-3	Barium	25.7	B	N	P
7440-41-7	Beryllium	0.16	B		P
7440-43-9	Cadmium	0.060	U	N	P
7440-70-2	Calcium	22900		*	P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	35.1			P
7439-89-6	Iron	6610			P
7439-92-1	Lead	332			P
7439-95-4	Magnesium	1170			P
7439-96-5	Manganese	88.6		*N	P
7439-97-6	Mercury	0.050	U	*	CV
7440-02-0	Nickel	10.0		N	P
7440-09-7	Potassium	83.8	B		P
7782-49-2	Selenium	1.0	U	*	P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	106	B		P
7440-28-0	Thallium	0.60	U		P
7440-62-2	Vanadium	11.5			P
7440-66-6	Zinc	44.9		*	P
	Cyanide	0.060	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: COARSE

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS30

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830013_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3520			P
7440-36-0	Antimony	12.3		N	P
7440-38-2	Arsenic	14.1			P
7440-39-3	Barium	34.0	B		P
7440-41-7	Beryllium	0.18	B		P
7440-43-9	Cadmium	0.10	B		P
7440-70-2	Calcium	29800			P
7440-47-3	Chromium	10.8			P
7440-48-4	Cobalt	3.0	B		P
7440-50-8	Copper	53.2			P
7439-89-6	Iron	8260			P
7439-92-1	Lead	432		E	P
7439-95-4	Magnesium	2250			P
7439-96-5	Manganese	135			P
7439-97-6	Mercury	0.049	U		CV
7440-02-0	Nickel	11.3			P
7440-09-7	Potassium	66.6	B		P
7782-49-2	Selenium	1.0	U		P
7440-22-4	Silver	0.16	B		P
7440-23-5	Sodium	162	B		P
7440-28-0	Thallium	0.60	U		P
7440-62-2	Vanadium	14.2			P
7440-66-6	Zinc	73.6			P
	Cyanide	0.044	U		C

Color Before: WHITE\GREY Clarity Before: __ Texture: FINE__

Color After: LT.YELLOW_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS31

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A

Matrix (soil/water): SOIL Lab Sample ID: 60830016

Level (low/med): MED Date Received: 05/18/99

% Solids: 96.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6340			P
7440-36-0	Antimony	4.6	B	N	P
7440-38-2	Arsenic	6.8			P
7440-39-3	Barium	28.0	B		P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.055	U		P
7440-70-2	Calcium	12400			P
7440-47-3	Chromium	7.6			P
7440-48-4	Cobalt	8.2	B		P
7440-50-8	Copper	84.1			P
7439-89-6	Iron	16900			P
7439-92-1	Lead	153		E	P
7439-95-4	Magnesium	3000			P
7439-96-5	Manganese	190			P
7439-97-6	Mercury	0.052	U		CV
7440-02-0	Nickel	9.8			P
7440-09-7	Potassium	204	B		P
7782-49-2	Selenium	0.92	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	213	B		P
7440-28-0	Thallium	0.55	U		P
7440-62-2	Vanadium	39.7			P
7440-66-6	Zinc	175			P
	Cyanide	0.095	B		C

Color Before: LT.BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS32

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60803A

Matrix (soil/water): SOIL Lab Sample ID: 60830019

Level (low/med): MED Date Received: 05/18/99

% Solids: 97.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2630			P
7440-36-0	Antimony	2.0	B	N	P
7440-38-2	Arsenic	4.2			P
7440-39-3	Barium	11.7	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.049	U		P
7440-70-2	Calcium	19300			P
7440-47-3	Chromium	4.2			P
7440-48-4	Cobalt	4.3	B		P
7440-50-8	Copper	32.4			P
7439-89-6	Iron	8750			P
7439-92-1	Lead	53.8		E	P
7439-95-4	Magnesium	5080			P
7439-96-5	Manganese	107			P
7439-97-6	Mercury	0.043	U		CV
7440-02-0	Nickel	4.4	B		P
7440-09-7	Potassium	127	B		P
7782-49-2	Selenium	0.82	U		P
7440-22-4	Silver	0.099	U		P
7440-23-5	Sodium	104	B		P
7440-28-0	Thallium	0.49	U		P
7440-62-2	Vanadium	17.1			P
7440-66-6	Zinc	28.5			P
	Cyanide	0.050	U		C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS34

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830024

Level (low/med): MED Date Received: 05/18/99

% Solids: 98.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1580			P
7440-36-0	Antimony	0.26	U		P
7440-38-2	Arsenic	1.8		*N	P
7440-39-3	Barium	14.3	B		P
7440-41-7	Beryllium	0.13	U		P
7440-43-9	Cadmium	0.055	U		P
7440-70-2	Calcium	9860			P
7440-47-3	Chromium	5.1			P
7440-48-4	Cobalt	1.3	B		P
7440-50-8	Copper	14.8		*N	P
7439-89-6	Iron	3550		*	P
7439-92-1	Lead	19.2		*	P
7439-95-4	Magnesium	610	B		P
7439-96-5	Manganese	69.3			P
7439-97-6	Mercury	0.051	U		CV
7440-02-0	Nickel	3.0	B		P
7440-09-7	Potassium	44.1	U		P
7782-49-2	Selenium	0.91	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	86.0	B		P
7440-28-0	Thallium	0.55	U		P
7440-62-2	Vanadium	6.5	B		P
7440-66-6	Zinc	20.6			P
	Cyanide	0.046	U	N	C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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NYSDEC SAMPLE NO.

SS35

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830028_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2990			P
7440-36-0	Antimony	0.48	B		P
7440-38-2	Arsenic	2.8		*N	P
7440-39-3	Barium	41.9			P
7440-41-7	Beryllium	0.20	B		P
7440-43-9	Cadmium	0.050	U		P
7440-70-2	Calcium	25100			P
7440-47-3	Chromium	8.2			P
7440-48-4	Cobalt	2.5	B		P
7440-50-8	Copper	29.7		*N	P
7439-89-6	Iron	6550		*	P
7439-92-1	Lead	57.9		*	P
7439-95-4	Magnesium	1290			P
7439-96-5	Manganese	108			P
7439-97-6	Mercury	0.048	U		CV
7440-02-0	Nickel	5.3	B		P
7440-09-7	Potassium	166	B		P
7782-49-2	Selenium	0.83	U		P
7440-22-4	Silver	0.11	B		P
7440-23-5	Sodium	122	B		P
7440-28-0	Thallium	0.50	U		P
7440-62-2	Vanadium	9.9			P
7440-66-6	Zinc	49.3			P
	Cyanide	0.049	U	N	C

Color Before: BROWN/WHITE Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS36

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830030

Level (low/med): MED Date Received: 05/18/99

% Solids: 94.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6030			P
7440-36-0	Antimony	1.9	B		P
7440-38-2	Arsenic	5.7		*N	P
7440-39-3	Barium	101			P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.21	B		P
7440-70-2	Calcium	1090			P
7440-47-3	Chromium	15.4			P
7440-48-4	Cobalt	4.6	B		P
7440-50-8	Copper	163		*N	P
7439-89-6	Iron	15200		*	P
7439-92-1	Lead	121		*	P
7439-95-4	Magnesium	1240			P
7439-96-5	Manganese	182			P
7439-97-6	Mercury	0.048	B		CV
7440-02-0	Nickel	12.9			P
7440-09-7	Potassium	106	B		P
7782-49-2	Selenium	1.8			P
7440-22-4	Silver	0.15	B		P
7440-23-5	Sodium	40.8	U		P
7440-28-0	Thallium	0.53	U		P
7440-62-2	Vanadium	14.7			P
7440-66-6	Zinc	133			P
	Cyanide	0.048	U	N	C

Color Before: BROWN/BLACK Clarity Before: _____ Texture: MED

Color After: LT. YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

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1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS37

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830010_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 90.3___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4840			P
7440-36-0	Antimony	77.7		N	P
7440-38-2	Arsenic	54.4			P
7440-39-3	Barium	87.5			P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	0.32	B		P
7440-70-2	Calcium	66000			P
7440-47-3	Chromium	13.3			P
7440-48-4	Cobalt	3.8	B		P
7440-50-8	Copper	92.1			P
7439-89-6	Iron	14000			P
7439-92-1	Lead	2260		E	P
7439-95-4	Magnesium	1890			P
7439-96-5	Manganese	182			P
7439-97-6	Mercury	0.075	B		CV
7440-02-0	Nickel	15.6			P
7440-09-7	Potassium	247	B		P
7782-49-2	Selenium	0.97	U		P
7440-22-4	Silver	0.46	B		P
7440-23-5	Sodium	282	B		P
7440-28-0	Thallium	0.58	U		P
7440-62-2	Vanadium	18.9			P
7440-66-6	Zinc	125			P
	Cyanide	0.053	U		C

Color Before: GREY\WHITE Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS38

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830011_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 95.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3290			P
7440-36-0	Antimony	423		N	P
7440-38-2	Arsenic	158			P
7440-39-3	Barium	24.7	B		P
7440-41-7	Beryllium	0.17	B		P
7440-43-9	Cadmium	0.063	U		P
7440-70-2	Calcium	35800			P
7440-47-3	Chromium	6.6			P
7440-48-4	Cobalt	2.9	B		P
7440-50-8	Copper	179			P
7439-89-6	Iron	8240			P
7439-92-1	Lead	625		E	P
7439-95-4	Magnesium	1270			P
7439-96-5	Manganese	99.0			P
7439-97-6	Mercury	0.053	U		CV
7440-02-0	Nickel	24.4			P
7440-09-7	Potassium	51.8	B		P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.26	B		P
7440-23-5	Sodium	208	B		P
7440-28-0	Thallium	0.63	U		P
7440-62-2	Vanadium	9.4	B		P
7440-66-6	Zinc	38.5			P
	Cyanide	0.053	U		C

