REPORT

PHASE II INVESTIGATION EMR CIRCUITS SITE HAUPPAUGE, NEW YORK

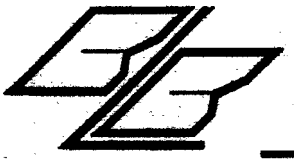
(APPENDIX B-J)
VOLUME 3

Shea & Gould

New York, New York

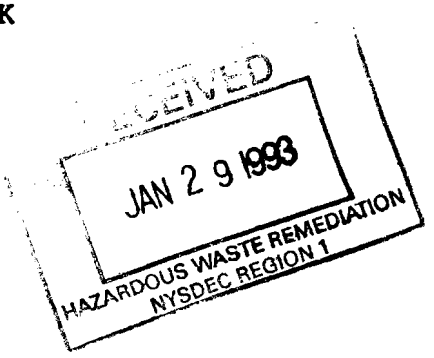
January 1992

BLASLAND & BOUCK ENGINEERS, P.C.
BLASLAND, BOUCK & LEE
ENGINEERS & GEOSCIENTISTS



Appendix B

PHASE II INVESTIGATION
WORK PLAN
EMR CIRCUITS SITE
SMITHTOWN, NEW YORK



Prepared for:

Shea & Gould
1251 Avenue of the Americas
New York, New York 10020

September 29, 1989

ROUX ASSOCIATES, INC.
Huntington Atrium
775 Park Avenue, Suite 255
Huntington, New York 11743

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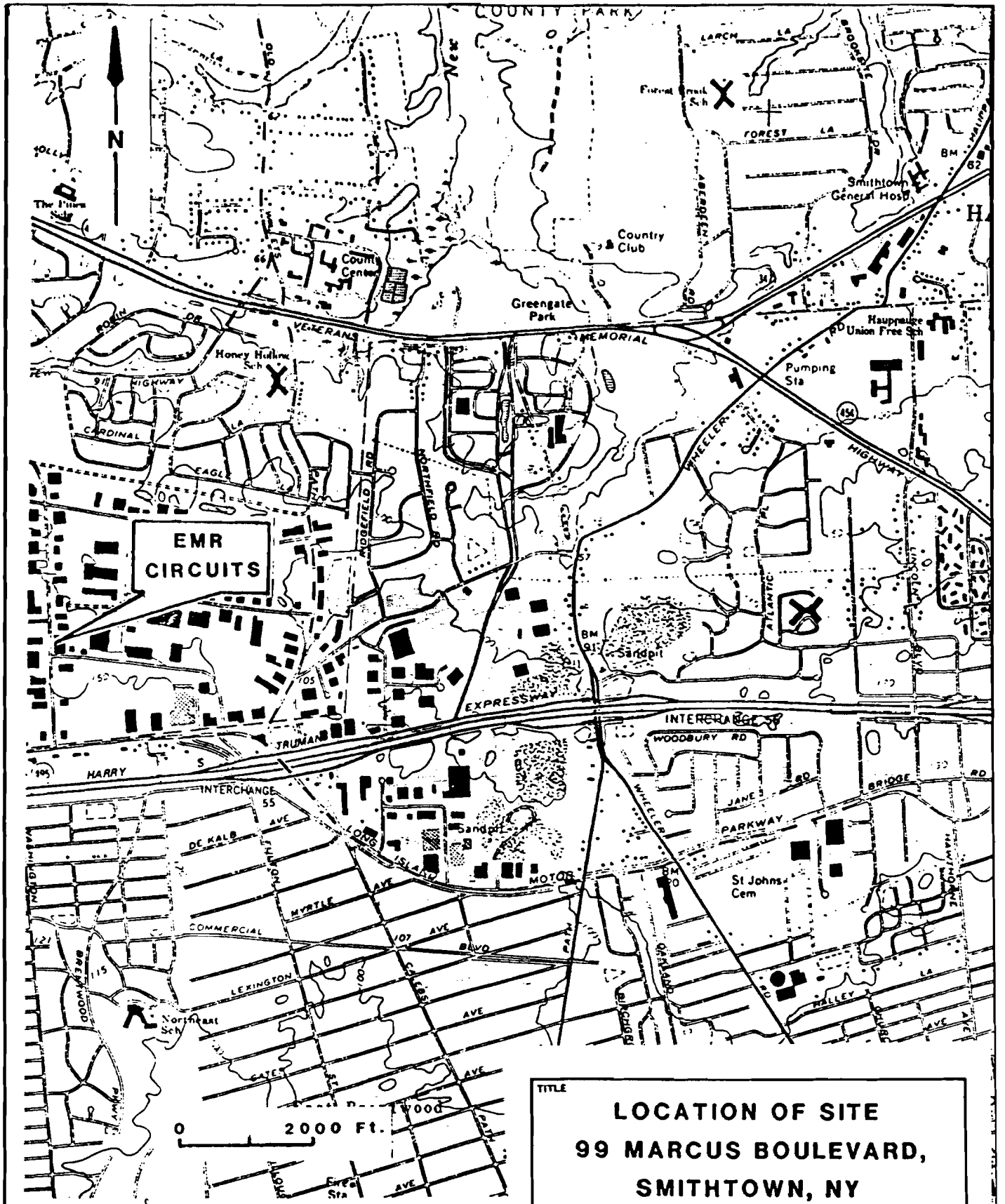
INTRODUCTION

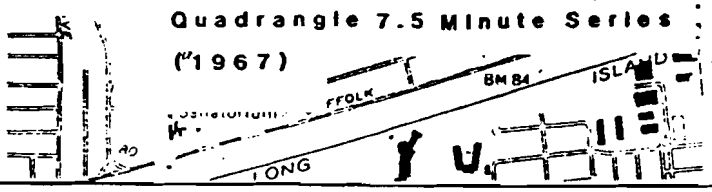
The law firm of Shea & Gould, on behalf of its client, has retained Roux Associates Inc. to prepare a work plan for a Phase II Investigation of the EMR Circuits Site (New York ID No. 152105) located at 99 Marcus Boulevard, Smithtown, N.Y. (hereafter referred to as the "Site"). An initial work plan was previously submitted to New York State Department of Environmental Conservation (NYSDEC) on April 8, 1988 for consideration. The contents of this submission reflect all of NYSDEC's technical comments that were contained in its letter of August 23, 1988.

The Site (Figure 1) is an area of approximately 0.54 acres located in an industrial park situated about 2000 ft. north of the Long Island Expressway on the corner of Kennedy Drive and Marcus Boulevard, and is occupied by a one story brick building.

The Site, presently leased to Arista Lamps, is owned by Grenlein Realty Co., and managed by Finkelstein Realty, Inc. From 1981 to 1984 the Site was leased to EMR Circuits Inc. which operated a facility for the manufacture of circuit boards. During its tenancy, EMR disposed of various chemical substances in two underground leachpools (Figure 2). A list of the chemicals and solvents used at the Site during EMR's tenure (Site Specific Parameters) is shown in Table 1.



SOURCE: USGS Topo - C. Islip, NY Quadrangle 7.5 Minute Series ("1967)



TITLE

LOCATION OF SITE
99 MARCUS BOULEVARD, SMITHTOWN, NY

PREPARED FOR

SHEA & GOULD

ROUX Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

SCALE	FIGURE
SHOWN	1
DATE 2/88	

TABLE 1

List of Chemicals and Solvents used at the Site by

EMR Circuits (1981-1984)

(Site Specific Parameters)

1,1,1 Trichloroethane

1,1,2 Trichloroethylene

Tetrachloroethylene

p-ethyltoluene

1,3,5 and 1,2,5 Trimethylbenzene

Methyl Ethyl Ketone

Xylene

Copper

Lead

Nickel

Chromium

Zinc

Silver

Between November of 1983 and January of 1984, EMR had the leachpools cleaned out and filled with clean sand. When EMR vacated the premises on or about July 1984, Finkelstein Realty Inc. had the building ventilated and washed down to the satisfaction of the Suffolk County Department of Health Services ("SCDHS").

In 1985, the SCDHS installed a monitoring well adjacent to the former leach pools, (Figure 2). Analytical data for soil samples from the well boring at 60 and 120 ft indicated the presence of the following compounds: copper, iron, chromium, nickel, zinc, and silver.

Ground-water samples obtained from the well indicated the presence of iron, trace levels of other heavy metals, and 1,1,1 trichloroethane.

The objective of the proposed Phase II investigation is to evaluate the ground-water quality and conditions at the Site through the installation of monitoring wells and the collection and analysis of ground-water and soil samples. Protocols for decontamination, ground-water sampling, soil and sediment collection, and volatile organic screening of soil are included as Appendix A.

The proposed investigation will be performed by the Huntington, NY office of Roux Associates, Inc., Consulting Ground-Water Geologists and Engineers.

The proposed drilling subcontractor for this project is Delta Well and Pump, Inc., Ronkonkoma NY. The proposed analytical subcontractor, Nytest Environmental Inc., Port Washington, NY is a NYSDEC certified laboratory.

HYDROGEOLOGICAL INVESTIGATION

TASK I - Review of Existing Information

Prior to undertaking the site investigation, Roux Associates will obtain and review all available pertinent information for the area in which the Site is located, including previous Phase I work (EA Science and Technology, 2/1987) on the Site. The review will include U.S.G.S. topographic maps, State of New York geologic reports, ground-water classification maps, water-supply reports, consultants reports for other nearby sites (if they are available), drillers logs, and logs and/or reports for any nearby production wells.

This information will be analyzed and relevant portions synthesized into a comprehensive summary of the hydrogeology and ground-water quality in the vicinity of the EMR Circuits Site. The summary will include area geology, ground-water flow, ground-water availability, ground-water use, ground-water quality, and any known contamination problems in the vicinity of the Site which may affect the Site.

A site reconnaissance will be conducted to mark locations of soil borings based on an evaluation of past discharge systems (refer to Figure 2). Tentative locations of monitoring wells will be determined based on an examination of the Site, direction of ground-water flow as determined from published water-table maps,

surface drainage patterns, and the locations of leaching pools used by EMR Circuits. Underground utilities (gas, electric, water, telephone) will be marked out by the utility companies on Marcus Boulevard, and underground utilities on-site will be marked out from blueprints of the property obtained from the owner.

TASK II - Site Geophysical Survey

A site survey will be conducted with a Geonics EM-31 conductivity meter to determine the existence, or absence of, buried steel drums on the premises. Data will be recorded using the inphase channel of the instrument which provides a measure of the terrain magnetic susceptibility. The ability of the EM-31 to detect drums buried at shallow depths compares favorably with magnetometers while the survey method allows for very rapid site coverage as data are collected virtually as fast as a person can walk. Furthermore, the instrument can be operated continuously while site traverses are made.

The EM-31 data are susceptible to electromagnetic interference (noise) caused by nearby structures, powerlines and atmospheric disturbances. By identifying the locations of these known factors, any data anomalies due solely to unknown factors can be identified.

A geophysical survey of the Site solely to obtain stratigraphic data is not necessary since three deep borings will be drilled for this investigation, and geologic logs of nearby U.S.G.S. test wells indicate relatively homogeneous sand and gravel to a depth of 160 feet below the site. Four U.S.G.S. test wells are located around the EMR Circuits Site within a radius of one mile (Figure 3). Logs of these wells are presented in Attachment C. U.S.G.S. hydrogeological reports have also determined that the water table in the vicinity of the Site is approximately 90 feet below land surface.

TASK III - Soil and Waste Sampling

Approximately seven (7) test borings (not including the monitoring well borings) will be augered around the Site. Five shallow (10-15 ft) borings and one deep (50 ft) boring will be drilled to collect soil samples to determine the vertical and horizontal extent of contamination around the assumed source area. One background boring (10-15 ft) will also be drilled.

Three borings will be augered to depths of between 10 and 15 feet and will concentrate on the area immediately adjacent to the source (refer to Figure 2). Two will be drilled in other areas to verify the presence or absence of waste. One boring (10 to 15 ft deep) will be drilled in a background area to be selected in the field jointly by Roux Associates and NYSDEC representatives. Soil samples will be collected continuously with depth at 2-foot

increments, where a hollow stem auger rig is used, and at 1-foot increments, where a hand auger is used. One boring will be drilled to 50 feet below land surface as close as possible or within the leaching pools, with samples collected every 5 feet. All soil samples will be screened in the field for the presence of volatile organic compounds with a portable photoionization meter (Appendix A), and for non-volatile chemical wastes by visual inspection (staining, odor). The soil samples will be split and placed into separate jars. One jar will undergo the described protocol for field analysis should the screening indicate quantities of volatile organic compounds above background.

A total of eleven selected soil samples (including background samples) will be analyzed for the Site Specific Parameters listed on Table 1. Several soil samples that do not indicate volatiles based on photoionization readings will be analyzed either to define background levels or because of visual observation of staining indicating potential contamination. The total number of samples to be analyzed and the methods to be used are given on Table 2.

TASK IV - Monitoring Well Installation

Three (3) ground-water monitoring wells will be installed at the Site, two downgradient (based on data obtained from U.S.G.S. test wells located within approximately a one mile radius of the site,

Table 2. Number of Samples and Analytical Methods.

Matrix	Volatile Analysis Method #[1)]	Metals Analysis Method #[1)]	Base/Neutral/ Acid Extractables Method #	Pesticide/PCB Method #	Other
Ground Water	3	3	-	-	-
Soil	11	11	-	-	-
Leachate	-	-	-	-	-
Sludge	-	-	-	-	-
Air	-	-	-	-	-
Field Blanks	1	4	-	-	-
Trip Blanks	-	-	-	-	-
Duplicates	1	1	-	-	-
Laboratory QA/QC	[1)]	[1)]	-	-	-

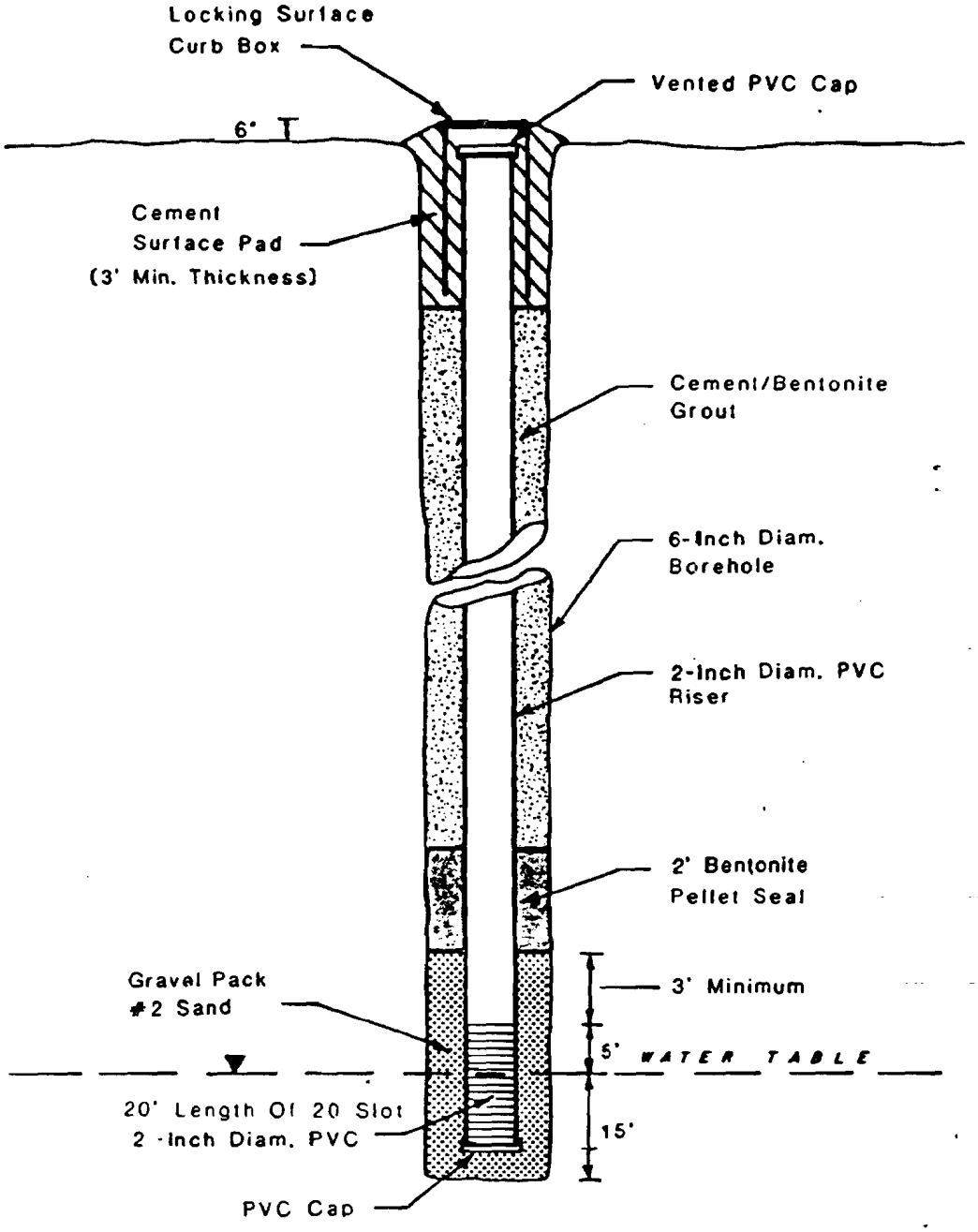
Note: [1)] Labratory Methods are given in Appendix E.

(Figure 3) and one upgradient. Donaldson and Koszalka (1983), Soren (1971), and Lubke (1964) show flow in a northeasterly direction towards the Nissequogue River. The approximate direction of ground-water flow beneath the site based on the water-table contours of Donaldson and Koszalka (1983) and the proposed locations of these wells are shown on Figure 2. The exact locations of these wells may be adjusted based on site constraints and information obtained during the geophysical and soil sampling tasks. After the wells have been completed, surveyed, and sampled, the need for additional wells will be assessed. However, based on the size of the site and its proximity to the U.S.G.S. test wells, additional wells (more than three) seem unwarranted.

Since the depth to water is approximately 90 $\pm$ 5 feet below land surface, the borings will be drilled by hollow stem augering to a depth of approximately 120 feet below land surface. Split-spoon soil samples will be collected at grade, at five-foot intervals from land surface to the bottom of the boring, and at the bottom of the boring. The samples will be logged in detail by the supervising geologist. All soil samples, both above and below the water table, will be screened for the presence of volatile organic compounds with a portable photoionization instrument according to the protocols in Appendix A. Based on the screening results and visual inspection, up to four soil samples will be selected for analysis.

Upon completion of each boring, a two-inch diameter PVC flush-thread casing with a 20-foot long, 20 slot screen will be installed in the boring. The PVC casing and screen will be schedule 40 and N.S.F. approved. The screen depth will be set based on the geologic deposits encountered, exact position of the water-table, and readings obtained by the photoionization meter. If the screen is set higher than the bottom of the borehole, a mixture of clean, fine sand and clay pellets will be placed in the bottom of the borehole to seal the overdrilled portion. Auger cuttings will not be placed back into the monitoring well borings. Well completion (as built) diagrams, as shown in Figure 4, will be provided for each well as they are installed in the field.

After the well is set in the borehole, a gravel pack consisting of uniformly graded sand suitable for a 20 slot screen will be placed from one foot below the screen to at least three feet above the screen. A bentonite pellet (clay) seal at least two feet thick will be placed on top of the gravel pack and inundated with water for approximately one hour to allow proper hydration. The positions of the borehole gravel pack and clay seal will be measured with a weighted steel tape several times to ensure that hydration of the bentonite pellets has occurred. The remaining annular space will be pressure grouted with a cement/bentonite mixture (by weight, 5-10% bentonite, 15-20% cement, 70-80% water) to three feet below land surface. The grout will be placed with



TITLE

PROPOSED MONITORING WELL CONSTRUCTION DETAILS

PREPARED FOR

SHEA & GOULD

ROUX Consulting Ground-Water Geologists
ROUX ASSOCIATES INC

SCALE None

DATE 7/86

FIGURE 4

a tremie to ensure bridging does not take place. A protective locking surface box will then be cemented over the well flush with grade.

The split-spoon samplers will be cleaned between samples using procedures described in Appendix A. Drill rods will be hot water pressure washed or steam cleaned between holes using wash water at a minimum temperature of 212°F. A staging/decontamination area will be set up in a secure area in the unpaved (eastern) portion of the property, where soil cuttings and well development water with PID readings of 5 ppm or greater will be stored in steel, D.O.T. approved drums, and where drilling and sampling equipment will be steam cleaned between holes. Soils from borings (but not soils from monitoring well installation) will be backfilled into the boring if visual observations and readings from field monitoring equipment indicates that the soils are not contaminated.

After installation, the wells will be developed by pumping using dedicated a piston-type or submersible pumps until fine sediments have been removed from the screen zone and a good hydraulic connection exists betwen the well and the formation.
A measuring point will be designated on the PVC casing for each well that will be leveled to a common datum to a vertical precision of 0.01 feet with reference to standard U.S.G.S. or U.S. Coast and Geodetic Survey datum (feet MSL). Water levels in

the wells will be measured on at least three occasions so that a more precise assessment of the water table and direction of ground-water flow at the site can be obtained.

TASK V - Monitoring Well Sampling

After the wells have been installed they will be purged and sampled following the protocols given in Appendix A. Prior to sampling, five casing volumes will be removed from each well by bailing or through the use of a bladder pump. Samples will be collected with a bottom loading dedicated teflon or stainless steel bailers. The pH, specific conductivity and temperature of the ground water will be measured prior to purging, after each casing volume is purged, and at the time of sample collection. Samples will be collected when the three parameters have stabilized, or after five casing volumes have been removed from the well.

A chain-of-custody will be maintained between the geologist collecting the sample and the laboratory (see Appendix D). Samples will be delivered for analysis within 24 hours from the time of collection. The samples will be analyzed for the Site Specific Parameters listed on Table 1. Soil samples will be analyzed for metals using the USEPA Extraction Procedure (EP Toxicity). Ground-water samples will be analyzed for total metals (by digestion) using NYSDEC approved analytical procedures. Metal samples will be preserved and non-filtered.

TASK VI - Preparation of Final Report

Roux Associates will submit a detailed report to Shea & Gould within six weeks of completion of the field work that will include but will not be limited to the following:

- Site history
- Site base map
- Detailed descriptions of Site geology, including cross-sections describing the complete lithostratigraphy of the study area
- Detailed description of all work accomplished
- Site plan showing location of all wells
- Geologic logs and locations of all borings
- Well installation diagrams
- Site geophysical surveys
- A table of well construction data
- A water-table map
- A description of ground-water flow
- A table of analytical results of ground-water samples
- Photoionization response profiles
- A discussion of ground-water quality
- A discussion of remedial alternatives (if necessary)
- Recommendations for additional work, if warranted.

HEALTH AND SAFETY PLAN

A health and safety plan specific to the Site will be prepared prior to the start of field work. Written safety requirements will be distributed and formally discussed with all field personnel.

The health and safety plan will consider all activities required at the site and will be periodically reviewed and updated if warranted by site conditions. At a minimum, the plan will:

- Evaluate the risks associated with the field operations and with each task to be conducted;
- Identify key personnel and alternates responsible for both site and safety operations;
- Address the levels of protection to be worn by personnel during various site operations;
- Establish decontamination procedures for equipment;
- Determine the number of personnel and specific equipment needed in the work zones during initial and/or subsequent operations;
- Establish site emergency procedures, such as emergency communications and procedures for fire and/or explosions; and
- Determine the location of the nearest medical facility for emergency medical care.

Protective Clothing -

The selection or appropriate protective gear will be based on the hazards anticipated or recognized. The photoionization meter will be used to measure any potential emissions from the boreholes. Protection at the Site is anticipated to include hardhat, safety glasses (or faceshield), body covering (coveralls or pants and jacket), and gloves (level D). Omitting one item may compromise the individual's safety. Level C equipment will always be available on-site should the photoionization meter indicate borehole emissions at the work zone. All personnel working at the Site will have completed at least a 40-hour course in health and safety procedures at hazardous waste sites.

Enforcement of Safety Procedures -

It will be the responsibility of the on-site geologist to enforce the established procedures. All Site workers, including all subcontractors who will be on the Site, will be given complete written and oral instructions regarding site health and safety procedures. The on-site geologist will be authorized to stop work any time unsafe conditions arise.

REFERENCES

Donaldson, C.D. and Koszalka, E.J., 1979, Water Table on Long Island, New York, March 1979, U.S.G.S. Open-file Report 82-163.

Lubke, E.R., 1964, Hydrogeology of the Huntington - Smithtown Area, Suffolk County, NY, Geological Survey Water-Supply Paper 1669D.

Soren, J, 1971, Results of Subsurface Exploration in the Mid-Island Area of Western Suffolk County, Long Island, New York, LIWR Bulletin No. 1.

EA Science and Technology, Phase I Investigation: EMR-Circuits, New York I.D. No. 152105, September 1986.

APPENDIX A

Standard Operating Procedures

Collection of Soil Samples for Laboratory Analyses

1.0 Applicability

This Standard Operating Procedure (SOP) is concerned with the collection of valid soil samples to be analyzed by a laboratory.

2.0 Responsibilities

The project hydrogeologist is responsible for the collection of valid and representative soil samples. Also, to ensure that all field personnel are fully aware of the protocols and procedures in this SOP in accordance with project specifications.

3.0 Materials

- split spoon/hand auger
- plastic sheeting
- stainless steel spatula
- disposable vinyl/rubber gloves
- laboratory clean sample containers
- cooler
- distilled water
- acetone
- brushes

4.0 Procedure

4.1 Split-spoon core samplers or stainless steel bucket type hand augers are used to collect sediment samples.

4.2 Prior to collection of the soil sample, all sampling equipment is thoroughly pre-cleaned according to standard decontamination protocols.

4.3 Once the sample is collected it is placed on a clean plastic sheet and logged in detail by the geologist as quickly as possible to reduce the potential for the loss of volatile organics.

4.4 Using disposable vinyl gloves and pre-cleaned stainless steel spoons the sample is then placed in appropriate (EPA-approved) laboratory supplied, pre-cleaned containers.

4.5 The sample containers are then labeled with the following information:

a Name of person(s) collecting soil sample
b Sample location
c Time and date of sample collection
d Sample designation

4.6. Samples are then placed immediately on ice to maintain a temperature of 4° C.

4.7. A chain-of-custody form is completed for each sample collected.

4.8. At the end of each day samples are delivered or shipped to the laboratory for analysis.

Continuous Sediment Sampling Protocols

(1) Split-spoon core samplers are used to collect continuous sediment samples. A hollow stem auger or mud rotary rig is generally used. The split-spoon samplers are driven 1.5 or 2 feet at a time into undisturbed sediments by a standard 140-lb. weight. The geologist records the number of blows per six inches of penetration.

(2) The geologist opens the spoon on a plastic sheet, measures the recovery, logs the core in detail, separates the wash from the true sample and removes the sample from the split-spoon using disposable vinyl gloves and plastic spoons.

(3) The sample jar is labelled with all pertinent information. In addition, the geologist will ensure that:

* samples are taken at appropriate depths;
* unrepresentative protions of the sample are discarded properly;
* that the sampler is decontaminated properly between use; and

* the driller uses proper methods during sample collection and does not use oil or grease on tools entering the borehole.

(4) The sample is placed in a pre-cleaned laboratory supplied EPA-approved jar or vial (whichever is appropriate for compounds being analyzed for) and placed on ice.

(5) Cross contamination is avoided by using as many split-spoon samplers as possible and by thoroughly decontaminating each between samples.

(6) After the 0-2 foot interval sample is collected, a boring is advanced to two feet below land surface. The 2 to 4-foot interval is then sampled by split-spoon. Cross contamination is minimized as samples are collected ahead of the drilled hole.

PROTOCOL FOR VOLATILE ORGANIC SCREENING OF SOIL SAMPLES

1. Open the split-spoon sampler, measure the recovery, separate the wash or cuttings from the true sample by using a dedicated spatula.

2. Split the sample and immediately place in two 8-ounce glass jars. Fill one jar half way and place an aluminium foil seal between the glass and metal cap. This jar will be used for volatile organic screening. The other jar will be saved for laboratory analysis if the field screening indicates quantities of volatile organics above background.

3. Jars will be labeled with the boring number, depth of sample, date of collection and blow counts. In addition, the hydrogeologist will:

   - o take samples at the appropriate depths
   - o properly discard unrepresentative portions of the sample
   - o decontaminate the sampler between use
   - o direct the driller to use proper methods during sample collection and not to use oil or grease on tools entering the borehole.

4. Place the jar without the aluminum foil on ice for possible future analyses.

5. Log the sample in detail and record sediment characteristics (color, odor, moisture, texture, density, consistency, layering and mineralogy).

6. heat the sample with the aluminum foil cover using a Bunsen burner or similar heating device to approximately 80° over a two minute period.

7. Pierce the aluminum foil seal with the extension probe from the photoionization meter and measure relative concentration of volatiles in headspace of the soil sample.

8. Any sedimentary material not representative of the interval sampled will be placed in a pile with the other cuttings from the borehole.

9. The split-spoon core barrels will be cleaned in a plastic bucket by using a scrub brush, detergent and clean potable water. The spoon will then be rinsed with distilled and deionized water, assembled and placed on a plastic sheet for reuse.

GROUND-WATER SAMPLING PROCEDURE - VOLATILE ORGANICS COMPOUNDS

(1) Identify the well and enter presampling information in the field notebook and on the sampling form. Fill out other items on sampling form.

(2) Inspect protective casing and note any items of concern such as missing lock or bent casing.

(3) Cut a slit in one corner of a dedicated plastic sheet and slip it over and around the well or place near the well, creating a clean surface onto which the sampling equipment can be positioned. Do not kick, transfer, drop or in any way let soil or other material fallonto this sheet unless it comes from inside the well. Do not place any meters, tools, equipment, etc., on the sheet unless they have been cleaned with a clean rag to remove any sediments.

(4) Clean the top of the well off with a clean rag and remove the cap or plug, placing it on the plastic sheet.

(5) Clean the steel tape according to NYSDEC approved protocol and measure the depth to water. Record this and compute the volume of water in the well.

(6) Wells will be purged by bailing a minimum three to five casing volumes if the recharge rate is adequate to accomplish this within a reasonable amount of time. Hand bailers will be decontaminated prior to use in accordance with NYSDEC approved protocol.

(7) Record the physical appearance of the water on the field data form (color, odor, turbidity, etc.) as it is bailed.

(8) Prepare the bottles for receiving their samples (labels, place on ice, etc.).

(9) After the well has been purged and developed, a teflon or stainless steel bailer will be used to collect the ground-water sample. This bailer will have been thoroughly pre-cleaned. Immediately prior to lowering the bailer in the well, rinse three volumes of distilled water through the bailer. In addition, the first three bailer volumes obtained

SAMPLING EQUIPMENT DECONTAMINATION PROCEDURE

a. Wash in laboratory detergent (Micro);

b. rinse with deionized water;

c. rinse with hexane;

e. rinse with deionized water;

f. rinse in dilute nitric acid;

g. final rinse with deionized water; or

h. air dry.

APPENDIX B

Logs of U.S.G.S. Test Wells

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No. S36140)

Bureau of
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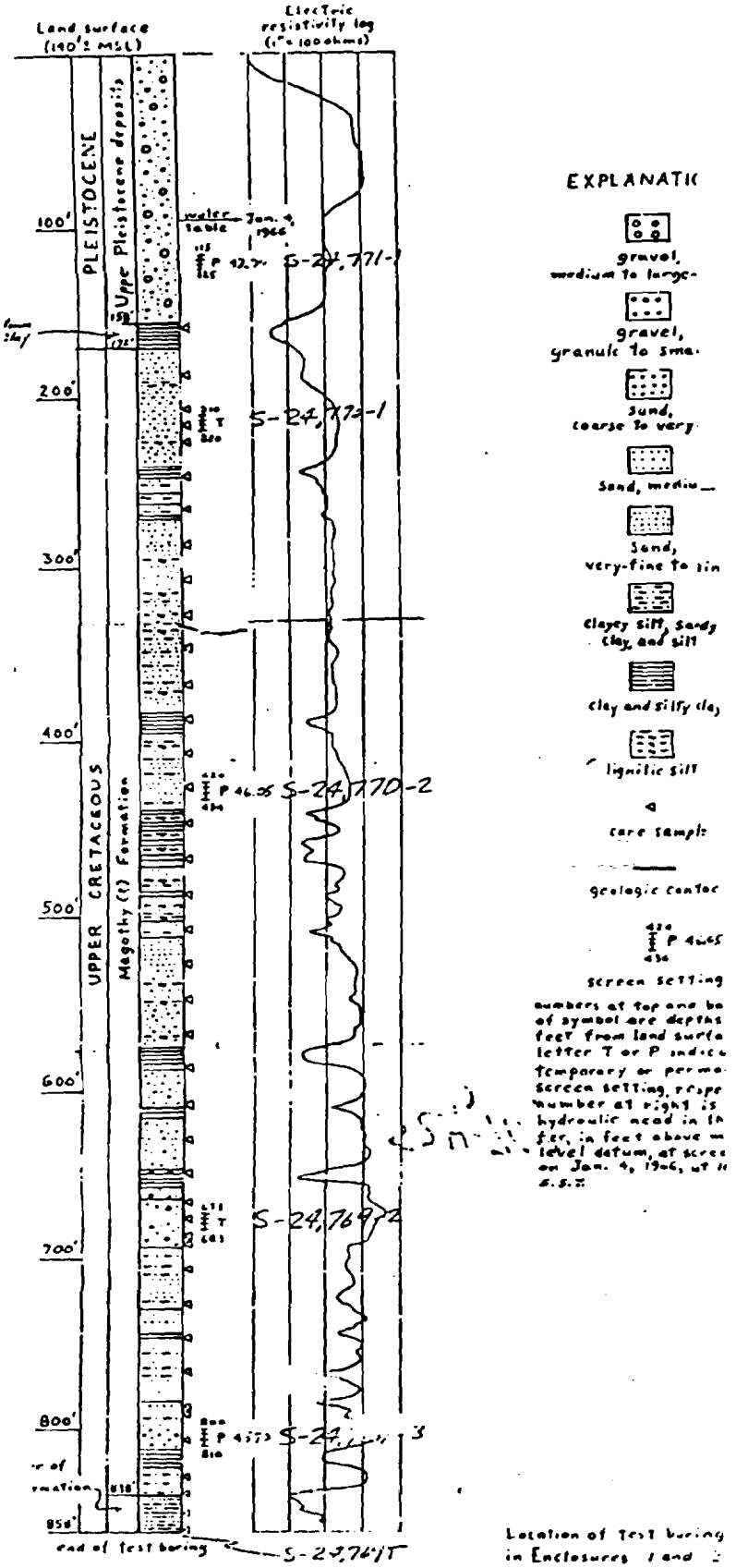
S45594 Suffolk County Dept. of Health Services observation well, 500 feet east of centerline of Pine Hollow Road, 7 feet south of centerline of New Highway, lat 40°49'20"N, long 73°15'09"W, Hauppauge, NY. Cable tool drilled. Completed October 1972. Altitude of land surface about 104 feet above MSL.

Description	Depth (feet)
Fine to coarse tan sand w/ grit	5
Fine to coarse tan sand w/ grit and gravel	10
Fine tan sand w/ grit, gravel, and some light brown clay	15
Fine to coarse tan sand w/ grit and some gravel	20
Fine tan sand w/ some gravel and light brown clay	25
Fine to coarse tan sand w/ grit, gravel, and some brown clay	30
Fine to coarse tan sand w/ grit, gravel and some brown clay	35
Fine to coarse tan sand w/ grit, gravel and some brown clay	40
Fine to coarse tan sand w/ grit, gravel and some brown clay	45
Fine to coarse tan sand w/ grit, gravel and some brown clay	50
Fine to coarse tan sand w/ gravel and and some clay	55
Fine to coarse tan sand w/ grit and chunk gravel	60
Fine to coarse tan sand w/ grit and chunk gravel	65
Fine to coarse tan sand w/ grit and chunk gravel	70
Fine to coarse tan sand w/ grit and gravel	75
Fine to coarse tan sand w/ grit and gravel	80
Fine to coarse tan sand w/ grit and gravel	85
Fine to coarse tan sand w/ grit and gravel	90

SITE 4,
TEST BORING S-24,769
AND WELL-SCREEN SETTINGS



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U.S. Geological Survey files state that from 0 ft. to 62 ft. samples consisted of coarse sand and pebbles. The well, therefore, was screened from 38 ft. to 41 ft. below land surface. No additional data was available.

APPENDIX C

Quality Assurance and Quality Control

Quality Assurance and Quality Control

Project Organization and Responsibility

Over Project Coordination: Mr. William Sarni
Overall QA: Dr. Karen Swanson
Sampling Operations: Ms. Ellen Beacon, Mr. Brian Thomas
Sampling QC: Dr. Karen Swanson
Laboratory Analysis: Mr. John Gaspari, NYTest Environmental, Inc.
Laboratory QC: Mr. John Gaspari, Nytest Environmental, Inc.
Data Processing Activities: Mr. John Gaspari, Nytest Environmental, Inc.
Data Processing QC: Mr. John Gaspari, NYTest Environmental, Inc.
Performance Auditing: Mr. John Gaspari, NYTest Environmental, Inc.
System Auditing: Mr. John Gaspari, NYTest Environmental, Inc.
Data Quality Review: Dr. Karen Swanson
Resumes of key project personnel are provided in Appendix F.

