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Phase II Hydrogeologic/Subsurface Contamination Investigation Powerex Facility Auburn, New York

Prepared for:

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Table of Contents

LIST OF TABLES

LIST OF FIGURES

APPENDICES

1.0 CONCLUSIONS

1.1 Organic compounds have been detected in both the overburden and bedrock aquifers. Those compounds observed in the highest concentrations were TCE and PCE (and associated daughter products) and acetone. Each of these chemicals was known to be used on site in the past.

1.2 Groundwater contamination appears to exist from possibly three distinct sources/locations:

- o direct disposal of organic waste products into the unlined evaporation pit north of the plant fence and possible associated overland flow from the pit;
- o an unknown source east/northeast of the facility as evidenced by groundwater quality results from micro-well PS-5; and
- o an unknown source west of the manufacturing building as evidenced by groundwater quality results from micro-well PS-2.

1.3 The extent of contamination within the overburden aquifer has been well defined to the north and northwest of the evaporation pit. Additional work will be necessary to delineate the extent of contamination in the remaining directions.

1.4 Four bedrock monitoring wells were installed and sampled. Volatile organic contamination was detected northeast of the facility at monitoring well DGC-1B with principal compounds being acetone (1500 ppb), vinyl chloride (410 ppb) and 1,2-DCE (140 ppb). The remaining three bedrock monitoring wells exhibited either low concentrations (approximately 100 ppb total volatile organic compounds (VOCs) at DGC-4B) or were free of volatile organics.

1.5 A relatively uniform geologic stratigraphy was observed throughout the site with approximately 15 feet of unconsolidated material overlying Onondaga Limestone bedrock. The unconsolidated material consists of layered silt and clay with occasional sand seams underlain by glacial till.

1.6 The direction of groundwater flow within the overburden aquifer may experience changes due to the seasonal fluctuations of the water table. During the Phase II investigation period, a groundwater divide existed in the vicinity of the evaporation pit with flow to the northwest and to the south.

1.7 The rate of groundwater flow within the overburden aquifer is expected to be in the range of 0.01 to 0.1 feet per day. The rate of contaminant migration, although directly related to the rate of groundwater flow, may vary depending on such factors as the amount of dispersion, extent of sorption of the organic chemicals by the aquifer material, and the rate of chemical and biological transformation of the organic chemicals.

2.0 RECOMMENDATIONS

2.1 Extend the soil gas survey into those areas where groundwater contamination has been detected but sources have not been defined and into areas indicating activity as shown on the 1963 aerial photographs.

2.2 Further evaluate the direction of groundwater flow within the overburden aquifer by installing piezometers at locations where groundwater elevation data are needed.

2.3 Install micro-wells (1/2-inch) to obtain information regarding groundwater quality within the overburden aquifer.

2.4 Install 2-inch bedrock monitoring wells in areas where bedrock groundwater elevation and groundwater quality data are lacking.

2.5 Record water level measurements on a weekly basis utilizing a trained Powerex employee.

2.6 Conduct a full round of groundwater sampling following the installation and development of the new 1/2-inch micro-wells and 2-inch monitoring wells.

2.7 Establish a computer data base to manage all pertinent information generated during the investigation.

3.0 INTRODUCTION

This report presents the results of the Phase II work of an on-going hydrogeologic/subsurface contamination investigation being performed at the Powerex facility (previously owned and operated by General Electric) in Auburn, New York. A site location map is included as Figure 1.

Dunn Geoscience Corporation (DGC) was authorized to perform this work by General Electric (GE) in early November, 1986 in response to a DGC proposal dated February 10, 1986. A subsequent site visit and meeting was conducted on November 17, 1986, which was attended by representatives from GE and DGC, to further refine the scope of work.

4.0 PURPOSE

The goal of the second phase of the project was to obtain a general understanding of the groundwater flow conditions at the site and arrive at a preliminary assessment of the nature and extent of groundwater contamination associated with the evaporation pit located immediately north of the fence-enclosed facility. The conclusions presented in this report are based on data gathered during both this phase of the investigation and Phase I. Additionally, recommendations have been made for additional activities focused on further defining the extent of subsurface contamination.

5.0 PERSONNEL

The investigation was conducted by Dunn Geoscience Corporation (DGC) of Latham, New York. Additional work was performed by the following subcontractors: Pine and Swallow Associates (PSA) of Acton, Massachusetts performed the soil gas analysis/micro-well installation; CATOH Environmental Companies, Inc. of Weedsport, New York performed monitoring well drilling and installation services; ERCO Laboratory, a division of ENSECO Inc. of Cambridge, Massachusetts, provided analytical services; and

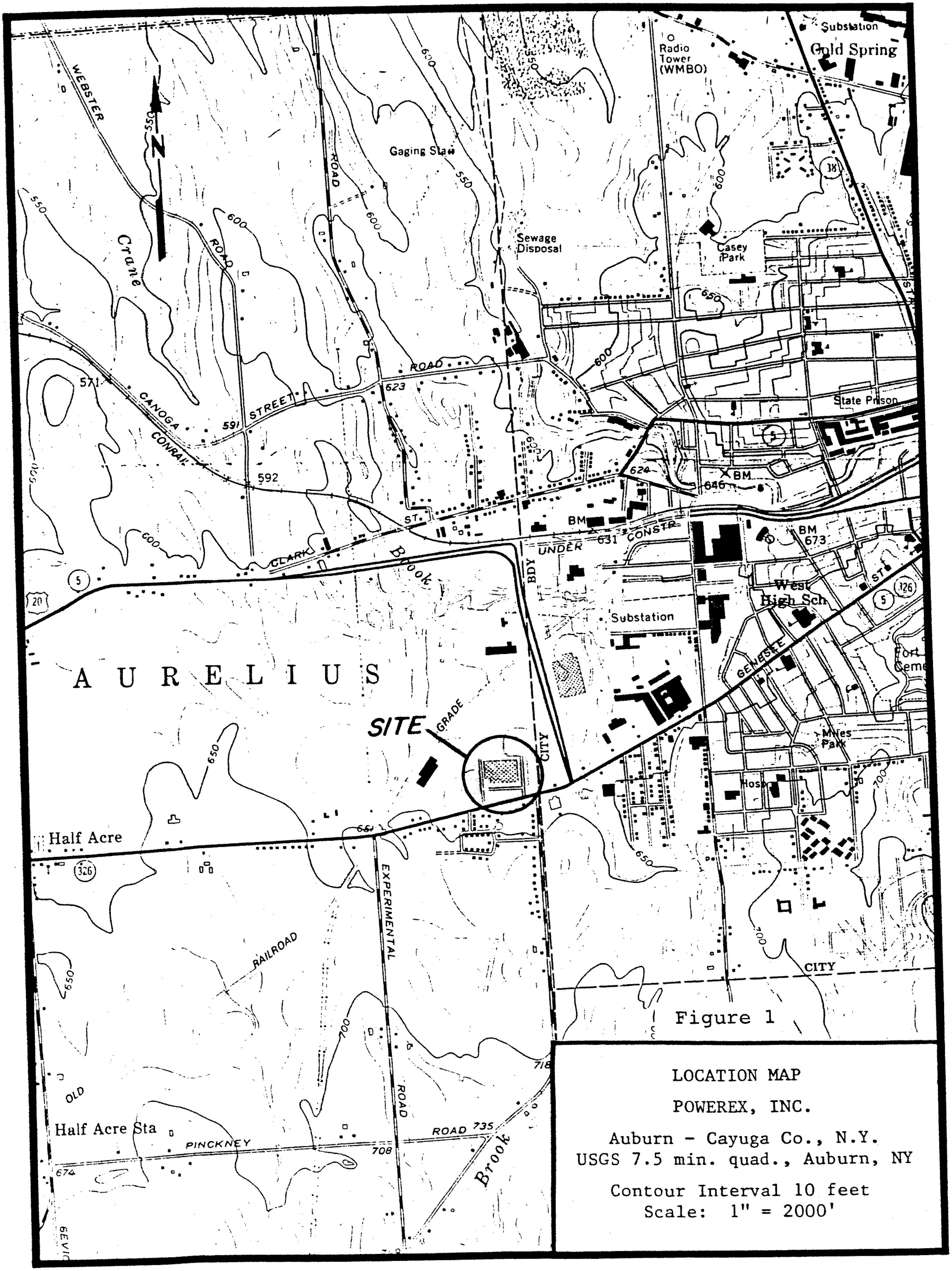


Figure 1

LOCATION MAP

POWEREX, INC.