Color Before: GREY\WHITE Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS39

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL__ Lab Sample ID: 60830012_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 94.8___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3660			P
7440-36-0	Antimony	22.8			P
7440-38-2	Arsenic	20.5			P
7440-39-3	Barium	49.3			P
7440-41-7	Beryllium	.19	B		P
7440-43-9	Cadmium	0.57	U		P
7440-70-2	Calcium	25800			P
7440-47-3	Chromium	11.3			P
7440-48-4	Cobalt	3.4	B		P
7440-50-8	Copper	8.15			P
7439-89-6	Iron	13500			P
7439-92-1	Lead	626			P
7439-95-4	Magnesium	1640			P
7439-96-5	Manganese	146			P
7439-97-6	Mercury	0.089			CV
7440-02-0	Nickel	11.2			P
7440-09-7	Potassium	126	B		P
7782-49-2	Selenium	0.95	U		P
7440-22-4	Silver	0.14	B		P
7440-23-5	Sodium	141	B		P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	13.2			P
7440-66-6	Zinc	108			P
	Cyanide	0.74	B		C

Color Before: BROWN_____ Clarity Before: __ Texture: FINE__

Color After: LT.YELLOW_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS40

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830017_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2970			P
7440-36-0	Antimony	4.9	B	N	P
7440-38-2	Arsenic	7.8			P
7440-39-3	Barium	23.4	B		P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.056	U		P
7440-70-2	Calcium	7970			P
7440-47-3	Chromium	5.1			P
7440-48-4	Cobalt	4.0	B		P
7440-50-8	Copper	47.1			P
7439-89-6	Iron	8920			P
7439-92-1	Lead	129		E	P
7439-95-4	Magnesium	1510			P
7439-96-5	Manganese	131			P
7439-97-6	Mercury	0.041	U		CV
7440-02-0	Nickel	7.1	B		P
7440-09-7	Potassium	44.9	U		P
7782-49-2	Selenium	0.93	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	56.8	B		P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	24.4			P
7440-66-6	Zinc	76.9			P
	Cyanide	0.047	U		C

Color Before: BROWN_____ Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS41

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830018_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1910			P
7440-36-0	Antimony	15.4		N	P
7440-38-2	Arsenic	6.0			P
7440-39-3	Barium	10.8	B		P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.053	U		P
7440-70-2	Calcium	3430			P
7440-47-3	Chromium	3.8			P
7440-48-4	Cobalt	1.9	B		P
7440-50-8	Copper	14.2			P
7439-89-6	Iron	4410			P
7439-92-1	Lead	339		E	P
7439-95-4	Magnesium	1220			P
7439-96-5	Manganese	78.8			P
7439-97-6	Mercury	0.051	U		CV
7440-02-0	Nickel	3.8	B		P
7440-09-7	Potassium	42.6	U		P
7782-49-2	Selenium	0.88	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	40.5	U		P
7440-28-0	Thallium	0.53	U		P
7440-62-2	Vanadium	6.1	B		P
7440-66-6	Zinc	18.9			P
	Cyanide	0.050	U		C

Color Before: BROWN_____ Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS42

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830023_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 99.4___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	946			P
7440-36-0	Antimony	0.52	B		P
7440-38-2	Arsenic	1.1	B	*N	P
7440-39-3	Barium	8.6	B		P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.054	U		P
7440-70-2	Calcium	6490			P
7440-47-3	Chromium	4.2			P
7440-48-4	Cobalt	1.2	B		P
7440-50-8	Copper	10.0		*N	P
7439-89-6	Iron	2670		*	P
7439-92-1	Lead	17.5		*	P
7439-95-4	Magnesium	1580			P
7439-96-5	Manganese	47.3			P
7439-97-6	Mercury	0.6			CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	43.9	U		P
7782-49-2	Selenium	0.91	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	73.0	B		P
7440-28-0	Thallium	0.54	U		P
7440-62-2	Vanadium	4.7	B		P
7440-66-6	Zinc	18.5			P
	Cyanide	0.049	U	N	C

Color Before: BROWN/WHITE Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SS43

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830026_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 92.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4140			P
7440-36-0	Antimony	0.29	U		P
7440-38-2	Arsenic	2.4		*N	P
7440-39-3	Barium	29.1	B		P
7440-41-7	Beryllium	0.24	B		P
7440-43-9	Cadmium	0.058	U		P
7440-70-2	Calcium	50200			P
7440-47-3	Chromium	10.0			P
7440-48-4	Cobalt	2.4	B		P
7440-50-8	Copper	15.2		*N	P
7439-89-6	Iron	5450		*	P
7439-92-1	Lead	26.0		*	P
7439-95-4	Magnesium	2060			P
7439-96-5	Manganese	103			P
7439-97-6	Mercury	0.054	U		CV
7440-02-0	Nickel	6.9	B		P
7440-09-7	Potassium	78.0	B		P
7782-49-2	Selenium	0.97	U		P
7440-22-4	Silver	0.21	B		P
7440-23-5	Sodium	82.3	B		P
7440-28-0	Thallium	0.58	U		P
7440-62-2	Vanadium	11.5			P
7440-66-6	Zinc	26.5			P
	Cyanide	0.052	U	N	C

Color Before: BROWN/WHITE Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS44

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830027

Level (low/med): MED Date Received: 05/18/99

% Solids: 98.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2960			P
7440-36-0	Antimony	0.52	B		P
7440-38-2	Arsenic	3.7		*N	P
7440-39-3	Barium	62.8			P
7440-41-7	Beryllium	0.18	B		P
7440-43-9	Cadmium	0.054	U		P
7440-70-2	Calcium	15800			P
7440-47-3	Chromium	11.8			P
7440-48-4	Cobalt	2.7	B		P
7440-50-8	Copper	55.5		*N	P
7439-89-6	Iron	8600		*	P
7439-92-1	Lead	46.0		*	P
7439-95-4	Magnesium	1590			P
7439-96-5	Manganese	192			P
7439-97-6	Mercury	0.049	U		CV
7440-02-0	Nickel	6.1	B		P
7440-09-7	Potassium	257	B		P
7782-49-2	Selenium	0.90	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	41.5	U		P
7440-28-0	Thallium	0.54	U		P
7440-62-2	Vanadium	10.0			P
7440-66-6	Zinc	49.0			P
	Cyanide	0.051	U	N	C

Color Before: BROWN Clarity Before: CLEAR Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS45

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830001_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 94.5___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4100			P
7440-36-0	Antimony	7.2	B	N	P
7440-38-2	Arsenic	6.6			P
7440-39-3	Barium	118			P
7440-41-7	Beryllium	0.22	B		P
7440-43-9	Cadmium	0.13	B		P
7440-70-2	Calcium	20000			P
7440-47-3	Chromium	18.6			P
7440-48-4	Cobalt	7.8	B		P
7440-50-8	Copper	213			P
7439-89-6	Iron	13700			P
7439-92-1	Lead	364		E	P
7439-95-4	Magnesium	3350			P
7439-96-5	Manganese	238			P
7439-97-6	Mercury	0.57			CV
7440-02-0	Nickel	25.1			P
7440-09-7	Potassium	195	B		P
7782-49-2	Selenium	0.91	U		P
7440-22-4	Silver	0.20	B		P
7440-23-5	Sodium	121	B		P
7440-28-0	Thallium	0.55	U		P
7440-62-2	Vanadium	16.1			P
7440-66-6	Zinc	322			P
	Cyanide	0.067	B		C

Color Before: GREY\BROWN Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS46

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830003_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 90.3___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1600			P
7440-36-0	Antimony	1.8	B	N	P
7440-38-2	Arsenic	3.3			P
7440-39-3	Barium	5.8	B		P
7440-41-7	Beryllium	0.15	U		P
7440-43-9	Cadmium	0.059	B		P
7440-70-2	Calcium	379	B		P
7440-47-3	Chromium	3.6			P
7440-48-4	Cobalt	0.73	B		P
7440-50-8	Copper	7.0			P
7439-89-6	Iron	2980			P
7439-92-1	Lead	54.5		E	P
7439-95-4	Magnesium	337	B		P
7439-96-5	Manganese	60.9			P
7439-97-6	Mercury	0.055	U		CV
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium	45.8	U		P
7782-49-2	Selenium	0.95	U		P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	43.5	U		P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	9.2	B		P
7440-66-6	Zinc	13.2			P
	Cyanide	0.048	U		C

Color Before: BLACK_____ Clarity Before: __ Texture: MED___

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS47

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830035

Level (low/med): MED Date Received: 05/18/99

% Solids: 92.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2190			P
7440-36-0	Antimony	9.4	B		P
7440-38-2	Arsenic	8.6		*N	P
7440-39-3	Barium	8.3	B		P
7440-41-7	Beryllium	0.14	U		P
7440-43-9	Cadmium	0.052	U		P
7440-70-2	Calcium	293	B		P
7440-47-3	Chromium	3.7			P
7440-48-4	Cobalt	1.2	B		P
7440-50-8	Copper	14.8		*N	P
7439-89-6	Iron	4280		*	P
7439-92-1	Lead	284		*	P
7439-95-4	Magnesium	295	B		P
7439-96-5	Manganese	63.8			P
7439-97-6	Mercury	0.054	U		CV
7440-02-0	Nickel	3.1	B		P
7440-09-7	Potassium	42.1	U		P
7782-49-2	Selenium	0.87	U		P
7440-22-4	Silver	0.10	U		P
7440-23-5	Sodium	40.0	U		P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	9.1			P
7440-66-6	Zinc	27.3			P
	Cyanide	0.093	B	N	C