Contract

A subcontract will be entered into between NYTest Environmental, Inc.* and Roux Associates, Inc. The subcontract will be submitted to the NYSDEC for their review prior to being signed by the parties.

* Since NYTest is a NYSDEC approved analytical laboratory, specific analytical procedures and laboratory QA/QC descriptions are not included in this Work Plan. Contract Laboratory Protocols (CLP) November 1987, will be followed for all analytical work performed on this project (see Appendix E).

Data Quality Requirements and Assessments

Data quality requirements and assessments are provided in Table 1. The number of samples to be collected, matrices, analytical protocols to be used and anticipated QA/QC samples to be collected and analyzed are given in Table 2. All water samples collected for volatile halocarbons will be analyzed within seven days of receipt by NYTest.

1. Data Comparability - All data will be presented in the units designated by the methods specified by NYTest Environmental Inc. (which is a state approved laboratory). In addition, sample locations, collection procedures and analytical methods from earlier studies will be evaluated for comparability with current procedures/methods.

2. Data Completeness - The acceptability of less than 90% complete data will be evaluated on a case-by-case basis.

Sample Custody Procedures

NYTest Environmental, Inc. is a State approved laboratory meeting requirements for cleaning and handling analytical equipment. Analytical methods are given in Appendix E.

APPENDIX C - TABLE 1

Data Quality Requirements and Assessments

Parameter	Sample Matrix	Detection Limit[1]	Estimated Accuracy[2]	Accuracy Protocol[3]	Estimated Precision[3]	Precision Protocol[3]
Purgeables	Ground Water	1.6-7.2 ppb				
Purgeables	Soil	1.6-7.2 ppb				
Metals	Ground Water	?	*			
Metals	Soil	?	*			

Notes:

1. Detection Limit varies by individual compound.
2. Accuracy is based on analytical method.
3. *EPA SW 846 "TEST METHODS FOR EVALUATION OF SOLID WASTE".

Table 2. Number of Samples and Analytical Methods.

Matrix	Volatile Analysis Method #[1)]	Metals Analysis Method #[1)]	Base/Neutral/ Acid Extractables Method #	Pesticide/PCB Method #	Other
Ground Water	3	3	-	-	-
Soil	11	11	-	-	-
Leachate	-	-	-	-	-
Sludge	-	-	-	-	-
Air	-	-	-	-	-
Field Blanks	1	4	-	-	-
Trip Blanks	-	-	-	-	-
Duplicates	1	1	-	-	-
Laboratory QA/QC	1)	1)	-	-	-

Note: 1) Labratory Methods are given in Appendix E.

Analytical Procedures

The analytical procedures will correspond to CLP methods. The analytical procedures will be specified in the contract between Roux Associates, Inc. and NYTest.

Calibration Procedures and Preventative Maintenance

The following information/equipment will be maintained:

1. Field and laboratory equipment checklists which will contain records of usage, maintenance, calibration and repairs.

2. A schedule of preventive maintenance tasks that will be carried out to minimize downtime of the measurement equipment.

3. Critical spare parts that will be on hand to minimize equipment downtime.

Documentation, Data Reduction and Reporting

NYTest Environmental, Inc. is a State approved laboratory meeting requirements for documentation, data reduction and reporting. In addition to the NYTest standard data package, the forms included in Appendix D will be completed and included in the project report. Form 1 is the chain of custody completed by both Roux Associates, Inc. and NYTest. Forms 2 and 3 are to be completed by Roux Associates, Inc. Forms 4 through 10 will be completed by NYTest.

Data Validation

Data validation will be performed by OBG Laboratories, Inc., Syracuse, NY.

Corrective Action

NYTest Environmental, Inc. is a State approved laboratory meeting requirements for corrective action protocols. Analytical cleanup will be employed where necessary to alleviate matrix interferences (following SW846 protocols). Other corrective actions recommended by Roux Associates, Inc. and/or OBG Laboratories Inc. will be discussed with the NYSDEC prior to implementation.

Field Management Procedures

Field management procedures will follow Roux Associates, Inc. standard operating protocol. These field management protocols include following proper chain-of-custody procedures to track a sample from collection through analysis, noting when and how samples are split (if required), maintaining a Field Log Book, and preparing Sample Information Record Forms. A discussion of each of these procedures follows:

Chain of Custody

After a sample has been collected, a Chain of Custody Form (see Appendix D) will be completed and signed by the person collecting the sample. The original of the form will remain with the sample and will be signed each time the sample is relinquished to another party, until it reaches the laboratory or analysis is completed. The field sampler will keep one copy and a copy will be retained for the project file. The sample bottle will be labeled, at a minimum, with the following:

- Firm name
- Sample number
- Analysis to be performed

- o Date
- o Time of collection

Split Samples

If samples are to be split with NYSDEC, a Receipt for Samples Form will be completed and signed. A copy of the Chain of Custody Form will accompany this form.

Field Log Book and Sample Information Record

The Field Log Book will be a bound document of consecutively numbered pages maintained for each project. The first page of this log will contain the following information:

- o Project name and address
- o Name, address and phone number of field contact
- o Type of site/process (if known) generating waste
- o Type of waste

Daily entries will be made in the Field Log Book and on the Sample Information Record Form, where appropriate, for the following information:

- Purpose of sampling
- Location of sampling point
- Type(s), Number(s) and volume(s) of sample(s) taken
- Description of sampling point and sampling methodology
- Date and time of collection
- Collector's sample identification number(s)
- Sample distribution and method of storage and transportation
- References such as maps of the sampling site or photographs of sample collection
- Field observations, including results of field analyses (e.g.: organic vapor measurement, pH, temperature, specific conductance), water levels, drilling logs, etc.
- Signature of personnel responsible for completing log/ form entries

Deviations

Prior to any deviations from the above protocols, the designated DEC QA/QC officer will be notified.

APPENDIX D

Example Documentation Forms

FORM 1

ROUX ASSOCIATES

CHAIN OF CUSTODY RECORD

Project No. _____

Project Title _____

Sample Source _____

Collectors Name _____ / _____
print signature

Field Information _____

Method Of Shipping _____

Relinquished By:

sign _____

for _____

Date/Time _____

Received By:

sign _____

for _____

Date/Time _____

Sample Designation	Sample Location	Date	Time	Analyte	No. Of Containers

Comments:

ROUX FORM 2 ROUX ASSOCIATES INC

Client/Project _____ Page ____ of ____

Project no. _____

SAMPLE INFORMATION RECORD

SITE _____ SAMPLE CREW _____

SAMPLE LOCATION/WELL NO. _____

FIELD SAMPLE I.D. NUMBER _____ DATE _____

TIME _____ WEATHER _____ TEMPERATURE _____

SAMPLE TYPE:

GROUND WATER _____ SEDIMENT _____

SURFACE WATER/STREAM _____ AIR _____

SOIL _____ OTHER (Describe, i.e., 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:

_____ _____ _____ _____

_____ _____ _____ _____

REMARKS: _____

_____

_____

WELL CASING VOLUMES

GAL/FT				
	1-¼" = 0.077	2" = 0.16	3" = 0.37	4" = 0.65
	1-½" = 0.10	2-½" = 0.24	3-½" = 0.50	6" = 1.46

ROUX Consulting Engineers and Geologists
ROUX ASSOCIATES INC

RECEIPT FOR SAMPLES

PROJECT NAME: _____ FIELD LOG BOOK REFERENCE NUMBER: _____

PROJECT ADDRESS: _____ SAMPLED BY: _____

PROJECT NUMBER: _____ SPLIT WITH: _____

SAMPLE NUMBER	DATE	TIME	COMP	GRAB	SPLIT SAMPLES	LOG BOOK PAGE NO.	TAG NUMBERS	SAMPLE LOCATION	NO OF CONTAINERS	REMARKS

Relinquished by (Signature)		Received by (Signature)		Reference
Date	Time	Title	Date	Time

FORM 3

FORM 4

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND
ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER

* Check Appropriate Boxes

* CLP, Non-CLP (PLEASE INDICATE YEAR OF PROTOCOL)
* HSL, Priority Pollutant

FORM 5

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED

:DU,OFREF.1

FORM 6

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

ORGANIC ANALYSES

SAMPLE ID	MATRIX	ANALYTICAL PROTOCOL	EXTRACTION METHOD	AUXILARY CLEAN UP	DIL/CONC FACTOR

FORM 7

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED

FORM 8

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

SAMPLE ID	MATRIX	DATE COLLECTED	DATE REC'D AT LAB	DATE EXTRACTED	DATE ANALYZED

FORM 9

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

SAMPLE ID	MATRIX	METALS REQUESTED	DATE RECEIVED	DATE DIGESTED	DATE ANALYZED

FORM 10

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

LABORATORY SAMPLE CODE	MATRIX	ANALYTICAL PROTOCOL	DIGESTION PROCEDURE	MATRIX MODIFIER	DIL/CONC FACTOR

APPENDIX E

Nytest Environmental Analytical Methods

QUOTATION
#1017B

To:
Roux Associates, Inc.
Attention: Mr. Paul Roux

Page: 2
Date: 5/11/89

Analytical Methods:

All analyses will be conducted in accordance with the NYSDEC Contract Laboratory Protocol dated November 1987**

Parameter	Volume Number
Volatile Organics	Vol I Part II Exhibit D
EP Toxicity plus Metals	Vol II Part VII & IX Exhibit D
Metals	Vol III Part XIV Exhibit D

** The detection limits precision, accuracy and QA/QC will be defined by the individual methodology.

QA/QC samples (ex. MS, MSD, etc.) will be performed as part of the protocol, but they may not be performed on site specific samples (unless directed to do so by Roux Associates). If they are performed on site specific samples, they will be billed as samples.

APPENDIX F

Resumes of Project Personnel

WILLIAM SARNI
Vice President

EDUCATION

B.A. Geology, Queens College, City University of New York, 1975
M.A. Geology, Queens College, City University of New York, 1981

PROFESSIONAL SOCIETIES

Association of Ground Water Scientists and Engineers
Society of Professional Well Log Analysts (Minerals and Geotechnical Logging Society)
Society of Petroleum Engineers
American Geophysical Union
Geological Society of America
Colorado Mining Association

REGISTRATIONS

American Institute of Professional Geologists (No. 5092)
State of Indiana (No. 67)
State of North Carolina (No. 256)

PROFESSIONAL EXPERIENCE

1988 - Date	Principal Geologist/Senior Associate Roux Associates Inc. Huntington, New York
1985 - 1988	Principal Geologist/Associate Geraghty & Miller Inc. Denver, Colorado
1981 - 1985	Exploration Geologist Arco Exploration Co. Houston, Texas
1980 - 1981	Assistant Project Geologist D'Appolonia Consulting Engineers Albuquerque, New Mexico
1977 - 1980	Senior Hydrogeologist Geraghty & Miller Inc. Syosset, New York

WILLIAM SARNI

KEY PROJECT EXPERIENCE

- Managed a multi-million dollar CERCLA Remedial Investigation Feasibility Study at a 5200 acre industrial site in Colorado. The project required the management of several subcontractors selected to provide risk assessment, numerical modeling and engineering services over a three year period, and the coordination of all RCRA and CERCLA investigations at the site.

- Managed several investigations of gasoline and diesel spills/leaks from underground storage tanks in Colorado and North Dakota. Tasks included aquifer tests, numerical modeling of aquifer response and the design of recovery systems.

- Managed an investigation of the extent of diesel fuel contamination at a railroad maintenance yard in Denver Colorado. The project required the numerical modeling of ground-water flow and the prediction of aquifer response to proposed recovery wells. A separate phase recovery system was designed as part of the investigation.

- Managed an environmental audit of a computer components manufacturing facility in Colorado. Tasks included the field analysis of ground water quality with a portable GC and an EM conductivity survey.

- Managed a hydrogeologic investigation to permit a landfill site at an abandoned coal strip mine in West Virginia. Tasks included well design, drilling supervision, aquifer tests and data analysis, water sampling and supervision of a seismic refraction survey.

- Managed an investigation in Illinois to define the extent of separate phase carbon tetrachloride contamination of a water-table aquifer. Tasks included the analysis of a two phase flow system and the design of a recovery system.

- Managed the preparation of two uranium mine and mill relicensing applications in western New Mexico.

- Supervised hydrogeologic field services associated with determining the magnitude and impact of ground-water contamination caused by the operation of a coal gasification plant on Long Island.

- Supervised the installation and monitoring of a uranium mill tailings dam dewatering system for a site in New Mexico.

- Participated in a ground-water development program in Puerto Rico. Tasks included the supervision of test well drilling, core descriptions, aquifer test analysis, ground-water sampling and geophysical well logging.

WILLIAM SARNI

KEY PROJECT EXPERIENCE (Cont'd)

- o Performed a seismic refraction survey and the geologic mapping of a proposed dam site in southwestern New Mexico for a copper mine and mill.
- o Completed several regional geological mapping projects in Texas and Louisiana using subsurface geologic data, geophysical well logs and seismic reflection data.

PUBLICATIONS

Sarni, W., and N.K. Coch, 1984. "Sedimentology of Block Island Channel and Adjacent Continental Shelf." Presented at the Geological Society of America, N.E. Region Meeting, March 16, 1984, in Providence, Rhode Island.

KAREN A. SWANSON
Senior Geochemist

EDUCATION

Ph.D. Geochemistry, 1988, The Pennsylvania State University
M.S. Geology, 1979, University of Pennsylvania
B.S. Chemistry, 1976, Worcester Polytechnic Institute

PROFESSIONAL SOCIETIES

American Chemical Society
Geological Society of America
National Water Well Association

CERTIFICATION

OSHA approved 40 Hour Health and Safety Training Course for Hazardous Waste Operations.

PROFESSIONAL EXPERIENCE

1989 - Date	Senior Geochemist, Roux Associates
1988 - 1989	Research Scientist and Section Chief, Bureau of Aquifer Protection, New Jersey, Department of Environmental Protection (NJDEP)
1987 - 1988	Section Chief, Environmental Cleanup Responsibility Act (ECRA) Section, Bureau of Ground Water Quality Management NJDEP
1986 - 1987	Supervising Geologist, ECRA Section, NJDEP
1985 - 1986	Senior Geologist, Bureau of Ground Water Quality Management, NJDEP
1979 - 1984	Research Assistant, Pennsylvania State University
1977 (Summer)	Chemist, Sandoz Crop Protection Company
1973 - 1975 (Summers)	Analytical Chemist, Sandoz Pharmaceuticals Company

KEY PROJECT EXPERIENCE

- Reviewed and revised New Jersey ground-water standards and regulations based on current technical literature.
- Coordinated with other state and federal agencies on ground-water issues.
- Supervised eleven geologists involved in review of sampling and cleanup plans for the ECRA Program.
- Evaluated hydrogeologic data to determine the extent of ground-water contamination at industrial facilities.

KAREN A. SWANSON

KEY PROJECT EXPERIENCE (Cont'd)

- o Issued ground-water discharge permits under the New Jersey Pollutant Discharge Elimination System (NJPDES).
- o Designed ground-water monitoring programs.
- o Evaluated RCRA Part A and Part B permit applications and determined RCRA status of hazardous waste facilities.
- o Synthesized organic compounds for development of insecticides and herbicides.
- o Assayed raw materials and finished products using spectrophotometry, chromatography and wet chemistry methods.

PUBLICATIONS

Swanson, K.A. and A.H. Johnson (1980). "Trace Metal Budgets for a Forested Watershed in the New Jersey Pine Barrens", Water Resources Research 43, p. 373-376.

Turner, R.S., K.A. Swanson, and I. Demir (1980). "Lead Retention and Movement in the New Jersey Pine Barrens" (abstr.), Geological Society of America Abstracts with Programs 12, p. 88-89.

CONTINUING EDUCATION

"Management II", NJDEP Division of Personnel, Trenton, New Jersey, October - November, 1988.

"Management I", NJDEP Division of Personnel, Trenton, New Jersey, June 1988

"Advanced Interpretation of Mass Spectra", short course sponsored by Finnigan MAT Institute, Trenton, New Jersey, February 29 - March 4, 1988.

New Jersey Certified Public Manager Program, Levels I - III, sponsored by the NJ Department of Personnel and Rutgers University, Princeton, NJ, September 1987 - June 1988.

"Groundwater Modeling Methodology and Application", Short Course sponsored by The International Groundwater Modeling Center of the Holcomb Research Institute, New York, NY, September 8-12, 1986.

"Groundwater Pollution and Hydrology", Short Course sponsored by Princeton Associates, Princeton, NJ, July 8-12, 1985.

"RCRA Reauthorization and Part B Permit Writing", sponsored by USEPA, Kingston, NY, April 22-25, 1985.

BRIAN J. THOMAS
Project Hydrogeologist

EDUCATION

B.S. Geology, 1985, University of Massachusetts at Amherst

PROFESSIONAL EXPERIENCE

1988 - Date Project Hydrogeologist
1986 - 1987 Geologist, Roux Associates
1986 Technician, Roux Associates

CERTIFICATION

- 40 Hour OSHA Health and Safety Operation at Hazardous Materials Sites.

KEY PROJECT EXPERIENCE

- Collected surface-water samples from streams and rivers in the midwest and southeastern parts of the United States as par of a major herbicide monitoring project.
- Two year research on the effects of herbicide run-off on surface waters.
- Assisted in the investigation of fuel oil-contaminated soil and ground water at a railroad yard in Connecticut.
- Collected and logged soil samples to determine the extent of unsaturated zone contamination at a chemical plant in New Jersey.
- Assisted in the investigation of soil and ground-water contamination by volatile organic compounds at a manufacturing facility in Connecticut.
- Installed monitoring wells and collected soil samples at a New Jersey superfund site.
- Assisted in the installation of monitoring wells for an ongoing herbicide study in California.
- Collected drywell sediment samples for site assessment.
- Involved in the removal, sampling and disposal of underground storage tanks in New Jersey, Connecticut and Pennsylvania.
- Assisted in the site assessment of a large electric and gas power company in New York.

- Involved with an on-going hydrocarbon and pesticide clean up operation in Massachusetts.
- Conducted a field investigation for the detection of PCB oil spills in Connecticut.
- Assisted in a remedial investigation of a superfund site in New York.
- Logged soil borings and collected samples for a remedial investigation for PCB oil contamination at a plant in Pennsylvania.
- Supervised the installation of a cement-bentonite slurry wall (hydrolic barrier) at a manufacturing plant in Pennsylvania.
- Conducted Phase I investigations for superfund sites in New York.
- Manage the remedial program for ground water contamination at a facility in New York.

ELLEN BEACON
Geologist

EDUCATION

B.S. Geology, 1986, Queens College of the City University of New York

HONORS

Honors in Geology
Lt. G.C. Gierak Memorial Award

PROFESSIONAL SOCIETIES

National Water Well Association - Groundwater Technology Division

CERTIFICATION

OSHA Approved Health and Safety Operations at Hazardous Materials Sites, 1988.

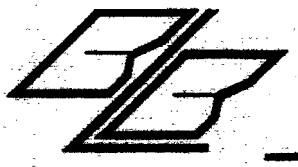
PROFESSIONAL EXPERIENCE

1988 - Date	Geologist / Roux Associates, Inc.
1987 - 1988	Hydrologic Technician / Roux Associates, Inc.
1986 - (Summer)	Land Surveyor / Bohn & Bonacci, PC.
1985 - 1986	Research Assistant / Queens College Radiocarbon Laboratory
1984 - 1986	Laboratory Technician / American Petrographics, Inc.

KEY PROJECT EXPERIENCE

- Project Manager and Field Supervisor for a nationwide large-scale retrospective ground-water monitoring program for agricultural chemicals. Tasks included:
  - Preliminary research and site evaluation
  - Well selection and sampling
  - Supervision of data management
- Participated in several small scale retrospective domestic well monitoring programs for agricultural chemicals in MN, NE, IN, MI, WI, and PA.

- Conducted long-term monitoring of ground water at a former agricultural chemical formulating facility in NJ.
- Conducted several soil and groundwater investigations at commercial/industrial facilities on Long Island.
- Data management of investigations of over 100 service stations throughout the Northeast and Mid-Atlantic States for a major petroleum company.
- Participated in soil/gas venting program for a gasoline spill into a coastal plain aquifer in DE.
- Developed several NYDEC Phase II work plans for potential Superfund sites on Long Island.
- Assisted in the development of a RI/FS Work Plan for an industrial site characterized by PCB-oils floating on the water table.



Appendix C

EEG MAGNETOMETER SURVEY - APRIL 8, 1991

EMR CIRCUITS, INC.
PHASE II INVESTIGATION

AREA 1 (FIELD AREA EAST OF BUILDING)

	LINE 1	LINE2	LINE 3	LINE 4	LINE 5	LINE 5A	LINE 6
ROW 1	54,185	54,188	54,156	54,129	54,118	54,237	54,765
ROW 2	54,245	54,238	54,266	54,187	54,096	54,119	[illegible]
ROW 3	54,273	54,279	54,343	54,191	53,974	53,755	[illegible]
ROW 4	54,284	54,280	54,260	54,134	53,982	53,746	[illegible]
ROW 5	54,296	54,271	54,223	54,204	54,079	53,959	[illegible]
ROW 6	54,303	54,290	54,269	54,251	54,119	54,066	54,140
ROW 7	54,301	54,294	54,290	54,217	54,108	54,005	[illegible]
ROW 8	54,246	54,285	54,547	54,352	54,131	54,020	53,786

		MIN	53,024
53,858		AVG	54,142
54,425		MAX	54,816
		VAR	80,577
		STD	284

AREA 2 (LAWN AREA WEST OF BUILDING)

	LINE 1	LINE2	LINE 3	LINE 4
ROW 1	54,114	52,518	53,014	53,316
ROW 2	53,884	53,879	53,869	53,893
ROW 3	54,189	53,988	54,020	54,298

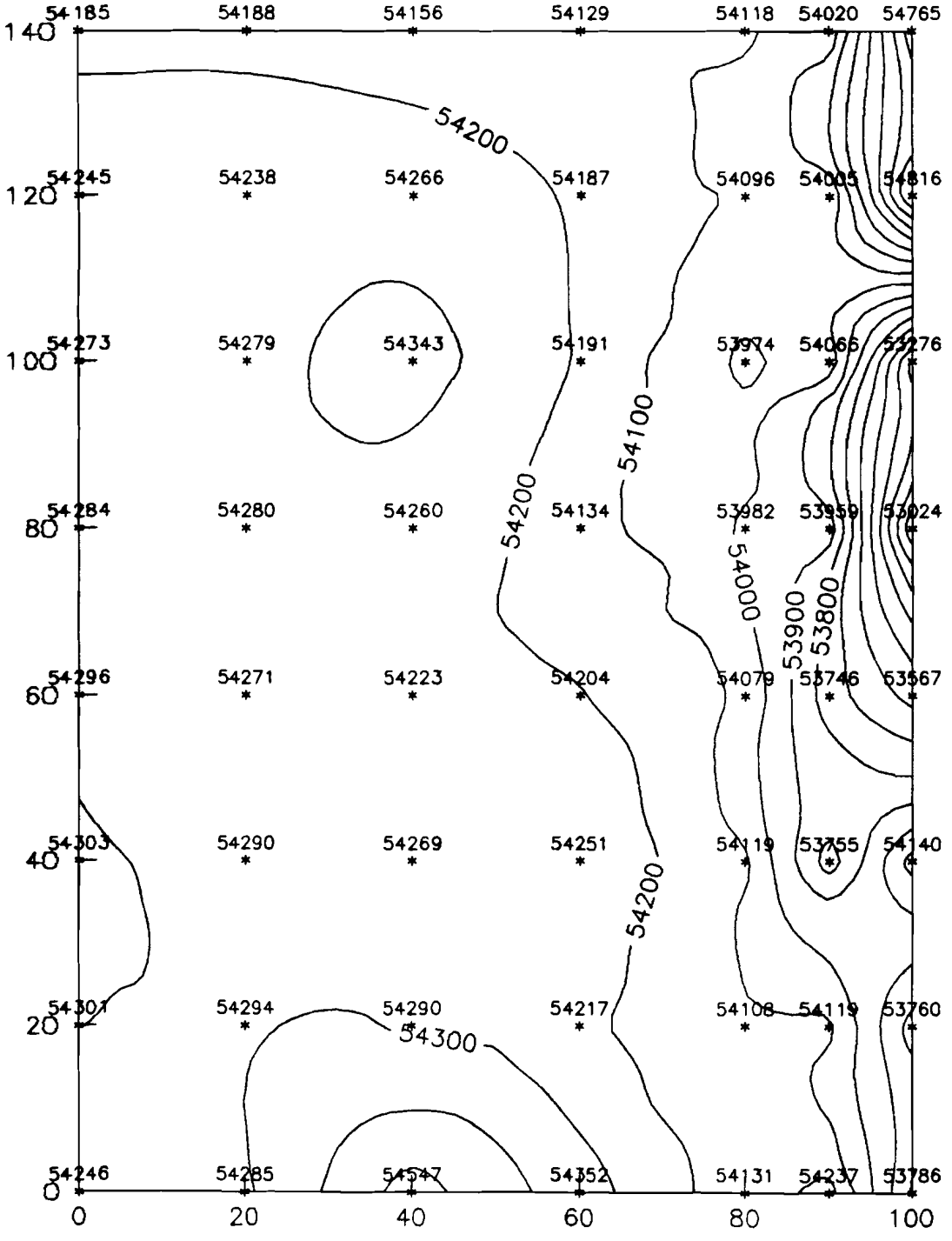
		MIN	52,518
53,243		AVG	53,749
54,254		MAX	54,298
		VAR	256,010
		STD	506

NOTE: ALL MEASUREMENTS ARE IN GAMMAS

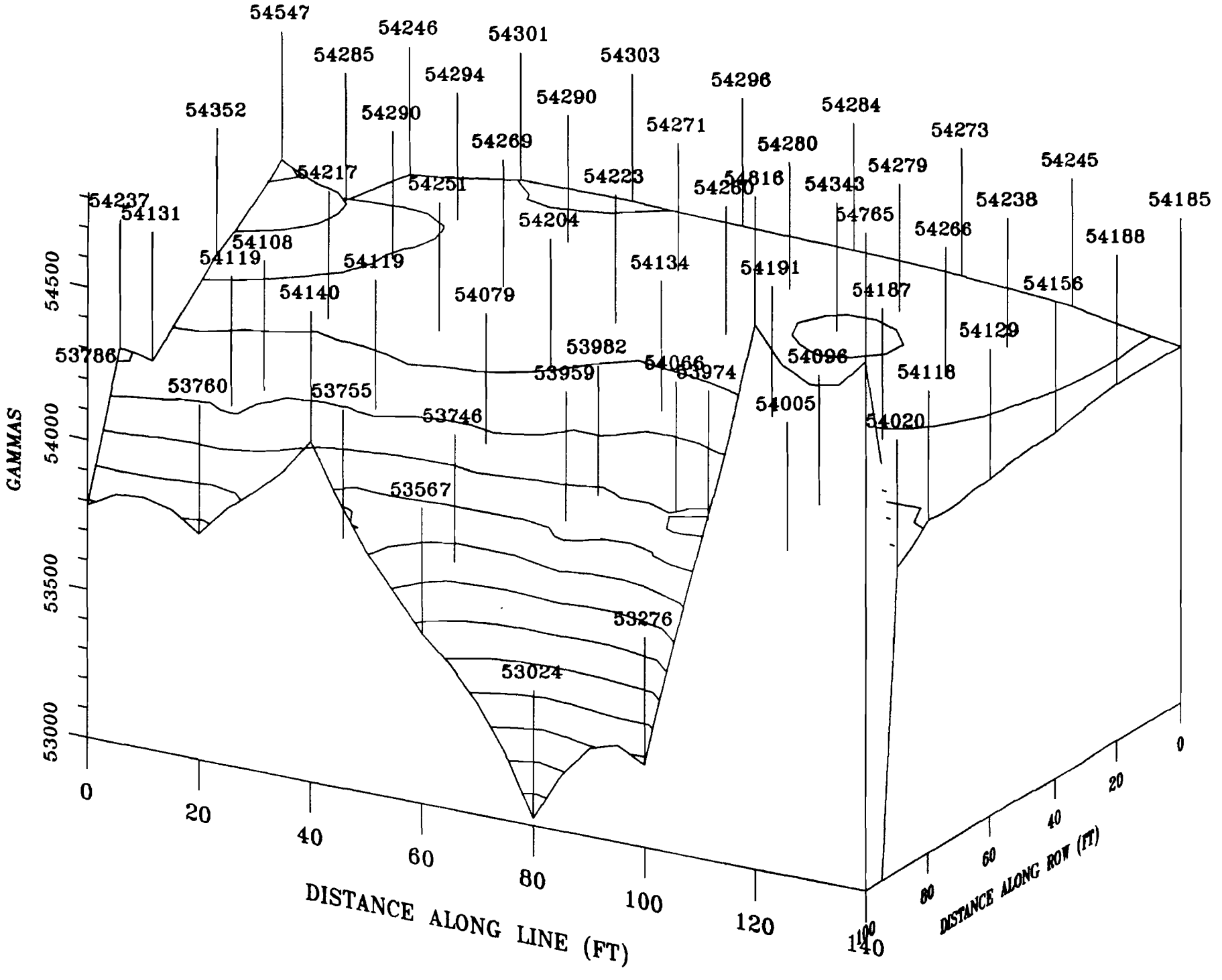
```
**************************************************
NUMBER OF SAMPLES =                          56
MEAN =                                       54141.52
ESTIMATED STANDARD DEVIATION =               286.4292
DEGREES OF FREEDOM =                         55
CONFIDENCE LEVEL FOR THE MEAN =              99  %
THE STUDENT T =                              2.667969

THE CONFIDENCE INTERVAL FOR THE MEAN
 54039.4 <= POPULATION MEAN <= 54243.64

CONFIDENCE LEVEL FOR THE VARIANCE =          99  %
XV2=CHI-SQUARE
XV2( 55 , .995 ) =                            31.71885
XV2( 55 , .005 ) =                            85.78135

THE CONFIDENCE INTERVAL FOR THE STANDARD DEVIATION
 229.3519 <= STANDARD DEVIATION <= 377.1724
**************************************************

PRESS ENTER TO CONTINUE?


DO YOU WANT TO DO ANOTHER CALCULATION (Y/N)?



**************************************************
NUMBER OF SAMPLES =                          56
MEAN =                                       54141.52
ESTIMATED STANDARD DEVIATION =               286.4292
DEGREES OF FREEDOM =                         55
CONFIDENCE LEVEL FOR THE MEAN =              95  %
THE STUDENT T =                              2.003906

THE CONFIDENCE INTERVAL FOR THE MEAN
 54064.82 <= POPULATION MEAN <= 54218.22

CONFIDENCE LEVEL FOR THE VARIANCE =          95  %
XV2=CHI-SQUARE
XV2( 55 , .975 ) =                            36.39658
XV2( 55 , .025 ) =                            77.36338

THE CONFIDENCE INTERVAL FOR THE STANDARD DEVIATION
 241.5077 <= STANDARD DEVIATION <= 352.1019
**************************************************

PRESS ENTER TO CONTINUE?

DO YOU WANT TO DO ANOTHER CALCULATION (Y/N)?
```

```
**************************************************
NUMBER OF SAMPLES =                          56
MEAN =                                       54141.52
ESTIMATED STANDARD DEVIATION =               286.4292
DEGREES OF FREEDOM =                         55
CONFIDENCE LEVEL FOR THE MEAN =              90  %
THE STUDENT T =                              1.673096

THE CONFIDENCE INTERVAL FOR THE MEAN
 54077.48 <= POPULATION MEAN <= 54205.56

CONFIDENCE LEVEL FOR THE VARIANCE =          90  %
XV2=CHI-SQUARE
XV2( 55 , .95 ) =                            38.96006
XV2( 55 , .05 ) =                            73.31065

THE CONFIDENCE INTERVAL FOR THE STANDARD DEVIATION
 248.0934 <= STANDARD DEVIATION <= 340.3211
**************************************************

PRESS ENTER TO CONTINUE?


DO YOU WANT TO DO ANOTHER CALCULATION (Y/N)?
```