Auburn - Cayuga Co., N.Y.
USGS 7.5 min. quad., Auburn, NY

Contour Interval 10 feet
Scale: 1" = 2000'

Lockwood Support Services of Rochester, New York developed the original base map of the site.

6.0 PROJECT SCOPE

The following activities were proposed and conducted at the Powerex facility during the Phase II study:

- inspect available historical aerial photography and topographic maps to evaluate past activities/conditions at the site;

- inspect available plans and diagrams of the manufacturing building, adjacent buildings, surface impoundments and utility lines to identify potential contaminant sources and migration pathways;

- interview plant personnel for information pertaining to chemical handling and waste disposal practices at the facility;

- analyze the soil gas at the site using PSA's services to detect volatile organic chemicals emanating from contaminated soil or underlying contaminated groundwater;

- based on the results of the soil gas analysis, install and develop 1/2-inch micro-wells;

- sample and analyze groundwater samples from the micro-wells;

- based on the groundwater quality results of the micro-wells, install and develop four overburden and four bedrock monitoring wells (2-inch);

- screen soil samples using the HNU-101 portable photoionization unit;
- sample and analyze groundwater samples from the monitoring wells and selected micro-wells;
- collect water levels to evaluate groundwater flow at the facility;
- perform hydraulic conductivity testing utilizing all monitoring wells; and
- evaluate the resulting data and generate a report detailing the hydrogeologic conditions and extent of subsurface contamination at the facility.

No problems were encountered in accessing any of the drilling locations. Weather conditions were generally favorable during field activities.

7.0 SITE HISTORY AND SUMMARY OF PREVIOUS WORK

7.1 General

The Powerex, facility located in Auburn, New York, is a joint venture corporation of General Electric, Westinghouse and Mitsubishi. Prior to January 1986, the facility was solely owned by General Electric. Manufacturing activities at the facility since its construction in 1951 have included radar, printed circuit boards, and semi-conductors.

Past waste disposal took place at an unlined evaporation pit located immediately north of the fence-enclosed facility. The evaporation pit consisted of a circular-shaped depression approximately thirty feet in diameter and one foot deep. From the late 1950's until 1965, the pit received an unknown quantity of spent solvents and waste oils. The liquid waste was gravity fed through pipes from the drum storage building directly to the pit where it was discharged through a circular pipe network located around the perimeter of the pit. An acid neutralizing tank, located in the wastewater treatment building east of the manufacturing building, may also have received some small amounts of solvents during its use. Presently, the tank consists of a concrete bed with a plastic liner. Prior to the construction of this current unit, another concrete tank containing a bed of limestone chips was used in the same general location. Recent sampling of the wastewater treatment effluent has revealed low levels of TCE (ND to 30 ppb), PCE (5 to 20 ppb) and methylene chloride (31 to 790 ppb). Further investigation is necessary to evaluate the effects of the acid neutralizing pit on the groundwater quality.

7.2 Review of Historic Topographic Maps, Aerial Photographs and Plant Diagrams

Topographic maps of the area were reviewed to identify changes in cultural features, ground surface topography and surface water bodies that may have had some impact on the present day groundwater conditions at the site. A search of historic topographic maps of the site uncovered maps spanning from 1902 to 1978. The inspection led to the conclusion that, with the exception of changes related to the construction of the facility in 1951, ground surface topography in the vicinity of the site has remained relatively unchanged. However, surface water flow in the general area appears to have varied significantly throughout the years. In 1902, a branch of Crane Brook extended along the northwest side of the railroad tracks, turning to the southeast just south of the site. In 1943, that same branch of Crane Brook is not shown. In 1956, all branches of Crane Brook near the site disappeared, which holds true for the 1978 map. These observed changes in topography and surface water flow are not considered to be important with respect to the investigation.

Aerial photographs covering the site were assembled and inspected to identify past transportation, storage and waste disposal practices that might be linked to existing groundwater contamination at the site. A search for available aerial photographs of the site uncovered photographs for various years from 1938 to 1963. The photographs that were inspected are summarized below:

Date	Source*	Approximate Scale
6-8-38	1	1"=400'
7-4-54	2	1"=400'
6-19-63	2	1"=400'

1 = National Archives & Records Administration, Washington, DC

2 = Aerial Photography Field Office, Salt Lake City, Utah

The manufacturing building did not exist in the 1938 photo. Drainage patterns are prevalent at the site, with drainage to the northwest. The stream appearing in the 1902 topographic map north of the railroad is not evident in the 1938 photo. A farm located on the north side of Genesee Street approximately 800 feet west of Bluefield Extension (currently Experimental Road) appears to have diverted this section of the stream through a drainage ditch to the northwest.

The facility appears in the 1954 photo, as well as many new homes south of the facility and Genesee Street. Drainage patterns seen in the 1938 photo are no longer evident with the exception of a ditch that was constructed to extend from the building out into the field toward the northwest. The drainage ditch appears to follow one of the drainage channels shown in the 1938 photo.

In the 1963 photo, there is evidence of increased activity northeast of the manufacturing building and northwest along the drainage ditch. The addition to the north end of the building has also occurred.

Plans and diagrams of the buildings and utility lines located on the site were assembled and reviewed. Particular attention was given to identifying potential sources and paths of migration for the organic chemicals observed in the groundwater.

Within the manufacturing building there are no floor drains. An extensive aboveground waste solvent line does exist throughout much of the building. The solvent line is presently connected to underground waste solvent tanks located at the northwest edge of the building. Prior to the installation of the concrete waste solvent tanks, the wastes passed through the aboveground lines within the manufacturing building to the drum storage building. The wastes were then gravity fed through an underground pipe directly to the evaporation pit. Use of the evaporation pit was discontinued in 1965.

There does not appear to be any underground utilities north of the drainage ditch with the exception of abandoned steam lines and power lines leading to the life test buildings. Drainage lines that carried non-contact cooling water from the life test buildings to the drainage ditch up to 1985 are still intact. The out-of-service aboveground oil tanks that are located near the northeast corner of the building still remain on site.

7.3 Facility Personnel Interviews

Current and former employees of the Powerex/GE-Auburn facility were interviewed for information concerning past chemical handling and waste disposal practices at the site. Interviews were conducted by Rodney Sutch (DGC) by telephone and in person. The information obtained through these interviews was based on the interviewee's best recollection of events occurring up to 35 years ago. Supporting documentation apparently does not exist. Listed below are activities or conditions mentioned by the interviewees that may be relavent to the focus of this investigation:

- The site was swampy farmland prior to the construction of the facility in 1951. There was no known industrial use of the land prior to that time.

- Unwanted construction materials (e.g., reinforced concrete, glass, etc.) resulting from remodeling and growth of the manufacturing building were discarded in the field north of the plant.

- The evaporation pit north of the fence was in operation from the 1950's until 1965.

- TCE was the principal solvent used at the plant until switching to PCE sometime between 1973 and 1975.

- A concrete acid neutralizing tank with a plastic liner exists in the wastewater treatment building east of the manufacturing building. Prior to the construction of this unit, another concrete tank containing limestone chips was used in the same general location. Recent sampling of the wastewater treatment effluent has revealed low levels of TCE (ND to 30 ppb), PCE (5 to 20 ppb) and methylene chloride (31 to 790 ppb).

- 55 gallon drums used to be stored on the concrete pad near the drum storage building, as well as along the fence adjacent to the evaporation pit.

- An unknown minor amount of product spillage may have also occurred at the oil storage building located northeast of the drum storage building and north of the drainage ditch.

- Underground concrete waste solvent tanks are located at the northwest edge of the manufacturing building directly west of the drum storage building. The waste solvent tanks and associated piping are believed to be structurally sound with respect to leaks based on a visual inspection of the tanks in 1979.