Color Before: BROWN Clarity Before: Texture: MED

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS48

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830038

Level (low/med): MED Date Received: 05/18/99

% Solids: 98.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2700			P
7440-36-0	Antimony	7.1	B		P
7440-38-2	Arsenic	6.1		*N	P
7440-39-3	Barium	8.3	B		P
7440-41-7	Beryllium	0.16	U		P
7440-43-9	Cadmium	0.058	U		P
7440-70-2	Calcium	231	B		P
7440-47-3	Chromium	4.3			P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	16.9		*N	P
7439-89-6	Iron	4830		*	P
7439-92-1	Lead	141		*	P
7439-95-4	Magnesium	339	B		P
7439-96-5	Manganese	35.3			P
7439-97-6	Mercury	0.049	U		CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	47.0	U		P
7782-49-2	Selenium	0.97	U		P
7440-22-4	Silver	0.12	U		P
7440-23-5	Sodium	44.7	U		P
7440-28-0	Thallium	0.58	U		P
7440-62-2	Vanadium	9.3	B		P
7440-66-6	Zinc	26.2			P
	Cyanide	0.049	U	N	C

Color Before: BROWN Clarity Before: _____ Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

FORM I - IN 12/95

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS49

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830037

Level (low/med): MED Date Received: 05/18/99

% Solids: 91.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4180			P
7440-36-0	Antimony	288			P
7440-38-2	Arsenic	181		*N	P
7440-39-3	Barium	80.4			P
7440-41-7	Beryllium	0.17	B		P
7440-43-9	Cadmium	1.5			P
7440-70-2	Calcium	2310			P
7440-47-3	Chromium	13.1			P
7440-48-4	Cobalt	3.2	B		P
7440-50-8	Copper	222		*N	P
7439-89-6	Iron	18500		*	P
7439-92-1	Lead	4290		*	P
7439-95-4	Magnesium	551	B		P
7439-96-5	Manganese	172			P
7439-97-6	Mercury	0.092			CV
7440-02-0	Nickel	21.4			P
7440-09-7	Potassium	57.5	B		P
7782-49-2	Selenium	5.4			P
7440-22-4	Silver	0.11	U		P
7440-23-5	Sodium	135	B		P
7440-28-0	Thallium	0.70	B		P
7440-62-2	Vanadium	15.0			P
7440-66-6	Zinc	206			P
	Cyanide	0.10	B	N	C

Color Before: BROWN Clarity Before: Texture: MED

Color After: YELLOW Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS50

Lab Name: MITKEM CORPORATION Contract:

Lab Code: Case No.: SAS No.: SDG No.: 60830B

Matrix (soil/water): SOIL Lab Sample ID: 60830036

Level (low/med): MED Date Received: 05/18/99

% Solids: 93.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	3470			P
7440-36-0	Antimony	2.0	B		P
7440-38-2	Arsenic	2.7		*N	P
7440-39-3	Barium	9.4	B		P
7440-41-7	Beryllium	0.17	U		P
7440-43-9	Cadmium	0.065	U		P
7440-70-2	Calcium	160	B		P
7440-47-3	Chromium	4.2			P
7440-48-4	Cobalt	0.88	B		P
7440-50-8	Copper	15.1		*N	P
7439-89-6	Iron	5270		*	P
7439-92-1	Lead	38.4		*	P
7439-95-4	Magnesium	317	B		P
7439-96-5	Manganese	28.9			P
7439-97-6	Mercury	0.047	U		CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	0.52	U		P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.13	U		P
7440-23-5	Sodium	49.5	U		P
7440-28-0	Thallium	0.65	U		P
7440-62-2	Vanadium	9.5	B		P
7440-66-6	Zinc	11.5			P
	Cyanide	0.055	B	N	C

Color Before: BROWN Clarity Before: Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts:

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS51

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 60803A_

Matrix (soil/water): SOIL___ Lab Sample ID: 60830002_____

Level (low/med): MED____ Date Received: 05/18/99_

% Solids: 93.6___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5830			P
7440-36-0	Antimony	4.8	B	N	P
7440-38-2	Arsenic	12.1			P
7440-39-3	Barium	35.9	B		P
7440-41-7	Beryllium	0.31	B		P
7440-43-9	Cadmium	0.056	U		P
7440-70-2	Calcium	51400			P
7440-47-3	Chromium	16.1			P
7440-48-4	Cobalt	3.3	B		P
7440-50-8	Copper	30.8			P
7439-89-6	Iron	9930			P
7439-92-1	Lead	161		E	P
7439-95-4	Magnesium	2160			P
7439-96-5	Manganese	165			P
7439-97-6	Mercury	0.049	U		CV
7440-02-0	Nickel	11.2			P
7440-09-7	Potassium	181	B		P
7782-49-2	Selenium	0.93	U		P
7440-22-4	Silver	0.28	B		P
7440-23-5	Sodium	148	B		P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	16.6			P
7440-66-6	Zinc	61.1			P
	Cyanide	0.045	U		C

Color Before: WHITE_____ Clarity Before: __ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SS52

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083014_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 89.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4800		*	P
7440-36-0	Antimony	15.5		*	P
7440-38-2	Arsenic	18.7		*	P
7440-39-3	Barium	25.2	B	*	P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.67	B	*	P
7440-70-2	Calcium	24700		*	P
7440-47-3	Chromium	10.0		N	P
7440-48-4	Cobalt	2.3	B	E	P
7440-50-8	Copper	39.6		*	P
7439-89-6	Iron	7900			P
7439-92-1	Lead	419			P
7439-95-4	Magnesium	988	B	E	P
7439-96-5	Manganese	73.6		*	P
7439-97-6	Mercury	0.058	B	N	CV
7440-02-0	Nickel	6.2	B		P
7440-09-7	Potassium	300	B		P
7782-49-2	Selenium	1.2		*	P
7440-22-4	Silver	0.79	B	E	P
7440-23-5	Sodium	93.1	B	*	P
7440-28-0	Thallium	0.66	U		P
7440-62-2	Vanadium	15.4		*	P
7440-66-6	Zinc	40.8		*	P
	Cyanide	0.054	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SFB

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61066_

Matrix (soil/water): WATER__ Lab Sample ID: 61066002_____

Level (low/med): MED____ Date Received: 06/12/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	9.1	B		P
7440-36-0	Antimony	1.7	B		P
7440-38-2	Arsenic	3.0	U		P
7440-39-3	Barium	3.0	U		P
7440-41-7	Beryllium	0.7	U		P
7440-43-9	Cadmium	0.30	U		P
7440-70-2	Calcium	193	B		P
7440-47-3	Chromium	0.86	B		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	0.86	B		P
7439-89-6	Iron	114			P
7439-92-1	Lead	2.6	B		P
7439-95-4	Magnesium	21.1	B		P
7439-96-5	Manganese	1.8	B		P
7439-97-6	Mercury	0.14	B		CV
7440-02-0	Nickel	0.60	U		P
7440-09-7	Potassium	242	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	7.8	B		P
7440-23-5	Sodium	481	B		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	4.0	U		P
	Cyanide	1.0	U		C

Color Before: COLORLESS_ Clarity Before: _CLEAR_ Texture: _____

Color After: COLORLESS_ Clarity After: _CLEAR_ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0602

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083004_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 96.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1660		*	P
7440-36-0	Antimony	32.8		*	P
7440-38-2	Arsenic	25.2		*	P
7440-39-3	Barium	10.0	B	*	P
7440-41-7	Beryllium	0.037	B		P
7440-43-9	Cadmium	0.56	B	*	P
7440-70-2	Calcium	61.7	B	*	P
7440-47-3	Chromium	2.3		N	P
7440-48-4	Cobalt	0.97	B	E	P
7440-50-8	Copper	53.0		*	P
7439-89-6	Iron	4510			P
7439-92-1	Lead	1090			P
7439-95-4	Magnesium	160	B	E	P
7439-96-5	Manganese	19.0		*	P
7439-97-6	Mercury	0.13		N	CV
7440-02-0	Nickel	3.5	B		P
7440-09-7	Potassium	49.9	U		P
7782-49-2	Selenium	0.96	B	*	P
7440-22-4	Silver	0.41	B	E	P
7440-23-5	Sodium	46.4	U	*	P
7440-28-0	Thallium	0.62	U		P
7440-62-2	Vanadium	5.2	B	*	P
7440-66-6	Zinc	24.4		*	P
	Cyanide	0.051	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0657

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOI___ Lab Sample ID: 61083005_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1050		*	P
7440-36-0	Antimony	0.59	B	*	P
7440-38-2	Arsenic	0.93	B	*	P
7440-39-3	Barium	3.1	B	*	P
7440-41-7	Beryllium	0.066	B		P
7440-43-9	Cadmium	0.18	B	*	P
7440-70-2	Calcium	16.7	B	*	P
7440-47-3	Chromium	2.4		N	P
7440-48-4	Cobalt	2.1	B	E	P
7440-50-8	Copper	2.2	B	*	P
7439-89-6	Iron	2340			P
7439-92-1	Lead	8.7			P
7439-95-4	Magnesium	211	B	E	P
7439-96-5	Manganese	160		*	P
7439-97-6	Mercury	0.056	B	N	CV
7440-02-0	Nickel	2.2	B		P
7440-09-7	Potassium	44.8	B		P
7782-49-2	Selenium	0.57	B	*	P
7440-22-4	Silver	0.26	B	E	P
7440-23-5	Sodium	33.7	U	*	P
7440-28-0	Thallium	0.45	U		P
7440-62-2	Vanadium	3.3	B	*	P
7440-66-6	Zinc	6.9		*	P
	Cyanide	0.050	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0685105