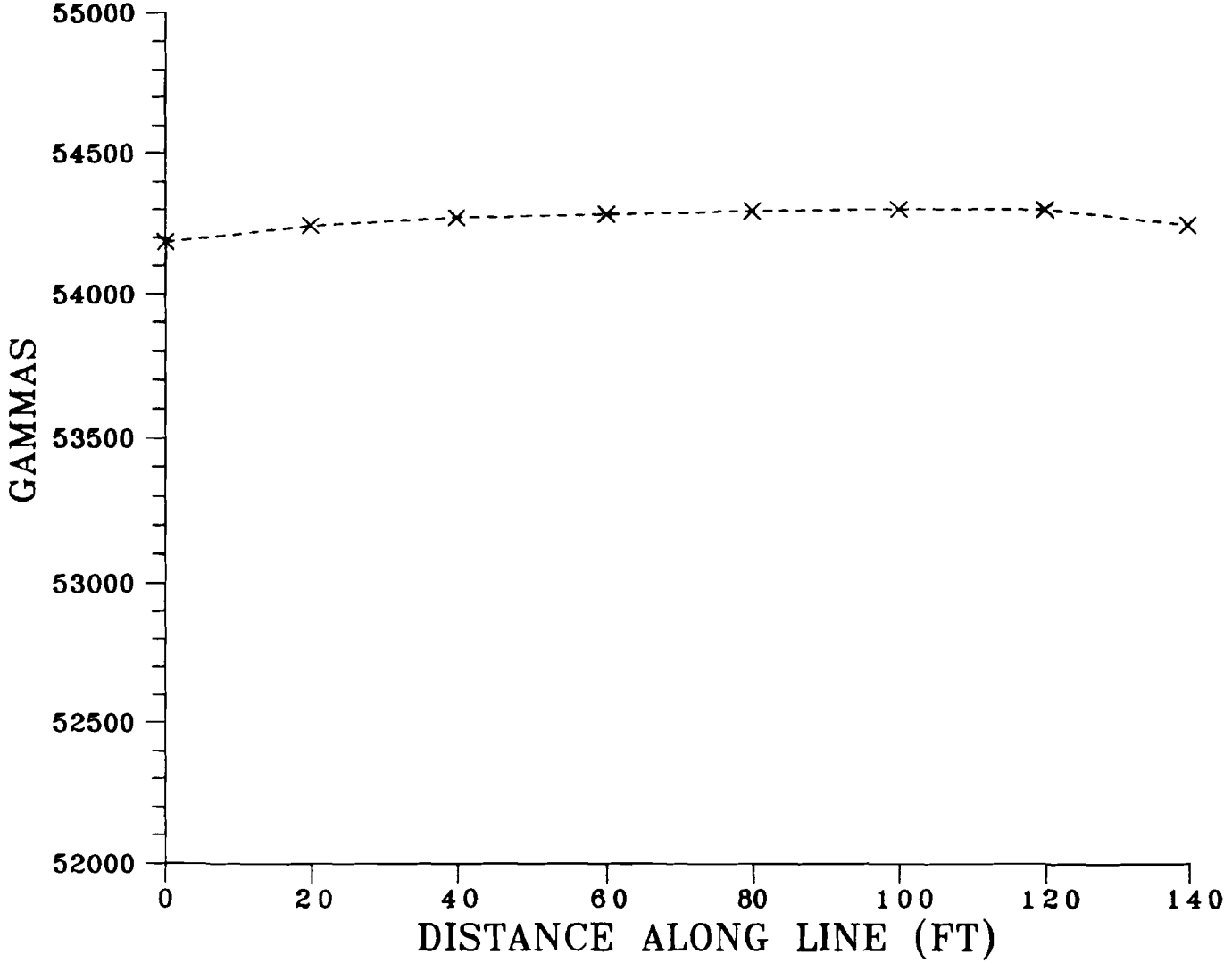
EMR CIRCUITS MAGNETOMETER SURVEY AREA 1



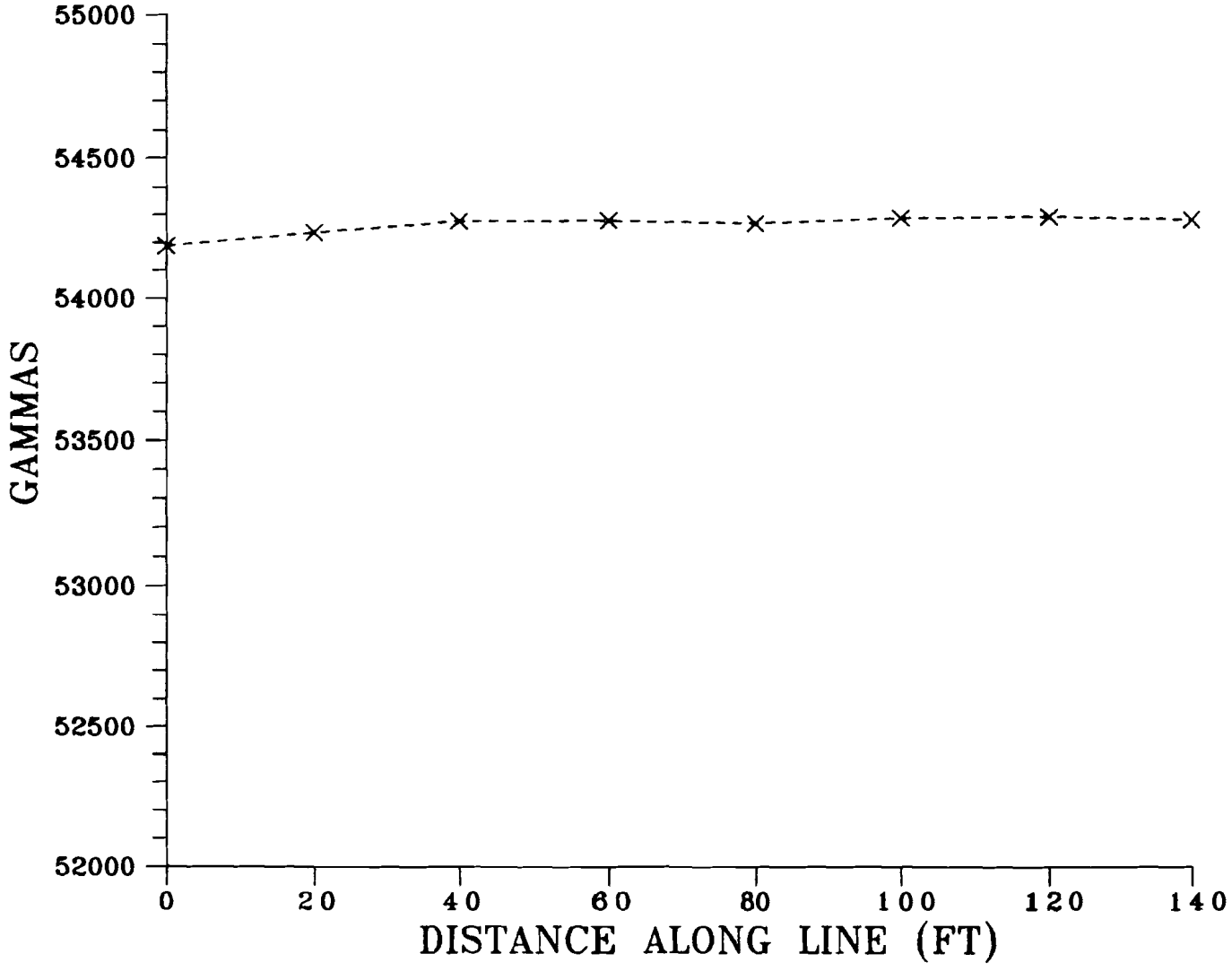
EMR CIRCUITS MAGNETOMETER SURVEY AREA 2



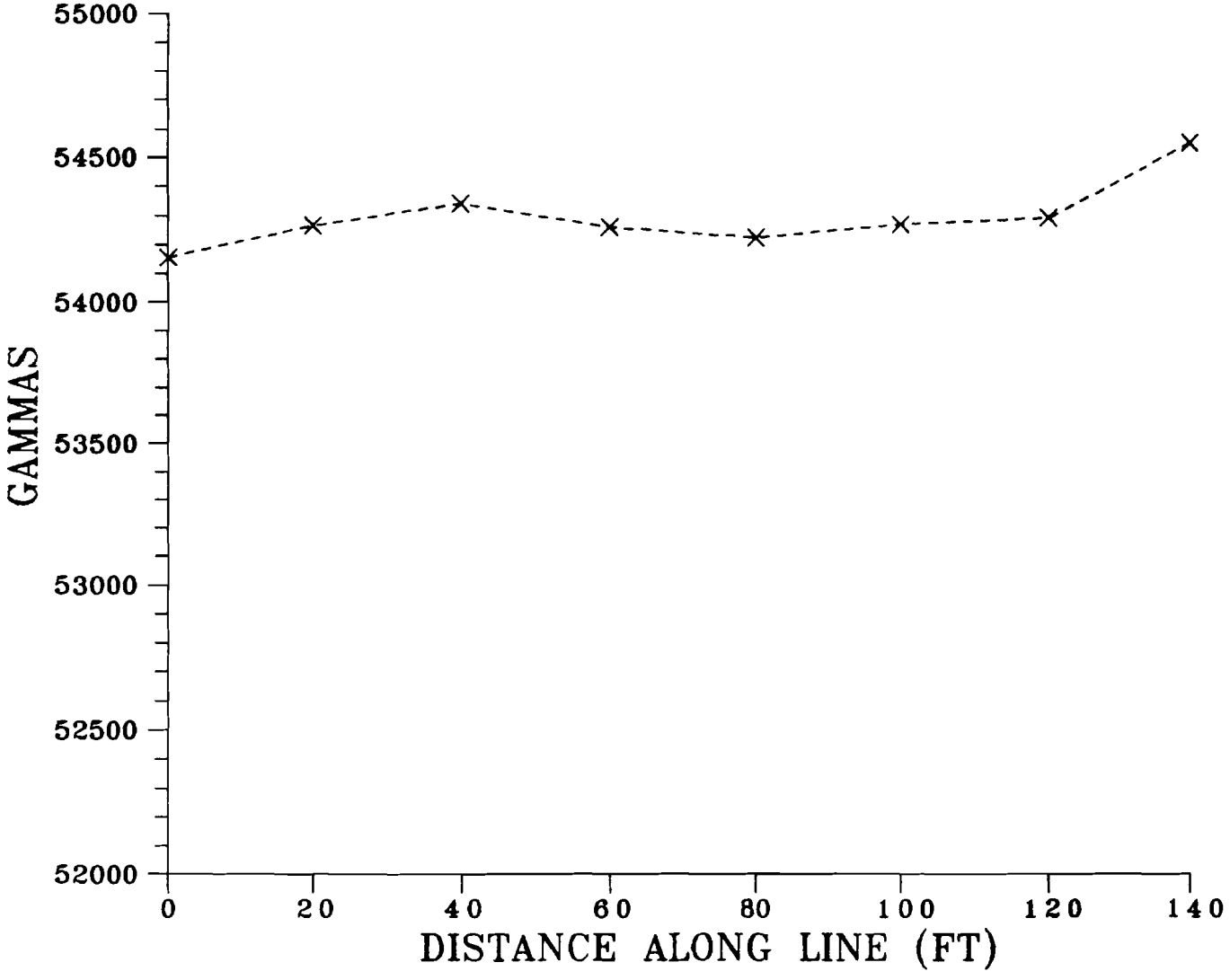
EMR CIRCUITS MAGNETOMETER SURVEY
AREA 1 EAST OF BUILDING
LINE 1



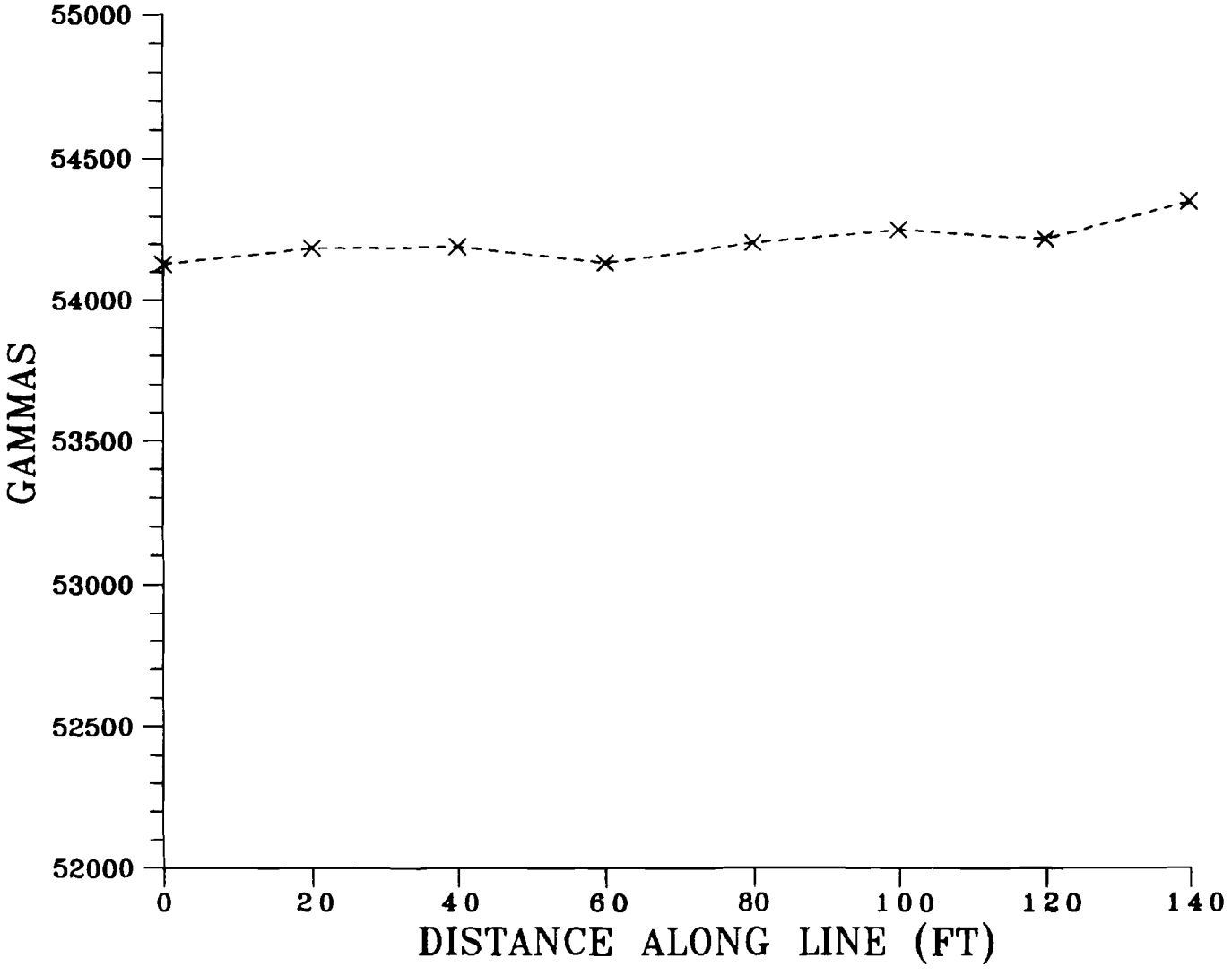
EMR CIRCUITS MAGNETOMETER SURVEY
AREA 1 EAST OF BUILDING
LINE 2



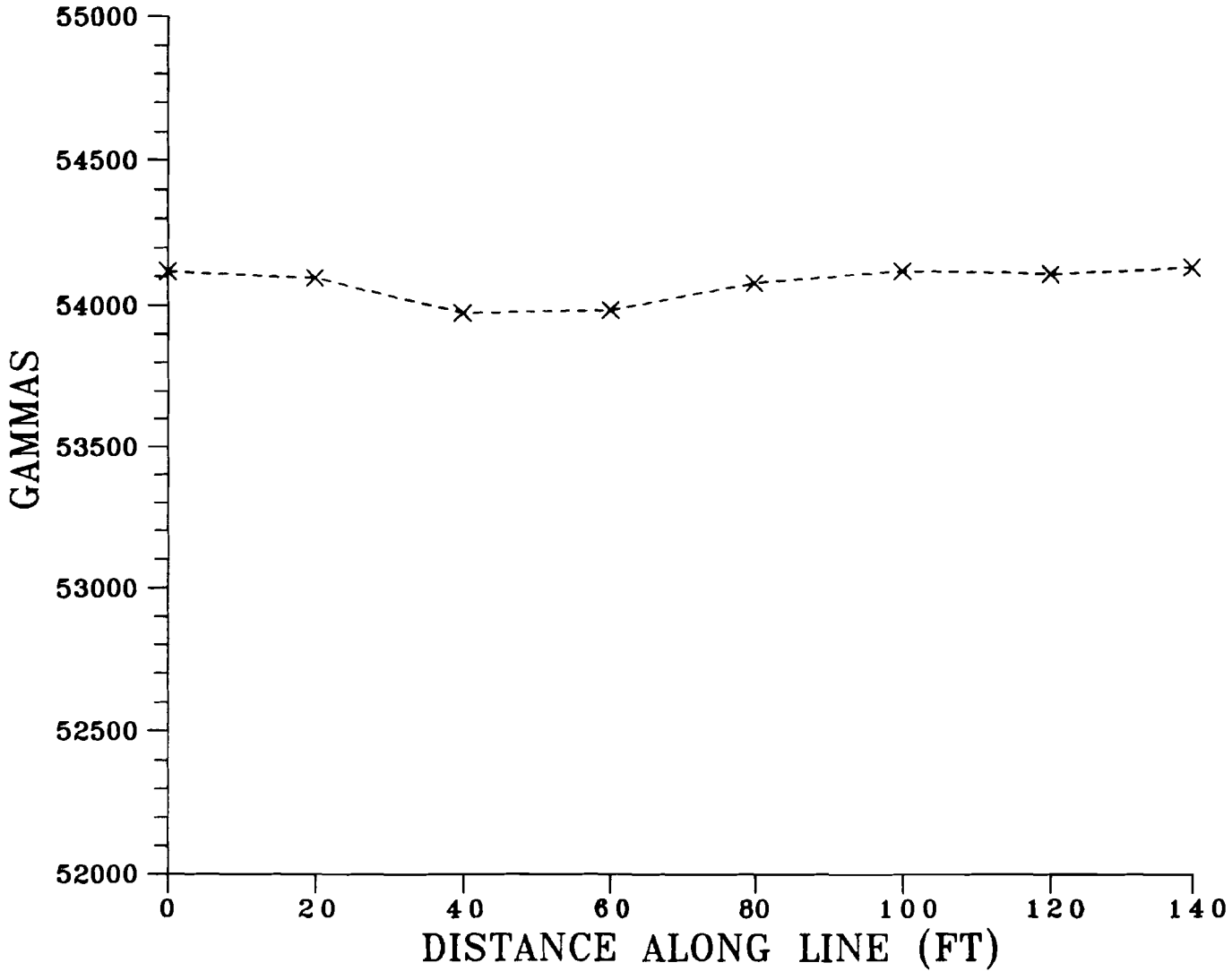
EMR CIRCUITS MAGNETOMETER SURVEY
AREA 1 EAST OF BUILDING
LINE 3



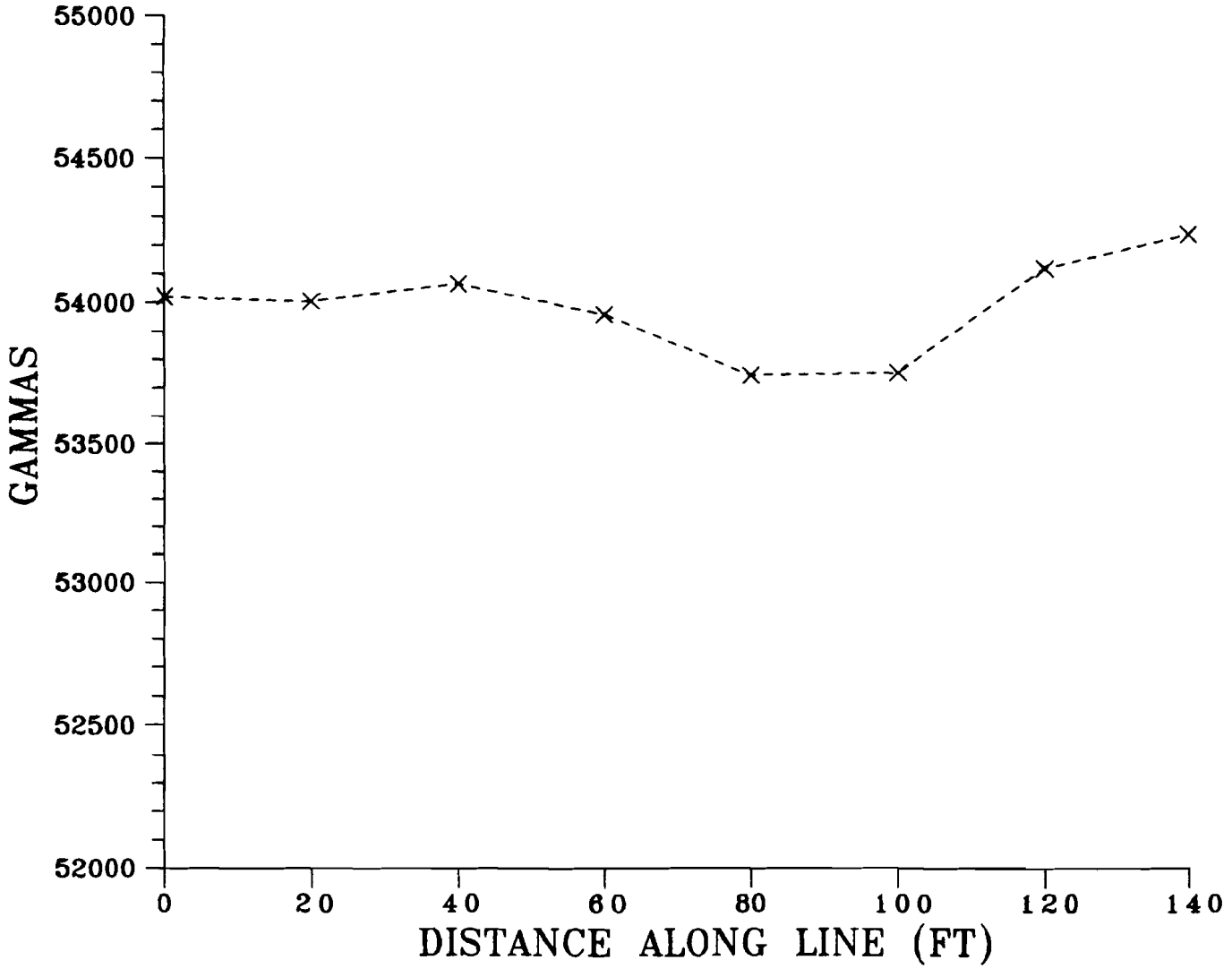
EMR CIRCUITS MAGNETOMETER SURVEY
AREA 1 EAST OF BUILDING
LINE 4



EMR CIRCUITS MAGNETOMETER SURVEY
AREA 1 EAST OF BUILDING
LINE 5



EMR CIRCUITS MAGNETOMETER SURVEY
AREA 1 EAST OF BUILDING
LINE 5A



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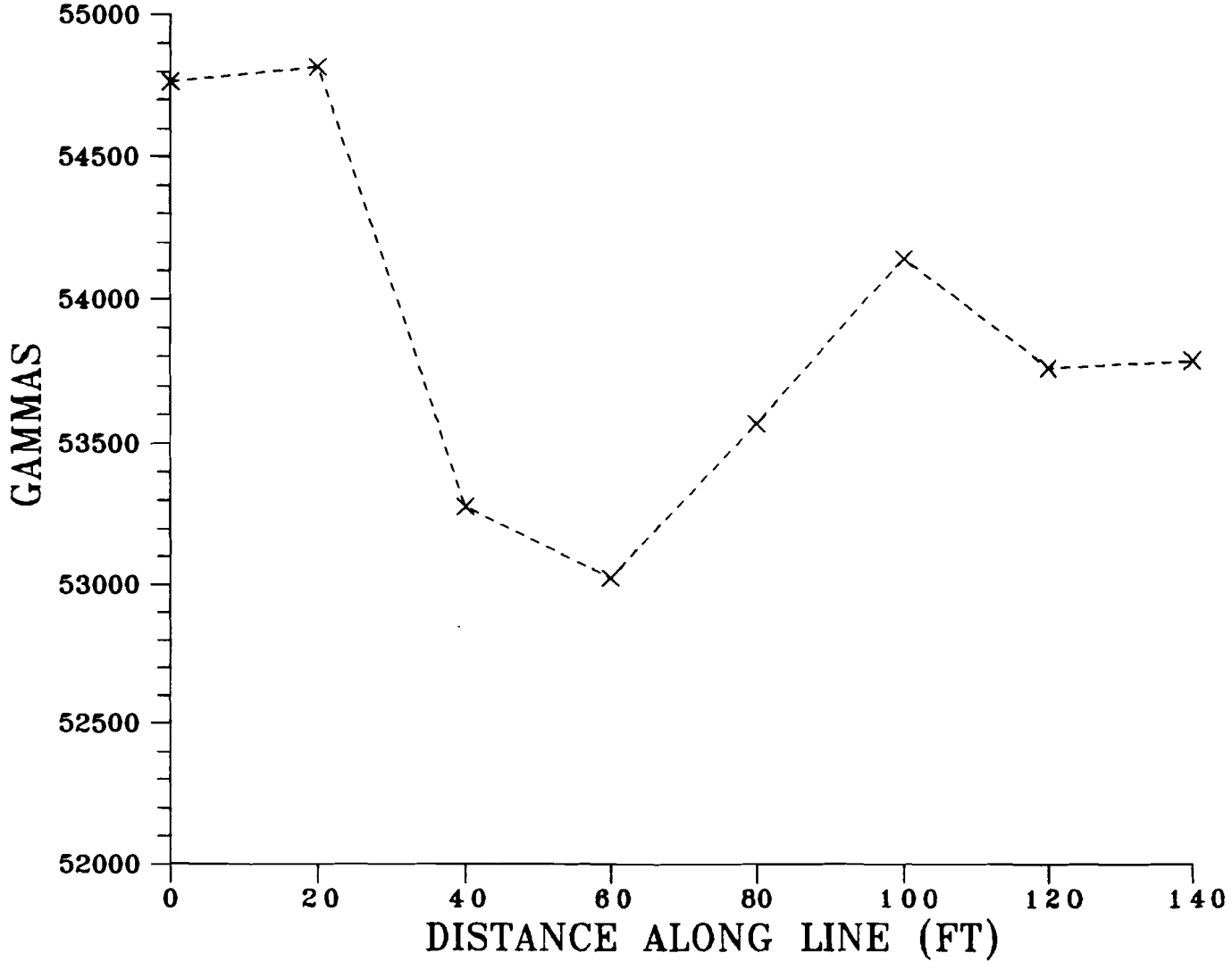

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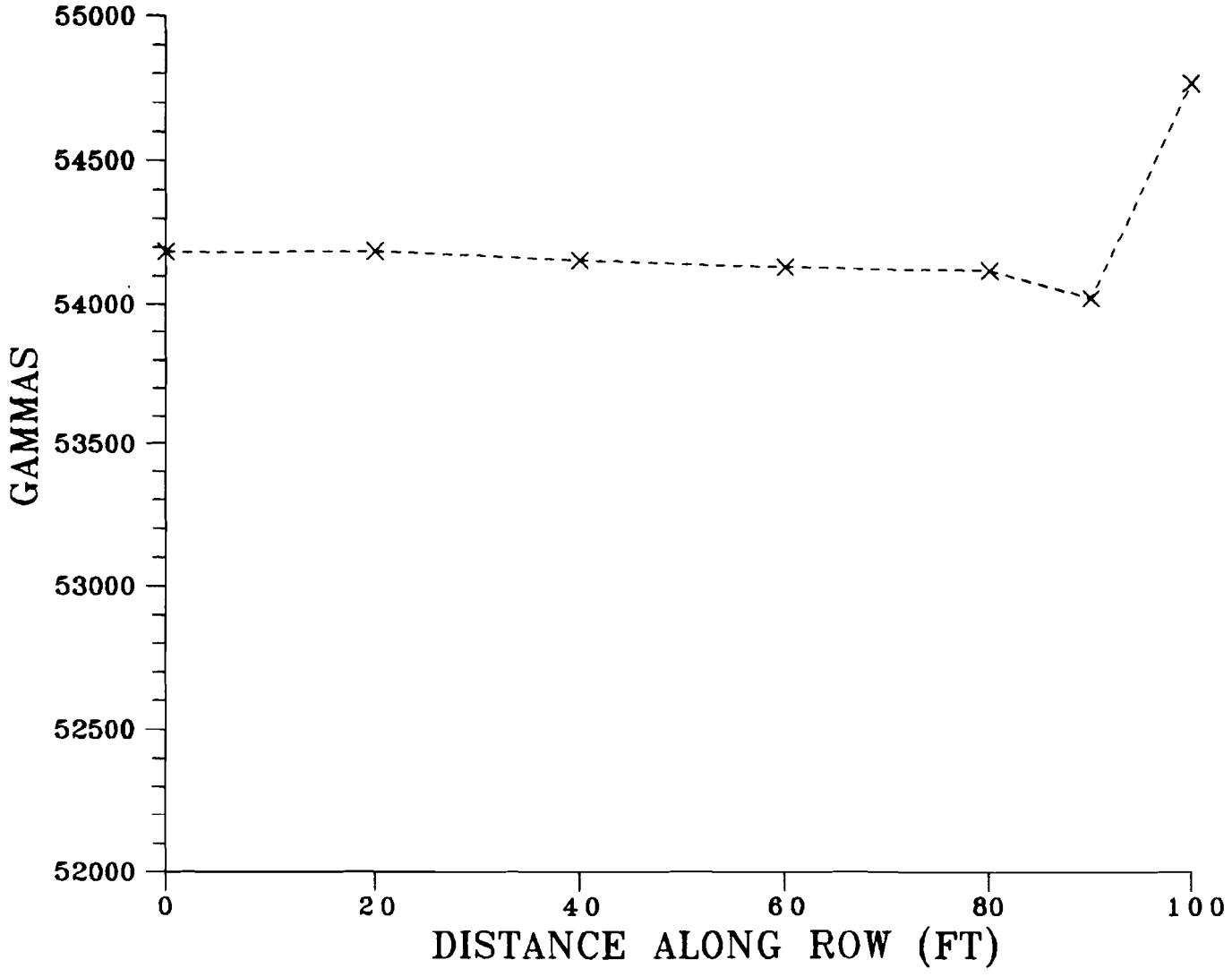

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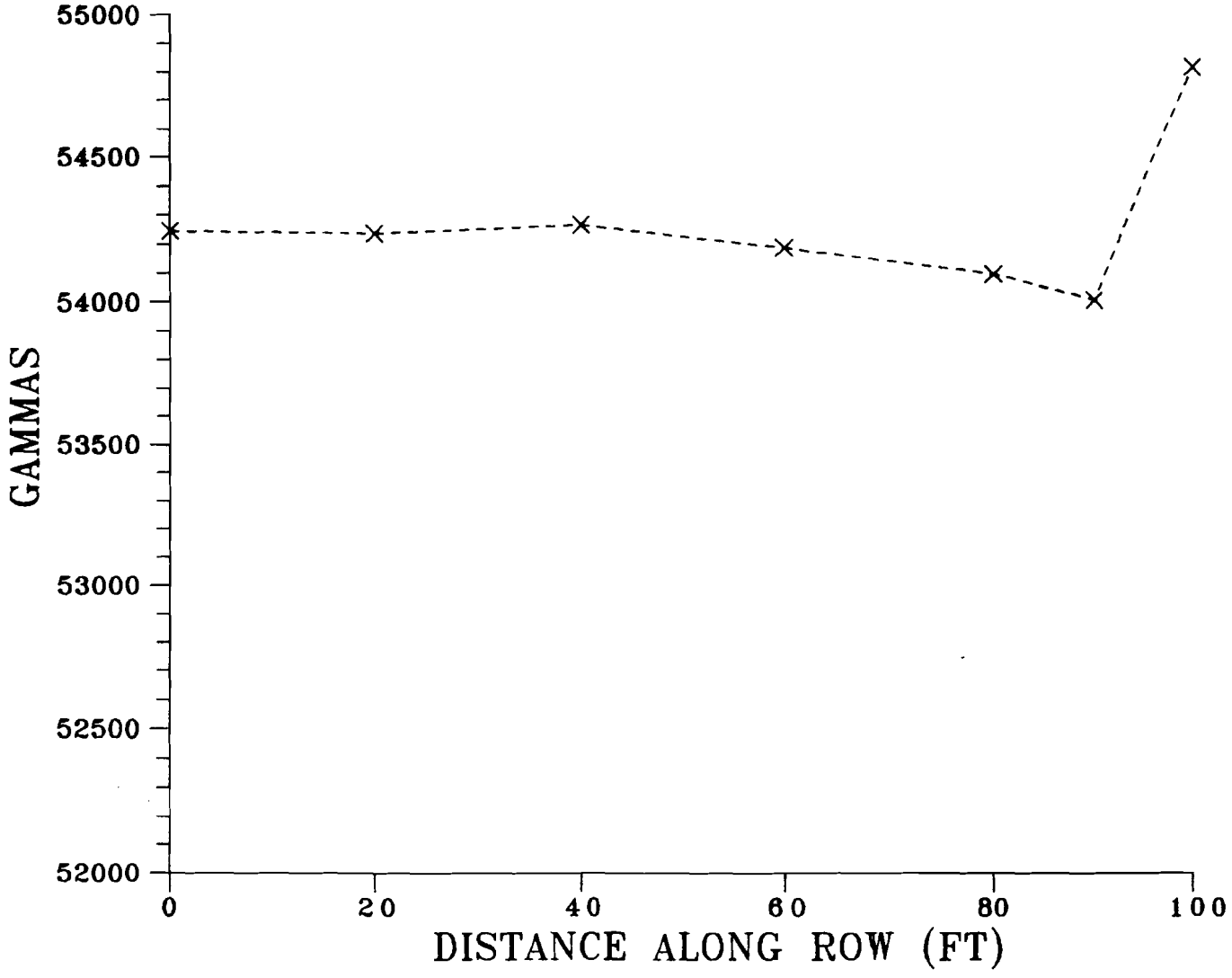

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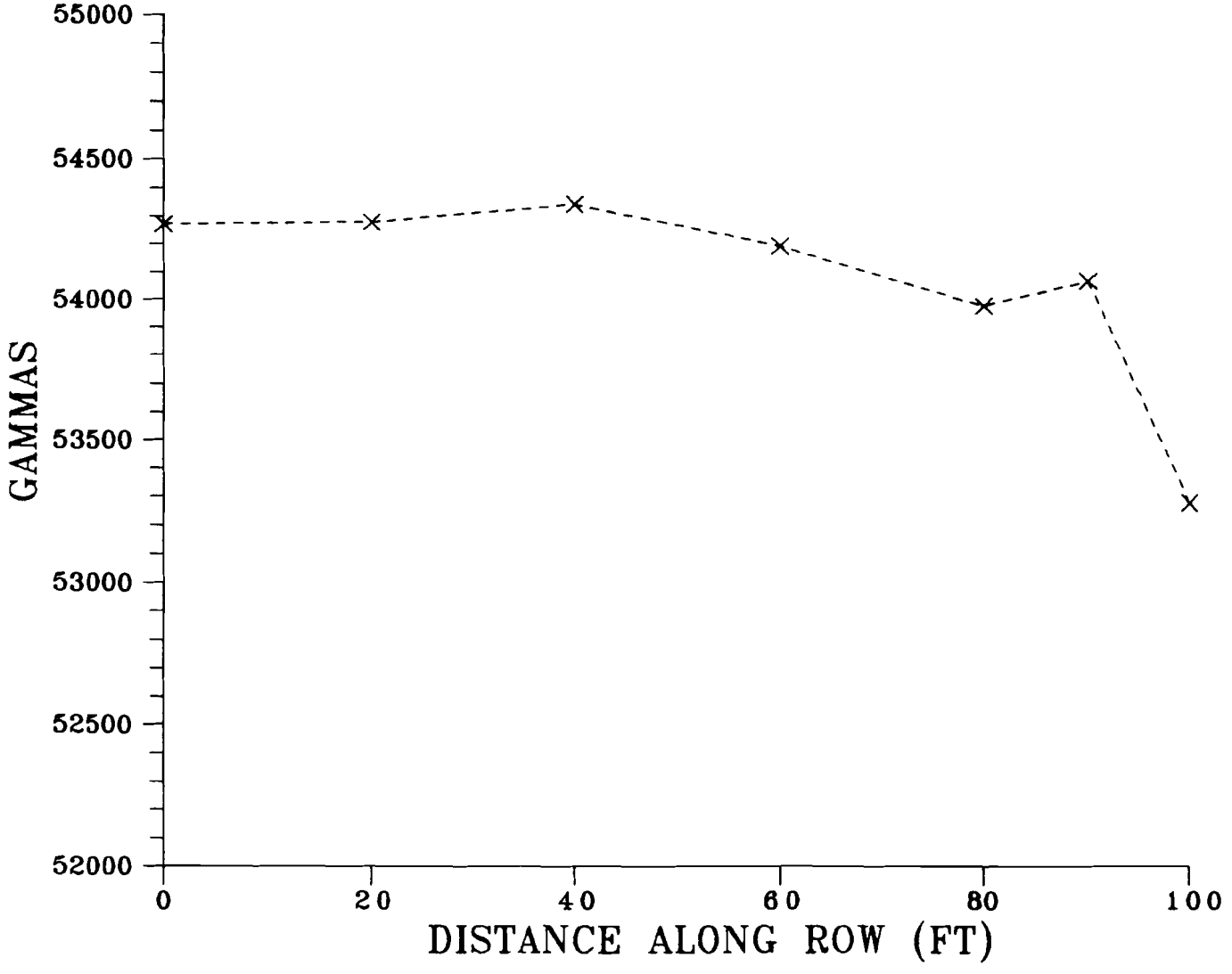

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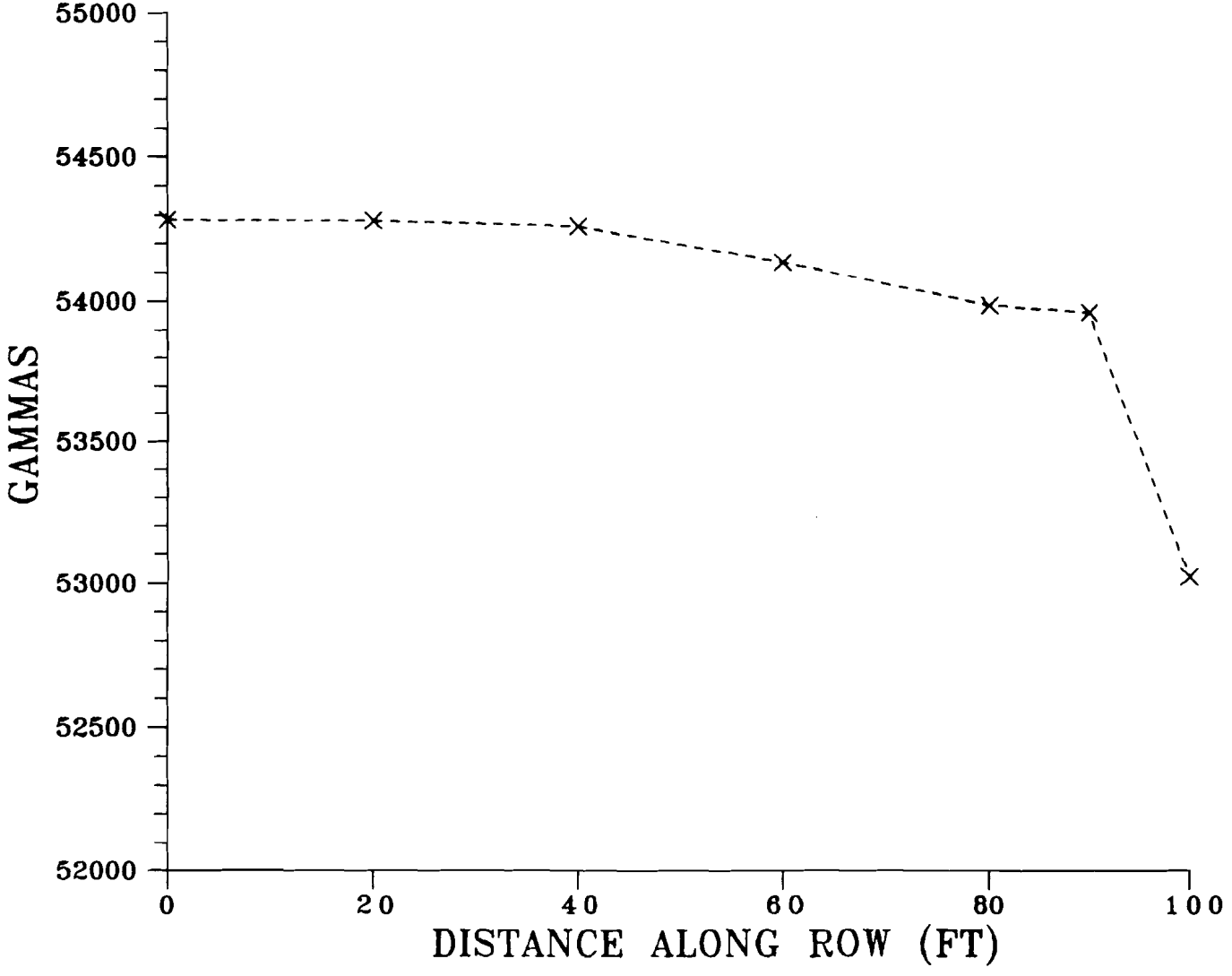