7.4 Previous Work

Soil sampling and analysis have been conducted within the evaporation pit on three occasions. The first sampling, performed by GE Electronics Laboratory in June 1979, indicated the presence of silicone oil and organic ester at unknown concentrations and elevated concentrations of copper, zinc and tin in the top six inches of soil. The second sampling, performed by Jans Laboratory of Auburn, New York in June 1985, indicated the presence of trichloroethylene (TCE) at increasing concentrations with increasing depth (sampling occurred to a depth of 3 feet). The laboratory report also indicated the suspected existence of other organic solvents such as ketones, toluene and xylene based on odor alone. Copper, zinc and tin concentrations were found to decrease with depth. The third sampling, performed by DGC (Phase 1) in December 1985, indicated that the entire soil column in the evaporation pit (approximately 15 feet of low permeability material), from ground surface to bedrock, is contaminated with synthetic organic chemicals. The primary compounds detected were TCE, total xylenes, acetone, methanol, ethylbenzene, toluene and possibly hydrocarbon oil.

8.0 FIELD INVESTIGATION

8.1 Soil Gas Analysis

Volatile organic chemicals that move as a contaminant plume within an aquifer diffuse from the groundwater to a vapor phase within the soil pores above the water table. Low molecular weight halogenated and petroleum hydrocarbons partition into and diffuse through soil gas as a result of their low aqueous solubility, high vapor pressure, and high gas-liquid partitioning coefficient. Thus, a contaminant plume in the groundwater generates a unique gaseous fingerprint in the overlying soil. Ideally, the contaminant concentration at any given depth in the soil gas is a function of its concentration in the underlying groundwater.

Pine & Swallow Associates (PSA) of Acton, Massachusetts used soil gas chromatography to detect volatiles originating from contaminated soil or from an underlying contaminant groundwater plume. An ultrasensitive gas chromatograph (GC) was used to analyze soil gas samples on site, which allowed comparison of relative concentrations of volatile constituents over an array of test locations.

PSA soil gas samples were collected by augering a small diameter hole (one-inch) into the upper 6 to 12 inches of soil. A thin hollow probe was driven into the ground and packed off. Typically, at least ten well volumes of soil air were pumped by a vacuum pump before a sample of the gas was withdrawn and injected directly into the GC, a Photovac 10A10. Areas of saturated surface soils and standing water could not be investigated by this method.

Chromotographic results were known within minutes of sampling, allowing new test locations to be chosen in an efficient manner. The pattern of sampling, therefore, was tailored to the site as data were generated in the field. Thirty-six soil gas test locations were sampled and analyzed in two days. Locations are shown on Plate 1 in Appendix A.

8.2 <u>Micro-Well Installation</u>

Analysis of groundwater samples is necessary to confirm the pattern of contamination that is observed as a result of a soil gas survey. Locations for groundwater monitoring points were selected based on results of the PSA soil gas analysis, location of apparent groundwater discharge areas, land use, and the need for groundwater elevation measuring points to establish directions of groundwater flow.

PSA, under the supervision of a DGC hydrogeologist, installed twenty small diameter wells, known as micro-wells. The wells were installed at sixteen locations in four days during December 1986. Locations are indicated on Plate 2 in Appendix B. Wells consisted of 1/2-inch steel pipe and 5 to 9 foot screens with longitudinal 0.020-inch slots. A sketch of a typical micro-well installation has been included as Figure 2. A high frequency percussion hammer was used to install the wells to refusal. Refusal was reached at 17 feet below ground level or less. At PS-8 and PS-11 refusal occurred at a shallower depth than anticipated. The 9-foot screens used on the "A" wells at these locations were decreased in length by welding shut the slots exposed above ground to 6 to 12 inches below the ground surface. The "B" wells at those locations were then installed utilizing 5-foot screens. At PS-3 and PS-16, pairs of shallow and deep wells were installed in order to measure vertical head gradients and changes in groundwater quality with depth. Well completion data for each micro-well has been included as Table 1.

Locations for PS-2, 5 and 6 were chosen primarily as groundwater elevation measuring points. All other micro-well locations were selected based on soil gas results and/or possible groundwater discharge areas.

8.3 Monitoring Well Installation

General

Drilling and installation of eight groundwater monitoring wells occurred between December 29, 1986 and January 10, 1987. These monitoring wells were installed to obtain groundwater samples for chemical analysis and to aid in the determination of groundwater flow directions. Four of these wells, DGC-1S, 2S, 3S and 4S, were installed to monitor the shallow, overburden aquifer. The remaining four wells, DGC-1B, 3B, 4B and 5B, were installed to monitor the underlying bedrock aquifer. Monitoring well pairs were installed at three locations (DGC-1S & 1B, DGC-3S & 3B and DGC-4S & 4B). One shallow and one deep monitoring well were installed at the remaining two locations