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083006_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 90.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	713		*	P
7440-36-0	Antimony	0.58	U	*	P
7440-38-2	Arsenic	0.33	U	*	P
7440-39-3	Barium	2.0	B	*	P
7440-41-7	Beryllium	0.040	B		P
7440-43-9	Cadmium	0.097	U	*	P
7440-70-2	Calcium	23.3	B	*	P
7440-47-3	Chromium	1.3	B	N	P
7440-48-4	Cobalt	0.50	B	E	P
7440-50-8	Copper	1.2	B	*	P
7439-89-6	Iron	1090			P
7439-92-1	Lead	3.4			P
7439-95-4	Magnesium	257	B	E	P
7439-96-5	Manganese	11.7		*	P
7439-97-6	Mercury	0.046	U	N	CV
7440-02-0	Nickel	1.2	B		P
7440-09-7	Potassium	49.1	B		P
7782-49-2	Selenium	0.93	B	*	P
7440-22-4	Silver	0.21	U	E	P
7440-23-5	Sodium	43.5	U	*	P
7440-28-0	Thallium	0.58	U		P
7440-62-2	Vanadium	1.7	B	*	P
7440-66-6	Zinc	6.3		*	P
	Cyanide	0.055	U		C

Color Before: LIGHT_BROWN Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

0 008

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0702

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083001_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 97.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5530		*	P
7440-36-0	Antimony	3210		*	P
7440-38-2	Arsenic	1560		*	P
7440-39-3	Barium	465		*	P
7440-41-7	Beryllium	0.094	B		P
7440-43-9	Cadmium	14.8		*	P
7440-70-2	Calcium	3020		*	P
7440-47-3	Chromium	36.2		N	P
7440-48-4	Cobalt	12.9		E	P
7440-50-8	Copper	2300		*	P
7439-89-6	Iron	128000			P
7439-92-1	Lead	37100			P
7439-95-4	Magnesium	741	B	E	P
7439-96-5	Manganese	505		*	P
7439-97-6	Mercury	0.36		N	CV
7440-02-0	Nickel	92.8			P
7440-09-7	Potassium	453	B		P
7782-49-2	Selenium	24.5		*	P
7440-22-4	Silver	12.1		E	P
7440-23-5	Sodium	3580		*	P
7440-28-0	Thallium	2.7			P
7440-62-2	Vanadium	28.4		*	P
7440-66-6	Zinc	1040		*	P
	Cyanide	0.051	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: MED___

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

014

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0757

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083002_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 99.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	852		*	P
7440-36-0	Antimony	4.4	B	*	P
7440-38-2	Arsenic	0.76	B	*	P
7440-39-3	Barium	2.8	B	*	P
7440-41-7	Beryllium	0.038	B		P
7440-43-9	Cadmium	0.10	B	*	P
7440-70-2	Calcium	8.6	B	*	P
7440-47-3	Chromium	1.3	B	N	P
7440-48-4	Cobalt	0.91	B	E	P
7440-50-8	Copper	4.6		*	P
7439-89-6	Iron	1550			P
7439-92-1	Lead	28.2			P
7439-95-4	Magnesium	184	B	E	P
7439-96-5	Manganese	63.6		*	P
7439-97-6	Mercury	0.042	U	N	CV
7440-02-0	Nickel	1.6	B		P
7440-09-7	Potassium	37.3	U		P
7782-49-2	Selenium	0.51	U	*	P
7440-22-4	Silver	0.17	U	E	P
7440-23-5	Sodium	34.7	U	*	P
7440-28-0	Thallium	0.46	U		P
7440-62-2	Vanadium	1.8	B	*	P
7440-66-6	Zinc	5.0		*	P
	Cyanide	0.050	U		C

Color Before: TAN_____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB071012

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083003_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 94.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1250		*	P
7440-36-0	Antimony	2.2	B	*	P
7440-38-2	Arsenic	1.1	B	*	P
7440-39-3	Barium	3.8	B	*	P
7440-41-7	Beryllium	0.073	B		P
7440-43-9	Cadmium	0.37	B	*	P
7440-70-2	Calcium	61.5	B	*	P
7440-47-3	Chromium	2.5		N	P
7440-48-4	Cobalt	6.6	B	E	P
7440-50-8	Copper	14.8		*	P
7439-89-6	Iron	2410			P
7439-92-1	Lead	8.4			P
7439-95-4	Magnesium	363	B	E	P
7439-96-5	Manganese	189		*	P
7439-97-6	Mercury	0.053	U	N	CV
7440-02-0	Nickel	4.3	B		P
7440-09-7	Potassium	101	B		P
7782-49-2	Selenium	0.58	U	*	P
7440-22-4	Silver	0.25	B	E	P
7440-23-5	Sodium	39.6	U	*	P
7440-28-0	Thallium	0.53	U		P
7440-62-2	Vanadium	3.8	B	*	P
7440-66-6	Zinc	15.3		*	P
	Cyanide	0.15	B		C

Color Before: LIGHR_BROWN Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0802

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 61083

Matrix (soil/water): SOIL Lab Sample ID: 61083007

Level (low/med): MED Date Received: 06/15/99

% Solids: 98.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1970		*	P
7440-36-0	Antimony	13.3		*	P
7440-38-2	Arsenic	8.0		*	P
7440-39-3	Barium	7.9	B	*	P
7440-41-7	Beryllium	0.066	B		P
7440-43-9	Cadmium	0.96		*	P
7440-70-2	Calcium	109	B	*	P
7440-47-3	Chromium	3.8		N	P
7440-48-4	Cobalt	2.5	B	E	P
7440-50-8	Copper	83.1		*	P
7439-89-6	Iron	3800			P
7439-92-1	Lead	453			P
7439-95-4	Magnesium	285	B	E	P
7439-96-5	Manganese	55.1		*	P
7439-97-6	Mercury	0.049	U	N	CV
7440-02-0	Nickel	12.2			P
7440-09-7	Potassium	45.3	U		P
7782-49-2	Selenium	0.76	B	*	P
7440-22-4	Silver	0.31	B	E	P
7440-23-5	Sodium	190	B	*	P
7440-28-0	Thallium	0.56	U		P
7440-62-2	Vanadium	4.6	B	*	P
7440-66-6	Zinc	77.9		*	P
	Cyanide	0.049	U		C

Color Before: BROWN Clarity Before: _____ Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0857

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083008_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	837		*	P
7440-36-0	Antimony	0.57	U	*	P
7440-38-2	Arsenic	0.32	U	*	P
7440-39-3	Barium	2.7	B	*	P
7440-41-7	Beryllium	0.045	B		P
7440-43-9	Cadmium	0.23	B	*	P
7440-70-2	Calcium	36.7	B	*	P
7440-47-3	Chromium	1.6	B	N	P
7440-48-4	Cobalt	1.2	B	E	P
7440-50-8	Copper	2.1	B	*	P
7439-89-6	Iron	1560			P
7439-92-1	Lead	1.9			P
7439-95-4	Magnesium	230	B	E	P
7439-96-5	Manganese	56.6		*	P
7439-97-6	Mercury	0.044	U	N	CV
7440-02-0	Nickel	2.0	B		P
7440-09-7	Potassium	46.2	U		P
7782-49-2	Selenium	0.63	U	*	P
7440-22-4	Silver	0.21	U	E	P
7440-23-5	Sodium	47.2	B	*	P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	2.1	B	*	P
7440-66-6	Zinc	10.6		*	P
	Cyanide	0.050	U		C

Color Before: TAN_____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SB0889

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 61083

Matrix (soil/water): SOIL Lab Sample ID: 61083009

Level (low/med): MED Date Received: 06/15/99

% Solids: 93.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	966		*	P
7440-36-0	Antimony	0.78	B	*	P
7440-38-2	Arsenic	0.41	B	*	P
7440-39-3	Barium	2.2	B	*	P
7440-41-7	Beryllium	0.029	B		P
7440-43-9	Cadmium	0.21	B	*	P
7440-70-2	Calcium	42.0	B	*	P
7440-47-3	Chromium	3.9		N	P
7440-48-4	Cobalt	1.2	B	E	P
7440-50-8	Copper	6.8		*	P
7439-89-6	Iron	1540			P
7439-92-1	Lead	23.4			P
7439-95-4	Magnesium	206	B	E	P
7439-96-5	Manganese	35.4		*	P
7439-97-6	Mercury	0.045	U	N	CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	41.6	U		P
7782-49-2	Selenium	0.57	U	*	P
7440-22-4	Silver	0.19	U	E	P
7440-23-5	Sodium	38.7	U	*	P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	2.3	B	*	P
7440-66-6	Zinc	13.1		*	P
	Cyanide	0.050	U		C

Color Before: TAN Clarity Before: _____ Texture: FINE

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

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NYSDEC - ASP
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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0902

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083010_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 97.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4520		*	P
7440-36-0	Antimony	0.94	B	*	P
7440-38-2	Arsenic	1.5	B	*	P
7440-39-3	Barium	9.7	B	*	P
7440-41-7	Beryllium	0.10	B		P
7440-43-9	Cadmium	0.32	B	*	P
7440-70-2	Calcium	175	B	*	P
7440-47-3	Chromium	4.6		N	P
7440-48-4	Cobalt	1.4	B	E	P
7440-50-8	Copper	4.2	B	*	P
7439-89-6	Iron	4990			P
7439-92-1	Lead	19.0			P
7439-95-4	Magnesium	350	B	E	P
7439-96-5	Manganese	27.7		*	P
7439-97-6	Mercury	0.047	B	N	CV
7440-02-0	Nickel	3.4	B		P
7440-09-7	Potassium	55.5	B		P
7782-49-2	Selenium	0.74	B	*	P
7440-22-4	Silver	0.37	B	E	P
7440-23-5	Sodium	40.3	U	*	P
7440-28-0	Thallium	0.54	U		P
7440-62-2	Vanadium	7.6	B	*	P
7440-66-6	Zinc	14.2		*	P
	Cyanide	0.052	U		C