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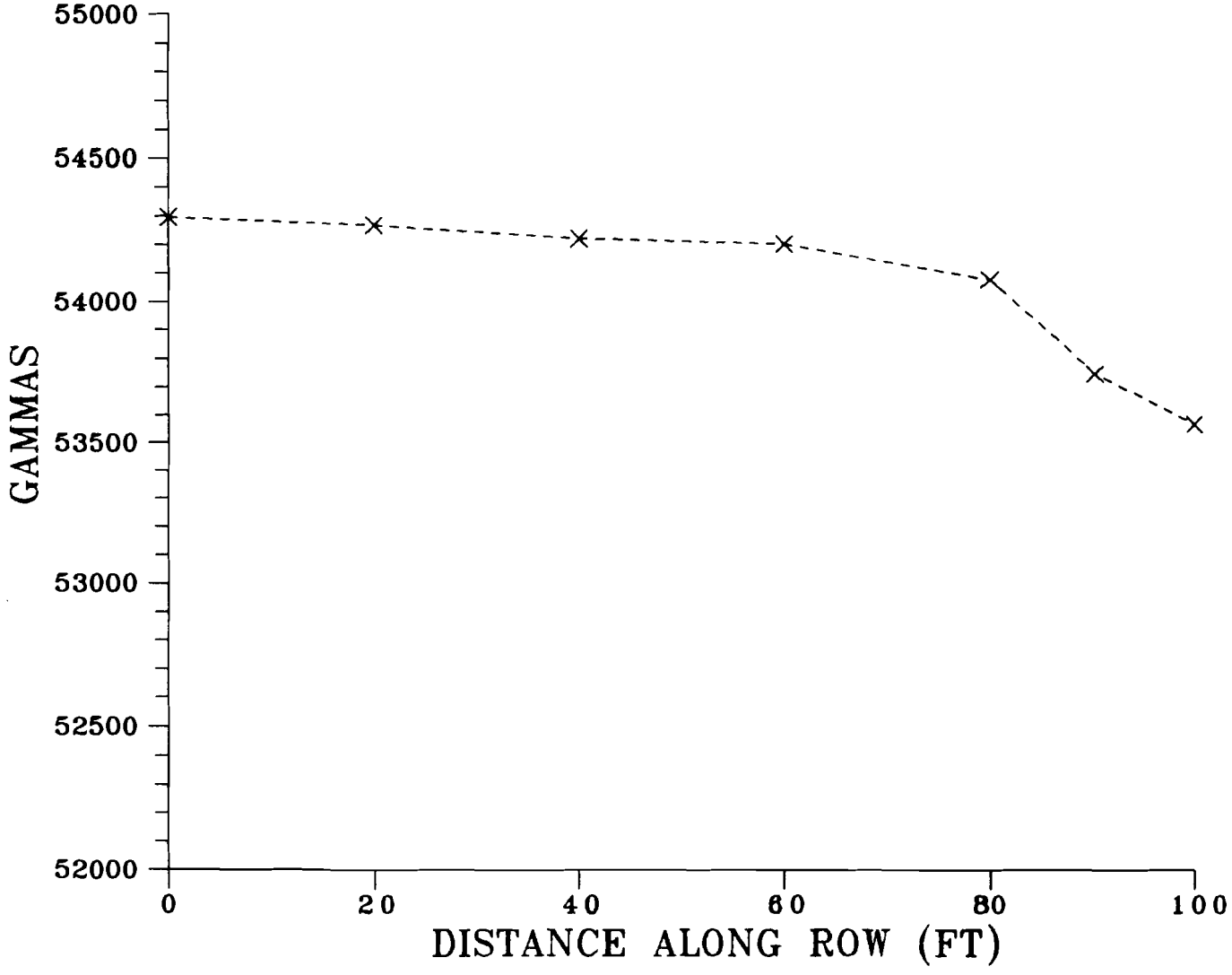

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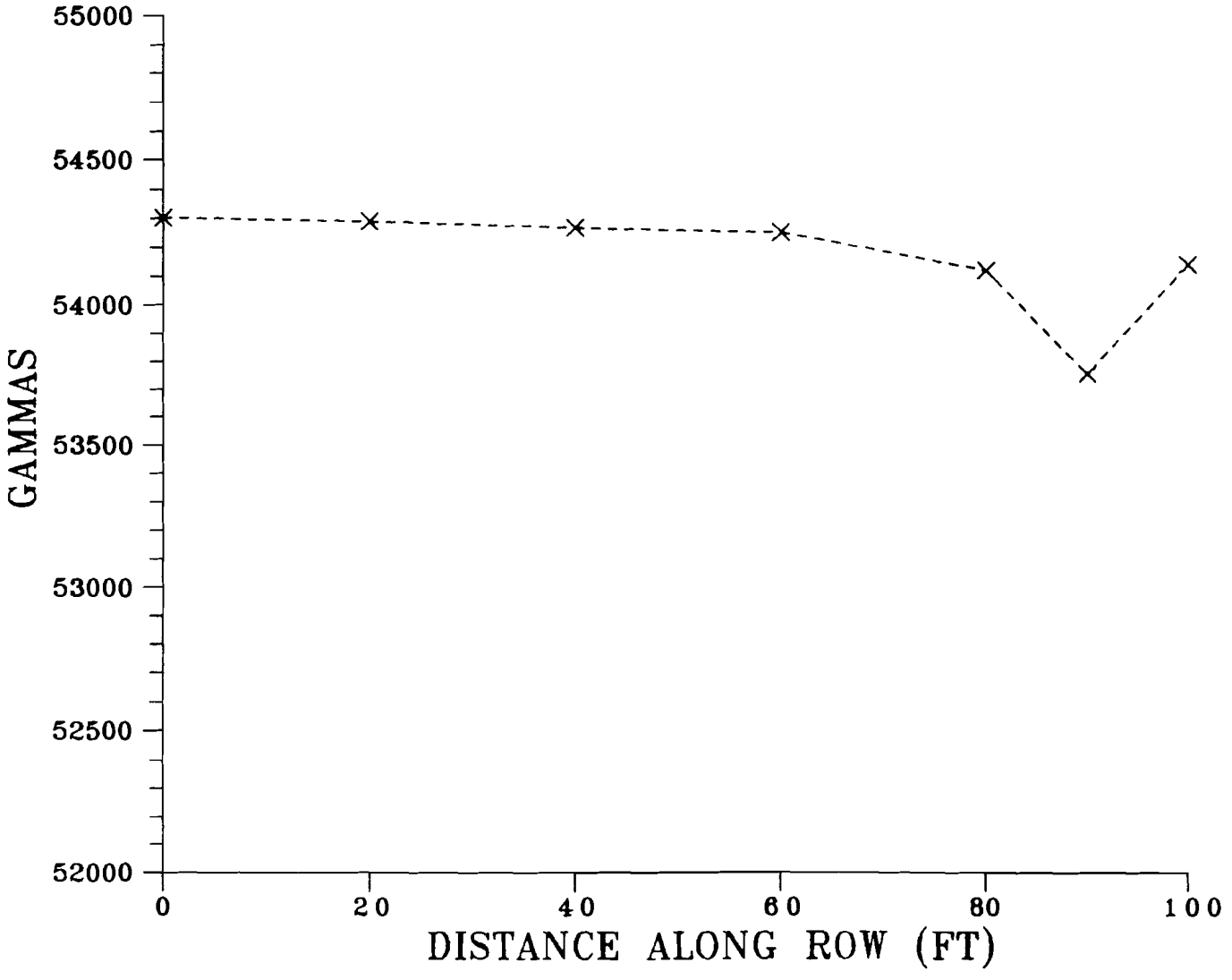

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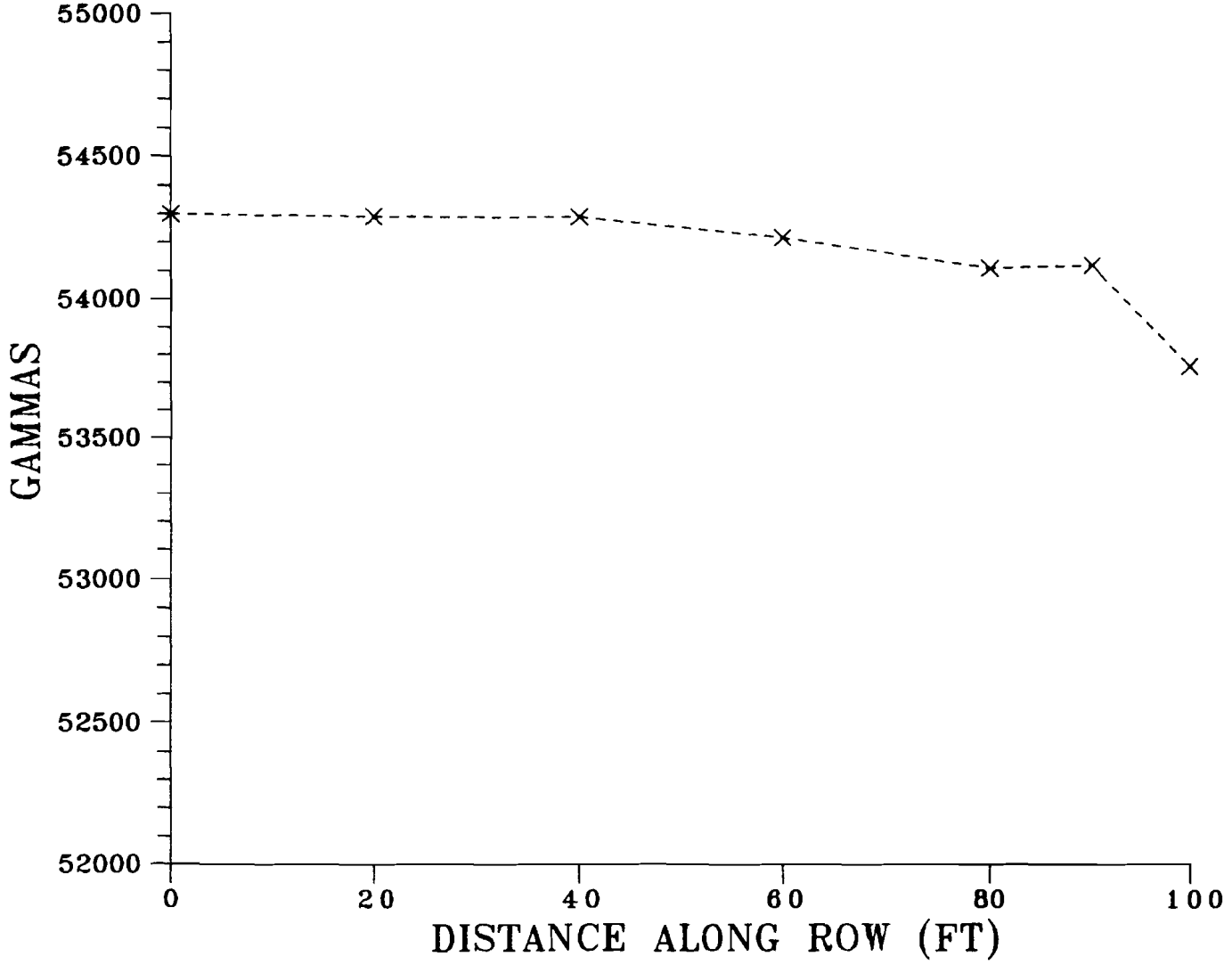

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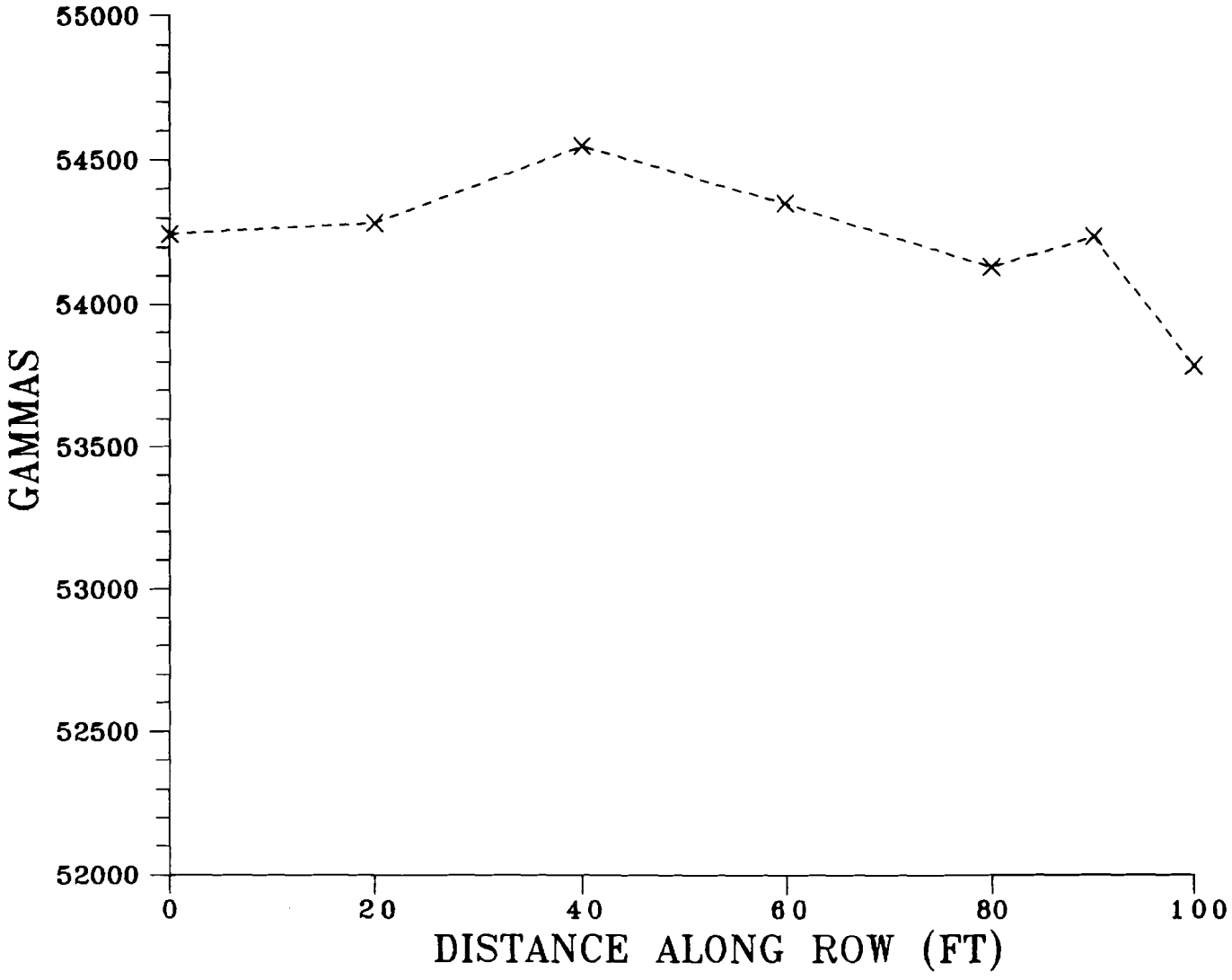

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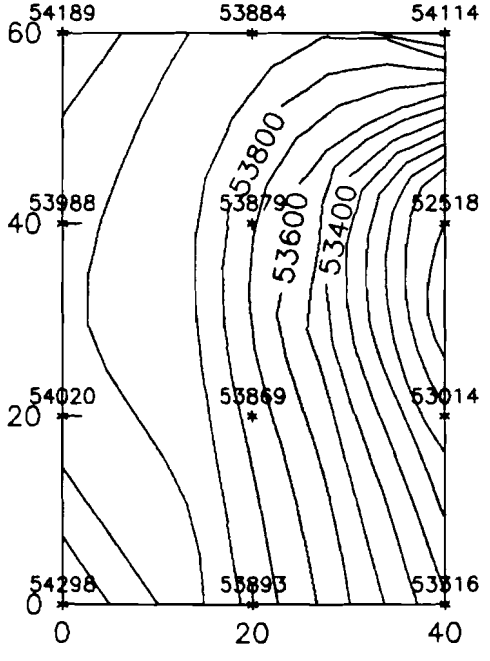

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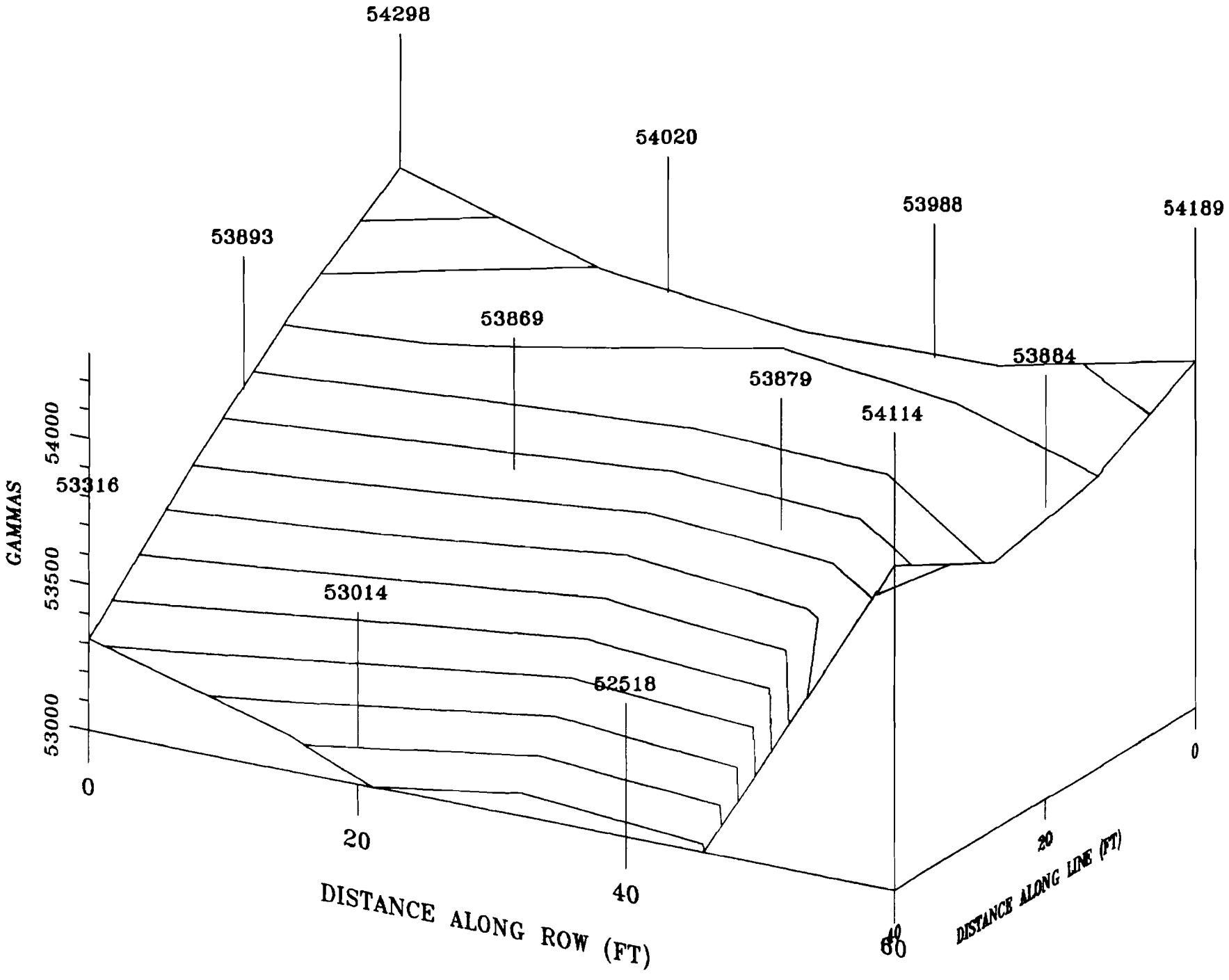

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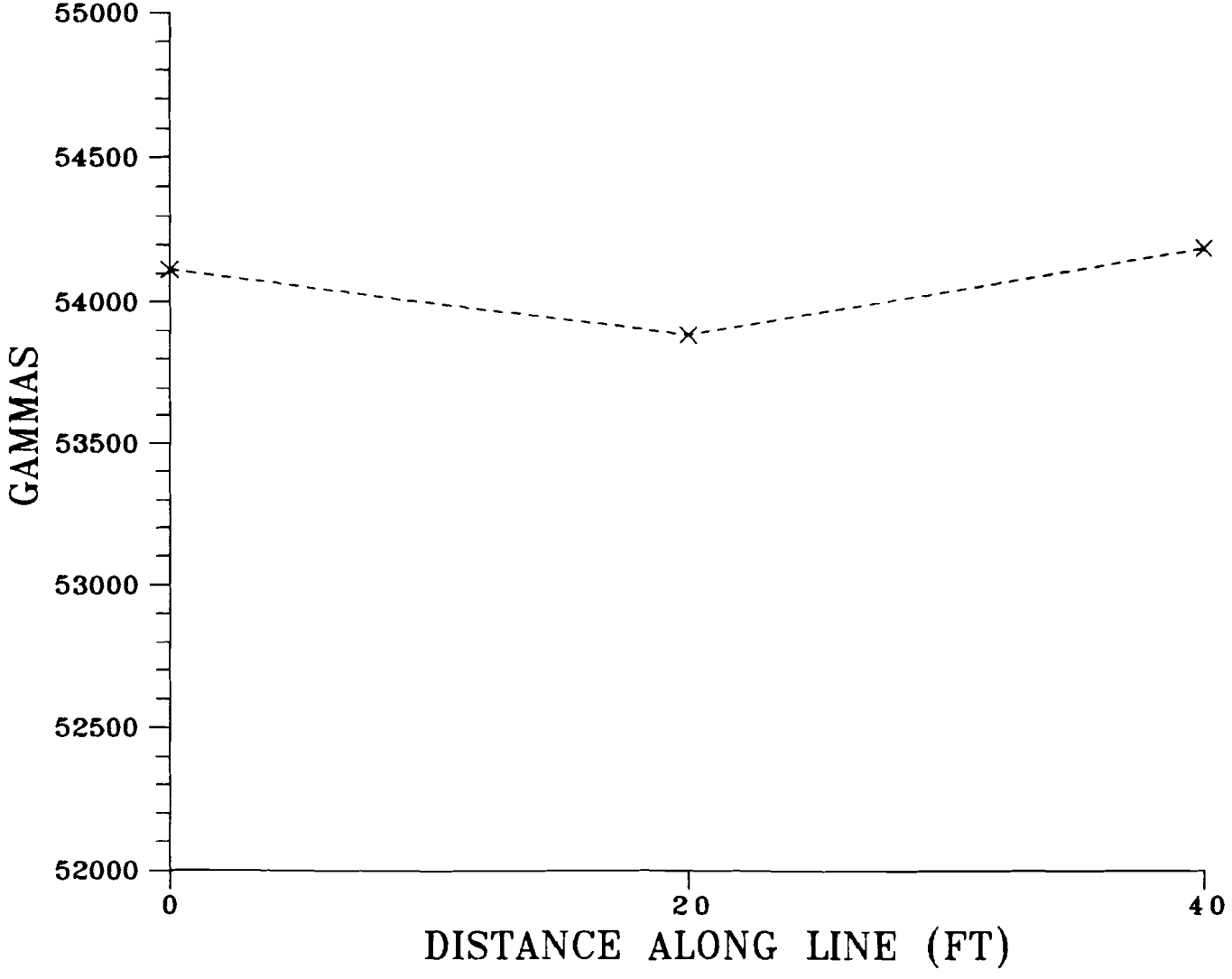

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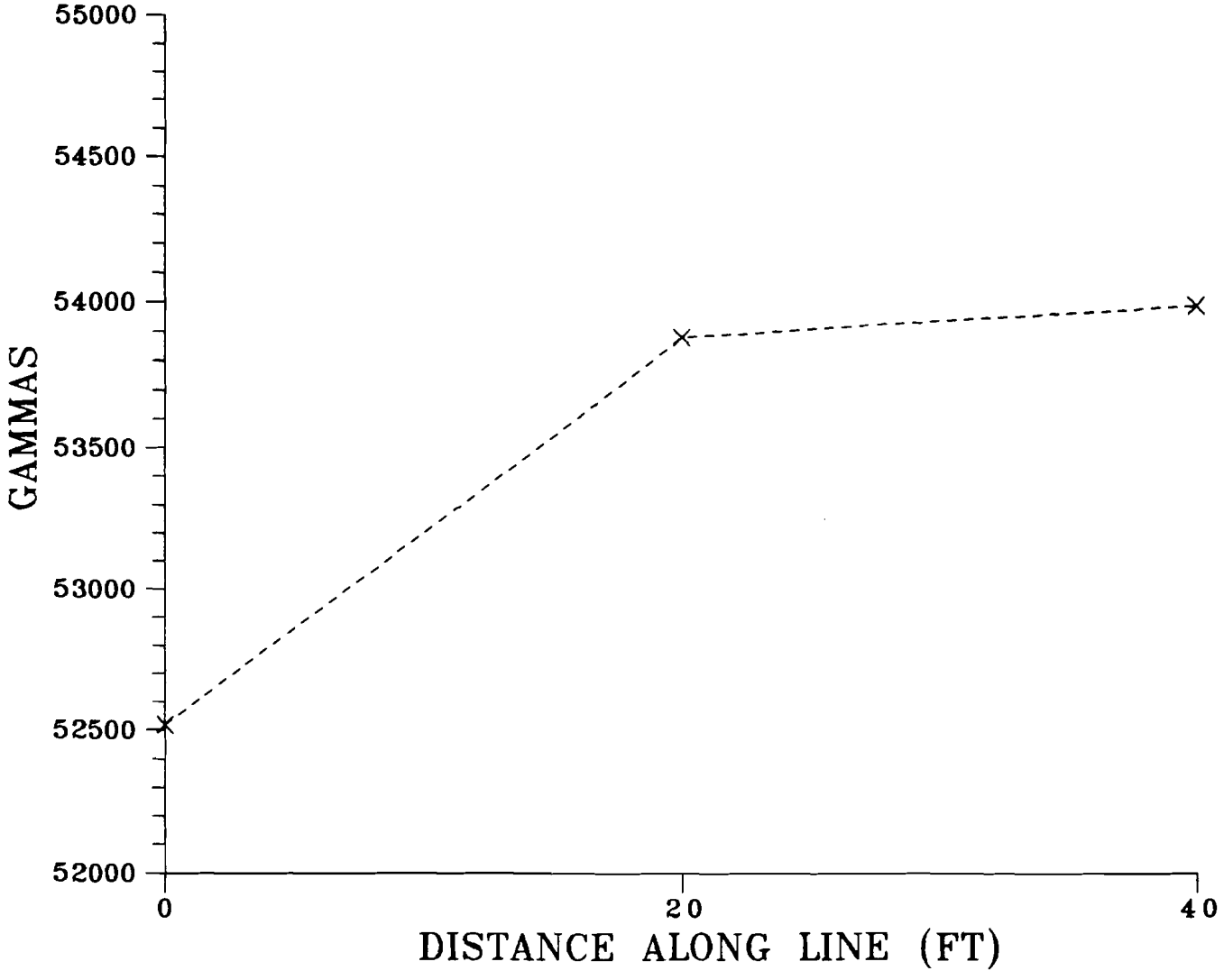

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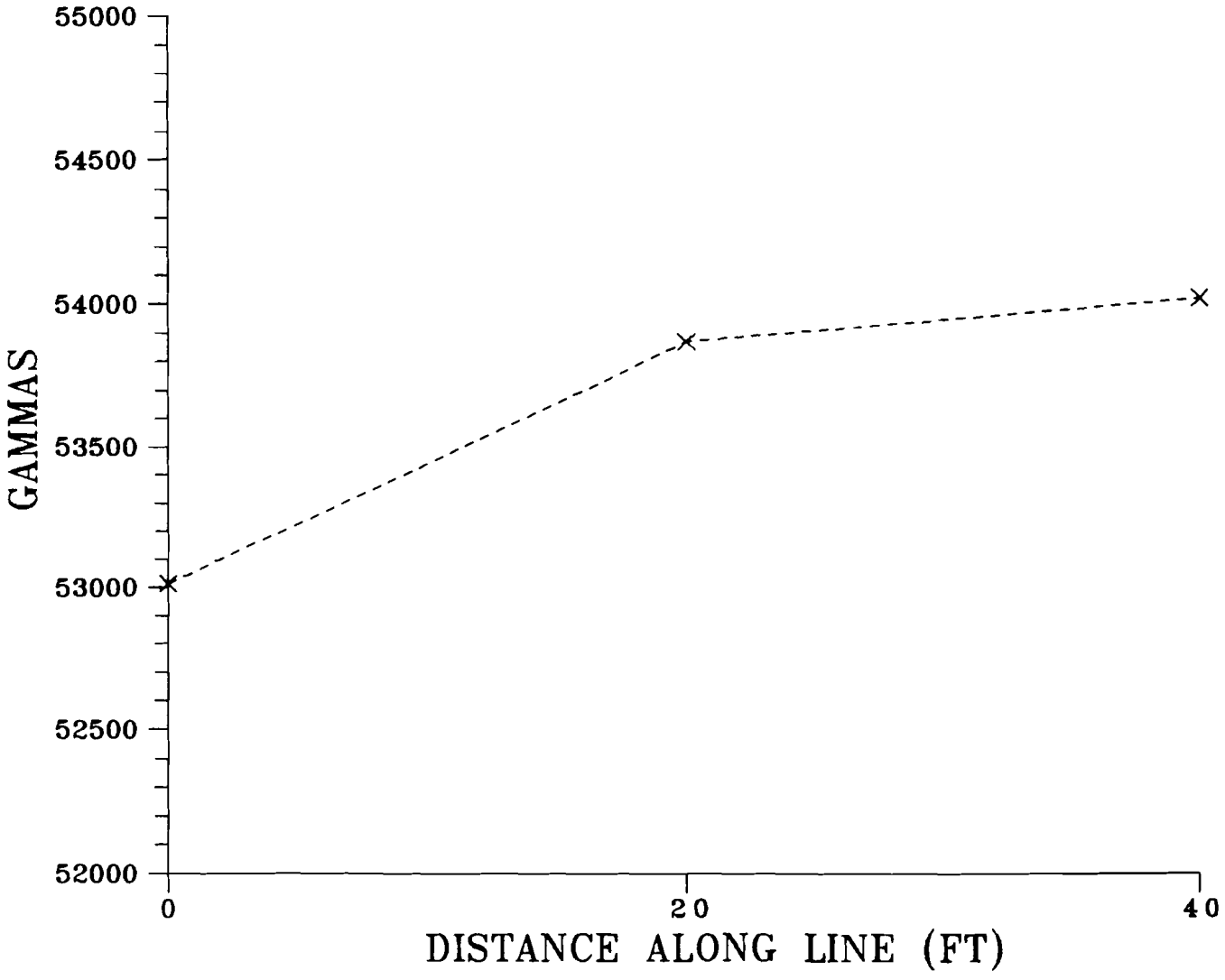

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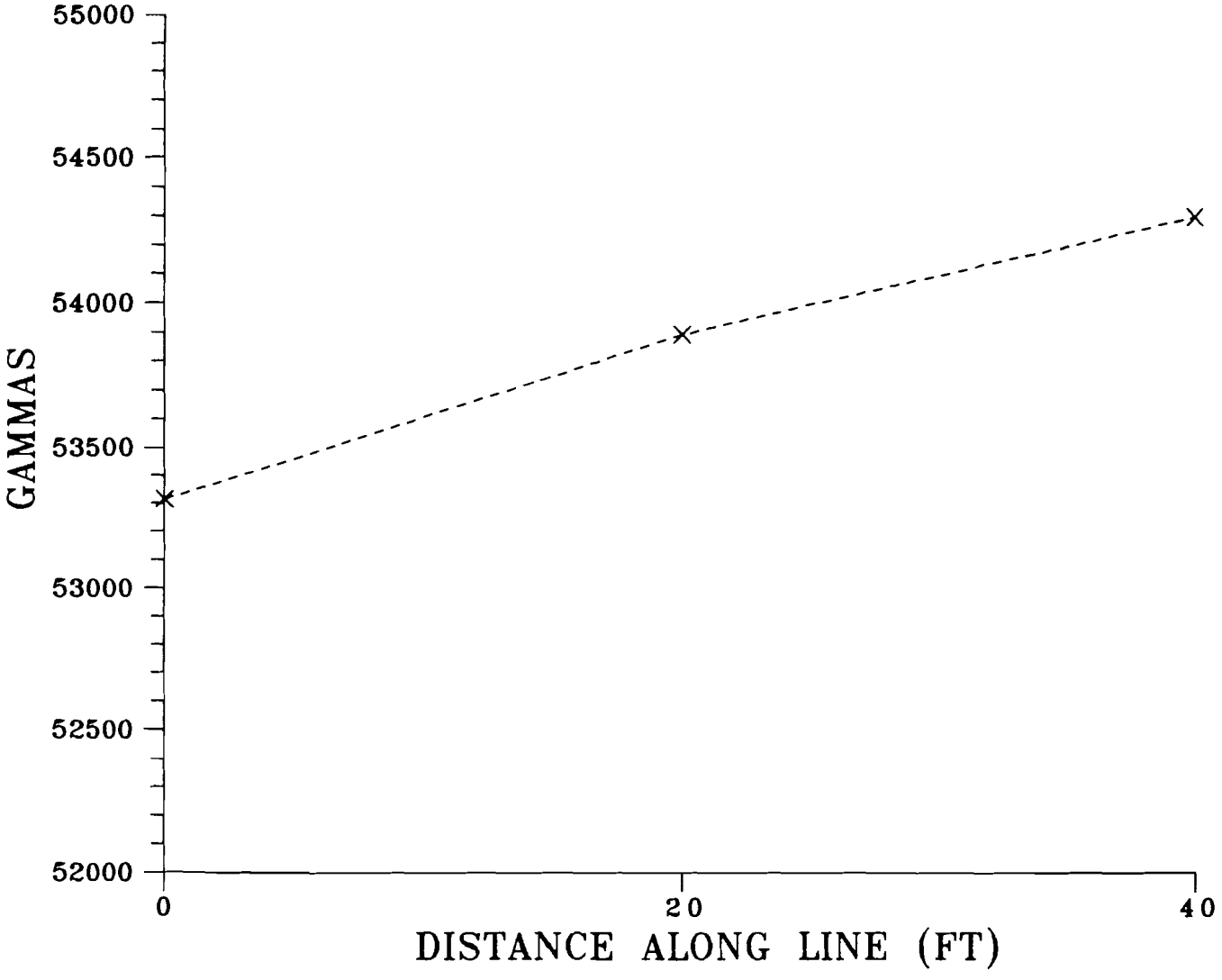

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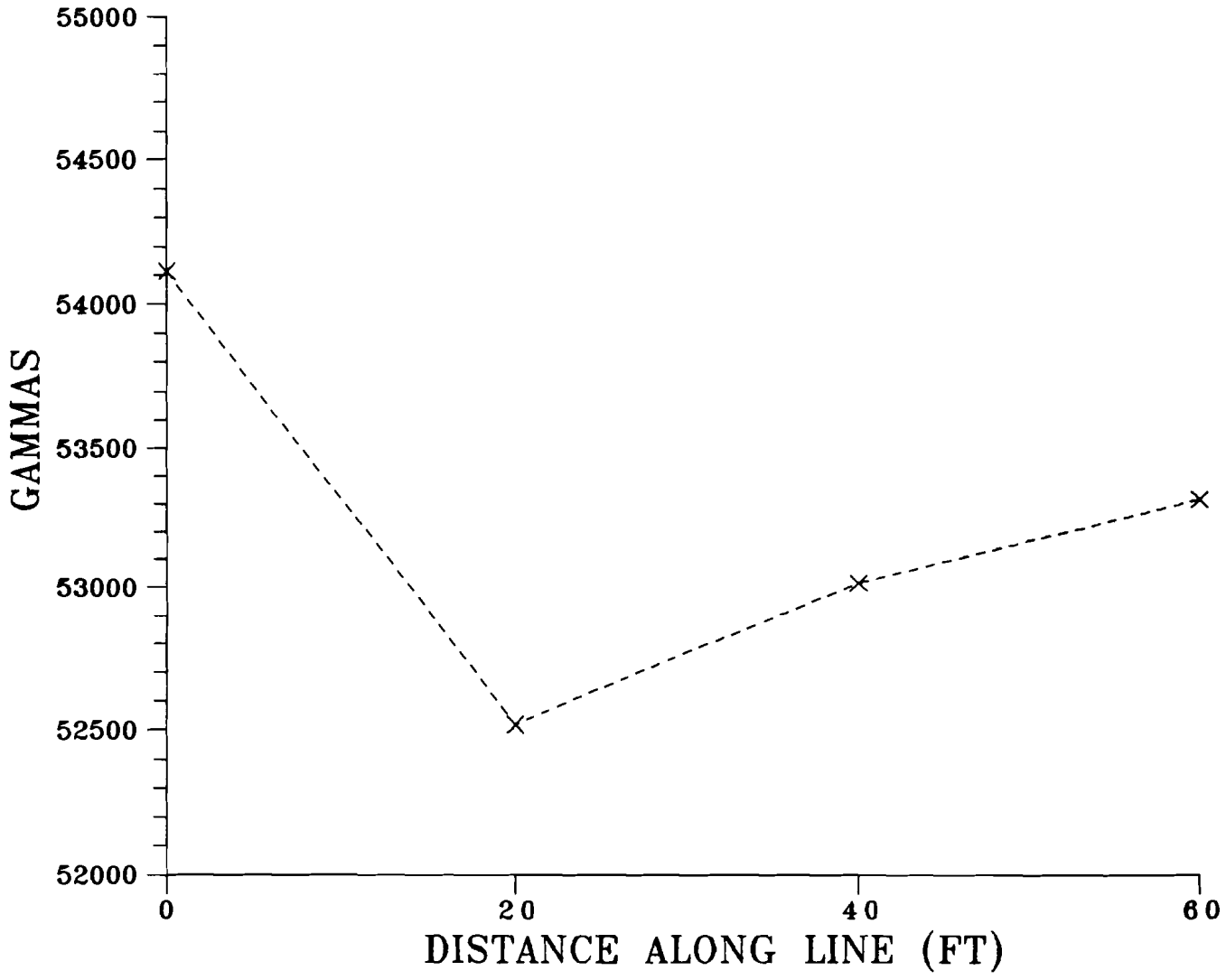