Figure 2

TYPICAL MICRO-WELL INSTALLATION

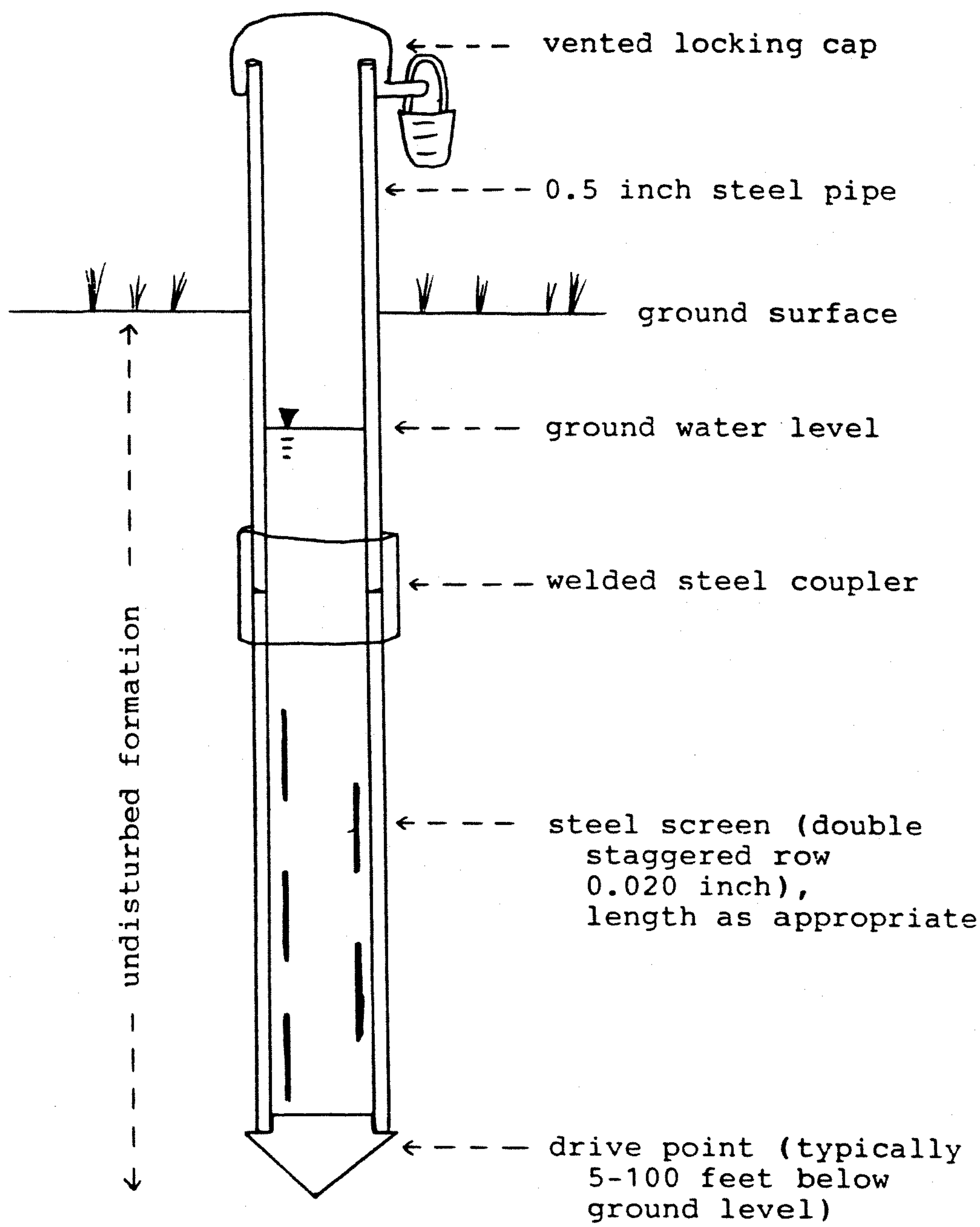


Table 1

MICRO-WELL COMPLETION DATA

Well Number	Date	Well Location	Drive Point (BGL)	Screened Interval (BGL)	Stick Up
PS-1	12/10/86	D 0 + 00	13.3'	3.3 - 12.3'	1.9'
PS-2	12/10/96	27' off NE corner of parking lot	8.9'	2.9 - 7.9'	1.6'
PS-3S	12/10/86	B 0 + 400	9.0'	3.0 - 8.0'	1.5'
PS-3D	12/10/86	B 0 + 400	17.0'	11.0 - 16.0'	2.0'
PS-4	12/10/86	15' S of C 0 + 00	11.6'	1.6 - 10.6'	2.0'
PS-5	12/11/86	170' NE of large gate	9.0'	3.0 - 8.0'	1.5'
PS-6	12/11/86	NNE of pit on edge of ball field	12.9'	2.9 - 11.9'	2.1'
PS-7	12/11/86	15' SE of G 0 - 10	10.7'	0.7 - 9.7'	1.8'
PS-8A	12/11/86	22' S of F 0 + 75	9.0'	0.5 - 8.0'	2.0'
PS-8B	12/11/86	4' NNW of PS-8A	8.7'	2.7 - 7.7'	1.8'
PS-9	12/11/86	18' SSE of E 0 + 72	11.3'	1.3 - 10.3'	1.8'
PS-10	12/12/86	G 0 + 95	10.2'	0.2 - 9.2'	1.8'
PS-11A	12/12/86	125' NNW of PS-10	8.7'	1.0 - 7.7'	2.4'

MICRO-WELL COMPLETION DATA (cont'd)

Well Number	Date	Well Location	Drive Point (BGL)	Screened Interval (BGL)	Stick Up
PS-11B	12/12/86	3' E of PS-11A	8.4'	2.4 - 7.4'	1.9'
PS-12	12/12/86	63' WSW of K 0 + 235	9.0'	3.0 - 8.0'	2.0'
PS-13	12/12/86	91' WSW of G 0 + 95	13.4'	3.4 - 12.4'	1.2'
PS-14	12/12/86	35' E of H 0 + 45	13.3'	3.3 - 12.3'	1.2'
PS-15	12/13/86	F 0 + 155	10.7'	1.0 - 9.7'	1.6'
PS-16S	12/13/86	B 0 + 125	8.0'	2.0 - 7.0'	1.8'
PS-16D	12/13/86	B 0 + 125	13.2'	7.2 - 12.2'	1.5'

(DGC-2S and DGC-5B, respectively). The well drilling and installations were performed by CATOH Environmental Companies, Inc. of Weedsport, New York and were supervised by a geologist from DGC. The drilling rig utilized for these operations was a CME-75 mounted on an all terrain vehicle. A summary of monitoring well details is located in Table 2. Well locations are shown on Plate 2 of Appendix B.

The drilling of the shallow monitoring wells was accomplished utilizing a 4-1/4 inch I.D. hollow-stem auger. Sampling was conducted continuously to bedrock using a 2-inch split-spoon sampler, following ASTM procedures. Samples were described using a modified version of the Burmister System and the Unified Soil Classification System. No soil samples were collected at the bedrock monitoring well locations, except for DGC-5B. Because bedrock monitoring well DGC-5B was placed at a location without an accompanying shallow well, drilling and sampling procedures similar to those stated above were utilized through the overburden. Representative portions of all samples were retained by DGC for future examination. Boring logs describing subsurface materials encountered in each boring are provided in Appendix C.

The well assembly was installed in the boring immediately following drilling. The well assembly consisted of 10 slot (0.010 inch), schedule 40 PVC well screen attached to a 2-inch diameter, schedule 40 PVC riser pipe. At the base of the PVC screen, a stainless steel centralizer was attached to keep the screen in the center of the boring. A cap was placed at the bottom end of the screen. A one foot bentonite pellet seal was placed at the bottom of the boring, directly on the bedrock surface. One foot of Morie grade 0 silica sand was then placed above the bentonite pellets and the well assembly lowered into the boring. Screen length varied from 6.5 to 10.0 feet

Table 2
Powerex Facility - Auburn, N.Y.
2-inch Monitoring Well Information

Well No.	Date Completed MN-DY-YR	Ground Elevation (ft)	Well Depth (ft)	Boring Depth (ft)	Formation Screened	Screen Depth (ft) TOP	Screen Depth (ft) BOTTOM	Bedrock Elevation (ft)	Measuring * Point Elevation (ft)
DGC-1S	12-29-86	640.3	17.0	19.6	Glacial Till	7.2	17.0	620.7	642.33
DGC-1B	01-08-87	640.4	33.0	34.0	Limestone	23.2	33.0	620.8	642.40
DGC-2S	12-30-86	634.4	12.0	13.4	Glaciolacustrine/Glacial Till	4.0	12.0	621.0	635.98
DGC-3S	12-31-86	637.1	10.5	12.0	Glaciolacustrine	4.0	10.5	625.1	639.14
DGC-3B	01-09-87	637.0	26.5	26.5	Limestone	16.7	26.5	625.0	638.76
DGC-4S	12-31-86	638.6	12.8	14.8	Glacial Till	6.0	12.8	623.8	640.77
DGC-4B	01-06-87	638.9	28.9	28.9	Limestone	19.1	28.9	624.1	640.79
DGC-5B	01-10-87	637.5	23.2	23.2	Limestone	13.3	23.2	627.0	637.57

* top of PVC

depending on the depth to bedrock. The annulus surrounding the well assembly was packed with Morie grade 0 silica sand to one foot above the top of the screen, sealed with an additional one to two feet of bentonite pellets and grouted to the surface with cement grout. A lockable protective steel casing was installed over the riser pipe and cemented into place. Individual well construction details are provided in Appendix D.

The bedrock monitoring wells were drilled using various techniques. DGC-1B and 4B were drilled utilizing an air rotary system that advances a 5-1/2 inch O.D. casing as the soil boring is drilled. The casing was advanced until it was firmly seated, at least one foot, into competent bedrock, thereby sealing the bedrock aquifer from the overburden aquifer. The casing advancing assembly was then removed and replaced with a 4-1/2 inch downhole hammer drilling tool. This system was used to drill a 14-foot socket into the bedrock.

Because of the clay-rich material that was encountered at the site, the air rotary system's ability to advance casing in the overburden was significantly diminished. Due to the inefficiency of this method, DGC-3B was drilled with augers to bedrock. The augers were then removed and 5-1/2 inch O.D. casing was inserted into the boring and advanced into the bedrock. The 4-1/2 inch downhole hammer drilling tool was then used to drill a 14-foot bedrock socket. DGC-5B was drilled the same as DGC-3B to the point at which the casing was advanced into bedrock. Weathered bedrock was encountered in DGC-5B at 10.0 feet. The casing advancing assembly was used to advance the 5-1/2 inch O.D. casing to 15.1 feet, two feet into the competent bedrock. At that point, a 3-inch O.D. diamond bit core barrel was used to drill an additional 8 feet into the bedrock, producing a bedrock socket 13.1 feet deep. The bedrock socket was then reamed to 4-1/2 inches in diameter by using the downhole hammer drilling tool. The rock core was placed in a core box, logged and retained by DGC for future examination. The core log describing the bedrock sample is provided in Appendix C.