Color Before: BROWN_____ Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB091012

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083012_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 97.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	790		*	P
7440-36-0	Antimony	0.51	U	*	P
7440-38-2	Arsenic	0.30	B	*	P
7440-39-3	Barium	2.4	B	*	P
7440-41-7	Beryllium	0.055	B		P
7440-43-9	Cadmium	0.085	U	*	P
7440-70-2	Calcium	24.3	B	*	P
7440-47-3	Chromium	1.8		N	P
7440-48-4	Cobalt	0.94	B	E	P
7440-50-8	Copper	1.6	B	*	P
7439-89-6	Iron	1600			P
7439-92-1	Lead	1.2			P
7439-95-4	Magnesium	250	B	E	P
7439-96-5	Manganese	57.4		*	P
7439-97-6	Mercury	0.084	B	N	CV
7440-02-0	Nickel	1.5	B		P
7440-09-7	Potassium	47.0	B		P
7782-49-2	Selenium	0.56	U	*	P
7440-22-4	Silver	0.19	U	E	P
7440-23-5	Sodium	38.3	U	*	P
7440-28-0	Thallium	0.51	U		P
7440-62-2	Vanadium	2.3	B	*	P
7440-66-6	Zinc	5.0		*	P
	Cyanide	0.051	U		C

Color Before: LIGHT_BROWN Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB0957

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083011_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 98.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	924		*	P
7440-36-0	Antimony	0.47	U	*	P
7440-38-2	Arsenic	0.27	U	*	P
7440-39-3	Barium	2.5	B	*	P
7440-41-7	Beryllium	0.058	B		P
7440-43-9	Cadmium	0.10	B	*	P
7440-70-2	Calcium	25.4	B	*	P
7440-47-3	Chromium	1.5	B	N	P
7440-48-4	Cobalt	0.98	B	E	P
7440-50-8	Copper	1.4	B	*	P
7439-89-6	Iron	1560			P
7439-92-1	Lead	0.74			P
7439-95-4	Magnesium	167	B	E	P
7439-96-5	Manganese	48.2		*	P
7439-97-6	Mercury	0.068	B	N	CV
7440-02-0	Nickel	1.6	B		P
7440-09-7	Potassium	39.8	B		P
7782-49-2	Selenium	0.55	B	*	P
7440-22-4	Silver	0.17	U	E	P
7440-23-5	Sodium	35.3	U	*	P
7440-28-0	Thallium	0.47	U		P
7440-62-2	Vanadium	2.5	B	*	P
7440-66-6	Zinc	5.0		*	P
	Cyanide	0.051	U		C

Color Before: LIGHT_BROWN Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB091517

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61083__

Matrix (soil/water): SOIL___ Lab Sample ID: 61083013_____

Level (low/med): MED____ Date Received: 06/15/99_

% Solids: 97.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	603		*	P
7440-36-0	Antimony	0.52	U	*	P
7440-38-2	Arsenic	0.38	B	*	P
7440-39-3	Barium	2.6	B	*	P
7440-41-7	Beryllium	0.076	B		P
7440-43-9	Cadmium	0.48	B	*	P
7440-70-2	Calcium	26.9	B	*	P
7440-47-3	Chromium	1.9		N	P
7440-48-4	Cobalt	1.3	B	E	P
7440-50-8	Copper	9.6		*	P
7439-89-6	Iron	1690			P
7439-92-1	Lead	2.1			P
7439-95-4	Magnesium	167	B	E	P
7439-96-5	Manganese	97.3		*	P
7439-97-6	Mercury	0.045	U	N	CV
7440-02-0	Nickel	2.0	B		P
7440-09-7	Potassium	41.6	U		P
7782-49-2	Selenium	0.77	B	*	P
7440-22-4	Silver	0.19	U	E	P
7440-23-5	Sodium	38.7	U	*	P
7440-28-0	Thallium	0.52	U		P
7440-62-2	Vanadium	2.5	B	*	P
7440-66-6	Zinc	10.0		*	P
	Cyanide	0.051	U		C

Color Before: LIGHT_BROWN Clarity Before: _____ Texture: FINE__

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB1168

Lab Name: MITKEM_CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 61027__

Matrix (soil/water): SOIL___ Lab Sample ID: 61027002_____

Level (low/med): MED____ Date Received: 06/09/99_

% Solids: 87.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8090			P
7440-36-0	Antimony	20.3		* N	P
7440-38-2	Arsenic	29.2			P
7440-39-3	Barium	632			P
7440-41-7	Beryllium	0.26	B		P
7440-43-9	Cadmium	3.7			P
7440-70-2	Calcium	10200			P
7440-47-3	Chromium	135			P
7440-48-4	Cobalt	18.8		E	P
7440-50-8	Copper	3280		*	P
7439-89-6	Iron	110000		*	P
7439-92-1	Lead	982			P
7439-95-4	Magnesium	5460			P
7439-96-5	Manganese	1220			P
7439-97-6	Mercury	0.33		*	CV
7440-02-0	Nickel	454			P
7440-09-7	Potassium	1190			P
7782-49-2	Selenium	11.3			P
7440-22-4	Silver	3.4			P
7440-23-5	Sodium	1140			P
7440-28-0	Thallium	1.8	B		P
7440-62-2	Vanadium	32.9			P
7440-66-6	Zinc	1170			P
	Cyanide	0.35	B		C

Color Before: BROWN_____ Clarity Before: _____ Texture: MED___

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB10810

Lab Name: MITKEM_CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 61027__

Matrix (soil/water): SOIL___ Lab Sample ID: 61027004_____

Level (low/med): MED____ Date Received: 06/09/99_

% Solids: 82.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4940			P
7440-36-0	Antimony	21.7		* N	P
7440-38-2	Arsenic	31.7			P
7440-39-3	Barium	863			P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	3.7			P
7440-70-2	Calcium	12000			P
7440-47-3	Chromium	86.0			P
7440-48-4	Cobalt	13.4		E	P
7440-50-8	Copper	1000		*	P
7439-89-6	Iron	64400		*	P
7439-92-1	Lead	1150			P
7439-95-4	Magnesium	2570			P
7439-96-5	Manganese	530			P
7439-97-6	Mercury	0.59		*	CV
7440-02-0	Nickel	72.4			P
7440-09-7	Potassium	659	B		P
7782-49-2	Selenium	3.1			P
7440-22-4	Silver	1.8	B		P
7440-23-5	Sodium	603	B		P
7440-28-0	Thallium	1.7	B		P
7440-62-2	Vanadium	290			P
7440-66-6	Zinc	764			P
	Cyanide	0.35	B		C

Color Before: DARK_BROWN Clarity Before: _____ Texture: MED___

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC SAMPLE NO.

SB1224

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 61027__

Matrix (soil/water): SOIL___ Lab Sample ID: 61027001_____

Level (low/med): MED____ Date Received: 06/09/99_

% Solids: 74.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2930			P
7440-36-0	Antimony	1.7	B	* N	P
7440-38-2	Arsenic	6.8			P
7440-39-3	Barium	50.1			P
7440-41-7	Beryllium	0.18	U		P
7440-43-9	Cadmium	0.21	B		P
7440-70-2	Calcium	1320			P
7440-47-3	Chromium	9.6			P
7440-48-4	Cobalt	2.5	B	E	P
7440-50-8	Copper	70.7		*	P
7439-89-6	Iron	13300		*	P
7439-92-1	Lead	87.9			P
7439-95-4	Magnesium	418	B		P
7439-96-5	Manganese	88.4			P
7439-97-6	Mercury	0.092	B	*	CV
7440-02-0	Nickel	8.9	B		P
7440-09-7	Potassium	153	B		P
7782-49-2	Selenium	1.1	U		P
7440-22-4	Silver	0.76	B		P
7440-23-5	Sodium	52.7	U		P
7440-28-0	Thallium	0.69	U		P
7440-62-2	Vanadium	12.8			P
7440-66-6	Zinc	100			P
	Cyanide	1.5			C

Color Before: BROWN_____ Clarity Before: _____ Texture: MED___

Color After: LIGHT_YELLOW Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB1346

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 61045

Matrix (soil/water): SOIL Lab Sample ID: 61045001

Level (low/med): MED Date Received: 06/24/99

% Solids: 88.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	2220			P
7440-36-0	Antimony	29.3			P
7440-38-2	Arsenic	9.0			P
7440-39-3	Barium	202			P
7440-41-7	Beryllium	0.18	B		P
7440-43-9	Cadmium	1.9			P
7440-70-2	Calcium	3070			P
7440-47-3	Chromium	21.5			P
7440-48-4	Cobalt	3.8	B	E	P
7440-50-8	Copper	323			P
7439-89-6	Iron	24500		E	P
7439-92-1	Lead	298			P
7439-95-4	Magnesium	927	B		P
7439-96-5	Manganese	203			P
7439-97-6	Mercury	0.11	B		CV
7440-02-0	Nickel	24.1			P
7440-09-7	Potassium	184	B		P
7782-49-2	Selenium	1.5			P
7440-22-4	Silver	0.92	B		P
7440-23-5	Sodium	305	B		P
7440-28-0	Thallium	0.66	U		P
7440-62-2	Vanadium	15.6			P
7440-66-6	Zinc	452			P
	Cyanide	0.090	B		C