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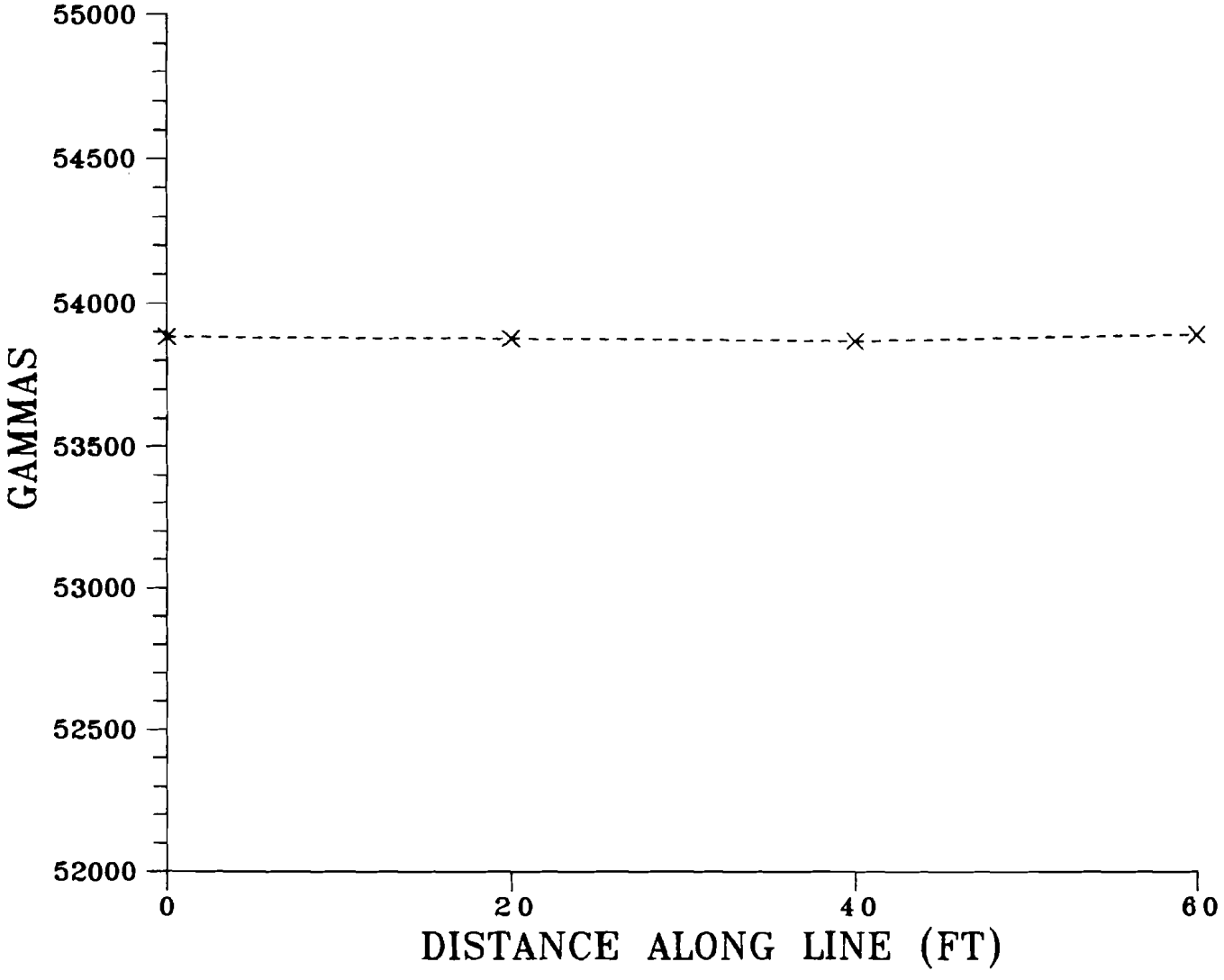

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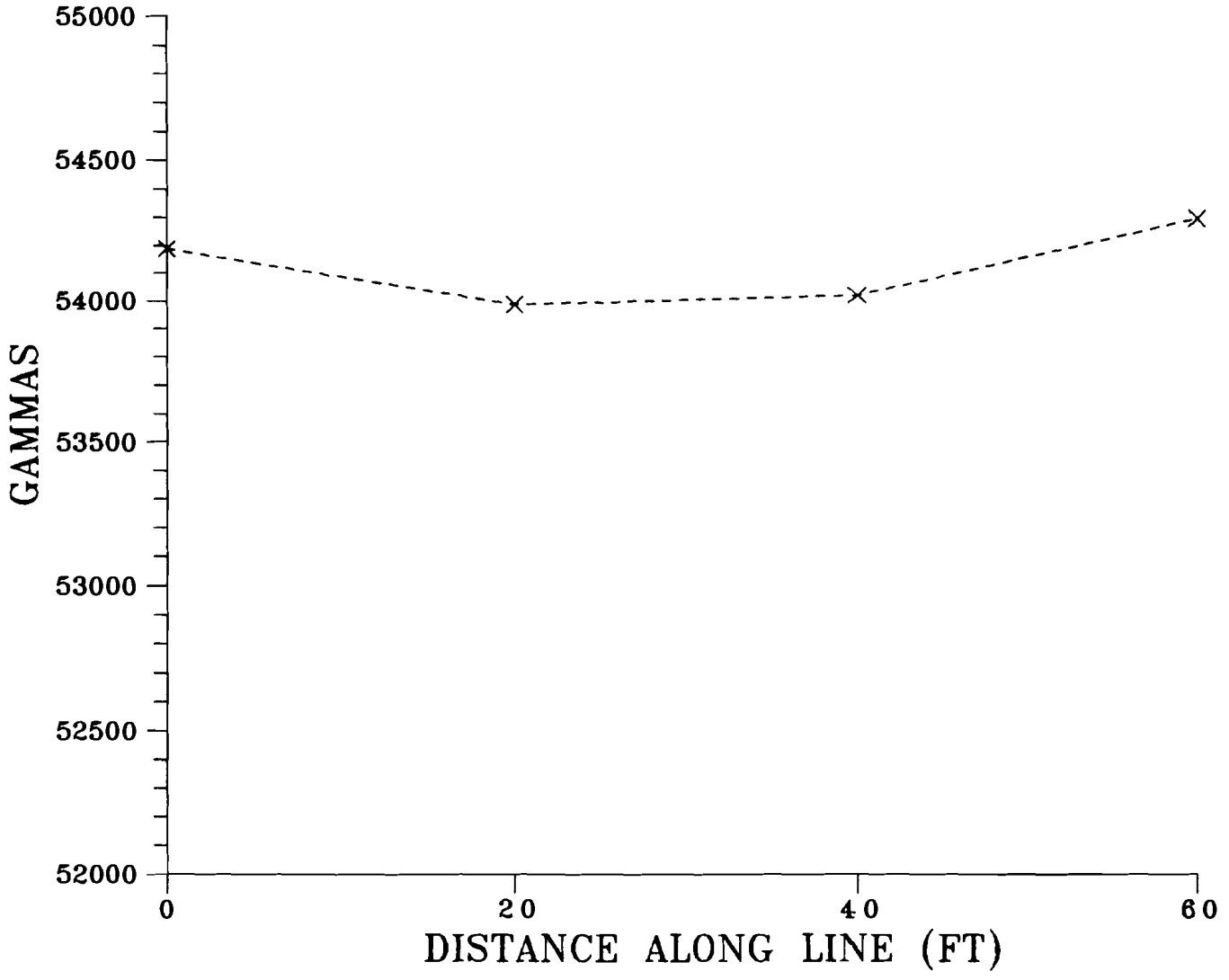

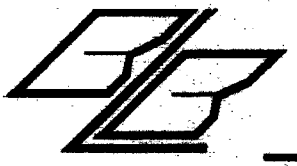

Appendix D

Standard Method for
PENETRATION TEST AND SPLIT-BARREL SAMPLING OF SOILS[1]

This standard is issued under the fixed designation D 1586; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reapproval. A superscript epsilon (ε) indicates an editorial change since the last revision or reapproval.

This method has been approved for use by agencies of the Department of Defense and for listing in the DOD Index of Specifications and Standards.

1. Scope

1.1 This method describes the procedure, generally known as the Standard Penetration Test (SPT), for driving a split-barrel sampler to obtain a representative soil sample and a measure of the resistance of the soil to penetration of the sampler.

1.2 *This standard may involve hazardous materials, operations, and equipment. This standard does not purport to address all of the safety problems associated with its use. It is the responsibility of whoever uses this standard to consult and establish appropriate safety and health practices and determine the applicability of regulatory limitations prior to use.* For a specific precautionary statement, see 5.4.1.

1.3 The values stated in inch-pound units are to be regarded as the standard.

2. Applicable Documents

2.1 *ASTM Standards:*

D 2487 Test Method for Classification of Soils for Engineering Purposes[2]

D 2488 Practice for Description and Identification of Soils (Visual-Manual Procedure)[2]

D 4220 Practices for Preserving and Transporting Soil Samples[2]

3. Descriptions of Terms Specific to This Standard

3.1 *anvil*—that portion of the drive-weight assembly which the hammer strikes and through which the hammer energy passes into the drill rods.

3.2 *cathead*—the rotating drum or windlass in the rope-cathead lift system around which the operator wraps a rope to lift and drop the hammer by successively tightening and loosening the rope turns around the drum.

3.3 *drill rods*—rods used to transmit downward force and torque to the drill bit while drilling a borehole.

3.4 *drive-weight assembly*—a device consisting of the hammer, hammer fall guide, the anvil, and any hammer drop system.

3.5 *hammer*—that portion of the drive-weight assembly consisting of the 140 ± 2 lb (63.5 ± 1 kg) impact weight which is successively lifted and dropped to provide the energy that accomplishes the sampling and penetration.

3.6 *hammer drop system*—that portion of the drive-weight assembly by which the operator accomplishes the lifting and dropping of the hammer to produce the blow.

3.7 *hammer fall guide*—that part of the drive-weight assembly used to guide the fall of the hammer.

3.8 *N-value*—the blowcount representation of the penetration resistance of the soil. The *N*-value, reported in blows per foot, equals the sum of the number of blows required to drive the sampler over the depth interval of 6 to 18 in. (150 to 450 mm) (see 7.3).

3.9 ΔN—the number of blows obtained from each of the 6-in. (150-mm) intervals of sampler penetration (see 7.3).

3.10 *number of rope turns*—the total contact angle between the rope and the cathead at the

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[1] This method is under the jurisdiction of ASTM Committee D-18 on Soil and Rock and is the direct responsibility of Subcommittee D18.02 on Sampling and Related Field Testing for Soil Investigations.

Current edition approved Sept. 11, 1984. Published November 1984. Originally published as D 1586 - 58 T. Last previous edition D 1586 - 67 (1974).

[2] *Annual Book of ASTM Standards*, Vol 04.08.

beginning of the operator's rope slackening to drop the hammer, divided by 360° (see Fig. 1).

3.11 *sampling rods*—rods that connect the drive-weight assembly to the sampler. Drill rods are often used for this purpose.

3.12 *SPT*—abbreviation for Standard Penetration Test, a term by which engineers commonly refer to this method.

4. Significance and Use

4.1 This method provides a soil sample for identification purposes and for laboratory tests appropriate for soil obtained from a sampler that may produce large shear strain disturbance in the sample.

4.2 This method is used extensively in a great variety of geotechnical exploration projects. Many local correlations and widely published correlations which relate SPT blowcount, or *N*-value, and the engineering behavior of earthworks and foundations are available.

5. Apparatus

5.1 *Drilling Equipment*—Any drilling equipment that provides at the time of sampling a suitably clean open hole before insertion of the sampler and ensures that the penetration test is performed on undisturbed soil shall be acceptable. The following pieces of equipment have proven to be suitable for advancing a borehole in some subsurface conditions.

5.1.1 *Drag, Chopping, and Fishtail Bits*, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjuction with open-hole rotary drilling or casing-advancement drilling methods. To avoid disturbance of the underlying soil, bottom discharge bits are not permitted; only side discharge bits are permitted.

5.1.2 *Roller-Cone Bits*, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used in conjunction with open-hole rotary drilling or casing-advancement drilling methods if the drilling fluid discharge is deflected.

5.1.3 *Hollow-Stem Continuous Flight Augers*, with or without a center bit assembly, may be used to drill the boring. The inside diameter of the hollow-stem augers shall be less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm).

5.1.4 *Solid, Continuous Flight, Bucket and Hand Augers*, less than 6.5 in. (162 mm) and greater than 2.2 in. (56 mm) in diameter may be used if the soil on the side of the boring does not cave onto the sampler or sampling rods during sampling.

5.2 *Sampling Rods*—Flush-joint steel drill rods shall be used to connect the split-barrel sampler to the drive-weight assembly. The sampling rod shall have a stiffness (moment of inertia) equal to or greater than that of parallel wall "A" rod (a steel rod which has an outside diameter of 1⅝ in. (41.2 mm) and an inside diameter of 1⅛ in. (28.5 mm).

NOTE 1—Recent research and comparative testing indicates the type rod used, with stiffness ranging from "A" size rod to "N" size rod, will usually have a negligible effect on the *N*-values to depths of at least 100 ft (30 m).

5.3 *Split-Barrel Sampler*—The sampler shall be constructed with the dimensions indicated in Fig. 2. The driving shoe shall be of hardened steel and shall be replaced or repaired when it becomes dented or distorted. The use of liners to produce a constant inside diameter of 1⅜ in. (35 mm) is permitted, but shall be noted on the penetration record if used. The use of a sample retainer basket is permitted, and should also be noted on the penetration record if used.

NOTE 2—Both theory and available test data suggest that *N*-values may increase between 10 to 30 % when liners are used.

5.4 *Drive-Weight Assembly:*

5.4.1 *Hammer and Anvil*—The hammer shall weigh 140 ± 2 lb (63.5 ± 1 kg) and shall be a solid rigid metallic mass. The hammer shall strike the anvil and make steel on steel contact when it is dropped. A hammer fall guide permitting a free fall shall be used. Hammers used with the cathead and rope method shall have an unimpeded overlift capacity of at least 4 in. (100 mm). For safety reasons, the use of a hammer assembly with an internal anvil is encouraged.

NOTE 3—It is suggested that the hammer fall guide be permanently marked to enable the operator or inspector to judge the hammer drop height.

5.4.2 *Hammer Drop System*—Rope-cathead, trip, semi-automatic, or automatic hammer drop systems may be used, providing the lifting apparatus will not cause penetration of the sampler while re-engaging and lifting the hammer.

5.5 *Accessory Equipment*—Accessories such as labels, sample containers, data sheets, and groundwater level measuring devices shall be provided in accordance with the requirements of the project and other ASTM standards.

6. Drilling Procedure

6.1 The boring shall be advanced incrementally to permit intermittent or continuous sampling. Test intervals and locations are normally stipulated by the project engineer or geologist. Typically, the intervals selected are 5 ft (1.5 mm) or less in homogeneous strata with test and sampling locations at every change of strata.

6.2 Any drilling procedure that provides a suitably clean and stable hole before insertion of the sampler and assures that the penetration test is performed on essentially undisturbed soil shall be acceptable. Each of the following procedures have proven to be acceptable for some subsurface conditions. The subsurface conditions anticipated should be considered when selecting the drilling method to be used.

6.2.1 Open-hole rotary drilling method.

6.2.2 Continuous flight hollow-stem auger method.

6.2.3 Wash boring method.

6.2.4 Continuous flight solid auger method.

6.3 Several drilling methods produce unacceptable borings. The process of jetting through an open tube sampler and then sampling when the desired depth is reached shall not be permitted. The continuous flight solid auger method shall not be used for advancing the boring below a water table or below the upper confining bed of a confined non-cohesive stratum that is under artesian pressure. Casing may not be advanced below the sampling elevation prior to sampling. Advancing a boring with bottom discharge bits is not permissible. It is not permissible to advance the boring for subsequent insertion of the sampler solely by means of previous sampling with the SPT sampler.

6.4 The drilling fluid level within the boring or hollow-stem augers shall be maintained at or above the in situ groundwater level at all times during drilling, removal of drill rods, and sampling.

7. Sampling and Testing Procedure

7.1 After the boring has been advanced to the desired sampling elevation and excessive cuttings have been removed, prepare for the test with the following sequence of operations.

7.1.1 Attach the split-barrel sampler to the sampling rods and lower into the borehole. Do not allow the sampler to drop onto the soil to be sampled.

7.1.2 Position the hammer above and attach the anvil to the top of the sampling rods. This may be done before the sampling rods and sampler are lowered into the borehole.

7.1.3 Rest the dead weight of the sampler, rods, anvil, and drive weight on the bottom of the boring and apply a seating blow. If excessive cuttings are encountered at the bottom of the boring, remove the sampler and sampling rods from the boring and remove the cuttings.

7.1.4 Mark the drill rods in three successive 6-in. (0.15-m) increments so that the advance of the sampler under the impact of the hammer can be easily observed for each 6-in. (0.15-m) increment.

7.2 Drive the sampler with blows from the 140-lb (63.5-kg) hammer and count the number of blows applied in each 6-in. (0.15-m) increment until one of the following occurs:

7.2.1 A total of 50 blows have been applied during any one of the three 6-in. (0.15-m) increments described in 7.1.4.

7.2.2 A total of 100 blows have been applied.

7.2.3 There is no observed advance of the sampler during the application of 10 successive blows of the hammer.

7.2.4 The sampler is advanced the complete 18 in. (0.45 m) without the limiting blow counts occurring as described in 7.2.1, 7.2.2, or 7.2.3.

7.3 Record the number of blows required to effect each 6 in. (0.15 m) of penetration or fraction thereof. The first 6 in. is considered to be a seating drive. The sum of the number of blows required for the second and third 6 in. of penetration is termed the "standard penetration resistance", or the "*N*-value". If the sampler is driven less than 18 in. (0.45 m), as permitted in 7.2.1, 7.2.2, or 7.2.3, the number of blows per each complete 6-in. (0.15-m) increment and per each partial increment shall be recorded on the boring log. For partial increments, the depth of penetration shall be reported to the nearest 1 in. (25 mm), in addition to the number of blows. If the sampler advances below the bottom of the boring under the static weight of the drill rods or the weight of the drill rods plus the static weight of the hammer, this information should be noted on the boring log.

7.4 The raising and dropping of the 140-lb

(63.5-kg) hammer shall be accomplished using either of the following two methods:

7.4.1 By using a trip, automatic, or semi-automatic hammer drop system which lifts the 140-lb (63.5-kg) hammer and allows it to drop 30 ± 1.0 in. (0.76 m ± 25 mm) unimpeded.

7.4.2 By using a cathead to pull a rope attached to the hammer. When the cathead and rope method is used the system and operation shall conform to the following:

7.4.2.1 The cathead shall be essentially free of rust, oil, or grease and have a diameter in the range of 6 to 10 in. (150 to 250 mm).

7.4.2.2 The cathead should be operated at a minimum speed of rotation of 100 RPM, or the approximate speed of rotation shall be reported on the boring log.

7.4.2.3 No more than 2¼ rope turns on the cathead may be used during the performance of the penetration test, as shown in Fig. 1.

NOTE 4—The operator should generally use either 1¾ or 2¼ rope turns, depending upon whether or not the rope comes off the top (1¾ turns) or the bottom (2¼ turns) of the cathead. It is generally known and accepted that 2¾ or more rope turns considerably impedes the fall of the hammer and should not be used to perform the test. The cathead rope should be maintained in a relatively dry, clean, and unfrayed condition.

7.4.2.4 For each hammer blow, a 30-in. (0.76-m) lift and drop shall be employed by the operator. The operation of pulling and throwing the rope shall be performed rhythmically without holding the rope at the top of the stroke.

7.5 Bring the sampler to the surface and open. Record the percent recovery or the length of sample recovered. Describe the soil samples recovered as to composition, color, stratification, and condition, then place one or more representative portions of the sample into sealable moisture-proof containers (jars) without ramming or distorting any apparent stratification. Seal each container to prevent evaporation of soil moisture. Affix labels to the containers bearing job designation, boring number, sample depth, and the blow count per 6-in. (0.15-m) increment. Protect the samples against extreme temperature changes. If there is a soil change within the sampler, make a jar for each stratum and note its location in the sampler barrel.

8. Report

8.1 Drilling information shall be recorded in the field and shall include the following:

8.1.1 Name and location of job,

8.1.2 Names of crew,

8.1.3 Type and make of drilling machine,

8.1.4 Weather conditions,

8.1.5 Date and time of start and finish of boring,

8.1.6 Boring number and location (station and coordinates, if available and applicable),

8.1.7 Surface elevation, if available,

8.1.8 Method of advancing and cleaning the boring,

8.1.9 Method of keeping boring open,

8.1.10 Depth of water surface and drilling depth at the time of a noted loss of drilling fluid, and time and date when reading or notation was made,

8.1.11 Location of strata changes,

8.1.12 Size of casing, depth of cased portion of boring,

8.1.13 Equipment and method of driving sampler,

8.1.14 Type sampler and length and inside diameter of barrel (note use of liners),

8.1.15 Size, type, and section length of the sampling rods, and

8.1.16 Remarks.

8.2 Data obtained for each sample shall be recorded in the field and shall include the following:

8.2.1 Sample depth and, if utilized, the sample number,

8.2.2 Description of soil,

8.2.3 Strata changes within sample,

8.2.4 Sampler penetration and recovery lengths, and

8.2.5 Number of blows per 6-in. (0.15-m) or partial increment.

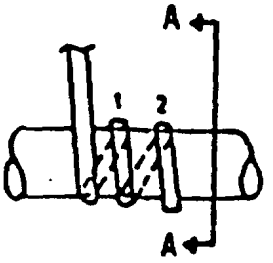
9. Precision and Bias

9.1 Variations in *N*-values of 100 % or more have been observed when using different standard penetration test apparatus and drillers for adjacent borings in the same soil formation. Current opinion, based on field experience, indicates that when using the same apparatus and driller, *N*-values in the same soil can be reproduced with a coefficient of variation of about 10 %.

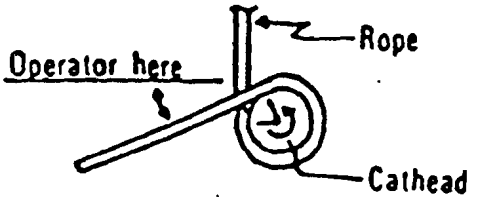
9.2 The use of faulty equipment, such as an extremely massive or damaged anvil, a rusty cathead, a low speed cathead, an old, oily rope, or massive or poorly lubricated rope sheaves can significantly contribute to differences in *N*-values

obtained between operator-drill rig systems.

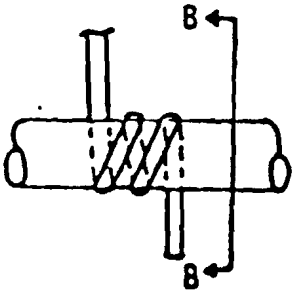
9.3 The variability in *N*-values produced by different drill rigs and operators may be reduced by measuring that part of the hammer energy delivered into the drill rods from the sampler and adjusting *N* on the basis of comparative energies. A method for energy measurement and *N*-value adjustment is currently under development.



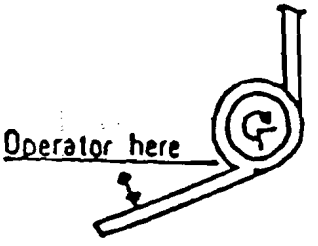
(*a*) counterclockwise rotation approximately 1¼ turns



Section A–A

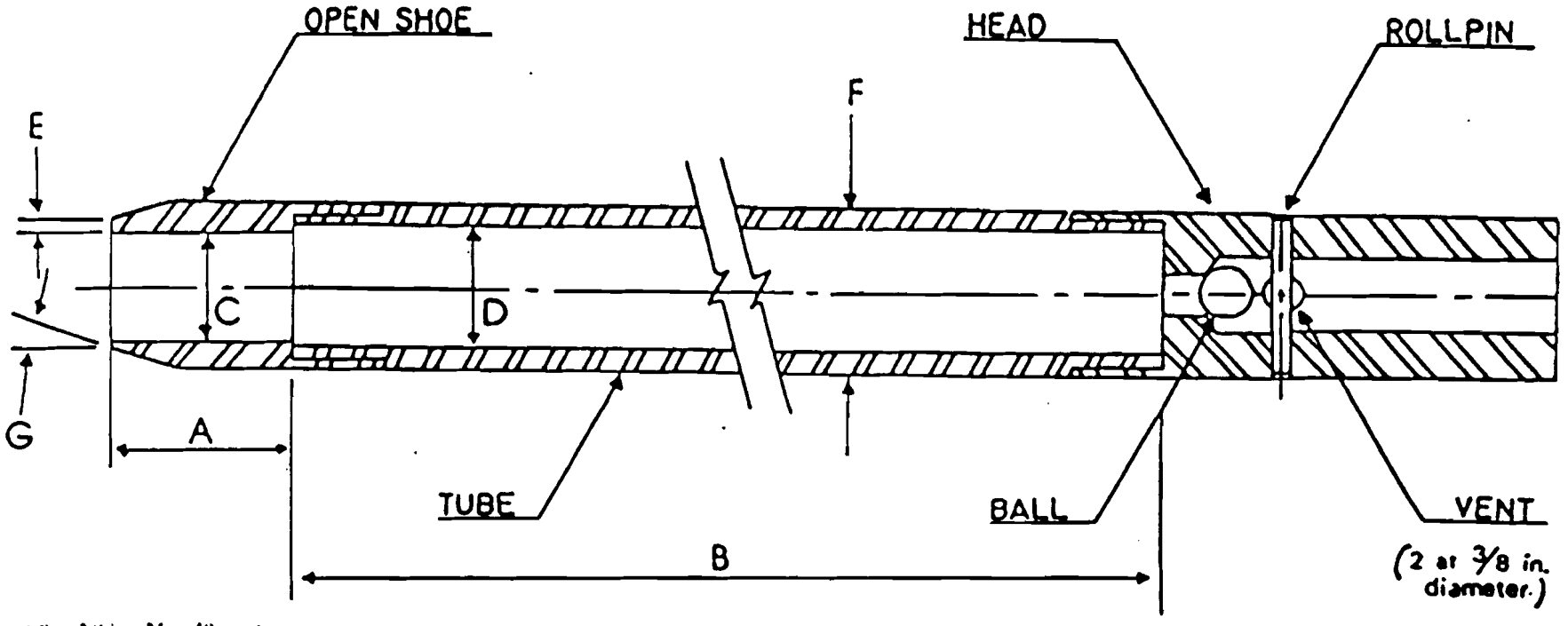


(*b*) clockwise rotation approximately 2¾ turns



Section B–B

FIG. 1 Definitions of the Number of Rope Turns and the Angle for (*a*) Counterclockwise Rotation and (*b*) Clockwise Rotation of the Cathead



A = 1.0 to 2.0 in. (25 to 50 mm)
B = 18.0 to 30.0 in. (0.457 to 0.762 m)
C = 1.375 ± 0.005 in. (34.93 ± 0.13 mm)
D = 1.50 ± 0.05 − 0.00 in. (38.1 ± 1.3 − 0.0 mm)
E = 0.10 ± 0.02 in. (2.54 ± 0.25 mm)
F = 2.00 ± 0.05 − 0.00 in. (50.8 ± 1.3 − 0.0 mm)
G = 16.0° to 23.0°

The 1⅜ in. (38 mm) inside diameter split barrel may be used with a 16-gage wall thickness split liner. The penetrating end of the drive shoe may be slightly rounded. Metal or plastic retainers may be used to retain soil samples.

FIG. 2 Split-Barrel Sampler

Appendix F

Protocol for Volatile Organic Screening of Soil Samples

A) Open the split-spoon sampler, measure the recovery, and separate the wash from the true sample by using a dedicated spatula.

B) Place the sample in an 8-ounce glass jar (as quickly as possible to avoid loss of volatiles), filling the jar half full. Place an aluminum foil seal between the glass and metal cap and screw tight.

C) Jars will be labelled with the site name, sample specification, boring number, depth of sample, date of collection and blow counts. In addition, the hydrogeologist will ensure that:

* samples are taken at appropriate depth;
* unrepresentative portions of the sample are discarded properly;
* that the sampler is decontaminated properly between use; and
* the driller uses proper methods during sample collection and does not use oil or grease on tools entering the borehole.

D) Log the sample in detail, and record sediment characteristics (color, odor, moisture, texture, density,

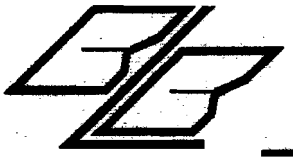
consistency, layering, mineralogy).

E) After the sample has been collected, heat the sample under controlled conditions for a three minute period.

F) Pierce the aluminum foil seal with the probe from the photoionization meter, measure relative concentration of volatiles in headspace of the soil sample, and record the volatile concentration reading.

G) Any sedimentary material not representative of the interval sampled will be placed in a pile with the other cuttings from the borehole.

H) The split-spoon core barrels will be decontaminated according to NYSDEC approved protocol.



Appendix G

GROUND-WATER SAMPLING PROCEDURE - Volatile Organic Compounds

(1) Identify the well and enter presampling information in the field notebook and on the sampling form. Fill out other items on sampling form.

(2) Inspect protective casing and note any items of concern such as missing lock or bent casing.

(3) Cut a slit in one corner of a dedicated plastic sheet and slip it over and around the well or place near the well, creating a clean surface onto which the sampling equipment can be positioned. Do not kick, transfer, drop or in any way let soil or other material fall onto this sheet unless it comes from inside the well. Do not place any meters, tools, equipment, etc., on the sheet unless they have been cleaned with a clean rag to remove any sediments.

(4) Clean the top of the well off with a clean rag and remove the cap or plug, placing it on the plastic sheet.

(5) Clean the steel tape according to NYSDEC approved protocol and measure the depth to water. Record this and compute the volume of water in the well.

(6) Existing wells will be purged by the hydrogeologist on site. All monitoring wells will be pumped or bailed before sampling and a minimum of five casing volumes will be removed if the recharge rate is adequate to accomplish this within a reasonable amount of time. Hand bailers, submersible pumps, etc. will be clean and sediment-free prior to use in accordance with NYSDEC approved protocol.

(7) Record the physical appearance of the water on the field data form (color, odor, turbidity, etc.) as it is pumped or bailed.

(8) Prepare the bottles for receiving their samples (labels, place on ice, etc.).

(9) After the well has been purged and developed, a teflon bailer will be used to collect the ground-water sample. This bailer will have been thoroughly pre-cleaned. Immediately prior to lowering the bailer in the well, rinse three volumes of distilled water through the bailer. In addition, the first three bailer volumes obtained from the well should be discarded. Use non-absorbent polyethylene cord to lower the bailer into the well. This cord will be discarded after use in the well.

(10) Lower the bailer into the well gently, making certain to only submerge it far enough to fill it completely.

(11) Standard 40 ml, pre-cleaned, volatile organic sample bottles with teflon caps are required. Fill the bottles to the top creating a convex surface with no air bubbles. Place the cap on tightly. Gently turn the bottle over and tap lightly on the soft surface to insure that no air bubbles are present.

(12) Label the bottle with location number, date and other pertinent information. Record all information on the sampling data form. Cool the sample immediately on ice. Maintain the samples in a secure area and deliver to the laboratory within 24 hours.

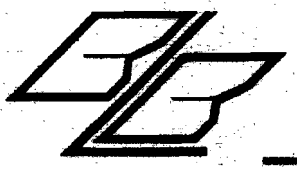
(13) After the last sample is collected, measure and record the temperature, conductivity, pH, and the physical appearance of the water.

(14) Replace the well cap and cover the well, locking the protective cap.

(15) Rinse out the bailer and/or pump with clean water.

(16) Dsicard the cord, rags, gloves, and plastic sheeting in an appropriate manner.

(17) Complete sampling data form.



Appendix H

ANALYTICAL RESULTS

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

NARRATIVE

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

July 30, 1991

Ms. Nan Martin
Blasland, Bouck & Lee, Engineers
244 Westchester
Suite 405
White Plains, New York 10604

Re: Aquatec Project No. 91041
Case No. 26649; SDG No. 135939
ETR No. 26649

Dear Ms. Martin:

Enclosed are the analytical results for samples received intact by Aquatec on June 5, 1991.

Laboratory numbers assigned to field and laboratory quality control samples are presented below.

Aquatec Laboratory No.	Sample Description	Sample Matrix
135939	Trip Blank	Water
135940	Field Blank	Water
135941	MW-1	Water
135941MS	MW-1	Water
135941MD	MW-1	Water
135941DP	MW-1	Water
135942	MW-2	Water
139542DL	MW-2	Water
135943	MW-2 Duplicate	Water
139543DL	MW-2 Duplicate	Water
135944	MW-3	Water
135945	Matrix Spike Blank	Laboratory

Aquatec did not detect the following site specific parameter for the above referenced case: 1,1,2 trichloroethane, p-ethyltoluene, 1,3,5 trimethylbenzene, 1,2,4 trimethylbenzene, trichlorobenzene, xylene, chromium, and silver. However, some or all of the following parameters were detected in varying concentrations in all field samples submitted: 1,1,1 trichloroethane, tetrachloroethylene, methyl ethyl ketone, copper, lead, nickel, and zinc.

Secondary dilutions were required of MW-2 and MW-2 Duplicates because target analytes exceeded the calibration range. However,

some target analytes were found in the more concentrated analyses that were not detected in the dilution analysis. Therefore, both sets of data are included with this submittal.

Twice the amount of the spiking solution was added to sample 135941MS prior to the analysis for pesticide/PCB's. Calculated matrix spike recoveries were based on this factor.

Matrix spike recoveries for silver and thallium, as well as the duplicate analysis for iron, were out of the specified control limits. These have been flagged according to contract specifications.

The initial matrix analysis of MW-1 (135941MS) for cyanide required a dilution; however, the run log sequence of the analysis did not have a closing check standard.

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

Sincerely,

Joseph Comeau

Joseph K. Comeau
Vice President, Chemistry Division

JKC/kag
Enclosure

91041B22JUN91

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER CN
TRIP BLANK	135939	✓					
FIELD BLANK	135940	✓	✓		✓	✓	✓
MW-1	135941	✓	✓		✓	✓	✓
MW-1	135941MS	✓	✓		✓	✓	✓
MW-1	135941MD	✓	✓		✓		✓
MW-1	135941DP					✓	
MW-2	135942	✓	✓			✓	
MW-2	135942DL	✓					
MW-2 Dup	135943	✓				✓	
MW-2 Dup	135943DL	✓					
MW-3	135944	✓				✓	
Matrix Spike Blk (MSB)	135945	✓	✓		✓		

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)
* HSL, Priority Pollutant

000003

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
135940	WATER	6/4/91	6/5/91	6/10/91	7/2/91
135941	↓	↓	↓	↓	↓
135941MS	↓	↓	↓	↓	↓
135941MD	↓	↓	↓	↓	↓
(MSB) 135945	↓	—	—	↓	↓

000004

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
135940	Water	6/4/91	6/5/91	6/10/91	6/17/91
135941	↓	↓	↓	↓	6/17/91
135941MS					6/18/91
135941MD		↓	↓		6/18/91
(MSB) 135945	↓	—	—	↓	6/17/91

000005

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Low Level Med. Level	Date Analyzed
135939	WATER	6/4/91	6/5/91	LOW	6/9/91
135940	↓	↓	↓	↓	6/9/91
135941	↓	↓	↓	↓	6/8/91
135941MS	↓	↓	↓	↓	6/8/91
135941MD	↓	↓	↓	↓	6/9/91
135942	↓	↓	↓	↓	6/9/91
135942DL	↓	↓	↓	↓	6/10/91
135943	↓	↓	↓	↓	6/9/91
135943DL	↓	↓	↓	↓	6/10/91
135944	↓	↓	↓	↓	6/9/91
(MSB) 135945	↓	—	—	↓	6/9/91

000006

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS FORM

ORGANIC ANALYSES

Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxilary Clean Up	Dil/Conc Factor
135940	Water	CLP BNA CLP ICP	SEPF	—	BNA 1.0 ; P/P 1.0
135941	↓	↓	↓	—	1.0
135941MS				—	5.0
135941MD				—	↓
(MSB) 135945	↓	↓	↓	—	↓

000007

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

Sample ID	Matrix	Metals Requested	Date Rec'd	Date Analyzed
				TCL Metals Hg CN
135940	WATER	TCL Metals + CN	6/5/91	6/26-7/2 6/21/91 6/10/91
135941	↓	↓	↓	↓
135941MS				
135941DP		↓		↓
135942		NR		NR
135943		NR		NR
135944	↓	NR	↓	NR

000008

ANALYTICAL RESULTS

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

SOW No. _____

EPA Sample No.	Lab Sample ID
Field blank	135940
MW-1	135941
MW-1D	135941DP
MW-1S	135941MS
MW-2	135942
MW-2DUP	135943
MW-3	135944

Were ICP interelement corrections applied? Yes/No No

Were ICP background corrections applied? Yes/No Yes

If yes, were raw data generated before application of background corrections? Yes/No No

Comments: _____

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

Signature: Joseph Comeau Name: Joseph K. Comeau

Date: 4/31/91 Title: Vice President - Chemistry

COVER PAGE - IN

000009

QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

* - Duplicate analysis not within control limits.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than CRDL.