The bedrock well assembly was installed in the boring immediately following drilling. A 10 slot (0.010 inch), schedule 40 PVC screen with a bottom end cap and centralizer was inserted to the bottom of the bedrock socket. The top of the PVC screens in all the bedrock monitoring wells were installed approximately four feet below the top of the bedrock. Two-inch, schedule 40 PVC riser pipe was installed from the top of the screen to approximately two feet above the ground surface. The annulus surrounding the well assembly was packed with Morie grade 0 silica sand to one foot above the top of the screen and then sealed with one to two feet of bentonite pellets. A cement-bentonite grout was then tremied into the remainder of the annulus from the top of the pellets to about two feet below ground surface. A lockable protective steel casing was installed over the riser pipe and cemented into place. The surface construction was altered at DGC-5B where the riser pipe was cut off level with ground surface and placed within a curb box. Individual well construction details are provided in Appendix D.

8.4 Decontamination Procedures

Prior to drilling the first boring or installing the first piezometer, the equipment used in drilling and well installation was cleaned to remove possible contaminants encountered during drilling at previous jobs. All equipment which came in contact with the soil, as well as water tanks, drill tools, pumps and hoses underwent the initial cleaning procedure. While working at the site, the drilling equiment was decontaminated between

Table 3

Ionization Potentials

Parameters	Ionization Potential (eV)	*HNU Response ppm
Benzene	9.245	10.0
Acetone	9.69	6.3
Vinyl Chloride	9.99	5.0
Trichloroethylene	9.45	8.9
1,2-dichloroethylene	9.6	---
toluene	8.82	10.0
ethylbenzene	8.76	---
Xylene, total **	8.5	11.3
tetrachloroethylene	9.32	---
1,1-dichloroethylene	----	---
Methanol	12.98	---

* HNU response when calibrated against 10 ppm of Benzene

** Average of Ortho, Para and Meta Xylene wells to prevent cross-contamination. Decontamination took place at the drilling location of the just completed well. The cleaning process involved the use of a steam cleaner. Uncontaminated water, from the facility's public water supply, was used for all decontamination procedures.

8.5 <u>HNU Screening Procedure and Results</u>

Representative portions of all split-spoon samples obtained from the test borings were collected as described in section 6.3. HNU-101 screening was performed first during drilling and again later on that same evening when the samples had reached room temperature. Background readings were recorded prior to screening. The screw on lid was removed and after reaching room temperature, the aluminum foil covering the top of each sample jar was pierced with the eight-inch extension to the photoionization probe. The head space was tested for the presence of organic vapors and the results recorded after five seconds (optimum response time indicated by manufacturer).

The HNU-101 operates on the principle of photoionization. The sample molecule absorbs a photon of ultraviolet radiation with energy sufficient to ionize the molecule. For this process to be successful, the energy (electron voltage [eV]) of the ultraviolet lamp must be greater than the ionization potential of the sample. With the exception of methanol, the HNU is an appropriate screening method for the chemicals of interest at the Auburn facility. The 12.98 eV ionization potential of methanol is too high compared to the 10.2 eV provided by the HNU ultraviolet lamp. Table 3 presents the ionization potential of the chemicals of interest.

Table 4 represents the results of the room temperature HNU soil boring screenings. The HNU data indicated that total volatile

Table 4

HNU-101 Soil Sample Screening (room temperature)

DGC-1S
Background=0.3 ppm

S1 = 6.5   65
S2 = 400
S3 = 340
S4 = 420
S5 = 224
S6 = 44
S7 = 2.0
S8 = 9.5
S9 = 4.5
S10 = 4.5

DGC-3S
Background=0.4 ppm

S1 = 1.5
S2 = 1.4
S3 = 0.7
S4 = 1.1
S5 = 1.2
S6 = 1.7
S6B = 0.7

DGC-5B
Background=0.8 ppm

S1 = 5.6
S1B = 16.4
S2 = 13.5
S3 = 7.5
S4 = 24
S5 = 5.6
S6 = 11.8

DGC-2S
Background=0.4 ppm

S1 = 4.0
S2 = 1.2
S3 = 1.2
S3B = 1.5
S4 = 0.8
S4B = 0.8
S5 = 1.2
S6 = 4.5
S7 = 15.5

DGC-4S
Background=0.7 ppm

S1 = 7
S2 = 11
S3 = background
S4 = background
S5 = background
S6 = background
S7 = background
S8 = background

organics were at or near background levels in all soil boring samples, except DGC-1S. Readings from DGC-1S revealed significantly higher than background levels from soil samples in the 0-12' zone indicating potential groundwater contamination.

Although the HNU screenings indicated possible volatile organic contamination at DGC-1S, groundwater analytical data showed that the well did not contain any volatile organic parameters. It must be emphasized that the HNU is only a quick inexpensive field screening method used to tentatively indicate possible contamination. The laboratory volatile organic groundwater results are the confirmatory technique. The remainder of the HNU soil boring samples did not reveal any potential organic problems. This data was confirmed by the laboratory groundwater results. The vinyl chloride and 1,2-DCE identified in DGC-2S are below the optimum HNU sensitivity.

8.6 <u>Well Development</u>

Following installation, each well was developed to increase the hydraulic connection between the well and the adjacent formation. Each 1/2-inch micro-well was developed by pumping and surging with a peristaltic pump and dedicated 1/2-inch polyethylene tubing. Distilled water was added to the well and a slurry created by mixing the water with the clayey silt accumulated within the screened section. The mixing was accomplished by spinning a section of wire extending to the bottom of the well with a power drill. Additional surging action was created by moving a section of polyethylene tubing up and down within the well. The resulting slurry was pumped out of the well through the polyethylene tubing using the peristaltic pump. The process was repeated until the well was free of accumulated silt. The use of distilled water was necessary due to the slow recharge nature of the surrounding geologic material.

Each 2-inch monitoring well was developed using a Fuji suction-lift pump, Guzzler suction-lift pump or a combination of the two. The suction-lift pumps were equipped with dedicated polyethylene discharge tubing that was utilized as both a surge-block device, to free the fine-grained materials from the screened formation and to remove these materials from the well. The process of repeated surging and pumping was continued until either the water had sufficiently cleared of suspended materials or a minimum of five well volumes of water had been removed. To prevent cross-contamination during the well development process, the polyethylene discharge tubing used during pumping was discarded following the completion of development of each well.

8.7 Surveying

DGC personnel performed surveying activities at the site during December 15-17, 1986 and January 15-16, and March 2, 1987 to establish measuring point elevations and groundwater monitoring locations. Another purpose of the surveying was to provide ground control for the production of a base map provided by Lockwood Support Services of Rochester, New York. Lockwood based their map on 1982 aerial photography. Additional surveying gathered data to modify the base map by incorporating changes to the site since 1982 and by locating the evaporation pit, the soil gas points, and both sets of newly installed wells (1/2-inch micro-wells and 2-inch monitoring wells). All surveyed points were referenced to USGS benchmark T-35. All measuring point elevations are listed in Table 5.

8.8 Water Level Measurements

Water level measurements were recorded at each newly installed micro-well and monitoring well following development. Water level measurements, which were measured on December 31, 1986 and January 12, March 2, and March 19, 1987, have been used to construct groundwater contour maps and calculate hydraulic gradients at the site. Groundwater elevation data for each well is located in Table 6.

An electric water level indicator was used to measure the depth to water to the nearest 0.01 foot at each well location. The raw data were converted to water level elevations above mean sea level using the surveyed measuring point elevations for each well. Precautions were taken during the water level measuring process to avoid cross contamination between wells by cleaning the water level indicator probe with deionized water prior to each measurement.

8.9 Groundwater Sampling

During December, 1986, water samples from the micro-wells were collected for preliminary analysis by PSA using a peristaltic pump and dedicated polyethylene tubing. Standard 40-millimeter VOA vials were used and stored in a chilled sample chest. The pump was flushed with distilled water between samples. All samples were analyzed within six days of collection for volatile organics by the headspace method using a Photovac 10A10 gas chromotograph which utilizes a photoionization detector. Quantification was by reference standards prepared in the laboratory using reagent grade chemicals. In some samples the presence of very high concentrations precluded the resolution of other constituents which may have been present.