Color Before: DARK BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW Clarity After: CLEAR Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB1468

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61045__

Matrix (soil/water): SOIL___ Lab Sample ID: 61045002_____

Level (low/med): MED____ Date Received: 06/10/99_

% Solids: 87.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5330			P
7440-36-0	Antimony	23.1			P
7440-38-2	Arsenic	23.2			P
7440-39-3	Barium	479			P
7440-41-7	Beryllium	0.40	B		P
7440-43-9	Cadmium	4.6			P
7440-70-2	Calcium	6800			P
7440-47-3	Chromium	164			P
7440-48-4	Cobalt	14.0		E	P
7440-50-8	Copper	1040			P
7439-89-6	Iron	61900		E	P
7439-92-1	Lead	1480			P
7439-95-4	Magnesium	3830			P
7439-96-5	Manganese	630			P
7439-97-6	Mercury	0.44			CV
7440-02-0	Nickel	135			P
7440-09-7	Potassium	573	B		P
7782-49-2	Selenium	5.8			P
7440-22-4	Silver	2.6			P
7440-23-5	Sodium	497	B		P
7440-28-0	Thallium	0.57	U		P
7440-62-2	Vanadium	25.7			P
7440-66-6	Zinc	920			P
	Cyanide	0.29	B		C

Color Before: DARK_BROWN Clarity Before: _____ Texture: MEDIUM

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB15810

Lab Name: MITKEM_CORPORATION Contract: _____

Lab Code: _____ Case No.: _____ SAS No.: _____ SDG No.: 61027__

Matrix (soil/water): SOIL___ Lab Sample ID: 61027003_____

Level (low/med): MED____ Date Received: 06/09/99_

% Solids: 81.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5320			P
7440-36-0	Antimony	77.0		* N	P
7440-38-2	Arsenic	31.6			P
7440-39-3	Barium	827			P
7440-41-7	Beryllium	0.35	B		P
7440-43-9	Cadmium	4.9			P
7440-70-2	Calcium	18900			P
7440-47-3	Chromium	135			P
7440-48-4	Cobalt	14.6		E	P
7440-50-8	Copper	2300		*	P
7439-89-6	Iron	80000		*	P
7439-92-1	Lead	1370			P
7439-95-4	Magnesium	8940			P
7439-96-5	Manganese	1420			P
7439-97-6	Mercury	0.69		*	CV
7440-02-0	Nickel	129			P
7440-09-7	Potassium	768	B		P
7782-49-2	Selenium	1.2	U		P
7440-22-4	Silver	1.6	B		P
7440-23-5	Sodium	1400			P
7440-28-0	Thallium	1.9	B		P
7440-62-2	Vanadium	34.4			P
7440-66-6	Zinc	1840			P
	Cyanide	0.24	B		C

Color Before: DARK_BROWN Clarity Before: _____ Texture: MED___

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

SB161214

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61066__

Matrix (soil/water): SOIL___ Lab Sample ID: 61066001_____

Level (low/med): MED____ Date Received: 06/12/99_

% Solids: 81.0___

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	4350			P
7440-36-0	Antimony	23.7			P
7440-38-2	Arsenic	32.1			P
7440-39-3	Barium	418			P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	10.0			P
7440-70-2	Calcium	12200			P
7440-47-3	Chromium	51.6			P
7440-48-4	Cobalt	15.3			P
7440-50-8	Copper	952			P
7439-89-6	Iron	71800			P
7439-92-1	Lead	1870		E	P
7439-95-4	Magnesium	3460			P
7439-96-5	Manganese	774			P
7439-97-6	Mercury	3.1			CV
7440-02-0	Nickel	62.5		E	P
7440-09-7	Potassium	559	B		P
7782-49-2	Selenium	5.0			P
7440-22-4	Silver	7.9			P
7440-23-5	Sodium	3420			P
7440-28-0	Thallium	1.6	B		P
7440-62-2	Vanadium	27.3			P
7440-66-6	Zinc	1310			P
	Cyanide	0.36	B		C

Color Before: BROWN_____ Clarity Before: _____ Texture: MED___

Color After: YELLOW____ Clarity After: CLEAR__ Artifacts: _____

Comments:

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286003

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3294

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	JB
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	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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286003

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3294

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	4.00	5	J
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276010

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3289

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	JB
67-64-1	Acetone	1	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	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

FORM I VOA

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276010

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3289

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276009

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3288

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	JB
67-64-1	Acetone	1	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	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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276009

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3288

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286004

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3295

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	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	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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286004

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3295

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4152

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW8

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4152

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4153

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4153

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276004

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4155

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW10

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276004

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4155

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		NAPHTHALENE, DIMETHYL- ISOME	18.97	8	J
2.		NAPHTHALENE, DIMETHYL- ISOME	19.15	11	J
3.		NAPHTHALENE, DIMETHYL- ISOME	19.20	6	J
4.		NAPHTHALENE, DIMETHYL- ISOME	19.45	5	J
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
13.					
14.					
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16.					
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FORM I VOA-TIC

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276008

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3287

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	JB
67-64-1	Acetone	1	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	1	J
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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW11

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276008

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3287

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276007

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3286

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	JB
67-64-1	Acetone	1	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	1	J
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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW12

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276007

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3286

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW13

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276005

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4156

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW13

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276005

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V1C4156

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/15/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 12

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN ALKANE	16.66	5	J
2.	C11H14 ISOMER	17.04	6	J
3.	C11H14 ISOMER	17.25	10	J
4.	C11H14 ISOMER	17.62	6	J
5.	NAPHTHALENE, METHYL- ISOMER	17.84	37	J
6.	NAPHTHALENE, METHYL- ISOMER	18.03	29	J
7.	NAPHTHALENE, ETHYL- ISOMER	18.84	14	J
8.	NAPHTHALENE, DIMETHYL- ISOME	18.97	27	J
9.	NAPHTHALENE, DIMETHYL- ISOME	19.15	33	J
10.	NAPHTHALENE, DIMETHYL- ISOME	19.20	19	J
11.	NAPHTHALENE, DIMETHYL-ISOME	19.45	16	J
12.	NAPHTHALENE, DIMETHYL- ISOM	19.65	7	J
13.				
14.				
15.				
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276006

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3285

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	JB
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	1	J
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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276006

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3285

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 8

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	4.52	13	JB
2.	UNKNOWN ALKANE	15.85	5	J
3.	C11H14 ISOMER	16.26	7	J
4.	C11H14 ISOMER	16.49	5	J
5.	NAPHTHALENE, METHYL- ISOMER	17.16	18	J
6.	NAPHTHALENE, METHYL- ISOMER	17.39	14	J
7.	NAPHTHALENE, DIMETHYL- ISOME	18.44	7	J
8.	NAPHTHALENE, DIMETHYL- ISOME	18.65	11	J
9.				
10.				
11.				
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3293

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (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	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	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	1	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)	10	U

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286002

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3293

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I VOA-TIC

1A
VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW16

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3292

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	1	JB
67-64-1	Acetone	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

FORM I VOA

1E
VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW16

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286001

Sample wt/vol: 5.000 (g/mL) ML Lab File ID: V5B3292

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: not dec. _____ Date Analyzed: 07/17/99

GC Column: DB-624 ID: 0.25 (mm) Dilution Factor: 1.0

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

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	13.92	5	J
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FORM I VOA-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0163

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0163

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0163

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276010

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0152

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroa iline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276010

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0152

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276010

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0152

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0151

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0151

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0151

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0164

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0164

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW7

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0164

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.		UNKNOWN	7.54	29	J
2.					
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0142

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0142

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW8

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0142

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0143

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0143

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0143

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
3.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0144

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0144

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW10

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0144

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.				
2.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276008

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0150

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276008

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0150

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW11

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276008

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0150

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0149

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0149

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW12

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0149

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW13

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0147

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW13

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0147

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW13

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0147

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	UNKNOWN	20.29	2	J
2. 123-95-5	OCTADECANOIC ACID, BUTYL EST	21.74	2	NJ
3.				
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0148

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0148

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0148

Level: (low/med) LOW Date Received: 07/09/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/27/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0162

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0162

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitroso iphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0162

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC

1B
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW16

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0161

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(-2-Chloroethyl)Ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	2,2'-oxybis(1-Chloropropane)	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethyphenol	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	25	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	25	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U
99-09-2	3-Nitroaniline	25	U
83-32-9	Acenaphthene	10	U

FORM I SV-1

1C
SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW16

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0161

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
51-28-5	2,4-Dinitrophenol	25	U
100-02-7	4-Nitrophenol	25	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	25	U
534-52-1	4,6-Dinitro-2-methylphenol	25	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	25	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
86-74-8	Carbazole	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenzo(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

FORM I SV-2

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW16

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: S1B0161

Level: (low/med) LOW Date Received: 07/10/99

% Moisture: _____ decanted: (Y/N)___ Date Extracted:07/12/99

Concentrated Extract Volume: 1000(uL) Date Analyzed: 07/28/99

Injection Volume: 2.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) ug/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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FORM I SV-TIC

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FB

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286003

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3413F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/10/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276010

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3410F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW6

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276009

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3409F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW7

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3414F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/10/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW8

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3395F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3396F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW10

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276004

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3397F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW11

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276008

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3408F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW12

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276007

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3407F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

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EPA SAMPLE NO.