90902D14NOV90

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

Matrix (soil/water): WATER Lab Sample ID: 135940

Level (low/med): _____ Date Received: 06/05/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.9	U		P
7440-36-0	Antimony	46.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	9.0	B		P
7440-41-7	Beryllium	1.9	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	59100			P
7440-47-3	Chromium	7.3	U		P
7440-48-4	Cobalt	17.2	U		P
7440-50-8	Copper	9.9	B		P
7439-89-6	Iron	34.7	B	*	P
7439-92-1	Lead	0.80	U	W	F
7439-95-4	Magnesium	26400			P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.2	U		P
7440-09-7	Potassium	2100	B		P
7782-49-2	Selenium	1.2	U	W	F
7440-22-4	Silver	6.2	U	N	P
7440-23-5	Sodium	12000			P
7440-28-0	Thallium	2.4	U	MWN	F
7440-62-2	Vanadium	13.4	B		P
7440-66-6	Zinc	7.3	B		P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

Matrix (soil/water): WATER Lab Sample ID: 135941

Level (low/med): _____ Date Received: 06/05/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.9	U		P
7440-36-0	Antimony	46.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	20.3	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	8810			P
7440-47-3	Chromium	7.3	U		P
7440-48-4	Cobalt	17.2	U		P
7440-50-8	Copper	76.5			P
7439-89-6	Iron	801		*	P
7439-92-1	Lead	4.7			F
7439-95-4	Magnesium	3890	B		P
7439-96-5	Manganese	52.9			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.2	U		P
7440-09-7	Potassium	1050	B		P
7782-49-2	Selenium	1.2	U	W	P
7440-22-4	Silver	6.2	U	N	P
7440-23-5	Sodium	10700			P
7440-28-0	Thallium	12.0	U	WN	F
7440-62-2	Vanadium	15.3	B		P
7440-66-6	Zinc	22.3			P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-2

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

Matrix (soil/water): WATER Lab Sample ID: 135942

Level (low/med): _____ Date Received: 06/05/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	124	B		P
7440-36-0	Antimony	46.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	64.5	B		P
7440-41-7	Beryllium	2.0	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	17800			P
7440-47-3	Chromium	7.3	U		P
7440-48-4	Cobalt	17.2	U		P
7440-50-8	Copper	13.6	B		P
7439-89-6	Iron	323		*	P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	5650			P
7439-96-5	Manganese	704			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	25.7	B		P
7440-09-7	Potassium	3950	B		P
7782-49-2	Selenium	1.2	U		F
7440-22-4	Silver	6.2	U	N	P
7440-23-5	Sodium	16600			P
7440-28-0	Thallium	12.0	U	WN	F
7440-62-2	Vanadium	13.2	U		P
7440-66-6	Zinc	12.0	B		P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-2DUP

Lab Name: AQUATEC, INC. Contract: 91014

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

Matrix (soil/water): WATER Lab Sample ID: 135943

Level (low/med): _____ Date Received: 06/05/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	158	B		P
7440-36-0	Antimony	46.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	63.9	B		P
7440-41-7	Beryllium	1.8	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	17300			P
7440-47-3	Chromium	7.3	U		P
7440-48-4	Cobalt	17.2	U		P
7440-50-8	Copper	9.7	U		P
7439-89-6	Iron	373		*	P
7439-92-1	Lead	1.0	B		F
7439-95-4	Magnesium	5490			P
7439-96-5	Manganese	693			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	21.2	B		P
7440-09-7	Potassium	3860	B		P
7782-49-2	Selenium	1.2	U		P
7440-22-4	Silver	6.2	U	N	P
7440-23-5	Sodium	16300			P
7440-28-0	Thallium	12.0	U	WN	F
7440-62-2	Vanadium	13.2	U		P
7440-66-6	Zinc	14.2	B		P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1
INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-3

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

Matrix (soil/water): WATER Lab Sample ID: 135944

Level (low/med): _____ Date Received: 06/05/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	45.9	U		P
7440-36-0	Antimony	46.1	U		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	503			P
7440-41-7	Beryllium	1.9	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	46600			P
7440-47-3	Chromium	7.3	U		P
7440-48-4	Cobalt	17.2	U		P
7440-50-8	Copper	9.7	U		P
7439-89-6	Iron	59.9	B	*	P
7439-92-1	Lead	0.86	B		F
7439-95-4	Magnesium	9250			P
7439-96-5	Manganese	6710			P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	84.5			P
7440-09-7	Potassium	18700			P
7782-49-2	Selenium	1.8	B	W	F
7440-22-4	Silver	6.2	U	N	P
7440-23-5	Sodium	32500			P
7440-28-0	Thallium	12.0	U	WN	F
7440-62-2	Vanadium	13.2	U		P
7440-66-6	Zinc	369			P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBLK

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 135939

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

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

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	-79.6	B		P
7440-36-0	Antimony	57.0	B		P
7440-38-2	Arsenic	1.8	U		F
7440-39-3	Barium	2.6	U		P
7440-41-7	Beryllium	1.9	B		P
7440-43-9	Cadmium	3.9	U		P
7440-70-2	Calcium	230	U		P
7440-47-3	Chromium	7.3	U		P
7440-48-4	Cobalt	17.2	U		P
7440-50-8	Copper	9.7	U		P
7439-89-6	Iron	26.2	U	*	P
7439-92-1	Lead	0.80	U		F
7439-95-4	Magnesium	133	U		P
7439-96-5	Manganese	2.6	U		P
7439-97-6	Mercury	0.12	U		CV
7440-02-0	Nickel	10.2	U		P
7440-09-7	Potassium	299	U		P
7782-49-2	Selenium	1.2	U		F
7440-22-4	Silver	6.2	U	N	P
7440-23-5	Sodium	331	U		P
7440-28-0	Thallium	2.4	U	N	F
7440-62-2	Vanadium	13.2	U		P
7440-66-6	Zinc	4.7	U		P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

TRIP BLANK

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135939

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135939V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

TRIP BLANK

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135939

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135939V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135940

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135940V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

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EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135940

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135940V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135941

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135941V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/08/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	3	J
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	87	
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	99	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	34	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-1

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135941V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/08/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135942

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135942V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	9	
75-34-3	1,1-Dichloroethane	6	
540-59-0	1,2-Dichloroethene (total)	4	J
67-66-3	Chloroform	7	
107-06-2	1,2-Dichloroethane	2	J
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	250	E
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	200	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	2	J
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	51	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135942

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135942V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2DL

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135942D1

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: C135942DV

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/10/91

Column: (pack/cap) PACK Dilution Factor: 1.667

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	4	BJD
67-64-1	Acetone	15	BJD
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	5	JD
75-34-3	1,1-Dichloroethane	4	JD
540-59-0	1,2-Dichloroethene (total)	2	JD
67-66-3	Chloroform	5	JD
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	32	BD
71-55-6	1,1,1-Trichloroethane	150	D
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	130	D
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	33	D
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	3	BJD
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2DL

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135942D1

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: C135942DV

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/10/91

Column: (pack/cap) PACK Dilution Factor: 1.667

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2-DUP

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135943

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135943V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	9	
75-34-3	1,1-Dichloroethane	6	
540-59-0	1,2-Dichloroethene (total)	4	J
67-66-3	Chloroform	7	
107-06-2	1,2-Dichloroethane	2	J
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	260	E
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	190	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	2	J
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	50	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2-DUP

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135943

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135943V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2-DUPDL

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135943D1

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: C135943DV

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/10/91

Column: (pack/cap) PACK Dilution Factor: 1.667

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	17	U
74-83-9	Bromomethane	17	U
75-01-4	Vinyl Chloride	17	U
75-00-3	Chloroethane	17	U
75-09-2	Methylene Chloride	5	BJD
67-64-1	Acetone	4	BJD
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	5	JD
75-34-3	1,1-Dichloroethane	4	JD
540-59-0	1,2-Dichloroethene (total)	3	JD
67-66-3	Chloroform	5	JD
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	17	U
71-55-6	1,1,1-Trichloroethane	140	D
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	17	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	150	D
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	17	U
591-78-6	2-Hexanone	17	U
127-18-4	Tetrachloroethene	39	D
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2-DUPDL

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135943D1

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: C135943DV

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/10/91

Column: (pack/cap) PACK Dilution Factor: 1.667

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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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135944

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135944V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	2	J
75-34-3	1,1-Dichloroethane	1	J
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	4	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	31	
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	120	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	35	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

EPA SAMPLE NO.

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

MW-3

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135944

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135944V

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKD1

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: EBXB002FV

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: EBXB002FV

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

% Moisture: not dec._____ Date Analyzed: 06/08/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

EPA SAMPLE NO.

VBLKD1

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: EBXB002FV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EBXB002FV

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

% Moisture: not dec._____ Date Analyzed: 06/08/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKD3

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: CREB002AV

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: CREB002AV

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

% Moisture: not dec._____ Date Analyzed: 06/10/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
74-87-3	Chloromethane	10	U
74-83-9	Bromomethane	10	U
75-01-4	Vinyl Chloride	10	U
75-00-3	Chloroethane	10	U
75-09-2	Methylene Chloride	2	J
67-64-1	Acetone	9	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	42	
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	2	J
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKD3

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: CREB002AV

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: CREB002AV

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

% Moisture: not dec._____ Date Analyzed: 06/10/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1. 110-19-0	ACETIC ACID,2-METHYLPROPYL E	19.85	12	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135945

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E135945V

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

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	BJ
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MSD

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135941MD

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E135941MDV

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ Date Analyzed: 06/09/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	2	J
540-59-0	1,2-Dichloroethene (total)	2	J
67-66-3	Chloroform	3	J
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	94	
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	32	
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135940

Sample wt/vol: 864.0 (g/mL)ML Lab File ID: A135940S

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	12	U
111-44-4	bis(2-Chloroethyl)ether	12	U
95-57-8	2-Chlorophenol	12	U
541-73-1	1,3-Dichlorobenzene	12	U
106-46-7	1,4-Dichlorobenzene	12	U
100-51-6	Benzyl alcohol	12	U
95-50-1	1,2-Dichlorobenzene	12	U
95-48-7	2-Methylphenol	12	U
108-60-1	bis(2-Chloroisopropyl)ether	12	U
106-44-5	4-Methylphenol	12	U
621-64-7	N-Nitroso-di-n-propylamine	12	U
67-72-1	Hexachloroethane	12	U
98-95-3	Nitrobenzene	12	U
78-59-1	Isophorone	12	U
88-75-5	2-Nitrophenol	12	U
105-67-9	2,4-Dimethylphenol	12	U
65-85-0	Benzoic acid	58	U
111-91-1	bis(2-Chloroethoxy)methane	12	U
120-83-2	2,4-Dichlorophenol	12	U
120-82-1	1,2,4-Trichlorobenzene	12	U
91-20-3	Naphthalene	12	U
106-47-8	4-Chloroaniline	12	U
87-68-3	Hexachlorobutadiene	12	U
59-50-7	4-Chloro-3-methylphenol	12	U
91-57-6	2-Methylnaphthalene	12	U
77-47-4	Hexachlorocyclopentadiene	12	U
88-06-2	2,4,6-Trichlorophenol	12	U
95-95-4	2,4,5-Trichlorophenol	58	U
91-58-7	2-Chloronaphthalene	12	U
88-74-4	2-Nitroaniline	58	U
131-11-3	Dimethylphthalate	12	U
208-96-8	Acenaphthylene	12	U
606-20-2	2,6-Dinitrotoluene	12	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135940

Sample wt/vol: 864.0 (g/mL)ML Lab File ID: A135940S

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	58	U
83-32-9	Acenaphthene	12	U
51-28-5	2,4-Dinitrophenol	58	U
100-02-7	4-Nitrophenol	58	U
132-64-9	Dibenzofuran	12	U
121-14-2	2,4-Dinitrotoluene	12	U
84-66-2	Diethylphthalate	12	U
7005-72-3	4-Chlorophenyl-phenylether	12	U
86-73-7	Fluorene	12	U
100-01-6	4-Nitroaniline	58	U
534-52-1	4,6-Dinitro-2-methylphenol	58	U
86-30-6	N-Nitrosodiphenylamine (1)	12	U
101-55-3	4-Bromophenyl-phenylether	12	U
118-74-1	Hexachlorobenzene	12	U
87-86-5	Pentachlorophenol	58	U
85-01-8	Phenanthrene	12	U
120-12-7	Anthracene	12	U
84-74-2	Di-n-butylphthalate	12	U
206-44-0	Fluoranthene	12	U
129-00-0	Pyrene	12	U
85-68-7	Butylbenzylphthalate	12	U
91-94-1	3,3'-Dichlorobenzidine	23	U
56-55-3	Benzo(a)anthracene	12	U
218-01-9	Chrysene	12	U
117-81-7	bis(2-Ethylhexyl)phthalate	12	U
117-84-0	Di-n-octylphthalate	12	U
205-99-2	Benzo(b)fluoranthene	12	U
207-08-9	Benzo(k)fluoranthene	12	U
50-32-8	Benzo(a)pyrene	12	U
193-39-5	Indeno(1,2,3-cd)pyrene	12	U
53-70-3	Dibenz(a,h)anthracene	12	U
191-24-2	Benzo(g,h,i)perylene	12	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135940

Sample wt/vol: 864.0 (g/mL) ML Lab File ID: A135940S

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.53	14	JAB
2.					
3.					
4.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135941

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A135941S

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941

Sample wt/vol: 1000 (g/mL)ML Lab File ID: A135941S

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
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	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
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	Dibenz(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.

MW-1

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941

Sample wt/vol: 1000 (g/mL)ML Lab File ID: A135941S

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.52	12	JAB
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW8

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: SBLKW8

Sample wt/vol: 1000 (g/mL)ML Lab File ID: AB0610W8S

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKW8

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: SBLKW8

Sample wt/vol: 1000 (g/mL) ML Lab File ID: AB0610W8S

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
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	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
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	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SBLKW8

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: SBLKW8

Sample wt/vol: 1000 (g/mL)ML Lab File ID: AB0610W8S

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.48	21	JA
2.					
3.					
4.					
5.					
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135945

Sample wt/vol: 1000 (g/mL) ML Lab File ID: A135945S

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	50	U
95-95-4	2,4,5-Trichlorophenol	10	U
91-58-7	2-Chloronaphthalene	50	U
88-74-4	2-Nitroaniline	10	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135945

Sample wt/vol: 1000 (g/mL)ML Lab File ID: A135945S

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene		
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	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	10	U
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
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	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1B

EPA SAMPLE NO.

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

MW-1MS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941MS

Sample wt/vol: 500.0 (g/mL)ML Lab File ID: A135941MS

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol		
111-44-4	bis(2-Chloroethyl)ether	20	U
95-57-8	2-Chlorophenol		
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene		
100-51-6	Benzyl alcohol	20	U
95-50-1	1,2-Dichlorobenzene	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	bis(2-Chloroisopropyl)ether	20	U
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitroso-di-n-propylamine		
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	20	U
65-85-0	Benzoic acid	100	U
111-91-1	bis(2-Chloroethoxy)methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene		
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-methylphenol		
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	20	U
95-95-4	2,4,5-Trichlorophenol	100	U
91-58-7	2-Chloronaphthalene	20	U
88-74-4	2-Nitroaniline	100	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941MS

Sample wt/vol: 500.0 (g/mL)ML Lab File ID: A135941MS

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	100	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	100	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	100	U
534-52-1	4,6-Dinitro-2-methylphenol	100	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
84-74-2	Di-n-butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	40	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)phthalate	20	U
117-84-0	Di-n-octylphthalate	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenz(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MSD

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941MD

Sample wt/vol: 500.0 (g/mL)ML Lab File ID: A135941MDS

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	20	U
111-44-4	bis(2-Chloroethyl)ether	20	U
95-57-8	2-Chlorophenol	20	U
541-73-1	1,3-Dichlorobenzene	20	U
106-46-7	1,4-Dichlorobenzene	20	U
100-51-6	Benzyl alcohol	20	U
95-50-1	1,2-Dichlorobenzene	20	U
95-48-7	2-Methylphenol	20	U
108-60-1	bis(2-Chloroisopropyl)ether	20	U
106-44-5	4-Methylphenol	20	U
621-64-7	N-Nitroso-di-n-propylamine	20	U
67-72-1	Hexachloroethane	20	U
98-95-3	Nitrobenzene	20	U
78-59-1	Isophorone	20	U
88-75-5	2-Nitrophenol	20	U
105-67-9	2,4-Dimethylphenol	100	U
65-85-0	Benzoic acid	20	U
111-91-1	bis(2-Chloroethoxy)methane	20	U
120-83-2	2,4-Dichlorophenol	20	U
120-82-1	1,2,4-Trichlorobenzene	20	U
91-20-3	Naphthalene	20	U
106-47-8	4-Chloroaniline	20	U
87-68-3	Hexachlorobutadiene	20	U
59-50-7	4-Chloro-3-methylphenol	20	U
91-57-6	2-Methylnaphthalene	20	U
77-47-4	Hexachlorocyclopentadiene	20	U
88-06-2	2,4,6-Trichlorophenol	100	U
95-95-4	2,4,5-Trichlorophenol	20	U
91-58-7	2-Chloronaphthalene	100	U
88-74-4	2-Nitroaniline	20	U
131-11-3	Dimethylphthalate	20	U
208-96-8	Acenaphthylene	20	U
606-20-2	2,6-Dinitrotoluene	20	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MSD

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941MD

Sample wt/vol: 500.0 (g/mL)ML Lab File ID: A135941MDS

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 07/02/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	100	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	100	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	20	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	20	U
7005-72-3	4-Chlorophenyl-phenylether	20	U
86-73-7	Fluorene	20	U
100-01-6	4-Nitroaniline	100	U
534-52-1	4,6-Dinitro-2-methylphenol	100	U
86-30-6	N-Nitrosodiphenylamine (1)	20	U
101-55-3	4-Bromophenyl-phenylether	20	U
118-74-1	Hexachlorobenzene	20	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	20	U
120-12-7	Anthracene	20	U
84-74-2	Di-n-butylphthalate	20	U
206-44-0	Fluoranthene	20	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	20	U
91-94-1	3,3'-Dichlorobenzidine	40	U
56-55-3	Benzo(a)anthracene	20	U
218-01-9	Chrysene	20	U
117-81-7	bis(2-Ethylhexyl)phthalate	20	U
117-84-0	Di-n-octylphthalate	20	U
205-99-2	Benzo(b)fluoranthene	20	U
207-08-9	Benzo(k)fluoranthene	20	U
50-32-8	Benzo(a)pyrene	20	U
193-39-5	Indeno(1,2,3-cd)pyrene	20	U
53-70-3	Dibenz(a,h)anthracene	20	U
191-24-2	Benzo(g,h,i)perylene	20	U

(1) - Cannot be separated from Diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135940

Sample wt/vol: 987 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/17/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.051	U
319-85-7	beta-BHC	0.051	U
319-86-8	delta-BHC	0.051	U
58-89-9	gamma-BHC (Lindane)	0.051	U
76-44-8	Heptachlor	0.051	U
309-00-2	Aldrin	0.051	U
1024-57-3	Heptachlor epoxide	0.051	U
959-98-8	Endosulfan I	0.051	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	0.51	U
53494-70-5	Endrin ketone	0.10	U
5103-71-9	alpha-Chlordane	0.51	U
5103-74-2	gamma-Chlordane	0.51	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.51	U
11104-28-2	Aroclor-1221	0.51	U
11141-16-5	Aroclor-1232	0.51	U
53469-21-9	Aroclor-1242	0.51	U
12672-29-6	Aroclor-1248	0.51	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.

MW-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135941

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/17/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

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
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	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.

PBLKD5

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: PBLKD5

Sample wt/vol: 1000 (g/mL)ML Lab File ID: _____

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/18/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

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
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	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.

MSB

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water) WATER Lab Sample ID: 135945

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

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

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/17/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
319-84-6	alpha-BHC	0.25	U
319-85-7	beta-BHC	0.25	U
319-86-8	delta-BHC	0.25	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	0.25	U
959-98-8	Endosulfan I	0.25	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	0.5	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	0.5	U
72-54-8	4,4'-DDD	0.5	U
1031-07-8	Endosulfan sulfate	0.5	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	2.5	U
53494-70-5	Endrin ketone	0.5	U
5103-71-9	alpha-Chlordane	2.5	U
5103-74-2	gamma-Chlordane	2.5	U
8001-35-2	Toxaphene	5.0	U
12674-11-2	Aroclor-1016	2.5	U
11104-28-2	Aroclor-1221	2.5	U
11141-16-5	Aroclor-1232	2.5	U
53469-21-9	Aroclor-1242	2.5	U
12672-29-6	Aroclor-1248	2.5	U
11097-69-1	Aroclor-1254	5.0	U
11096-82-5	Aroclor-1260	5.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941MS

Sample wt/vol: 500 (g/mL)ML Lab File ID: _____

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/18/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.50	U
319-85-7	beta-BHC	0.50	U
319-86-8	delta-BHC	0.50	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	0.50	U
959-98-8	Endosulfan I	0.50	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	1.0	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	1.0	U
72-54-8	4,4'-DDD	1.0	U
1031-07-8	Endosulfan sulfate	1.0	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	5.0	U
53494-70-5	Endrin ketone	1.0	U
5103-71-9	alpha-Chlordane	5.0	U
5103-74-2	gamma-Chlordane	5.0	U
8001-35-2	Toxaphene	10.0	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	10.0	U
11096-82-5	Aroclor-1260	10.0	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1MSD

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26649 SAS No.: _____ SDG No.: 13593

Matrix: (soil/water)WATER Lab Sample ID: 135941MD

Sample wt/vol: 500 (g/mL)ML Lab File ID: _____

Level: (low/med) LOW Date Received: 06/05/91

% Moisture: not dec._____ dec._____ Date Extracted: 06/10/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/18/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 5.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
319-84-6	alpha-BHC	0.50	U
319-85-7	beta-BHC	0.50	U
319-86-8	delta-BHC	0.50	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	0.50	U
959-98-8	Endosulfan I	0.50	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	1.0	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	1.0	U
72-54-8	4,4'-DDD	1.0	U
1031-07-8	Endosulfan sulfate	1.0	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	5.0	U
53494-70-5	Endrin ketone	1.0	U
5103-71-9	alpha-Chlordane	5.0	U
5103-74-2	gamma-Chlordane	5.0	U
8001-35-2	Toxaphene	10.0	U
12674-11-2	Aroclor-1016	5.0	U
11104-28-2	Aroclor-1221	5.0	U
11141-16-5	Aroclor-1232	5.0	U
53469-21-9	Aroclor-1242	5.0	U
12672-29-6	Aroclor-1248	5.0	U
11097-69-1	Aroclor-1254	10.0	U
11096-82-5	Aroclor-1260	10.0	U

ANALYTICAL RESULTS

aquatec

ENVIRONMENTAL SERVICES

75 Green Mountain Drive, So. Burlington, VT 05403
TEL 802/658-1074

NARRATIVE

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-1074

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

June 22, 1991

Ms. Nan Martin
Blasland, Bouck & Lee Engineers
244 Westchester
Suite 405
White Plains, NY 10604

Re: Aquatec Project No. 91041
Case No. 26044; SDG No. 1232884
ETR Nos. 26044, 26057, 26087, 26102, 26307 and 26339

Dear Ms. Martin:

Enclosed are the analytical results for samples received intact by Aquatec on April 23-26, May 10 and 14, 1991.

Laboratory numbers assigned to field and laboratory quality control samples are presented below.

Sample Description	Aquatec Laboratory No.	Sample Matrix
SB-1 (4-6')	132884	Soil
SB-1 (14-16')	132885	Soil
SB-2 (9-11')	132886	Soil
SB-2 (13-15')	132887	Soil
SB-3 (5-7')	132888	Soil
SB-3 (13-15')	132889	Soil
SB-1 (4-6')	132893	EP tox Extract
SB-1 (14-16')	132894	EP tox Extract
SB-2 (9-11')	132895	EP tox Extract
SB-2 (13-15')	132896	EP tox Extract
SB-3 (5-7')	132897	EP tox Extract
SB-3 (13-15')	132898	EP tox Extract
DB-1 (26-28')	132955	Soil
DB-1 (26-28')	132956	EP tox Extract
DB-1 (50-52')	132957	Soil
DB-1 (50-52')	132958	EP tox Extract
SB-4 5-7'	132959*	Soil
SB-4 5-7'	132960*	EP tox Extract
SB-4 13-15	132961	Soil
SB-4 13-15	132962	EP tox Extract
FB-1	133038*	Water
SB-5 15-17'	133039	Soil
SB-5 15-17'	133040	EP tox Extract
SB-6 13-15'	133041	Soil
SB-6 13-15'	133042	EP tox Extract

000001

Sample Description	Laboratory No.	Sample Matrix
MW-2 100-102'	133145	Soil
MW-2 100-102'	133146	EP tox Extract
FBCN-1	134104	Water
FBEPM-1	134105	Water
FBEPM-1	134106	EP tox Extract
FBM-1	134107	Water
Field Blank	134108	Water
FBVOA-1	134109	Water
MW-1 (95-97')	134110	Soil
MW-1 (95-97')	134110MS	Soil
MW-1 (95-97')	134110MD	Soil
MW-1 (95-97')	134110DP	Soil
MW-1 (95-97')	134111	EP tox Extract
MW-1 (95-97')DUP	134112	Soil
MW-1 (115-117')	134113	Soil
MW-1 (115-117')	134114	EP tox Extract
MW-1 (115-117')DUP	134115	Soil
MW-1 (115-117')DUP	134116	EP tox Extract
Matrix Spike Blank (MSB)	134120	Laboratory Water
MW-3 (95-97')	134328	Soil
MW-3 (95-97')	134329	EP tox Extract

* Sample was not analyzed per request of Nan Martin or indicated on the chain-of-custody.

Sample SB-4 13-15', designated for EP tox metals, was received broken and revialed at Aquatec.

Soil sample MW-1 (95-97') and its associated matrix analysis were extracted outside the specified holding times specified in the New York State 1989 CLP Protocals but within federal CLP limits. No target analysis were detected in the samples.

Lindane was quantitated from the RTX-35 column due to interference on the primary column (RTX-5) for the matrix spike samples (134110MS and 134110MD) as well as the matrix spike blank (134120).

Retention times for gamma-BHC were omitted on Form 10 for 134110MS, 134110MD and 134120 due to an interference on the primary column (RTX-5).

Matrix spike recoveries for cadmium, lead, and selenium, as well as the duplicate analyses for chromium, copper and zinc, were out of the specified control limits. These have been flagged according to contract specifications.

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

Sincerely,

Joseph K. Comeau

JKC/lam

Enclosure

91041B22JUN91

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS +CN⁻	*OTHER
SB-1(4-6')	132884	✓					✓
SB-1(14-16')	132885	✓					✓
SB-2(9-11')	132886	✓					✓
SB-2(13-15')	132887	✓					✓
SB-3(5-7')	132888	✓					✓
SB-3(13-15')	132889	✓					✓
SB-1(4-6')	132893						✓
SB-1(14-16')	132894						✓
SB-2(9-11)	132895						✓
SB-2(13-15')	132896						✓
SB-3(5-7')	132897						✓
SB-3(13-15')	132898						✓
DB-1(24-28')	132955	✓					✓
DB-1(24-28')	132956						✓
DB-1(50-52')	132957	✓					✓
DB-1(50-52')	132958						✓
SB-4(13-15')	132961	✓					✓
SB-4(13-15')	132962						✓
SB-5(15-17')	133039	✓					✓
SB-5(15-17')	133040						✓
SB-6(13-15')	133041	✓					✓
SB-6(13-15')	133042						✓
MW-2(100-102')	133145	✓					✓
MW-2(100-102')	133146						✓
MW-3(95-97')	134328	✓					✓
MW-3(95-97')	134329						✓
FBCN-1	134104					✓	
FBEAM-1	134105						✓
FBEPM1	134106						✓
FBM-1	134107					✓	

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)
* HSL, Priority Pollutant

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS +CN-	*OTHER
FIELDBLANK	134108		✓		✓		
FBVOA-1	134109	✓					
MW-195-97	134110	✓	✓		✓	✓	✓
MW-195-97	134110MS	✓	✓		✓	✓	
MW-195-97	134110MD	✓	✓		✓		
MW-195-97	134110DP					✓	✓
MW-195-97	134111						✓
MW-195-97 DUP	134112	✓					
MW-115-117	134113						✓
MW-115-117	134114						✓
MW-115-117MS	134115						✓
MW-115-117DUP	134116						✓
Matrix Spike Blank	134120	✓	✓		✓		

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)
* HSL, Priority Pollutant

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

Sample ID	Matrix	Metals Requested	Date Rec'd	Date Analyzed
132893	EP Tox Extr	Cr, Cu, Pb, Ni, Zn	4/23/91	5/10/91 → 6/20/91
132894	↓	↓	↓	↓
132895				
132896				
132897				
132898			↓	
132956			4/24/91	
132958			↓	
132962				
133040			4/25/91	
133042			↓	
133146			4/26/91	
134329	↓	↓	5/14/91	↓
134104	Water	CN	5/10/91	5/13/91
134106	EP Tox Extr	Cr, Cu, Pb, Ni, Zn		5/10/91 → 6/20/91
134107	Water	Full CLP metals		5/13/91
134110	Soil	+ CN		5/13/91 → 6/20/91
134110MS	↓	↓		↓
134110DP	↓	↓		↓
134114	EP Tox Extr	Cr, Cu, Pb, Ni, Zn	↓	5/10/91 → 6/20/91
134116	EP Tox Extr	Cr, Cu, Pb, Ni, Zn		↓

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS FORM

ORGANIC ANALYSES

BNA P/P BNA/P&PCB

Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxilary Clean Up	Dil/Conc Factor
132884	Soil	CLP VOA	NA	NA	1.0
132885			NA	NA	
132886			NA	NA	
132887			NA	NA	
132888			NA	NA	
132955			NA	NA	
132957			NA	NA	
132961			NA	NA	
133039			NA	NA	
133041			NA	NA	
133145			NA	NA	
134328	↓		NA	NA	
134109	Water	↓	NA	NA	
134110	Soil	CLP VOA, BNA P/P	SONC	GPC	↓
134110MS			↓		3.0 (P/P)
134110MD		↓	↓	↓	3.0 (P/P)
134112	↓	CLP VOA	NA	NA	1.0
134120	MSB	CLP VOA BNA P/P	SONC	—	3.0 (P/P)
134108	Water	CLP CLP BNA P/P	SEPF	—	1.0

MSB = Matrix Spike Blank

P/P = Pest/PCB

000007

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

	Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Low Level Med. Level	Date Analyzed
	132884	Soil	4/22/91	4/23/91	low	4/29/91
	132885					4/30/91
	132886					4/29/91
	132887					
	132888					
	132889					4/30/91
	132955		4/23/91	4/24/91		4/30/91
	132957					
	132961					
	133039		4/24/91	4/25/91		5/1/91
	133041		4/24/91	4/25/91		
	133145		4/25/91	4/26/91		
	134328		5/13/91	5/14/91		5/21/91
	134109	water	5/9/91	5/10/91		5/15/91
	134110	Soil				5/16/91
	134110MS					
	134110MD					
	134112					5/16/91
(MSB)	134120	WATER		NA		5/15/91

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
134108	water	5/9/91	5/10/91	5/15/91	5/24/91
134110	soil	↓	↓	5/20/91	6/17/91
134110MS	↓	↓	↓	5/20/91	6/17/91
134110MD	↓	↓	↓	5/20/91	6/17/91
134120	water	↓	NA	4/20/91	6/18/91

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
134108	water	5/9/91	5/10/91	5/15/91	6/13/91
134110	Soil	↓	↓	5/20/91	6/13/91
134110MS	↓	↓	↓	5/20/91	↓
134110MD	↓	↓	↓	↓	↓
134120	water	↓	NA	↓	↓

ANALYTICAL RESULTS

aquatec
ENVIRONMENTAL SERVICES
75 Green Mountain Drive, So. Burlington, VT 05403
TEL. 802/658-3074

U. S. EPA - CLP

COVER PAGE - INORGANIC ANALYSES DATA PACKAGE

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

SOW No. _____

EPA Sample No.	Lab Sample ID
FBCN-1	134104
FBM-1	134107
MW-1	134110
MW-1D	134110DP
MW-1S	134110MS
SB-1(4-6')E	132893
SB-1(14-16')E	132894
SB-2(9-11')E	132895
SB-2(13-15')E	132896
SB-3(5-7')E	132897
SB-3(13-15')E	132898
DB-1(26-28')E	132956
DB-1(50-52')E	132958
SB-4 13-15' E	132962
SB-5 15-17' E	133040
SB-6 13-15' E	133042
MW-2 100-102' E	133146
FBEPM-1 E	134106
MW-1(95-97')E	134111
MW-1(115-117')E	134114
MW-1(115-117')DUPE	134116
MW-3(95-97')E	134329

Were ICP interelement corrections applied? Yes/No No

Were ICP background corrections applied? Yes/No Yes

If yes, were raw data generated before application of background corrections? Yes/No No

Comments: E - Represents Eptox Sample

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

Signature: Joseph Comeau Name: Joseph Comeau

Date: 6/24/91 Title: Vice President

COVER PAGE - IN

1 INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: FBM-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134107

Level (low/med): _____ Date Received: 05/10/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	200	U		P
7440-36-0	Antimony	60.0	U		F
7440-38-2	Arsenic	10.0	U		F
7440-39-3	Barium	200	U		P
7440-41-7	Beryllium	5.0	U		P
7440-43-9	Cadmium	5.0	U		P
7440-70-2	Calcium	5000	U		P
7440-47-3	Chromium	10.0	U		P
7440-48-4	Cobalt	50.0	U		P
7440-50-8	Copper	25.0	U		P
7439-89-6	Iron	100	U		P
7439-92-1	Lead	3.0	U		P
7439-95-4	Magnesium	5000	U		P
7439-96-5	Manganese	15.0	U		P
7439-97-6	Mercury	0.20	U		CV
7440-02-0	Nickel	40.0	U		P
7440-09-7	Potassium	5000	U		P
7782-49-2	Selenium	5.0	U	W	F
7440-22-4	Silver	10.0	U		P
7440-23-5	Sodium	5000	U		P
7440-28-0	Thallium	10.0	U		F
7440-62-2	Vanadium	50.0	U		P
7440-66-6	Zinc	20.0	U		P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: FBCN-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134104

Level (low/med): _____ Date Received: 05/10/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium				NR
7440-48-4	Cobalt				NR
7440-50-8	Copper				NR
7439-89-6	Iron				NR
7439-92-1	Lead				NR
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel				NR
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc				NR
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBW

Lab Name: AQUATEC, INC. Contract: 91014

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

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

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

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	58.2	U		P
7440-36-0	Antimony	12.7	U		F
7440-38-2	Arsenic	1.4	U		F
7440-39-3	Barium	4.3	U		P
7440-41-7	Beryllium	1.2	U		P
7440-43-9	Cadmium	4.2	U		P
7440-70-2	Calcium	325	U		P
7440-47-3	Chromium	9.1	U		P
7440-48-4	Cobalt	25.4	U		P
7440-50-8	Copper	12.7	U		P
7439-89-6	Iron	-39.0	B		P
7439-92-1	Lead	1.2	U		F
7439-95-4	Magnesium	305	U		P
7439-96-5	Manganese	2.4	U		P
7439-97-6	Mercury	0.16	U		CV
7440-02-0	Nickel	22.3	U		P
7440-09-7	Potassium	331	U		P
7782-49-2	Selenium	1.3	B		F
7440-22-4	Silver	9.1	U		P
7440-23-5	Sodium	253	U		P
7440-28-0	Thallium	2.3	U		F
7440-62-2	Vanadium	20.7	U		P
7440-66-6	Zinc	5.8	U		P
	Cyanide	10.0	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

FORM I - IN

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): SOIL Lab Sample ID: 134110

Level (low/med): _____ Date Received: 05/10/91

% Solids: 97.1

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	593			P
7440-36-0	Antimony	8.9	U		F
7440-38-2	Arsenic	1.2	U		F
7440-39-3	Barium	29.6	U		P
7440-41-7	Beryllium	0.74	U		P
7440-43-9	Cadmium	1.2		N	P
7440-70-2	Calcium	741	U		P
7440-47-3	Chromium	6.5		*	P
7440-48-4	Cobalt	7.4	U		P
7440-50-8	Copper	3.7	U	*	P
7439-89-6	Iron	6170			P
7439-92-1	Lead	1.5		N*	F
7439-95-4	Magnesium	741	U		P
7439-96-5	Manganese	67.5		E	P
7439-97-6	Mercury	0.10	U		F
7440-02-0	Nickel	5.9	U		P
7440-09-7	Potassium	741	U		F
7782-49-2	Selenium	0.58	U	N	F
7440-22-4	Silver	1.5	U		P
7440-23-5	Sodium	741	U		P
7440-28-0	Thallium	11.5	U		F
7440-62-2	Vanadium	7.4	U		P
7440-66-6	Zinc	12.4		E*	P
_____	Cyanide	0.60	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

_____

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INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBS

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

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

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

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum	5.4	U		P
7440-36-0	Antimony	1.6	U		F
7440-38-2	Arsenic	0.26	U		F
7440-39-3	Barium	1.0	U		P
7440-41-7	Beryllium	0.39	U		P
7440-43-9	Cadmium	0.50	U	N	P
7440-70-2	Calcium	48.6	U		P
7440-47-3	Chromium	0.84	U	*	P
7440-48-4	Cobalt	2.8	U		P
7440-50-8	Copper	1.8	U	*	P
7439-89-6	Iron	3.4	U		P
7439-92-1	Lead	0.11	U	N	F
7439-95-4	Magnesium	55.0	U		P
7439-96-5	Manganese	0.55	U	E	P
7439-97-6	Mercury	0.08	U		CV
7440-02-0	Nickel	3.0	U		P
7440-09-7	Potassium	93.5	U		P
7782-49-2	Selenium	0.22	U	N	F
7440-22-4	Silver	1.0	U		P
7440-23-5	Sodium	51.9	U		P
7440-28-0	Thallium	0.42	U		F
7440-62-2	Vanadium	3.2	U		P
7440-66-6	Zinc	1.3	U	*E	P
	Cyanide	0.01	U		C