Table 5

Measuring Point Elevations
Monitoring Wells and Micro-Wells

Well No.	M.P. Elevation
PS-1	637.25*
2	639.31*
3S	639.78*
3D	640.11*
4	639.43*
5	642.91*
6	638.52*
7	638.58*
8A	637.29*
8B	637.83*
9	640.39*
10	637.83*
11A	636.22*
11B	635.77*
12	636.18*
13	636.43*
14	638.18*
15	638.11*
16S	637.51*
16B	637.30*
DGC-1S	642.33**
1B	642.40**
2S	635.98**
3S	639.14**
3B	638.76**
4S	640.77**
4B	640.79**
5B	637.57**

* measured from top of 1/2-inch steel pipe
** measured from top of 2-inch PVC

$$K = \frac{r^2 \ln(L/R)}{2\,LT_o}$$

where:

K	=	hydraulic conductivity
r	=	radius of riser in which water level fluctuations occur
R	=	radius of well screen
L	=	length of well screen
T_o	=	basic time lag

This method assumes that the aquifer tested is unconfined, homogeneous and isotropic. The method is most appropriate for shallow wells cased in clean sand below the water table, but is also applicable to intermediate and deep wells screened in uniform materials.

Calculations of hydraulic conductivity (K) were also performed using the following equation (Department of the Navy, 1982):

$$K = \frac{R^2}{2L} \ln \frac{L}{R} \frac{\ln(H_1/H_2)}{(T_2 - T_1)}$$

where:

K	=	horizontal hydraulic conductivity
R	=	inside radius of casing-screen
L	=	length of uncased (screened) portion of well
H	=	pressure (distance) of water level from equilibrium value
T	=	time elapsed from test start

A summary of hydraulic conductivity test results and overall averages of the hydraulic conductivity tests using both methods

Table 6

Groundwater Elevations
(in feet above mean sea level)

Well No.	12-31-86	1-12-87	3-2-87	3-19-87
PS-1	632.81	633.16	634.01	632.53
PS-2	636.51	637.06	637.34	636.60
PS-3S	635.98	637.08	637.14	635.13
PS-3D	630.56	631.88	632.07	632.46
PS-4	635.10	636.18	632.40	633.81
PS-5	640.93	641.21	641.21	639.98
PS-6	635.57	635.73	635.93	634.50
PS-7	635.60	635.99	636.59	634.40
PS-8A	635.07	635.44	636.12	634.23
PS-8B	634.99	635.52	636.16	634.23
PS-9	637.65	638.12	638.30	636.84
PS-10	633.74	634.79	635.87	633.23
PS-11A	633.68	633.76	634.44	633.49
PS-11B	633.61	633.73	634.45	633.50
PS-12	632.30	632.56	634.49	631.33
PS-13	634.56	634.41	635.01	633.03
PS-14	636.63	636.69	637.15	635.41
PS-15	634.32	634.68	636.43	633.74
PS-16S	633.90	633.71	633.83	633.17
PS-16B	633.67	633.48	633.71	633.22
DGC-1S	639.20	639.89	639.22	637.93
DGC-1B	*	631.63	631.72	631.06
DGC-2S	633.31	633.50	634.05	632.09
DGC-3S	636.62	635.45	634.44	633.14
DGC-3B	*	634.90	634.38	632.85
DGC-4S	633.46	634.72	636.17	632.34
DGC-4B	*	633.55	634.87	632.11
DGC-5B	*	>637.57	>637.57	637.18

Groundwater samples were collected from all 2-inch monitoring wells and a selected number of 1/2-inch micro-wells (PS-2, 3D, 7, 9, 10) on January 26 and 27, 1987. DGC personnel collected the samples and ERCO laboratory, a division of ENSECO Inc. of Cambridge, Massachusetts, analyzed the samples.

The sampling procedure involved removing three to five well volumes from the monitoring well prior to sampling. In the event of an exceedingly slow well recharge, the well was evacuated to dryness. Samples were collected within three hours of evacuating the well and subsequently transported to ERCO's laboratory.

Dedicated 1/2-inch polyethylene tubing coupled to a suction lift pump was used to evacuate each of the 1/2-inch micro-wells and 2-inch overburden monitoring wells. Bedrock wells were evacuated with 5-foot dedicated PVC, bottom-filling, check valve bailers. These bailers were pre-cleaned prior to being used in the field and wrapped in separate plastic envelopes.

Groundwater samples were collected from the 2-inch monitoring wells, both overburden and bedrock, utilizing the dedicated bailers described above. The bailers were lowered in such a way as to minimize the disruption of the water column to minimize volatilization of organic compounds.

Groundwater samples were collected from the four 1/2-inch micro wells by inserting a virgin length of 1/2-inch polyethylene tubing into the water column and then capping and withdrawing the tubing from the well. The vacuum created by capping the tubing was sufficient to allow for the rapid, non-agitated, collection of water samples.

All samples were transported in a portable cooler, containing ice, to ERCO's laboratory in Cambridge, Massachusetts for analysis. All samples were analyzed for purgeable organics by EPA Method 624, while selected samples were analyzed for base/neutral extractables by EPA Method 625 and the following three metals: tin, copper, and zinc. A library search was performed in order to tentatively identify the five most significant unknown base/neutral compounds that were present in the samples.

8.10 Hydraulic Conductivity Testing

Slug and bail tests were used to estimate the hydraulic conductivity of both the unconsolidated and bedrock aquifers on March 19-20, 1987. After the newly installed wells had been developed and sampled, hydraulic conductivity tests were performed through the screens of all the monitoring wells. These tests, which include a slug and/or bail test, involve observing the recovery of water levels toward an equilibrium level after a volume of water has been added to or removed from the well casing. During the slug tests, a 6-foot aluminum rod was quickly introduced into the well casing. During the bail tests, the same 6-foot aluminum rod was rapidly removed from below the static water level. For the shallow wells, DGC-2S, 3S and 4S, alternate bail tests were performed by removing a volume of water using a 5-foot PVC bailer decontaminated with distilled water after each test. In both tests, a pressure transducer set 5 to 10 feet below the static water level was used to record water level recovery.

The hydraulic conductivity data was analyzed using the Hvorlsev (1951) method. The principle behind Hvorslev's method is based on the fact that a plot of recovery data versus time theoretically follows an exponential decline. Hydraulic conductivity (K) is, therefore, calculated as follows:

are shown in Table 7. Additional details of data analysis are presented in Appendix E.

9.0 GEOLOGY

9.1 General

The site lies in the physiographic province known as the Erie-Ontario Lowlands. A thick layer of glacial deposits covers the low lying region to the north-northwest of Auburn. Drumlins are numerous in this area extending in a generally south-southeast direction. The south edge of a drumlin belt occurs along the foot of the Helderberg limestone escarpment which extends across the Auburn quadrangle from roughly 5 miles north of Owasco Lake in a southwestern direction to Cayuga Lake at Union Springs. Over most of this higher ground, the glacial deposits are quite thin, probably less than 20 feet in thickness. It is, however, formed in many places into hills of a drumlin character, and, in a few instances as in the vicinity of the foot of Owasco Lake, into well defined drumlins. Along the sloping sides of Cayuga and Owasco Lakes there are numerous ravines, some of which are large and exhibit rock exposures.