MW13

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276005

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3400F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW14

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61276

Matrix: (soil/water) WATER Lab Sample ID: 61276006

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3401F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/09/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

1D
PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286002

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3412F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/10/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted:07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

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PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW16

Lab Name: MITKEM CORPORATION Contract:

Lab Code: MITKEM Case No.: SAS No.: SDG No.: 61286

Matrix: (soil/water) WATER Lab Sample ID: 61286001

Sample wt/vol: 1000 (g/mL) ML Lab File ID: E2B3411F

% Moisture: _____ decanted: (Y/N)___ Date Received: 07/10/99

Extraction: (SepF/Cont/Sonc) SEPF Date Extracted: 07/13/99

Concentrated Extract Volume: 10000(uL) Date Analyzed: 07/20/99

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: ___ Sulfur Cleanup: (Y/N) Y

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.050	U
319-85-7	beta-BHC	0.050	U
319-86-8	delta-BHC	0.050	U
58-89-9	gamma-BHC (Lindane)	0.050	U
76-44-8	Heptachlor	0.050	U
309-00-2	Aldrin	0.050	U
1024-57-3	Heptachlor epoxide	0.050	U
959-98-8	Endosulfan I	0.050	U
60-57-1	Dieldrin	0.10	U
72-55-9	4,4'-DDE	0.10	U
72-20-8	Endrin	0.10	U
33213-65-9	Endosulfan II	0.10	U
72-54-8	4,4'-DDD	0.10	U
1031-07-8	Endosulfan sulfate	0.10	U
50-29-3	4,4'-DDT	0.10	U
72-43-5	Methoxychlor	0.50	U
53494-70-5	Endrin ketone	0.10	U
7421-93-4	Endrin aldehyde	0.10	U
5103-71-9	alpha-Chlordane	0.050	U
5103-74-2	gamma-Chlordane	0.050	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	1.0	U
11104-28-2	Aroclor-1221	2.0	U
11141-16-5	Aroclor-1232	1.0	U
53469-21-9	Aroclor-1242	1.0	U
12672-29-6	Aroclor-1248	1.0	U
11097-69-1	Aroclor-1254	1.0	U
11096-82-5	Aroclor-1260	1.0	U

FORM I PEST

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FB

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286003_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6.0	U		P
7440-36-0	Antimony	5.8	B		P
7440-38-2	Arsenic	15.7			P
7440-39-3	Barium	42.3	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	0.89	B		P
7440-70-2	Calcium	9110			P
7440-47-3	Chromium	1.1	B		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	0.80	U		P
7439-89-6	Iron	4.7	B		P
7439-92-1	Lead	6.6		*	P
7439-95-4	Magnesium	1360	B		P
7439-96-5	Manganese	6.7	B		P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	1.1	B		P
7440-09-7	Potassium	764	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	3800	B		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	4.9	B		P
	Cyanide	1.0	U		C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

FB

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286008_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6.0	U		P
7440-36-0	Antimony	3.0	B		P
7440-38-2	Arsenic	4.9	B		P
7440-39-3	Barium	40.5	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	0.69	B		P
7440-70-2	Calcium	8690			P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	0.80	U		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	9.9		*	P
7439-95-4	Magnesium	1310	B		P
7439-96-5	Manganese	3.1	B		P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	709	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.7	B		P
7440-23-5	Sodium	3550	B		P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	4.0	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW5

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 61276

Matrix (soil/water): WATER Lab Sample ID: 61276010

Level (low/med): MED Date Received: 07/09/99

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	1120			P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	51.8	B		P
7440-41-7	Beryllium	0.34	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	2390	B		P
7440-47-3	Chromium	2.6	B		P
7440-48-4	Cobalt	1.8	B		P
7440-50-8	Copper	4.1	B		P
7439-89-6	Iron	1160			P
7439-92-1	Lead	6.3			P
7439-95-4	Magnesium	1670	B		P
7439-96-5	Manganese	491			P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	2.5	B		P
7440-09-7	Potassium	242	U		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	7200			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	9.2	B		P
	Cyanide	2.1	B	N	C

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW5

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276022_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	201			P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	51.0	B		P
7440-41-7	Beryllium	0.28	B		P
7440-43-9	Cadmium	0.56	B		P
7440-70-2	Calcium	2760	B		P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.78	B		P
7440-50-8	Copper	1.5	B		P
7439-89-6	Iron	19.0	B		P
7439-92-1	Lead	8.2			P
7439-95-4	Magnesium	1690	B		P
7439-96-5	Manganese	417			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	1100	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	8040			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	0.92	B		P
7440-66-6	Zinc	11.6	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

FORM I - IN 12/95

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW6

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276009_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	858			P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	36.5	B		P
7440-41-7	Beryllium	0.44	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	1160	B		P
7440-47-3	Chromium	1.6	B		P
7440-48-4	Cobalt	0.73	B		P
7440-50-8	Copper	4.4	B		P
7439-89-6	Iron	564			P
7439-92-1	Lead	11.6			P
7439-95-4	Magnesium	836	B		P
7439-96-5	Manganese	102			P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	1.7	B		P
7440-09-7	Potassium	1060	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	3810	B		P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.5	B		P
7440-66-6	Zinc	7.9	B		P
	Cyanide	1.9	B	N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW6

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276021_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	350			P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	32.8	B		P
7440-41-7	Beryllium	0.36	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	1170	B		P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	2.0	B		P
7439-89-6	Iron	23.9	B		P
7439-92-1	Lead	10.6			P
7439-95-4	Magnesium	726	B		P
7439-96-5	Manganese	77.0			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	2.7	B		P
7440-09-7	Potassium	642	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	3820	B		P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	0.71	B		P
7440-66-6	Zinc	6.2	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
Dissolved Metals

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW7

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286004_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	617			P
7440-36-0	Antimony	4.6	B		P
7440-38-2	Arsenic	10.0			P
7440-39-3	Barium	32.8	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	3.1	B		P
7440-70-2	Calcium	10400			P
7440-47-3	Chromium	2.2	B		P
7440-48-4	Cobalt	0.65	B		P
7440-50-8	Copper	4.5	B		P
7439-89-6	Iron	783			P
7439-92-1	Lead	24.1		*	P
7439-95-4	Magnesium	3410	B		P
7439-96-5	Manganese	85.3			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	9.6	B		P
7440-09-7	Potassium	1490	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	2.4	B		P
7440-23-5	Sodium	13900			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	1.8	B		P
7440-66-6	Zinc	142			P
	Cyanide	1.0	U		C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW7

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286009_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	8.0	B		P
7440-36-0	Antimony	3.1	B		P
7440-38-2	Arsenic	4.1	B		P
7440-39-3	Bariu	32.7	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	2.4	B		P
7440-70-2	Calcium	10600			P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	1.7	B		P
7439-89-6	Iron	4.0	U		P
7439-92-1	Lead	6.1		*	P
7439-95-4	Magnesium	3320	B		P
7439-96-5	Manganese	19.2			P
7439-97-6	Mercury	0.14	U		CV
7440-02-0	Nickel	9.4	B		P
7440-09-7	Potassium	1360	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.8	B		P
7440-23-5	Sodium	13700			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	138			P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW8

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276001_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	448			P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	47.3	B		P
7440-41-7	Beryllium	0.23	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	8090			P
7440-47-3	Chromium	3.1	B		P
7440-48-4	Cobalt	1.3	B		P
7440-50-8	Copper	6.6	B		P
7439-89-6	Iron	559			P
7439-92-1	Lead	9.3			P
7439-95-4	Magnesium	4620	B		P
7439-96-5	Manganese	56.8			P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	3.6	B		P
7440-09-7	Potassium	1230	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	4.4	B		P
7440-23-5	Sodium	15800			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	3.7	B		P
7440-66-6	Zinc	13.9	B		P
	Cyanide	22.6		N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW8

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276014_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	39.3	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	46.0	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	8610			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	1.1	B		P
7439-89-6	Iron	22.0	B		P
7439-92-1	Lead	1.9	U		P
7439-95-4	Magnesium	4820	B		P
7439-96-5	Manganese	18.9			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	1.9	B		P
7440-09-7	Potassium	22100			P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	17100			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	2.1	B		P
7440-66-6	Zinc	9.6	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW9

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 61276

Matrix (soil/water): WATER Lab Sample ID: 61276002

Level (low/med): MED Date Received: 07/09/99

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	196	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	28.4	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	24500			P
7440-47-3	Chromium	1.8	B		P
7440-48-4	Cobalt	0.68	B		P
7440-50-8	Copper	2.1	B		P
7439-89-6	Iron	255			P
7439-92-1	Lead	1.9	U		P
7439-95-4	Magnesium	4170	B		P
7439-96-5	Manganese	47.4			P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	1.5	B		P
7440-09-7	Potassium	1890	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	2.7	B		P
7440-23-5	Sodium	5060			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	2.5	B		P
7440-66-6	Zinc	5.7	B		P
	Cyanide	1.2	B	N	C

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW9

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276015_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20.0	U		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	31.2	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	25400			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	0.50	U		P
7439-89-6	Iron	16.9	B		P
7439-92-1	Lead	1.9	U		P
7439-95-4	Magnesium	4220	B		P
7439-96-5	Manganese	27.1			P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	1190	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	5270			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.9	B		P
7440-66-6	Zinc	11.1	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW10

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276004_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	62.7	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	23.2	B		P
7440-41-7	Beryllium	0.13	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	11800			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	2.0	B		P
7439-89-6	Iron	63.0	B		P
7439-92-1	Lead	2.8	B		P
7439-95-4	Magnesium	3940	B		P
7439-96-5	Manganese	25.9			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	1.2	B		P
7440-09-7	Potassium	1460	B		P
7782-49-2	Selenium	5.5			P
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	6090			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	2.0	B		P
7440-66-6	Zinc	7.6	B		P
	Cyanide	1.2	B	N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW10