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-1(4-6')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132893

Level (low/med): _____ Date Received: 04/23/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

FORM I - IN

7/88

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-1(14-16')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132894

Level (low/med): Date Received: 04/23/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: Clarity Before: Texture:

Color After: Clarity After: Artifacts:

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-2(9-11')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132895

Level (low/med): _____ Date Received: 04/23/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-2(13-15')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132896

Level (low/med): _____ Date Received: 04/23/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-3(5-7')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132897

Level (low/med): _____ Date Received: 04/23/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-3(13-15')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132898

Level (low/med): _____ Date Received: 04/23/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: DB-1(26-28')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132956

Level (low/med): _____ Date Received: 04/24/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: DB-1(50-52')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132958

Level (low/med): _____ Date Received: 04/24/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-4 13-15 E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 132962

Level (low/med): _____ Date Received: 04/24/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
_____	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-5 15-17' E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 133040

Level (low/med): _____ Date Received: 04/25/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: SB-6 13-15' E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 133042

Level (low/med): _____ Date Received: 04/25/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-2 100-102' E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 133146

Level (low/med): _____ Date Received: 04/26/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: FBEPM-1E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134106

Level (low/med): _____ Date Received: 05/10/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1(95-97')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134111

Level (low/med): _____ Date Received: 05/10/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

U.S. EPA - CLP

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1(115-117')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134114

Level (low/med): _____ Date Received: 05/10/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

FORM I - IN

7/86

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-1(115-117')DUPE

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134116

Level (low/med): _____ Date Received: 05/10/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
_____	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: MW-3(95-97')E

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

Matrix (soil/water): WATER Lab Sample ID: 134239

Level (low/med): _____ Date Received: 05/14/91

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBEPTOX1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

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

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

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBEPTOX2

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

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

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

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

1

INORGANIC ANALYSIS DATA SHEET

EPA SAMPLE NO.: PBEPTOX3

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 132884

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

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

% Solids: 0.0

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

CAS No.	Analyte	Concentration	C	Q	M
7429-90-5	Aluminum				NR
7440-36-0	Antimony				NR
7440-38-2	Arsenic				NR
7440-39-3	Barium				NR
7440-41-7	Beryllium				NR
7440-43-9	Cadmium				NR
7440-70-2	Calcium				NR
7440-47-3	Chromium	1000	U	S	P
7440-48-4	Cobalt				NR
7440-50-8	Copper	1000	U	S	P
7439-89-6	Iron				NR
7439-92-1	Lead	1000	U	S	P
7439-95-4	Magnesium				NR
7439-96-5	Manganese				NR
7439-97-6	Mercury				NR
7440-02-0	Nickel	1000	U	S	P
7440-09-7	Potassium				NR
7782-49-2	Selenium				NR
7440-22-4	Silver				NR
7440-23-5	Sodium				NR
7440-28-0	Thallium				NR
7440-62-2	Vanadium				NR
7440-66-6	Zinc	1000	U	S	P
	Cyanide				NR

Color Before: _____ Clarity Before: _____ Texture: _____

Color After: _____ Clarity After: _____ Artifacts: _____

Comments:

E - Represents Eptox

FORM I - IN

7/88

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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-1(4-6')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132884

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132884V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	6	BJ
67-64-1	Acetone	7	BJ
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-1(4-6')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132884

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132884V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-1(14-16')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132885

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132885I2V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 4 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	5	BJ
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-1(14-16')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132885

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132885I2V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 4 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-2(9-11')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132886

Sample wt/vol: 4.0 (g/mL) G Lab File ID: D132886V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	10	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-2(9-11')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132886

Sample wt/vol: 4.0 (g/mL) G Lab File ID: D132886V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-2(13-15)

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132887

Sample wt/vol: 3.8 (g/mL) G Lab File ID: D132887V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 6 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	7	BJ
67-64-1	Acetone	11	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-2(13-15)

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132887

Sample wt/vol: 3.8 (g/mL) G Lab File ID: D132887V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 6 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-3(5-7')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132888

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132888V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	9	B
67-64-1	Acetone	15	BJ
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-3(5-7')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 132888

Sample wt/vol: 3.5 (g/mL)G Lab File ID: D132888V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-3(13-15')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132889

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132889V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	5	BJ
67-64-1	Acetone	7	BJ
75-15-0	Carbon Disulfide	8	U
75-35-4	1,1-Dichloroethene	8	U
75-34-3	1,1-Dichloroethane	8	U
540-59-0	1,2-Dichloroethene (total)	8	U
67-66-3	Chloroform	8	U
107-06-2	1,2-Dichloroethane	8	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	8	U
56-23-5	Carbon Tetrachloride	8	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	8	U
78-87-5	1,2-Dichloropropane	8	U
10061-01-5	cis-1,3-Dichloropropene	8	U
79-01-6	Trichloroethene	8	U
124-48-1	Dibromochloromethane	8	U
79-00-5	1,1,2-Trichloroethane	8	U
71-43-2	Benzene	8	U
10061-02-6	trans-1,3-Dichloropropene	8	U
75-25-2	Bromoform	8	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	8	U
79-34-5	1,1,2,2-Tetrachloroethane	8	U
108-88-3	Toluene	8	U
108-90-7	Chlorobenzene	8	U
100-41-4	Ethylbenzene	8	U
100-42-5	Styrene	8	U
1330-20-7	Xylene (total)	8	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-3(13-15')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132889

Sample wt/vol: 3.5 (g/mL) G Lab File ID: D132889V

Level: (low/med) LOW Date Received: 04/23/91

% Moisture: not dec. 5 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
2.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DB-1(26-28')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132955

Sample wt/vol: 3.7 (g/mL) G Lab File ID: C132955V

Level: (low/med) LOW Date Received: 04/24/91

% Moisture: not dec. 4 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	10	B
67-64-1	Acetone	12	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DB-1(26-28')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 132955

Sample wt/vol: 3.7 (g/mL)G Lab File ID: C132955V

Level: (low/med) LOW Date Received: 04/24/91

% Moisture: not dec. 4 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

DB-1(50-52')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 132957

Sample wt/vol: 4.2 (g/mL)G Lab File ID: C132957V

Level: (low/med) LOW Date Received: 04/24/91

% Moisture: not dec. 3 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	13	B
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

DB-1(50-52')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 132957

Sample wt/vol: 4.2 (g/mL) G Lab File ID: C132957V

Level: (low/med) LOW Date Received: 04/24/91

% Moisture: not dec. 3 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-4(13-15)

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 132961

Sample wt/vol: 3.7 (g/mL)G Lab File ID: C132961V

Level: (low/med) LOW Date Received: 04/24/91

% Moisture: not dec. 7 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	19	B
67-64-1	Acetone	7	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-4(13-15)

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 132961

Sample wt/vol: 3.7 (g/mL)G Lab File ID: C132961V

Level: (low/med) LOW Date Received: 04/24/91

% Moisture: not dec. 7 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-5(15-17')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 133039

Sample wt/vol: 4.0 (g/mL)G Lab File ID: C132039V

Level: (low/med) LOW Date Received: 04/25/91

% Moisture: not dec. 4 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	BJ
67-64-1	Acetone	7	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-5(15-17')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 133039

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C132039V

Level: (low/med) LOW Date Received: 04/25/91

% Moisture: not dec. 4 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SB-6(13-15')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 133041

Sample wt/vol: 4.0 (g/mL)G Lab File ID: C132041V

Level: (low/med) LOW Date Received: 04/25/91

% Moisture: not dec. 4 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	6	BJ
67-64-1	Acetone	7	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SB-6(13-15')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 133041

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C132041V

Level: (low/med) LOW Date Received: 04/25/91

% Moisture: not dec. 4 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-2 100-102

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 133145

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C133145V

Level: (low/med) LOW Date Received: 04/26/91

% Moisture: not dec. 5 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	B
67-64-1	Acetone	12	BJ
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-2 100-102

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 133145

Sample wt/vol: 4.0 (g/mL) G Lab File ID: C133145V

Level: (low/med) LOW Date Received: 04/26/91

% Moisture: not dec. 5 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FBVOA-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) WATER Lab Sample ID: 134109

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E134109V

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. _____ Date Analyzed: 05/15/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

FBVOA-1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) WATER Lab Sample ID: 134109

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: E134109V

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec._____ Date Analyzed: 05/15/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1(95-97')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110

Sample wt/vol: 4.2 (g/mL)G Lab File ID: D134110V

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	5	BJ
67-64-1	Acetone	11	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	12	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1(95-97')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134110

Sample wt/vol: 4.2 (g/mL) G Lab File ID: D134110V

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 1

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	66-25-1	HEXANAL	21.35	7	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97DUP

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134112

Sample wt/vol: 4.0 (g/mL)G Lab File ID: D134112V

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	5	BJ
67-64-1	Acetone	18	B
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-195-97DUP

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134112

Sample wt/vol: 4.0 (g/mL)G Lab File ID: D134112V

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	66-25-1	HEXANAL	21.50	9	J
2.	2415-72-7	PROPYLCYCLOHEXANE	23.35	9	J
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-3(95-97')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134328

Sample wt/vol: 4.1 (g/mL) G Lab File ID: C134328V

Level: (low/med) LOW Date Received: 05/14/91

% Moisture: not dec. 4 Date Analyzed: 05/21/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	7	B
67-64-1	Acetone	7	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-3(95-97')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134328

Sample wt/vol: 4.1 (g/mL)G Lab File ID: C134328V

Level: (low/med) LOW Date Received: 05/14/91

% Moisture: not dec. 4 Date Analyzed: 05/21/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKB9

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: CQIB001GV

Sample wt/vol: 3.4 (g/mL)G Lab File ID: CQIB001GV

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

% Moisture: not dec. 0 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
74-87-3	Chloromethane	15	U
74-83-9	Bromomethane	15	U
75-01-4	Vinyl Chloride	15	U
75-00-3	Chloroethane	15	U
75-09-2	Methylene Chloride	10	
67-64-1	Acetone	18	
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	15	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	15	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	15	U
591-78-6	2-Hexanone	15	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKB9

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: CQIB001GV

Sample wt/vol: 3.4 (g/mL) G Lab File ID: CQIB001GV

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

% Moisture: not dec. 0 Date Analyzed: 04/30/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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3.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKC3

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: CQJB001AV

Sample wt/vol: 3.5 (g/mL) G Lab File ID: CQJB001AV

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

% Moisture: not dec. 0 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	12	J
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	4	J
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKC3

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: CQJB001AV

Sample wt/vol: 3.5 (g/mL) G Lab File ID: CQJB001AV

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

% Moisture: not dec. 0 Date Analyzed: 05/01/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKQ1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: CQUB001AV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: CQUB001AV

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

% Moisture: not dec. 0 Date Analyzed: 05/20/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	19	
67-64-1	Acetone	14	
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKQ1

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: CQUB001AV

Sample wt/vol: 3.6 (g/mL) G Lab File ID: CQUB001AV

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

% Moisture: not dec. 0 Date Analyzed: 05/20/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.					
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKB6

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: DDLB003CV

Sample wt/vol: 4.3 (g/mL) G Lab File ID: DDLB003CV

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

% Moisture: not dec. 0 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	12	U
74-83-9	Bromomethane	12	U
75-01-4	Vinyl Chloride	12	U
75-00-3	Chloroethane	12	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	9	J
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene	6	U
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	2	J
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	12	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene	6	U
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene	6	U
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	12	U
591-78-6	2-Hexanone	12	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene	6	U
108-90-7	Chlorobenzene	6	U
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKB6

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: DDLB003CV

Sample wt/vol: 4.3 (g/mL) G Lab File ID: DDLB003CV

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

% Moisture: not dec. 0 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKB8

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: DDLB001DV

Sample wt/vol: 3.5 (g/mL) G Lab File ID: DDLB001DV

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

% Moisture: not dec. 0 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	14	U
74-83-9	Bromomethane	14	U
75-01-4	Vinyl Chloride	14	U
75-00-3	Chloroethane	14	U
75-09-2	Methylene Chloride	5	J
67-64-1	Acetone	12	J
75-15-0	Carbon Disulfide	7	U
75-35-4	1,1-Dichloroethene	7	U
75-34-3	1,1-Dichloroethane	7	U
540-59-0	1,2-Dichloroethene (total)	7	U
67-66-3	Chloroform	7	U
107-06-2	1,2-Dichloroethane	7	U
78-93-3	2-Butanone	14	U
71-55-6	1,1,1-Trichloroethane	7	U
56-23-5	Carbon Tetrachloride	7	U
108-05-4	Vinyl Acetate	14	U
75-27-4	Bromodichloromethane	7	U
78-87-5	1,2-Dichloropropane	7	U
10061-01-5	cis-1,3-Dichloropropene	7	U
79-01-6	Trichloroethene	7	U
124-48-1	Dibromochloromethane	7	U
79-00-5	1,1,2-Trichloroethane	7	U
71-43-2	Benzene	7	U
10061-02-6	trans-1,3-Dichloropropene	7	U
75-25-2	Bromoform	7	U
108-10-1	4-Methyl-2-Pentanone	14	U
591-78-6	2-Hexanone	14	U
127-18-4	Tetrachloroethene	7	U
79-34-5	1,1,2,2-Tetrachloroethane	7	U
108-88-3	Toluene	7	U
108-90-7	Chlorobenzene	7	U
100-41-4	Ethylbenzene	7	U
100-42-5	Styrene	7	U
1330-20-7	Xylene (total)	7	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKB8

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: DDLB001DV

Sample wt/vol: 3.5 (g/mL) G Lab File ID: DDLB001DV

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

% Moisture: not dec. 0 Date Analyzed: 04/29/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL9

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: DDQB002FV

Sample wt/vol: 4.6 (g/mL) G Lab File ID: DDQB002FV

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

% Moisture: not dec. 0 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	4	J
67-64-1	Acetone	7	J
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	2	J
591-78-6	2-Hexanone	5	J
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

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VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKL9

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: DDQB002FV

Sample wt/vol: 4.6 (g/mL) G Lab File ID: DDQB002FV

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

% Moisture: not dec. 0 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

Number TICs found: 0

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

VBLKL2

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: EBMB001GV

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: EBMB001GV

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

% Moisture: not dec._____ Date Analyzed: 05/15/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	5	U
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	5	U
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	5	U
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	5	U
108-90-7	Chlorobenzene	5	U
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1E

VOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

VBLKL2

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) WATER Lab Sample ID: EBMB001GV

Sample wt/vol: 5.0 (g/mL) ML Lab File ID: EBMB001GV

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

% Moisture: not dec._____ Date Analyzed: 05/15/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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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VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: 134120

Sample wt/vol: 5.0 (g/mL)ML Lab File ID: E134120V

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

% Moisture: not dec._____ Date Analyzed: 05/15/91

Column: (pack/cap) PACK Dilution Factor: 1.0

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	5	U
67-64-1	Acetone	10	U
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene	52	
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	10	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	10	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene	54	
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene	52	
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	10	U
591-78-6	2-Hexanone	10	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene	51	
108-90-7	Chlorobenzene	52	
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MS

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134110MS

Sample wt/vol: 4.8 (g/mL) G Lab File ID: D134110MSV

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	11	U
74-83-9	Bromomethane	11	U
75-01-4	Vinyl Chloride	11	U
75-00-3	Chloroethane	11	U
75-09-2	Methylene Chloride	5	B
67-64-1	Acetone	13	B
75-15-0	Carbon Disulfide	5	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	5	U
540-59-0	1,2-Dichloroethene (total)	5	U
67-66-3	Chloroform	5	U
107-06-2	1,2-Dichloroethane	5	U
78-93-3	2-Butanone	11	U
71-55-6	1,1,1-Trichloroethane	5	U
56-23-5	Carbon Tetrachloride	5	U
108-05-4	Vinyl Acetate	11	U
75-27-4	Bromodichloromethane	5	U
78-87-5	1,2-Dichloropropane	5	U
10061-01-5	cis-1,3-Dichloropropene	5	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	5	U
79-00-5	1,1,2-Trichloroethane	5	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	5	U
75-25-2	Bromoform	5	U
108-10-1	4-Methyl-2-Pentanone	11	U
591-78-6	2-Hexanone	11	U
127-18-4	Tetrachloroethene	5	U
79-34-5	1,1,2,2-Tetrachloroethane	5	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	5	U
100-42-5	Styrene	5	U
1330-20-7	Xylene (total)	5	U

1A

VOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MSD

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134110MD

Sample wt/vol: 4.0 (g/mL) G Lab File ID: D134110MDV

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 Date Analyzed: 05/16/91

Column: (pack/cap) PACK Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
74-87-3	Chloromethane	13	U
74-83-9	Bromomethane	13	U
75-01-4	Vinyl Chloride	13	U
75-00-3	Chloroethane	13	U
75-09-2	Methylene Chloride	4	BJ
67-64-1	Acetone	9	BJ
75-15-0	Carbon Disulfide	6	U
75-35-4	1,1-Dichloroethene		
75-34-3	1,1-Dichloroethane	6	U
540-59-0	1,2-Dichloroethene (total)	6	U
67-66-3	Chloroform	6	U
107-06-2	1,2-Dichloroethane	6	U
78-93-3	2-Butanone	13	U
71-55-6	1,1,1-Trichloroethane	6	U
56-23-5	Carbon Tetrachloride	6	U
108-05-4	Vinyl Acetate	13	U
75-27-4	Bromodichloromethane	6	U
78-87-5	1,2-Dichloropropane	6	U
10061-01-5	cis-1,3-Dichloropropene	6	U
79-01-6	Trichloroethene		
124-48-1	Dibromochloromethane	6	U
79-00-5	1,1,2-Trichloroethane	6	U
71-43-2	Benzene		
10061-02-6	trans-1,3-Dichloropropene	6	U
75-25-2	Bromoform	6	U
108-10-1	4-Methyl-2-Pentanone	13	U
591-78-6	2-Hexanone	13	U
127-18-4	Tetrachloroethene	6	U
79-34-5	1,1,2,2-Tetrachloroethane	6	U
108-88-3	Toluene		
108-90-7	Chlorobenzene		
100-41-4	Ethylbenzene	6	U
100-42-5	Styrene	6	U
1330-20-7	Xylene (total)	6	U

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

FIELD BLANK

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: 134108

Sample wt/vol: 993.0 (g/mL)ML Lab File ID: B134108S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/24/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: 134108

Sample wt/vol: 993.0 (g/mL)ML Lab File ID: B134108S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/24/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
84-74-2	Di-n-butylphthalate	2	J
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
85-68-7	Butylbenzylphthalate	9	J
91-94-1	3,3'-Dichlorobenzidine	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	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	Dibenz(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.

FIELD BLANK

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) WATER Lab Sample ID: 134108

Sample wt/vol: 993.0 (g/mL) ML Lab File ID: B134108S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/24/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

Number TICs found: 4

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HDYROXY-4-MET	9.38	28	JBA
2.	123-28-4	PROPANOIC ACID, 3,3'-THIOBIS	39.87	45	J
3.		UNKNOWN	43.15	12	JB
4.		UNKNOWN PHTHALATE	44.48	9	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1(95-97')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110

Sample wt/vol: 30.1 (g/mL)G Lab File ID: B134110S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	680	U
111-44-4	bis(2-Chloroethyl)ether	680	U
95-57-8	2-Chlorophenol	680	U
541-73-1	1,3-Dichlorobenzene	680	U
106-46-7	1,4-Dichlorobenzene	680	U
100-51-6	Benzyl alcohol	680	U
95-50-1	1,2-Dichlorobenzene	680	U
95-48-7	2-Methylphenol	680	U
108-60-1	bis(2-Chloroisopropyl)ether	680	U
106-44-5	4-Methylphenol	680	U
621-64-7	N-Nitroso-di-n-propylamine	680	U
67-72-1	Hexachloroethane	680	U
98-95-3	Nitrobenzene	680	U
78-59-1	Isophorone	680	U
88-75-5	2-Nitrophenol	680	U
105-67-9	2,4-Dimethylphenol	680	U
65-85-0	Benzoic acid	3300	U
111-91-1	bis(2-Chloroethoxy)methane	680	U
120-83-2	2,4-Dichlorophenol	680	U
120-82-1	1,2,4-Trichlorobenzene	680	U
91-20-3	Naphthalene	680	U
106-47-8	4-Chloroaniline	680	U
87-68-3	Hexachlorobutadiene	680	U
59-50-7	4-Chloro-3-methylphenol	680	U
91-57-6	2-Methylnaphthalene	680	U
77-47-4	Hexachlorocyclopentadiene	680	U
88-06-2	2,4,6-Trichlorophenol	680	U
95-95-4	2,4,5-Trichlorophenol	3300	U
91-58-7	2-Chloronaphthalene	680	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethylphthalate	680	U
208-96-8	Acenaphthylene	680	U
606-20-2	2,6-Dinitrotoluene	680	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-1(95-97')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110

Sample wt/vol: 30.1 (g/mL)G Lab File ID: B134110S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	3300	U
83-32-9	Acenaphthene	680	U
51-28-5	2,4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol	3300	U
132-64-9	Dibenzofuran	680	U
121-14-2	2,4-Dinitrotoluene	680	U
84-66-2	Diethylphthalate	680	U
7005-72-3	4-Chlorophenyl-phenylether	680	U
86-73-7	Fluorene	680	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4,6-Dinitro-2-methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	680	U
101-55-3	4-Bromophenyl-phenylether	680	U
118-74-1	Hexachlorobenzene	680	U
87-86-5	Pentachlorophenol	3300	U
85-01-8	Phenanthrene	680	U
120-12-7	Anthracene	680	U
84-74-2	Di-n-butylphthalate	680	U
206-44-0	Fluoranthene	680	U
129-00-0	Pyrene	680	U
85-68-7	Butylbenzylphthalate	680	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	680	U
218-01-9	Chrysene	680	U
117-81-7	bis(2-Ethylhexyl)phthalate	680	U
117-84-0	Di-n-octylphthalate	680	U
205-99-2	Benzo(b)fluoranthene	680	U
207-08-9	Benzo(k)fluoranthene	680	U
50-32-8	Benzo(a)pyrene	680	U
193-39-5	Indeno(1,2,3-cd)pyrene	680	U
53-70-3	Dibenz(a,h)anthracene	680	U
191-24-2	Benzo(g,h,i)perylene	680	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

MW-1(95-97')

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134110

Sample wt/vol: 30.1 (g/mL) G Lab File ID: B134110S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg) UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.00	2200	JBA
2.	120-32-1	PHENOL, 4-CHLORO-2-(PHENYLME	32.03	420	JB
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKR7

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: BB0515R7S

Sample wt/vol: 1000 (g/mL)ML Lab File ID: BB0515R7S

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

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/24/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
108-95-2	Phenol	10	U
111-44-4	bis(2-Chloroethyl)ether	10	U
95-57-8	2-Chlorophenol	10	U
541-73-1	1,3-Dichlorobenzene	10	U
106-46-7	1,4-Dichlorobenzene	10	U
100-51-6	Benzyl alcohol	10	U
95-50-1	1,2-Dichlorobenzene	10	U
95-48-7	2-Methylphenol	10	U
108-60-1	bis(2-Chloroisopropyl)ether	10	U
106-44-5	4-Methylphenol	10	U
621-64-7	N-Nitroso-di-n-propylamine	10	U
67-72-1	Hexachloroethane	10	U
98-95-3	Nitrobenzene	10	U
78-59-1	Isophorone	10	U
88-75-5	2-Nitrophenol	10	U
105-67-9	2,4-Dimethylphenol	10	U
65-85-0	Benzoic acid	50	U
111-91-1	bis(2-Chloroethoxy)methane	10	U
120-83-2	2,4-Dichlorophenol	10	U
120-82-1	1,2,4-Trichlorobenzene	10	U
91-20-3	Naphthalene	10	U
106-47-8	4-Chloroaniline	10	U
87-68-3	Hexachlorobutadiene	10	U
59-50-7	4-Chloro-3-methylphenol	10	U
91-57-6	2-Methylnaphthalene	10	U
77-47-4	Hexachlorocyclopentadiene	10	U
88-06-2	2,4,6-Trichlorophenol	10	U
95-95-4	2,4,5-Trichlorophenol	50	U
91-58-7	2-Chloronaphthalene	10	U
88-74-4	2-Nitroaniline	50	U
131-11-3	Dimethylphthalate	10	U
208-96-8	Acenaphthylene	10	U
606-20-2	2,6-Dinitrotoluene	10	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKR7

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: BB0515R7S

Sample wt/vol: 1000 (g/mL)ML Lab File ID: BB0515R7S

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

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/24/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/L	Q
99-09-2	3-Nitroaniline	50	U
83-32-9	Acenaphthene	10	U
51-28-5	2,4-Dinitrophenol	50	U
100-02-7	4-Nitrophenol	50	U
132-64-9	Dibenzofuran	10	U
121-14-2	2,4-Dinitrotoluene	10	U
84-66-2	Diethylphthalate	10	U
7005-72-3	4-Chlorophenyl-phenylether	10	U
86-73-7	Fluorene	10	U
100-01-6	4-Nitroaniline	50	U
534-52-1	4,6-Dinitro-2-methylphenol	50	U
86-30-6	N-Nitrosodiphenylamine (1)	10	U
101-55-3	4-Bromophenyl-phenylether	10	U
118-74-1	Hexachlorobenzene	10	U
87-86-5	Pentachlorophenol	50	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
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	20	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
117-81-7	bis(2-Ethylhexyl)phthalate	10	U
117-84-0	Di-n-octylphthalate	10	U
205-99-2	Benzo(b)fluoranthene	10	U
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	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

(1) - Cannot be separated from Diphenylamine

1F

EPA SAMPLE NO.

SBLKR7

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: BB0515R7S

Sample wt/vol: 1000 (g/mL)ML Lab File ID: BB0515R7S

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

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 05/24/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/L

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.33	37	JA
2.		UNKNOWN	43.18	7	J
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SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS5

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: BB0520S5S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB0520S5S

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

% Moisture: not dec. 0 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic acid	3200	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLKS5

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: BB0520S5S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB0520S5S

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

% Moisture: not dec. 0 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene	660	U
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol	3200	U
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene	660	U
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol	3200	U
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene	660	U
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indeno(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1F

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET
TENTATIVELY IDENTIFIED COMPOUNDS

EPA SAMPLE NO.

SBLKS5

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: BB0520S5S

Sample wt/vol: 30.0 (g/mL)G Lab File ID: BB0520S5S

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

% Moisture: not dec. 0 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

Number TICs found: 2

CONCENTRATION UNITS:
(ug/L or ug/Kg)UG/KG

	CAS NUMBER	COMPOUND NAME	RT	EST. CONC.	Q
1.	123-42-2	2-PENTANONE, 4-HYDROXY-4-MET	9.00	1500	JA
2.	120-32-1	PHENOL, 4-CHLORO-2-(PHENYLME	32.05	540	J
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1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134120

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B134120S

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 0 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/18/91

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
108-95-2	Phenol	660	U
111-44-4	bis(2-Chloroethyl)ether	660	U
95-57-8	2-Chlorophenol	660	U
541-73-1	1,3-Dichlorobenzene	660	U
106-46-7	1,4-Dichlorobenzene	660	U
100-51-6	Benzyl alcohol	660	U
95-50-1	1,2-Dichlorobenzene	660	U
95-48-7	2-Methylphenol	660	U
108-60-1	bis(2-Chloroisopropyl)ether	660	U
106-44-5	4-Methylphenol	660	U
621-64-7	N-Nitroso-di-n-propylamine	660	U
67-72-1	Hexachloroethane	660	U
98-95-3	Nitrobenzene	660	U
78-59-1	Isophorone	660	U
88-75-5	2-Nitrophenol	660	U
105-67-9	2,4-Dimethylphenol	660	U
65-85-0	Benzoic acid	3200	U
111-91-1	bis(2-Chloroethoxy)methane	660	U
120-83-2	2,4-Dichlorophenol	660	U
120-82-1	1,2,4-Trichlorobenzene	660	U
91-20-3	Naphthalene	660	U
106-47-8	4-Chloroaniline	660	U
87-68-3	Hexachlorobutadiene	660	U
59-50-7	4-Chloro-3-methylphenol	660	U
91-57-6	2-Methylnaphthalene	660	U
77-47-4	Hexachlorocyclopentadiene	660	U
88-06-2	2,4,6-Trichlorophenol	660	U
95-95-4	2,4,5-Trichlorophenol	3200	U
91-58-7	2-Chloronaphthalene	660	U
88-74-4	2-Nitroaniline	3200	U
131-11-3	Dimethylphthalate	660	U
208-96-8	Acenaphthylene	660	U
606-20-2	2,6-Dinitrotoluene	660	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134120

Sample wt/vol: 30.0 (g/mL) G Lab File ID: B134120S

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

% Moisture: not dec. 0 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/18/91

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3200	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	3200	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	660	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	660	U
7005-72-3	4-Chlorophenyl-phenylether	660	U
86-73-7	Fluorene	660	U
100-01-6	4-Nitroaniline	3200	U
534-52-1	4,6-Dinitro-2-methylphenol	3200	U
86-30-6	N-Nitrosodiphenylamine (1)	660	U
101-55-3	4-Bromophenyl-phenylether	660	U
118-74-1	Hexachlorobenzene	660	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	660	U
120-12-7	Anthracene	660	U
84-74-2	Di-n-butylphthalate	660	U
206-44-0	Fluoranthene	660	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	660	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	660	U
218-01-9	Chrysene	660	U
117-81-7	bis(2-Ethylhexyl)phthalate	660	U
117-84-0	Di-n-octylphthalate	660	U
205-99-2	Benzo(b)fluoranthene	660	U
207-08-9	Benzo(k)fluoranthene	660	U
50-32-8	Benzo(a)pyrene	660	U
193-39-5	Indeno(1,2,3-cd)pyrene	660	U
53-70-3	Dibenz(a,h)anthracene	660	U
191-24-2	Benzo(g,h,i)perylene	660	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110MS

Sample wt/vol: 30.2 (g/mL)G Lab File ID: B134110MSS

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

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	680	U
111-44-4	bis(2-Chloroethyl)ether	680	U
95-57-8	2-Chlorophenol	680	U
541-73-1	1,3-Dichlorobenzene	680	U
106-46-7	1,4-Dichlorobenzene	680	U
100-51-6	Benzyl alcohol	680	U
95-50-1	1,2-Dichlorobenzene	680	U
95-48-7	2-Methylphenol	680	U
108-60-1	bis(2-Chloroisopropyl)ether	680	U
106-44-5	4-Methylphenol	680	U
621-64-7	N-Nitroso-di-n-propylamine	680	U
67-72-1	Hexachloroethane	680	U
98-95-3	Nitrobenzene	680	U
78-59-1	Isophorone	680	U
88-75-5	2-Nitrophenol	680	U
105-67-9	2,4-Dimethylphenol	680	U
65-85-0	Benzoic acid	3300	U
111-91-1	bis(2-Chloroethoxy)methane	680	U
120-83-2	2,4-Dichlorophenol	680	U
120-82-1	1,2,4-Trichlorobenzene	680	U
91-20-3	Naphthalene	680	U
106-47-8	4-Chloroaniline	680	U
87-68-3	Hexachlorobutadiene	680	U
59-50-7	4-Chloro-3-methylphenol	680	U
91-57-6	2-Methylnaphthalene	680	U
77-47-4	Hexachlorocyclopentadiene	680	U
88-06-2	2,4,6-Trichlorophenol	680	U
95-95-4	2,4,5-Trichlorophenol	3300	U
91-58-7	2-Chloronaphthalene	680	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethylphthalate	680	U
208-96-8	Acenaphthylene	680	U
606-20-2	2,6-Dinitrotoluene	680	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MS

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110MS

Sample wt/vol: 30.2 (g/mL)G Lab File ID: B134110MSS

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
99-09-2	3-Nitroaniline	3300	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	680	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	680	U
7005-72-3	4-Chlorophenyl-phenylether	680	U
86-73-7	Fluorene	680	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4,6-Dinitro-2-methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	680	U
101-55-3	4-Bromophenyl-phenylether	680	U
118-74-1	Hexachlorobenzene	680	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	680	U
120-12-7	Anthracene	680	U
84-74-2	Di-n-butylphthalate	680	U
206-44-0	Fluoranthene	680	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	680	U
91-94-1	3,3'-Dichlorobenzidine	1400	U
56-55-3	Benzo(a)anthracene	680	U
218-01-9	Chrysene	680	U
117-81-7	bis(2-Ethylhexyl)phthalate	680	U
117-84-0	Di-n-octylphthalate	680	U
205-99-2	Benzo(b)fluoranthene	680	U
207-08-9	Benzo(k)fluoranthene	680	U
50-32-8	Benzo(a)pyrene	680	U
193-39-5	Indeno(1,2,3-cd)pyrene	680	U
53-70-3	Dibenz(a,h)anthracene	680	U
191-24-2	Benzo(g,h,i)perylene	680	U

(1) - Cannot be separated from Diphenylamine

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MSD

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110MD

Sample wt/vol: 30.3 (g/mL)G Lab File ID: B134110MDS

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
108-95-2	Phenol	670	U
111-44-4	bis(2-Chloroethyl)ether	670	U
95-57-8	2-Chlorophenol	670	U
541-73-1	1,3-Dichlorobenzene	670	U
106-46-7	1,4-Dichlorobenzene	670	U
100-51-6	Benzyl alcohol	670	U
95-50-1	1,2-Dichlorobenzene	670	U
95-48-7	2-Methylphenol	670	U
108-60-1	bis(2-Chloroisopropyl)ether	670	U
106-44-5	4-Methylphenol	670	U
621-64-7	N-Nitroso-di-n-propylamine	670	U
67-72-1	Hexachloroethane	670	U
98-95-3	Nitrobenzene	670	U
78-59-1	Isophorone	670	U
88-75-5	2-Nitrophenol	670	U
105-67-9	2,4-Dimethylphenol	670	U
65-85-0	Benzoic acid	3300	U
111-91-1	bis(2-Chloroethoxy)methane	670	U
120-83-2	2,4-Dichlorophenol	670	U
120-82-1	1,2,4-Trichlorobenzene	670	U
91-20-3	Naphthalene	670	U
106-47-8	4-Chloroaniline	670	U
87-68-3	Hexachlorobutadiene	670	U
59-50-7	4-Chloro-3-methylphenol	670	U
91-57-6	2-Methylnaphthalene	670	U
77-47-4	Hexachlorocyclopentadiene	670	U
88-06-2	2,4,6-Trichlorophenol	670	U
95-95-4	2,4,5-Trichlorophenol	3300	U
91-58-7	2-Chloronaphthalene	670	U
88-74-4	2-Nitroaniline	3300	U
131-11-3	Dimethylphthalate	670	U
208-96-8	Acenaphthylene	670	U
606-20-2	2,6-Dinitrotoluene	670	U

1C

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MSD

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134110MD

Sample wt/vol: 30.3 (g/mL) G Lab File ID: B134110MDS

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/17/91

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
99-09-2	3-Nitroaniline	3300	U
83-32-9	Acenaphthene		
51-28-5	2,4-Dinitrophenol	3300	U
100-02-7	4-Nitrophenol		
132-64-9	Dibenzofuran	670	U
121-14-2	2,4-Dinitrotoluene		
84-66-2	Diethylphthalate	670	U
7005-72-3	4-Chlorophenyl-phenylether	670	U
86-73-7	Fluorene	670	U
100-01-6	4-Nitroaniline	3300	U
534-52-1	4,6-Dinitro-2-methylphenol	3300	U
86-30-6	N-Nitrosodiphenylamine (1)	670	U
101-55-3	4-Bromophenyl-phenylether	670	U
118-74-1	Hexachlorobenzene	670	U
87-86-5	Pentachlorophenol		
85-01-8	Phenanthrene	670	U
120-12-7	Anthracene	670	U
84-74-2	Di-n-butylphthalate	670	U
206-44-0	Fluoranthene	670	U
129-00-0	Pyrene		
85-68-7	Butylbenzylphthalate	670	U
91-94-1	3,3'-Dichlorobenzidine	1300	U
56-55-3	Benzo(a)anthracene	670	U
218-01-9	Chrysene	670	U
117-81-7	bis(2-Ethylhexyl)phthalate	670	U
117-84-0	Di-n-octylphthalate	670	U
205-99-2	Benzo(b)fluoranthene	670	U
207-08-9	Benzo(k)fluoranthene	670	U
50-32-8	Benzo(a)pyrene	670	U
193-39-5	Indeno(1,2,3-cd)pyrene	670	U
53-70-3	Dibenz(a,h)anthracene	670	U
191-24-2	Benzo(g,h,i)perylene	670	U

(1) - Cannot be separated from Diphenylamine

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

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Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) WATER Lab Sample ID: 134108

Sample wt/vol: 1000 (g/mL) ML Lab File ID: _____

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/13/91

GPC Cleanup: (Y/N) N pH:____ Dilution Factor: 1.0

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
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	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.