9.2 Unconsolidated Deposits

The glacial deposits are thin over all of the region between Union Springs and Auburn. Based on the results of the subsurface investigation conducted at the site, approximately 15 feet of soil overlies the bedrock. Two cross sections of the site have been included as Figures 3 and 4. The upper 3 to 12 feet consist of layered deposits of silt and clay with occasional seams of fine sand. These soils, known as glaciolacustrine deposits, were deposited in a glacial lake environment. The layering or varving results from a varying

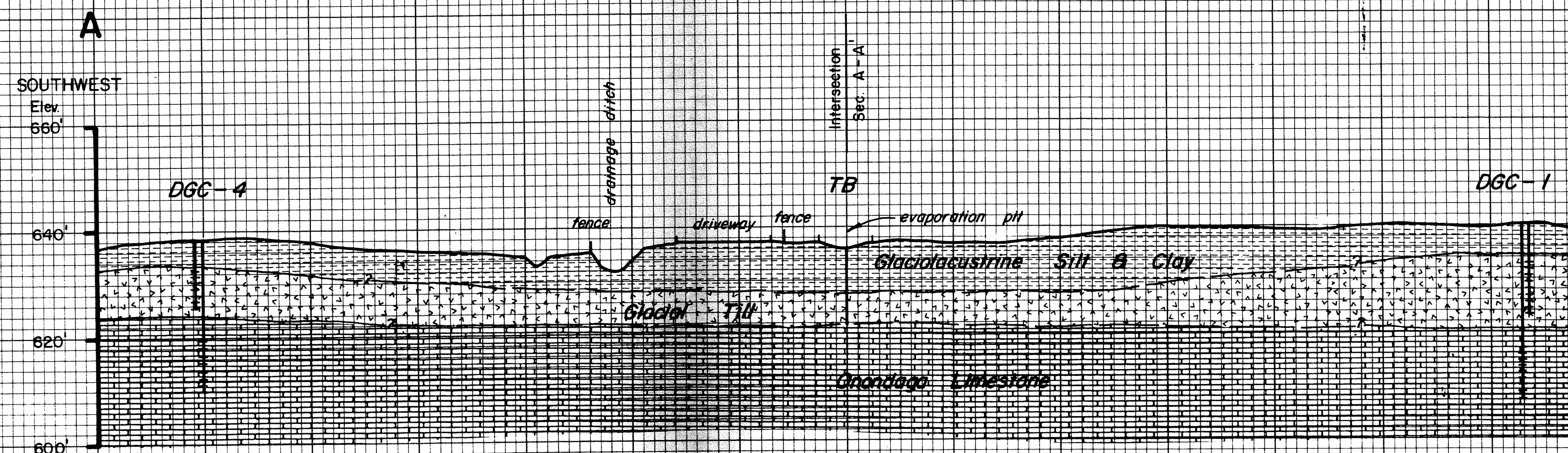
Table 7

Summary of Hydraulic Conductivity Testing March 19-20, 1987

Well No.	Hydraulic Conductivity (cm/sec) HORSLEV Slug	HORSLEV Bail	DM7 Slug	DM7 Bail	ARITHMETIC Mean
1S	$1.151x10^{-4}$	$1.847x10^{-5}$	$1.093x10^{-4}$	$2.409x10^{-5}$	$6.674x10^{-5}$
1B	$1.457x10^{-3}$	$5.796x10^{-4}$	$1.371x10^{-3}$	$6.258x10^{-4}$	$1.008x10^{-3}$
2S		$2.676x10^{-5}$		$2.897x10^{-5}$	$2.787x10^{-5}$
3S		$5.598x10^{-5}$		$1.115x10^{-4}$	$8.374x10^{-5}$
3B	$8.262x10^{-4}$	$6.062x10^{-4}$	$8.235x10^{-4}$	$6.333x10^{-4}$	$7.223x10^{-4}$
4S		$7.012x10^{-4}$		$6.424x10^{-4}$	$6.718x10^{-4}$
4B	$7.084x10^{-4}$	$6.439x10^{-4}$	$7.260x10^{-4}$	$6.320x10^{-4}$	$6.776x10^{-4}$
5B		$4.999x10^{-3}$		$2.794x10^{-3}$	$3.897x10^{-3}$

Geometric Mean K-value for overburden aquifer: $1.011x10^{-4}$ cm/sec (0.29 ft/day)

Geometric Mean K-value for bedrock aquifer: $1.178x10^{-3}$ cm/sec (3.34 ft/day)



LEGEND

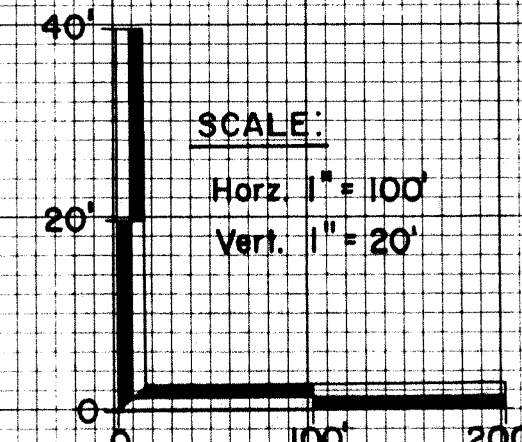
TB — Test boring (December 1985).

Two inch monitoring well.

Glaciolacustrine: brown red silty clay with occasional fine sand seams, varved.

Glacial Till: brown red silty clay and coarse to fine sand with some coarse to fine gravel.

Onondaga Limestone: bluish gray limestone embedded with nodules and nodular layers of chert, of Devonian age.



SCALE:
Horz. 1" = 100'
Vert. 1" = 20'

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CITY OF AUBURN

PROJ. MANAGERS:
Rodney W. Sutch
Kristen F. Begor
PREPARED BY:
Alan G. Hall
CHECKED BY:

DRAF
PROJ.

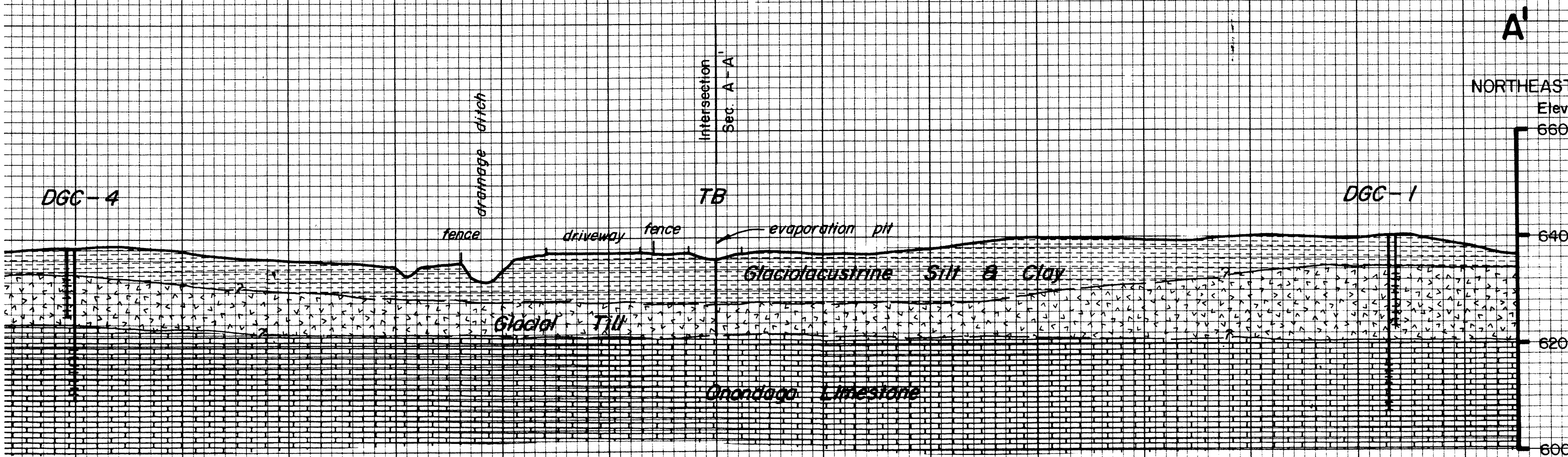


FIGURE 3

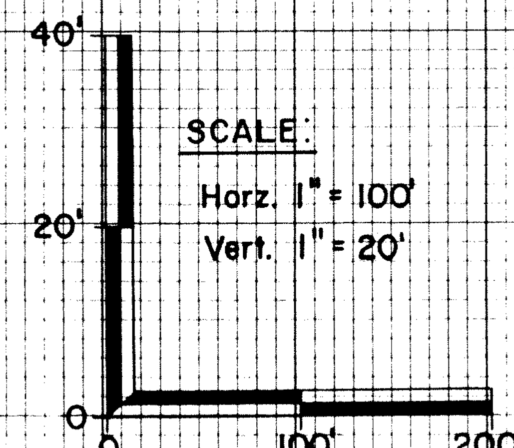
Test boring (December 1985).