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276016_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	34.2	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	27.0	B		P
7440-41-7	Beryllium	0.11	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	12700			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	0.50	U		P
7439-89-6	Iron	28.4	B		P
7439-92-1	Lead	1.9	U		P
7439-95-4	Magnesium	4130	B		P
7439-96-5	Manganese	23.2			P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	1870	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	6790			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.9	B		P
7440-66-6	Zinc	5.6	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW11

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276008_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	129	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	50.1	B		P
7440-41-7	Beryllium	0.21	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	2850	B		P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	1.0	B		P
7440-50-8	Copper	3.3	B		P
7439-89-6	Iron	49.8	B		P
7439-92-1	Lead	4.8			P
7439-95-4	Magnesium	1570	B		P
7439-96-5	Manganese	197			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	2.4	B		P
7440-09-7	Potassium	746	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	8690			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	7.1	B		P
	Cyanide	1.2	B	N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW11

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276020_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	81.0	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	2.8	B		P
7440-39-3	Barium	53.5	B		P
7440-41-7	Beryllium	0.19	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	3020	B		P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.72	B		P
7440-50-8	Copper	1.2	B		P
7439-89-6	Iron	18.2	B		P
7439-92-1	Lead	4.0			P
7439-95-4	Magnesium	1540	B		P
7439-96-5	Manganese	196			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	2.9	B		P
7440-09-7	Potassium	694	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	8520			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	7.8	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW12

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276007_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	131	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	56.4	B		P
7440-41-7	Beryllium	0.32	B		P
7440-43-9	Cadmium	0.93	B		P
7440-70-2	Calcium	5610			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	2.8	B		P
7439-89-6	Iron	39.2	B		P
7439-92-1	Lead	5.0			P
7439-95-4	Magnesium	1320	B		P
7439-96-5	Manganese	42.2			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	2.6	B		P
7440-09-7	Potassium	662	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	9930			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.0	B		P
7440-66-6	Zinc	26.3			P
	Cyanide	1.6	B	N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW12

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276019_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	105	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	70.2	B		P
7440-41-7	Beryllium	0.33	B		P
7440-43-9	Cadmium	0.96	B		P
7440-70-2	Calcium	6660			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	4.6	B		P
7439-89-6	Iron	23.0	B		P
7439-92-1	Lead	3.5			P
7439-95-4	Magnesium	1430	B		P
7439-96-5	Manganese	42.6			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	2.8	B		P
7440-09-7	Potassium	905	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	11000			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.3	B		P
7440-66-6	Zinc	32.8			P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW13

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276005_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	140	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	32.5	B		P
7440-41-7	Beryllium	0.14	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	12800			P
7440-47-3	Chromium	1.6	B		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	2.9	B		P
7439-89-6	Iron	126			P
7439-92-1	Lead	1.9	U		P
7439-95-4	Magnesium	2150	B		P
7439-96-5	Manganese	33.9			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	830	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	6210			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.4	B		P
7440-66-6	Zinc	15.8	B		P
	Cyanide	1.9	B	N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW13

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276017_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	23.9	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	31.9	B		P
7440-41-7	Beryllium	0.12	B		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	13400			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	0.50	U		P
7439-89-6	Iron	14.3	B		P
7439-92-1	Lead	1.9	U		P
7439-95-4	Magnesium	2140	B		P
7439-96-5	Manganese	27.4			P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	1.4	B		P
7440-09-7	Potassium	1190	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	6200			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	0.93	B		P
7440-66-6	Zinc	13.2	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

FORM I - IN 12/95

NYSDEC - ASP
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INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW14

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276006_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	30.9	B		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	17.1	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	7390			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	1.5	B		P
7439-89-6	Iron	43.3	B		P
7439-92-1	Lead	4.3			P
7439-95-4	Magnesium	1670	B		P
7439-96-5	Manganese	12.1	B		P
7439-97-6	Mercury	0.14	U	N	CV
7440-02-0	Nickel	0.80	U		P
7440-09-7	Potassium	790	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	7310			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	7.4	B		P
	Cyanide	1.8	B	N	C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

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NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW14

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61276__

Matrix (soil/water): WATER__ Lab Sample ID: 61276018_____

Level (low/med): MED____ Date Received: 07/09/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	20.0	U		P
7440-36-0	Antimony	3.0	U		P
7440-38-2	Arsenic	1.7	U		P
7440-39-3	Barium	21.4	B		P
7440-41-7	Beryllium	0.10	U		P
7440-43-9	Cadmium	0.50	U		P
7440-70-2	Calcium	8110			P
7440-47-3	Chromium	1.3	U		P
7440-48-4	Cobalt	0.60	U		P
7440-50-8	Copper	1.9	B		P
7439-89-6	Iron	15.3	B		P
7439-92-1	Lead	3.2			P
7439-95-4	Magnesium	1730	B		P
7439-96-5	Manganese	10.9	B		P
7439-97-6	Mercury	0.15	U	N	CV
7440-02-0	Nickel	1.2	B		P
7440-09-7	Potassium	843	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.1	U		P
7440-23-5	Sodium	7580			P
7440-28-0	Thallium	3.4	U		P
7440-62-2	Vanadium	1.1	B		P
7440-66-6	Zinc	8.8	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW15

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286002_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	420			P
7440-36-0	Antimony	8.6	B		P
7440-38-2	Arsenic	14.6			P
7440-39-3	Barium	33.4	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	5.2			P
7440-70-2	Calcium	18500			P
7440-47-3	Chromium	1.3	B		P
7440-48-4	Cobalt	0.57	B		P
7440-50-8	Copper	1.5	B		P
7439-89-6	Iron	465			P
7439-92-1	Lead	8.2		*	P
7439-95-4	Magnesium	5420			P
7439-96-5	Manganese	52.0			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	21.2	B		P
7440-09-7	Potassium	2280	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	2.4	B		P
7440-23-5	Sodium	14100			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	1.7	B		P
7440-66-6	Zinc	168			P
	Cyanide	1.0	U		C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW15

Lab Name: MITKEM CORPORATION Contract: _____

Lab Code: MITKEM Case No.: _____ SAS No.: _____ SDG No.: 61286

Matrix (soil/water): WATER Lab Sample ID: 61286007

Level (low/med): MED Date Received: 07/10/99

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6.0	U		P
7440-36-0	Antimony	3.5	B		P
7440-38-2	Arsenic	4.3	B		P
7440-39-3	Barium	34.2	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	4.7	B		P
7440-70-2	Calcium	18100			P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	1.1	B		P
7439-89-6	Iron	7.4	B		P
7439-92-1	Lead	9.8		*	P
7439-95-4	Magnesium	5250			P
7439-96-5	Manganese	18.2			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	20.7	B		P
7440-09-7	Potassium	2200	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	1.8	B		P
7440-23-5	Sodium	13800			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	155			P
	Cyanide				NR

Color Before: COLORLESS Clarity Before: CLEAR Texture: _____

Color After: COLORLESS Clarity After: CLEAR Artifacts: _____

Comments:
DISSOLVED METALS

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW16

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286001_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	564			P
7440-36-0	Antimony	15.3	B		P
7440-38-2	Arsenic	16.4			P
7440-39-3	Barium	28.6	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	1.9	B		P
7440-70-2	Calcium	23200			P
7440-47-3	Chromium	2.3	B		P
7440-48-4	Cobalt	1.6	B		P
7440-50-8	Copper	2.8	B		P
7439-89-6	Iron	471			P
7439-92-1	Lead	9.5		*	P
7439-95-4	Magnesium	8900			P
7439-96-5	Manganese	116			P
7439-97-6	Mercury	0.13	U		CV
7440-02-0	Nickel	3.3	B		P
7440-09-7	Potassium	3010	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	2.6	B		P
7440-23-5	Sodium	16200			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	2.7	B		P
7440-66-6	Zinc	9.6	B		P
	Cyanide	1.0	U		C

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:

NYSDEC - ASP
1
INORGANIC ANALYSIS DATA SHEET

NYSDEC SAMPLE NO.

MW16

Lab Name: MITKEM_CORPORATION_____ Contract: _____

Lab Code: MITKEM_ Case No.: _____ SAS No.: _____ SDG No.: 61286__

Matrix (soil/water): WATER__ Lab Sample ID: 61286006_____

Level (low/med): MED____ Date Received: 07/10/99_

% Solids: _____

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	6.0	U		P
7440-36-0	Antimony	3.2	B		P
7440-38-2	Arsenic	9.0	B		P
7440-39-3	Barium	33.0	B		P
7440-41-7	Beryllium	0.80	U		P
7440-43-9	Cadmium	0.78	B		P
7440-70-2	Calcium	21900			P
7440-47-3	Chromium	0.60	U		P
7440-48-4	Cobalt	0.40	U		P
7440-50-8	Copper	0.80	U		P
7439-89-6	Iron	86.2	B		P
7439-92-1	Lead	13.7		*	P
7439-95-4	Magnesium	8400			P
7439-96-5	Manganese	60.5			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	1.8	B		P
7440-09-7	Potassium	2660	B		P
7782-49-2	Selenium	5.0	U		P
7440-22-4	Silver	2.1	B		P
7440-23-5	Sodium	15400			P
7440-28-0	Thallium	3.0	U		P
7440-62-2	Vanadium	0.80	U		P
7440-66-6	Zinc	4.0	B		P
	Cyanide				NR

Color Before: COLORLESS_ Clarity Before: CLEAR__ Texture: _____

Color After: COLORLESS_ Clarity After: CLEAR__ Artifacts: _____

Comments:
DISSOLVED_METALS