MW-1(95-97')

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110

Sample wt/vol: 30.1 (g/mL)G Lab File ID: _____

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/13/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	33	U
72-55-9	4,4'-DDE	33	U
72-20-8	Endrin	33	U
33213-65-9	Endosulfan II	33	U
72-54-8	4,4'-DDD	33	U
1031-07-8	Endosulfan sulfate	33	U
50-29-3	4,4'-DDT	33	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	33	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	330	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	330	U
11096-82-5	Aroclor-1260	330	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

PBLKY1

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)WATER Lab Sample ID: PBLKY1

Sample wt/vol: 1000 (g/mL)ML Lab File ID: _____

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

% Moisture: not dec._____ dec._____ Date Extracted: 05/15/91

Extraction: (SepF/Cont/Sonc) SEPF Date Analyzed: 06/12/91

GPC Cleanup: (Y/N)N pH:____ Dilution Factor: 1.0

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
5103-71-9	alpha-Chlordane	0.50	U
5103-74-2	gamma-Chlordane	0.50	U
8001-35-2	Toxaphene	1.0	U
12674-11-2	Aroclor-1016	0.50	U
11104-28-2	Aroclor-1221	0.50	U
11141-16-5	Aroclor-1232	0.50	U
53469-21-9	Aroclor-1242	0.50	U
12672-29-6	Aroclor-1248	0.50	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.

PBLKY9

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: PBLKY9

Sample wt/vol: 30.0 (g/mL)G Lab File ID: _____

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

% Moisture: not dec._____ dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/12/91

GPC Cleanup: (Y/N)Y pH:____ Dilution Factor: 1.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	16	U
319-85-7	beta-BHC	16	U
319-86-8	delta-BHC	16	U
58-89-9	gamma-BHC (Lindane)	16	U
76-44-8	Heptachlor	16	U
309-00-2	Aldrin	16	U
1024-57-3	Heptachlor epoxide	16	U
959-98-8	Endosulfan I	16	U
60-57-1	Dieldrin	32	U
72-55-9	4,4'-DDE	32	U
72-20-8	Endrin	32	U
33213-65-9	Endosulfan II	32	U
72-54-8	4,4'-DDD	32	U
1031-07-8	Endosulfan sulfate	32	U
50-29-3	4,4'-DDT	32	U
72-43-5	Methoxychlor	160	U
53494-70-5	Endrin ketone	32	U
5103-71-9	alpha-Chlordane	160	U
5103-74-2	gamma-Chlordane	160	U
8001-35-2	Toxaphene	320	U
12674-11-2	Aroclor-1016	160	U
11104-28-2	Aroclor-1221	160	U
11141-16-5	Aroclor-1232	160	U
53469-21-9	Aroclor-1242	160	U
12672-29-6	Aroclor-1248	160	U
11097-69-1	Aroclor-1254	320	U
11096-82-5	Aroclor-1260	320	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MSB

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134120

Sample wt/vol: 30.0 (g/mL) G Lab File ID: _____

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

% Moisture: not dec._____ dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/13/91

GPC Cleanup: (Y/N) Y pH:____ Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	48	U
319-85-7	beta-BHC	48	U
319-86-8	delta-BHC	48	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	48	U
959-98-8	Endosulfan I	48	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	96	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	96	U
72-54-8	4,4'-DDD	96	U
1031-07-8	Endosulfan sulfate	96	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	480	U
53494-70-5	Endrin ketone	96	U
5103-71-9	alpha-Chlordane	480	U
5103-74-2	gamma-Chlordane	480	U
8001-35-2	Toxaphene	960	U
12674-11-2	Aroclor-1016	480	U
11104-28-2	Aroclor-1221	480	U
11141-16-5	Aroclor-1232	480	U
53469-21-9	Aroclor-1242	480	U
12672-29-6	Aroclor-1248	480	U
11097-69-1	Aroclor-1254	960	U
11096-82-5	Aroclor-1260	960	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MS

Lab Name: AQUATEC, INC. Contract: 91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water) SOIL Lab Sample ID: 134110MS

Sample wt/vol: 30.2 (g/mL) G Lab File ID: _____

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec. _____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/13/91

GPC Cleanup: (Y/N) Y pH: 7.0 Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/KG	Q
319-84-6	alpha-BHC	49	U
319-85-7	beta-BHC	49	U
319-86-8	delta-BHC	49	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	49	U
959-98-8	Endosulfan I	49	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	98	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	98	U
72-54-8	4,4'-DDD	98	U
1031-07-8	Endosulfan sulfate	98	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	490	U
53494-70-5	Endrin ketone	98	U
5103-71-9	alpha-Chlordane	490	U
5103-74-2	gamma-Chlordane	490	U
8001-35-2	Toxaphene	980	U
12674-11-2	Aroclor-1016	490	U
11104-28-2	Aroclor-1221	490	U
11141-16-5	Aroclor-1232	490	U
53469-21-9	Aroclor-1242	490	U
12672-29-6	Aroclor-1248	490	U
11097-69-1	Aroclor-1254	980	U
11096-82-5	Aroclor-1260	980	U

1D

PESTICIDE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

MW-195-97MSD

Lab Name:AQUATEC, INC. Contract:91041

Lab Code: AQUAI Case No.: 26044 SAS No.: _____ SDG No.: 13288

Matrix: (soil/water)SOIL Lab Sample ID: 134110MD

Sample wt/vol: 30.3 (g/mL)G Lab File ID: _____

Level: (low/med) LOW Date Received: 05/10/91

% Moisture: not dec. 3 dec._____ Date Extracted: 05/20/91

Extraction: (SepF/Cont/Sonc) SONC Date Analyzed: 06/13/91

GPC Cleanup: (Y/N)Y pH: 7.0 Dilution Factor: 3.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg)UG/KG	Q
319-84-6	alpha-BHC	49	U
319-85-7	beta-BHC	49	U
319-86-8	delta-BHC	49	U
58-89-9	gamma-BHC (Lindane)		
76-44-8	Heptachlor		
309-00-2	Aldrin		
1024-57-3	Heptachlor epoxide	49	U
959-98-8	Endosulfan I	49	U
60-57-1	Dieldrin		
72-55-9	4,4'-DDE	98	U
72-20-8	Endrin		
33213-65-9	Endosulfan II	98	U
72-54-8	4,4'-DDD	98	U
1031-07-8	Endosulfan sulfate	98	U
50-29-3	4,4'-DDT		
72-43-5	Methoxychlor	490	U
53494-70-5	Endrin ketone	98	U
5103-71-9	alpha-Chlordane	490	U
5103-74-2	gamma-Chlordane	490	U
8001-35-2	Toxaphene	980	U
12674-11-2	Aroclor-1016	490	U
11104-28-2	Aroclor-1221	490	U
11141-16-5	Aroclor-1232	490	U
53469-21-9	Aroclor-1242	490	U
12672-29-6	Aroclor-1248	490	U
11097-69-1	Aroclor-1254	980	U
11096-82-5	Aroclor-1260	980	U

QUALIFIERS FOR METALS ANALYSIS

E - The reported value is estimated because of the presence of interference.

M - Duplicate injection precision not met.

N - Matrix spiked sample recovery not within control limits.

S - The reported value was determined by the Method of Standard Additions.

+ - Correlation coefficient for the MSA is less than 0.995.

W - Post digestion spike for Furnace AA analysis is out of control limits (85-115%), while sample absorbance is less than 50% of spike absorbance.

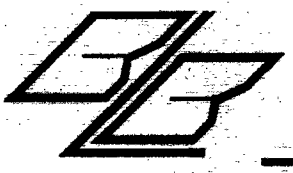
* - Duplicate analysis not within control limits.

Concentration Qualifiers

B - Entered if the reported value is less than the Contract Required Detection Limit (CRDL) but greater than the Instrument Detection Limit (IDL).

U - Entered if the analyte was analyzed for but not detected, less than CRDL.

90902D14NOV90



Appendix I

Data Validation Services

River Road P. O. Box 54
Riparius, N. Y. 12862
Phone 518-~~251-4251~~ 494-3509

TO: Blasland & Bouck Engineers

FROM: Judy Harry, Data Validation Services J Harry

DATE: 8-28-91

RE: Data Validation of EMR Circuits Site data packages

Review has been completed for data generated at the EMR Circuits Site and analyzed by Aquatec for TCL/TAL and site-specific parameters by 1989 NYSDEC ASP. One soil, one groundwater sample, and two field blanks were processed for full TCL/TAL, with appropriate matrix spikes. Three additional groundwater samples (including a field duplicate) and fourteen additional soils (including a field duplicate) were analysed for volatiles and metals/EPTox metals. All samples were also analysed for volatile site-specific parameters as listed in the attached case narratives. EPTox metal analyses were not validated for these packages.

In summary, the noncompliancies with protocol that affected sample reported results are as follows:

1) The BNA and Pest/PCB extractions on soil sample MW-1 (95-97') and its matrix spikes were conducted at 10 days from VTSR, 5 days beyond the limit allowed by the 1989 NYSDEC ASP. The 5 day limit is a reduction from the 1987 NYSDEC CLP limit of 10 days. The delay preceeding extraction for this sample may have resulted in losses of the more volatile or labile BNA and pesticide compounds. No target compounds were detected for this sample; the reported detection limits should be considered estimated, possibly biased low.

2) Several compounds in the volatile initial and continuing calibration standards exceeded the allowable 35% limit, and certain sample reported results are therefore considered estimated. These samples and corresponding parameters are outlined in the section below.

Other concerns, Form edits, and noncompliancies not affecting sample reported results, are discussed below:

Volatiles

Holding times were met for volatile analysis. Surrogate recoveries and instrumental tune data are all within required limits. Soil matrix spike and matrix spike blank recoveries and precision values are all within recommended limits. The aqueous matrix spikes
of MW-1 produced outlying recoveries for trichloroethene, at 121 and 147%, with a 20% RPD. MW-1 contains trichloroethene at a level of 99 ug/L. No soil matrix spike blank, required by protocol, was processed with the soil matrix spikes. This noncompliancy does not affect sample reported results.

Rec'd 9-3-91 NEM

The method blank, VBLKD3, associated with analysis of groundwater samples MW-2DL and MW-2-DUPDL on 6/10/91, contained an unknown at a level exceeding the allowable limit. This does not affect sample reported results. All other volatile method blanks were contaminant free.

As previously mentioned, volatile calibration standards contained outliers.

1. The continuing calibration standard (CCS) from the 6/8/91 groundwater analysis produced percent differences (%D) from the curve that exceed 35% for 2-butanone, acetone, and 2-hexanone (49, 45, and 42% D). Associated samples, MW-1 and its matrix spikes, MW-3, trip and field blanks, and the undiluted analyses of MW-2 and MW-2 DUP do not have detected levels of those compounds. However, the detection limits for 2-butanone for these samples should be considered estimated due to low daily response.
2. The VOA soil 5 point curve of 5/20/91 produced a 41%D for methylene chloride, exceeding the 35% limit. The methylene chloride reported result in the associated sample, MW-3 (95-97), is already qualified with a "B" to indicate presence in the method blank, and is thereby considered estimated.
3. Acetone in the soil CCS of 5-16-91 had a %D of 75%. Associated samples (MW-1(95-97) and DUP) are already qualified with a "B".

The Method Detection Limits for VOA analyses were produced for only one of the three systems, and were run 5 months prior to this project, 2 months beyond the required update. However, sample results are unaffected, as instrumental output indicates sufficient sensitivity for the reported CRDLs.

System response (i.e. standard analysis and instrumental detection limits) for the site specific parameters (SSPs) that are not TCL compounds was not indicated in the data packages. The non-detection of the SSPs was a result of chromatographic/spectral evaluation of the volatile analyses.

Base/Neutral/Acids

Please note the above mentioned holding time violation, and subsequent qualification as estimated values, for sample MW-1 (95-97). All other holding times were met.

Surrogate recoveries for the soils and aqueous samples were all in required range. All soil and aqueous matrix spike blank recoveries and precision RPD values were in with the exception of the soil recovery of 2,4-dinitrotoluene, which at 97%, is outside the recommended limit of 89%. Matrix spike blank recoveries for both matrices are outside required limits of 75-125%, but are within the matrix spike ranges. Sample results are unaffected.

Instrumental tune, and initial and continuing calibration standard data are within required limits. The method blank for soil contains a contaminant T.I.C. at a level greater than 10% of the nearest internal standard. Sample reported results are unaffected.

Method Detection Limits (MDLs) were provided, and indicate that 3,3'-dichlorobenzidine has an actual detection limit 48% higher than CRDL.

PCB/Pesticides

Please note the above mentioned holding time violation, and subsequent qualification as estimated values, for sample MW-1 (95-97). All other holding times were met.

Surrogate recoveries for the soils and aqueous samples were all in required range. All soil and aqueous matrix spike blank recoveries and precision RPD values were in with the exception of the soil matrix spike of gamma-BHC, which produced recoveries of 179 and 87%, with a RPD of 69%. As noted in the case narrative, this compound was quantitated from the confirmation column. gamma-BHC also produced elevated response in the soil matrix spike blank. Matrix spikes for groundwaters utilized only one half of usual sample volume, and therefore have detection limits two times usual.

Calculations and chromatographic interpretations were verified.

The final INDA and INDB calibration standards run in the groundwater primary sequence produced %Ds for some pesticides slightly greater than the allowable 15%, at 16 and 17%. Sample reported results are unaffected.

Submitted MDLs were determined 7 months before sample processing, outside the 3 month limit. Instrumental output indicates adequate sensitivity for this project CRDLs.

Metals/CN

Calibration standards and method and calibration blank values were all within required ranges for the TAL metals/CN analyses. The preparation blank value for selenium on the Form 3 on pg. 139 should be flagged with a "B" to indicate that the value of 1.3 ug/L is below the CRDL.

Laboratory Control and ICP Int. Check Sample results were all in required ranges.

The aqueous matrix spike recovery for silver and thallium were below the preferred lower limit of 75%, at 60 and 66%, respectively. Cadmium, lead, and selenium were outside ranges for the soil matrix spikes at 66, 135, and 70%. These have been correctly indicated on the reporting Form I's. The aqueous iron duplicate precision value was greater than 20% (29%), and has been appropriately noted as such.

The reporting Form I's and Form 6 incorrectly indicate duplicate outliers for the groundwaters. Elements chromium, copper, lead, and zinc should not be flagged with a "*", as the control limit of +-CRDL applies, rather than a 20 % difference criterion. All values were actually within range. The units on Form 6 should be mg/kg rather than ug/l.

Manganese produced a value of 11%D upon serial dilution, above the limit of 10%D, and has been flagged correctly with "E".

COMPLIANCY SUMMARY

Project: EMR CIrcuits Phase II Investigation

Project No.: Aquatec No. 91041
SDG Nos: 1232884 and 135939

Protocol: 1989 NYSDEC ASP

Rec. Date	Sample ID	Matrix	VOA	BNA	Pest/PCB	Metals	CN	Noncompliancy
04-23-91	SB-1(4-6)	Soil	NO	NR	NR	NR	NR	4,7
04-23-91	SB-1(14-16)	Soil	NO	NR	NR	NR	NR	4,7
04-23-91	SB-2(9-11)	Soil	NO	NR	NR	NR	NR	4,7
04-23-91	SB-2(13-15)	Soil	NO	NR	NR	NR	NR	4,7
04-23-91	SB-3((5-7)	Soil	NO	NR	NR	NR	NR	4,7
04-23-91	SB-3(13-15)	Soil	NO	NR	NR	NR	NR	4,7
04-24-91	SB-4(13-15)	Soil	NO	NR	NR	NR	NR	4,7
04-25-91	SB-5(15-17)	Soil	NO	NR	NR	NR	NR	4,7
04-25-91	SB-6(13-15)	Soil	NO	NR	NR	NR	NR	4,7
04-24-91	DB-1(26-28)	Soil	NO	NR	NR	NR	NR	4,7
04-24-91	DB-1(50-52)	Soil	NO	NR	NR	NR	NR	4,7
05-10-91	MW-1(95-97)	Soil	NO	NO	NO	OK	OK	1,2,3,4,6,7,8,10
05-10-91	MW-1(95-97)D	Soil	NO	NR	NR	NR	NR	1,4,7
04-26-91	MW-2(100-102)	Soil	NO	NR	NR	NR	NR	
05-14-91	MW-3(95-97)	Soil	NO	NR	NR	NR	NR	4,7
05-10-91	FB-CN	Aqueous	NR	NR	NR	NR	OK	
05-10-91	FBM-1	Aqueous	NR	NR	NR	OK	NR	
05-10-91	Field Blank	Aqueous	NR	NO	NO	NR	NR	8,10
05-10-91	FBVOA-1	Aqueous	NO	NR	NR	NR	NR	7

Rec. Date	Sample ID	Matrix	VOA	BNA	Pest/PCB	Metals	CN	Noncompliancy
06-05-91	MW-1	Aqueous	NO	NO	NO	OK	OK	1,7,8,9,10
06-05-91	MW-2	Aqueous	NO	NR	NR	OK	NR	1,5,7
06-05-91	MW-2 DUP	Aqueous	NO	NR	NR	OK	NR	1,5,7
06-05-91	MW-3	Aqueous	NO	NR	NR	OK	NR	1,7
06-05-91	Field Blk	Aqueous	NO	NO	NO	OK	OK	1,7,7,9,10

1. Volatile calibration standards exceed 35%D or 35% RPD (pgs. E-25 and E-26)
2. BNA holding time to extraction at 10 days; exceeds 5 day limit (pg. D-111-5)
3. Pest/PCB holding time to extraction at 10 days; exceeds 5 day limit (pg. D-111-5)
4. No volatile matrix spike blank was processed (pg. E-32)
5. Volatile method blank in diluted analysis contains TIC (pg. E-27).
6. BNA method blank contains TIC (pg. E-52)
7. Volatile IDLs outdated; none submitted for site specific parameters (pg. E-38)
8. BNA matrix spike values outside range of 75-125% (pg. E-72)
   IDL for 3,3'-dichlorobenzidine is actually 48% higher than required CRDL. (pg E-64)
9. Pest/PCB closing calibration standards just exceed allowable 15%D (pg. D-IV-44 Sec. 6.1.3)
10. Pest/PCB IDLs outdated (pg. E-99)

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

July 30, 1991

Ms. Nan Martin
Blasland, Bouck & Lee, Engineers
244 Westchester
Suite 405
White Plains, New York 10604

Re: Aquatec Project No. 91041
Case No. 26649; SDG No. 135939
ETR No. 26649

Dear Ms. Martin:

Enclosed are the analytical results for samples received intact by Aquatec on June 5, 1991.

Laboratory numbers assigned to field and laboratory quality control samples are presented below.

Aquatec Laboratory No.	Sample Description	Sample Matrix
135939	Trip Blank	Water
135940	Field Blank	Water
135941	MW-1	Water
135941MS	MW-1	Water
135941MD	MW-1	Water
135941DP	MW-1	Water
135942	MW-2	Water
139542DL	MW-2	Water
135943	MW-2 Duplicate	Water
139543DL	MW-2 Duplicate	Water
135944	MW-3	Water
135945	Matrix Spike Blank	Laboratory

Aquatec did not detect the following site specific parameter for the above referenced case: 1,1,2 trichloroethane, p-ethyltoluene, 1,3,5 trimethylbenzene, 1,2,4 trimethylbenzene, trichlorobenzene, xylene, chromium, and silver. However, some or all of the following parameters were detected in varying concentrations in all field samples submitted: 1,1,1 trichloroethane, tetrachloroethylene, methyl ethyl ketone, copper, lead, nickel, and zinc.

Secondary dilutions were required of MW-2 and MW-2 Duplicates because target analytes exceeded the calibration range. However,

some target analytes were found in the more concentrated analyses that were not detected in the dilution analysis. Therefore, both sets of data are included with this submittal.

Twice the amount of the spiking solution was added to sample 135941MS prior to the analysis for pesticide/PCB's. Calculated matrix spike recoveries were based on this factor.

Matrix spike recoveries for silver and thallium, as well as the duplicate analysis for iron, were out of the specified control limits. These have been flagged according to contract specifications.

The initial matrix analysis of MW-1 (135941MS) for cyanide required a dilution; however, the run log sequence of the analysis did not have a closing check standard.

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

Sincerely,

Joseph K. Comeau
Vice President, Chemistry Division

JKC/kag
Enclosure

91041B22JUN91

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS	*OTHER CN
TRIP BLANK	135939	✓					
Field Blank	135940	✓	✓		✓	✓	✓
MW-1	135941	✓	✓		✓	✓	✓
MW-1	135941MS	✓	✓		✓	✓	✓
MW-1	135941MD	✓	✓		✓		✓
MW-1	135941DP					✓	
MW-2	135942	✓	✓			✓	
MW-2	135942DL	✓					
MW-2 Dup	135943	✓				✓	
MW-2 Dup	135943DL	✓					
MW-3	135944	✓				✓	
Matrix Spike Blk (MSB)	135945	✓	✓		✓		

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)
* HSL, Priority Pollutant

000003

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
135940	WATER	6/4/91	6/5/91	6/10/91	7/2/91
135941	↓	↓	↓	↓	↓
135941MS	↓	↓	↓	↓	↓
135941MD	↓	↓	↓	↓	↓
(MSB) 135945	↓	—	—	↓	↓

000004

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
135940	Water	6/4/91	6/5/91	6/10/91	6/17/91
135941	↓	↓	↓	↓	6/17/91
135941MS					6/18/91
135941MD		↓	↓		6/18/91
(MSB) 135945	↓	—	—	↓	6/17/91

000005

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Low Level Med. Level	Date Analyzed
135939	Water	6/4/91	6/5/91	Low	6/9/91
135940	"	"	"	"	6/9/91
135941	"	"	"	"	6/8/91
135941MS	"	"	"	"	6/8/91
135941MD	"	"	"	"	6/9/91
135942	"	"	"	"	6/9/91
135942DL	"	"	"	"	6/10/91
135943	"	"	"	"	6/9/91
135943DL	"	"	"	"	6/10/91
135944	"	"	"	"	6/9/91
(MSB) 135945	"	—	—	"	6/9/91

000006

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS FORM

ORGANIC ANALYSES

Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxilary Clean Up	Dil/Conc Factor
135940	Water	CLP BNA CLP ICP	SEPF	—	BNA: 1.0 P/P: 1.0
135941	↓	↓	↓	—	1.0
135941MS				—	5.0
135941MD				—	↓
(MSB) 135945	↓	↓	↓	—	↓

000007

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

Sample ID	Matrix	Metals Requested	Date Rec'd	Date Analyzed TCL Metals Hg CN
135940	WATER	TCL Metals + CN	6/5/91	6/26–7/2 6/21/91 6/10/91
135941	↓	↓	↓	↓
135941MS	↓	↓	↓	↓
135941DP	↓	↓	↓	↓
135942	↓	NR	↓	NR
135943	↓	NR	↓	NR
135944	↓	NR	↓	NR

000008

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

June 22, 1991

Ms. Nan Martin
Blasland, Bouck & Lee Engineers
244 Westchester
Suite 405
White Plains, NY 10604

Re: Aquatec Project No. 91041
Case No. 26044; SDG No. 1232884
ETR Nos. 26044, 26057, 26087, 26102, 26307 and 26339

Dear Ms. Martin:

Enclosed are the analytical results for samples received intact by Aquatec on April 23-26, May 10 and 14, 1991.

Laboratory numbers assigned to field and laboratory quality control samples are presented below.

Sample Description	Aquatec Laboratory No.	Sample Matrix
SB-1 (4-6')	132884	Soil
SB-1 (14-16')	132885	Soil
SB-2 (9-11')	132886	Soil
SB-2 (13-15')	132887	Soil
SB-3 (5-7')	132888	Soil
SB-3 (13-15')	132889	Soil
SB-1 (4-6')	132893	EP tox Extract
SB-1 (14-16')	132894	EP tox Extract
SB-2 (9-11')	132895	EP tox Extract
SB-2 (13-15')	132896	EP tox Extract
SB-3 (5-7')	132897	EP tox Extract
SB-3 (13-15')	132898	EP tox Extract
DB-1 (26-28')	132955	Soil
DB-1 (26-28')	132956	EP tox Extract
DB-1 (50-52')	132957	Soil
DB-1 (50-52')	132958	EP tox Extract
SB-4 5-7'	132959*	Soil
SB-4 5-7'	132960*	EP tox Extract
SB-4 13-15	132961	Soil
SB-4 13-15	132962	EP tox Extract
FB-1	133038*	Water
SB-5 15-17'	133039	Soil
SB-5 15-17'	133040	EP tox Extract
SB-6 13-15'	133041	Soil
SB-6 13-15'	133042	EP tox Extract

000001

Sample Description	Laboratory No.	Sample Matrix
MW-2 100-102'	133145	Soil
MW-2 100-102'	133146	EP tox Extract
FBCN-1	134104	Water
FBEPM-1	134105	Water
FBEPM-1	134106	EP tox Extract
FBM-1	134107	Water
Field Blank	134108	Water
FBVOA-1	134109	Water
MW-1 (95-97')	134110	Soil
MW-1 (95-97')	134110MS	Soil
MW-1 (95-97')	134110MD	Soil
MW-1 (95-97')	134110DP	Soil
MW-1 (95-97')	134111	EP tox Extract
MW-1 (95-97')DUP	134112	Soil
MW-1 (115-117')	134113	Soil
MW-1 (115-117')	134114	EP tox Extract
MW-1 (115-117')DUP	134115	Soil
MW-1 (115-117')DUP	134116	EP tox Extract
Matrix Spike Blank (MSB)	134120	Laboratory Water
MW-3 (95-97')	134328	Soil
MW-3 (95-97')	134329	EP tox Extract

* Sample was not analyzed per request of Nan Martin or indicated on the chain-of-custody.

Sample SB-4 13-15', designated for EP tox metals, was received broken and revialed at Aquatec.

Soil sample MW-1 (95-97') and its associated matrix analysis were extracted outside the specified holding times specified in the New York State 1989 CLP Protocals but within federal CLP limits. No target analysis were detected in the samples.

Lindane was quantitated from the RTX-35 column due to interference on the primary column (RTX-5) for the matrix spike samples (134110MS and 134110MD) as well as the matrix spike blank (134120).

Retention times for gamma-BHC were omitted on Form 10 for 134110MS, 134110MD and 134120 due to an interference on the primary column (RTX-5).

Matrix spike recoveries for cadmium, lead, and selenium, as well as the duplicate analyses for chromium, copper and zinc, were out of the specified control limits. These have been flagged according to contract specifications.

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

Sincerely,

Joseph R. Comeau

JKC/lam

Enclosure

91041B22JUN91

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS +CN⁻	*OTHER
SB-1(4-6')	132884	✓					✓
SB-1(14-16')	132885	✓					✓
SB-2(9-11')	132886	✓					✓
SB-2(13-15')	132887	✓					✓
SB-3(5-7')	132888	✓					✓
SB-3(13-15')	132889	✓					✓
SB-1(4-6')	132893						✓
SB-1(14-16')	132894						✓
SB-2(9-11')	132895						✓
SB-2(13-15')	132896						✓
SB-3(5-7')	132897						✓
SB-3(13-15')	132898						✓
DB-1(AL-28')	132955	✓					✓
DB-1(AL-28')	132956						✓
DB-1(SD-52')	132957	✓					✓
DB-1(SD-52')	132958						✓
SB-4(13-15')	132961	✓					✓
SB-4(13-15')	132962						✓
SB-5(15-17')	133039	✓					✓
SB-5(15-17')	133040						✓
SB-6(13-15')	133041	✓					✓
SB-6(13-15')	133042						✓
MW-2(100-102')	133145	✓					✓
MW-2(100-102')	133146						✓
MW-3(95-97')	134328	✓					✓
MW-3(95-97')	134329						✓
FBCN-1	134104					✓	
FBEAM-1	134105						✓
FBEPM1	134106						✓
FBM-1	134107					✓	

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)
* HSL, Priority Pollutant

To be included with all lab data and with each workplan

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE IDENTIFICATION AND ANALYTICAL REQUIREMENT SUMMARY

Customer Sample Code	Laboratory Sample Code	Analytical Requirements*					
		*VOA GC/MS	*BNA GC/MS	*VOA GC	*PEST PCB	*METALS +CN⁻	*OTHER
FIELDBLANK	134108		✓		✓		
FBVOA-1	134109	✓					
MW-195-97	134110	✓	✓		✓	✓	✓
MW-195-97	134110MS	✓	✓		✓	✓	
MW-195-97	134110MSD	✓	✓		✓		
MW-195-97	134110DP					✓	✓
MW-195-97	134111						✓
MW-195-97 DUP	134112	✓					
MW-1115-117	134113						✓
MW-1115-117	134114						✓
MW-1115-117DUP	134115						✓
MW-1115-117DUP	134116						✓
Matrix Spike Blank	134120	✓	✓		✓		

*Check Appropriate Boxes

* CLP, Non-CLP (Please indicate year of protocol)
* HSL, Priority Pollutant

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY

INORGANIC ANALYSES

Sample ID	Matrix	Metals Requested	Date Rec'd	Date Analyzed
132893	EPTox Extr	Cr, Cu, Pb, Ni, Zn	4/23/91	5/10/91 → 6/20/9
132894	↓	↓	↓	↓
132895				
132896				
132897				
132898			↓	
132956			4/24/91	
132958			↓	
132962				
133040			4/25/91	
133042			↓	
133140			4/26/91	
134329	↓	↓	5/14/91	↓
134104	Water	CN	5/10/91	5/13/91
134106	EPTox Extr	Cr, Cu, Pb, Ni, Zn		5/10/91 → 6/20/9
134107	Water	Full CLP metals		5/13/91
134110	Soil	+ CN		5/13/91 → 6/20/91
134110MS	↓	↓		↓
134110DP	↓	↓		↓
134114	EPTox Extr	Cr, Cu, Pb, Ni, Zn	↓	5/10/91 → 6/20/91
134116	EPTox Extr	Cr, Cu, Pb, Ni, Zn		↓

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
SAMPLE PREPARATION AND ANALYSIS FORM

ORGANIC ANALYSES

BNA P/P BNA/PEST/PCB

Sample ID	Matrix	Analytical Protocol	Extraction Method	Auxilary Clean Up	Dil/Conc Factor
132884	Soil	CLP VOA	NA	NA	1.0
132885	↓	↓	NA	NA	↓
132886			NA	NA	
132887			NA	NA	
132888			NA	NA	
132955			NA	NA	
132957			NA	NA	
132961			NA	NA	
133039			NA	NA	
133041			NA	NA	
133145			NA	NA	
134328	↓		NA	NA	
134109	Water	↓	NA	NA	
134110	Soil	CLP VOA BNA P/P	SONC	CPC	↓
134110MS	↓	↓	↓	↓	3.0 (P/P)
134110MD	↓	↓	↓	↓	3.0 (P/P)
134112	↓	CLP VOA	NA	NA	1.0
134120	MSB	CLP VOA BNA P/P	SONC	—	3.0 (P/P)
134108	Water	CLP BNA CLP P/P	SEPF	—	1.0

MSB = Matrix Spike Blank

P/P = Pest/PCB

000007

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
VOA
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Low Level Med. Level	Date Analyzed
132884	Soil	4/22/91	4/23/91	low	4/29/91
132885					4/30/91
132886					4/29/91
132887					↓
132888					↓
132889		↓	↓		4/30/91
132955		4/23/91	4/24/91		4/30/91
132957					↓
132961		↓	↓		↓
133039		4/24/91	4/25/91		5/1/91
133041		4/24/91	4/25/91		↓
133145		4/25/91	4/26/91		↓
134328	↓	5/13/91	5/14/91		5/21/91
134109	water	5/9/91	5/10/91		5/15/91
134110	Soil	↓	↓		5/16/91
134110MS	↓				↓
134110MD					↓
134112	↓		↓		5/16/91
(MSB) 134120	WATER	↓	NA	↓	5/15/91

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
B/N-A
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
134108	water	5/9/91	5/10/91	5/15/91	5/24/91
134110	soil	"	"	5/20/91	6/17/91
134110MS	"	"	"	5/20/91	6/17/91
134110MD	"	"	"	5/20/91	6/17/91
134120	water	"	NA	4/20/91	6/18/91

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

SAMPLE PREPARATION AND ANALYSIS SUMMARY
PESTICIDE/PCB
ANALYSES

Laboratory Sample ID	Matrix	Date Collected	Date Rec'd At Lab	Date Extracted	Date Analyzed
134108	water	5/9/91	5/10/91	5/15/91	6/13/91
134110	Soil	↓	↓	5/20/91	6/13/91
134110MS	↓	↓	↓	5/20/91	↓
134110MD	↓	↓	↓	↓	↓
134120	water	↓	NA	↓	↓

aquatec INC. ENVIRONMENTAL SERVICES

75 GREEN MOUNTAIN DRIVE, SOUTH BURLINGTON, VERMONT 05403, TELEPHONE (802) 658-1074

July 19, 1991

Ms. Nan Martin
Blasland, Bouck & Lee Engineers
244 Westchester
Suite 405
White Plains, NY 10604

Addendum: Aquatec Project No. 91041
Case No. 26044; SDG No. 1232884
ETR Nos. 26044, 26057, 26087, 26102, 26307 and 26339

Dear Ms. Martin:

Aquatec did not detect any of the following site specific parameter for the above referenced case:

1,1,1 Trichloroethane
1,1,2 Trichloroethylene
Tetrachoroethylene
p-ethyltoluene
1,3,5 Trimethylbenzene
1,2,4 Trimethylbenzene
Methyl ethyl ketone
Trichlorobenzene
Xylene
Copper
Lead
Nickel
Chromium
Zinc
Silver

Please note and insert the additional pages for the above referenced case: 000662A-F, 001061A-L and 001221A-D.

These inserts consist of Aquatec's most current IDL study for full organics.

Sincerely,

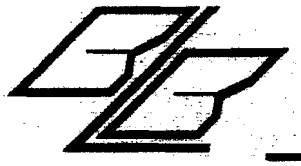
Pauline T. Malik

Pauline T. Malik

Enclosure

91041B18JUL91

Rec'd 7/22/91 1EM



Appendix J

LABORATORY AUDIT FORM

Laboratory Name:	Aquatec	**W.O. #:**	354.29.07
Location:	Burlington, Vermont	**Date:**	April 11, 1991
Lab Representative:	Polly Malik	**Inspector:**	Nan E. Martin

Item	Yes	No	Comments
General Lab Procedures			
Is QA Program available, and documented?	x		
Are detection limits established and documented, and established per matrix?	x		
Sample Custody			
Are sample custody procedures defined?	x		
Is a policy in place for acceptance or rejection or samples upon receipt?	x		
Are samples checked against:			
COC	x		
Labels	x		
Any special instructions required/project requirements?	x		Special instructions placed on ETR.
Are samples checked for:			
pH		x	
bubbles	x		
preservative		x	Preservatives are added upon arrival of samples
Who is responsible for sample log-in? Do they sign COC?	x		Janine Banks-supervisor
Analyst sign out samples for analysis?	x		
Access to lab secure?	x		
Data Handling			
Internal COC maintained, or orig COC?			Internal COC
Who checks on worksheet flow to ensure job is moving along?			Project Director
Is project director assigned to job?	x		Polly Malik assigned to EMR Circuits
How are sampled tracked?			Laboratory Management System (LMS) tracks from quote to final.

Data Handling	Yes	No	Comments
Do internal worksheet include: ID, sample number	x		
Observations	x		
Calculations/Results	x		
Method numbers/program requirements	x		
Standards	x		
Dates	x		
Signatures	x		
Are records of analyses performed, analysts responsible, etc in a single file?	x		
What kind of review process is established to ensure holding times are met?			Project Director tracks data; Short or special holding times are noted on the ETR.
How is completeness of data ensured and who is responsible?			QA Officer and Project Director both are responsible for reviewing data before it is sent to client.
What percentage of calculations/reporting is checked?			Ten Percent.
How is data turnaround established and ensured? Who is responsible?			Project Director tracks samples through lab; management may not accept additional work if lab is too busy to meet holding times.
What procedures are used to ensure corrective action is maintained in the laboratory on a corporate and bench level?			Lab audits conducted by sections are required on a semi-annual basis by the QA Officer. Formally submitted to lab director and to corporate management. It is the responsibility of the bench analysts to review and correct problems on a daily basis.
Who is responsible for notifying B&B of problems or delays?			Project Director
Are entries in notebooks and worksheets dated, and initialed?	x		
Errors crossed our, initialed, dated?	x		
Analytical Methodology (Quality Control)			
Are method blanks initiated at the beginning of each run to assess contamination? (1/20)	x		
Storage blanks/ holding blanks run/documented?		x	
Are bottles prepared at lab, or bought?			Both. Series 300 I Chem bottles bought for projects which require full data documentation. Bottles may be re-used for certain parameters.
Are blanks run on bottles? in frig?	x		Holding blanks are held in frig. If contamination is found in sample data which does not show in method blank, trip blank, field blank, etc., then these blanks are analyzed.
Are reference standards run (except for GC/MS)?	x		

Analytical Methodology (Quality Control)	Yes	No	Comments
Are samples re-analyzed if reference standards exceed QA limits?	x		
Are matrix spikes/matrix spike duplicates project specific?	x		Depending on program. NYSDEC-yes.
Analytical Methodology (VOAS)			
Are screening procedures employed to provide info on level of contamination?	x		
Are matrix spikes analyzed for project specific samples?	x		
Are samples re-run when surrogates out of control?	x		
Are internal standards run?	x		
Are calibration records maintained?	x		
Calibration/Maintenance			
Are calibration and standardized procedures for analytical instruments defined?	x		
Ongoing calibration documented?	x		
Maintenance log maintained?	x		
Balances, refrigerators, etc. operation checked on daily basis?	x		Frig is monitored from computer system which indicate when frig temperature is out of control.
Are in-house technicians maintained for analytical instruments?	x		
Misc			
Is any work subcontracted?	x		Dioxin and radiological analysis.
Will B&B be informed prior to subcontracting?	x		
Are subcontract labs audited for compliance?	x		
How are subcontracted results reported?	x		Integrated into Aquatec's reporting format; separate report not provided..