Two inch monitoring well.

Glaciolacustrine: brown red silty clay with occasional fine sand seams, varved.

Glacial Till: brown red silty clay and coarse to fine sand with some coarse to fine gravel.

Onondaga Limestone: bluish gray limestone embedded with nodules and nodular layers of chert, of Devonian age.



SCALE:
Horz. 1" = 100'
Vert. 1" = 20'

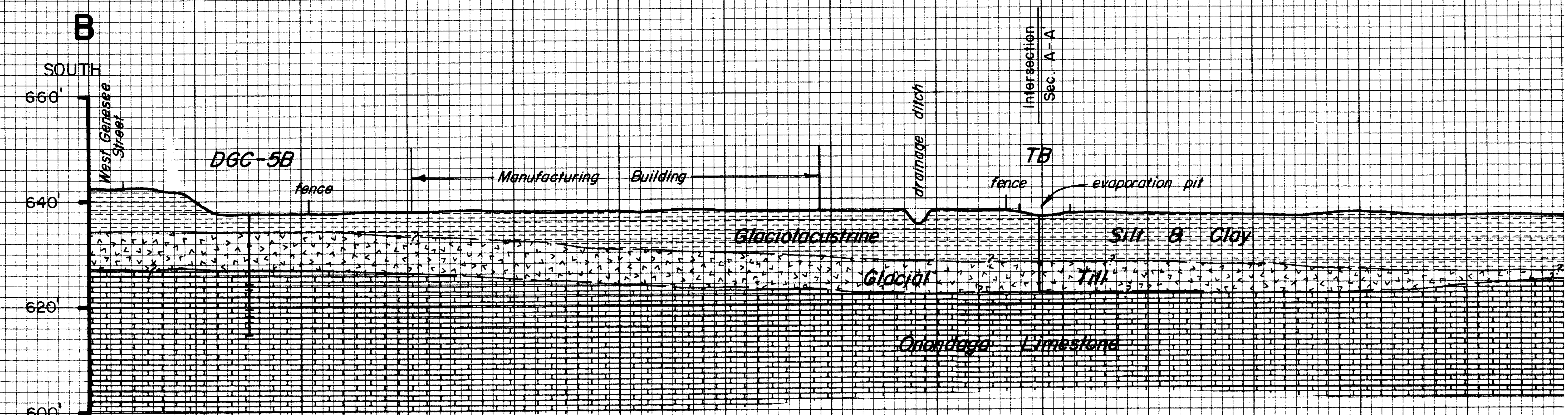
DUNN GEOSCIENCE CORPORATION
5 Northway Lane North
Latham, N.Y. 12110

GEOLOGIC CROSS-SECTIONS

POWEREX, INC.

CITY OF AUBURN — CAYUGA COUNTY, N.Y.

PROJ. MANAGERS: Rodney W. Sutch, Kristen F. Begor PREPARED BY: Alan G. Hall CHECKED BY:	DRAFTED BY: Michael Maksymik PROJECT NO. 2092-3-4926	DATE: April 1987



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SCALE:
Horz. 1" = 100'
Vert. 1" = 20'

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Rodney W. Su
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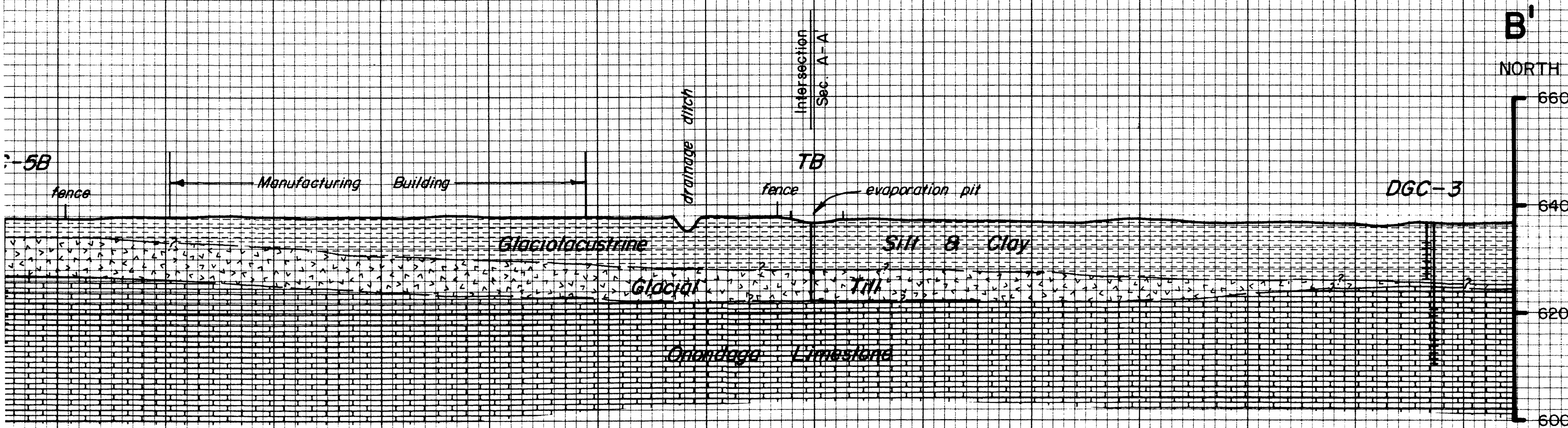

FIGURE 4

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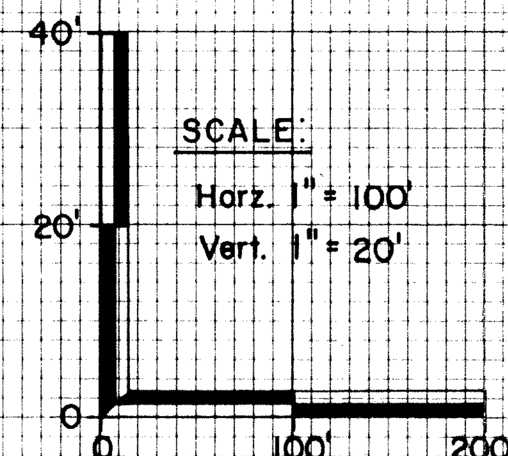

SCALE:
Horz. 1" = 100'
Vert. 1" = 20'

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depositional environment often related to seasonal changes.

Underlying the glaciolacustrine sediments is glacial lodgement till, ranging in thickness from 0.5 to 12 feet. According to the Burmister Classification System, this brown-red dense deposit consists of silty clay and coarse to fine sand with some coarse to fine gravel. The glacial till was deposited as the continental glacier advanced southward scouring older unconsolidated deposits and weathered rock and subsequently, depositing the eroded material at the base of the ice sheet.

9.3 <u>Bedrock</u>

Four of the monitoring wells (DGC-1B, 3B, 4B and 5B) were installed within the bedrock. A sample of the rock (see core log for well DGC-5B located in Appendix 5) was retrieved from one of the borings and provides site specific information on the bedrock. According to the information obtained from the bedrock core and our understanding of the geology of the area, the site appears to overlie a thin (1-2 mile wide) northwest trending strip of Onondaga limestone of Devonian Age. The bluish gray limestone is embedded with nodules and nodular layers of chert or hornstone. Fossils are exceedingly abundant in nearly all parts of the limestone layers and occur frequently in the chert and the shaly partings. The Onondaga limestone lies near the surface and is exposed in numerous places in the northern parts of Auburn and to the northeast. It has been extensively quarried for building stone and lime along its outcrop, but today only a few active quarries remain. Outside the area, to the east and west, the Onondaga is a very important source of lime.

The Onondaga Limestone is believed to range from 15 to 50 feet in thickness in this area. A thin sandstone layer (probably less than 5 feet), known as the Oriskany Formation, may underlie the Onondaga Limestone. Underlying the sandstone is approximately 50 feet of limestone and dolostone of the Helderberg Group. The strata dip gently to the south at approximately 25 feet per mile.

10.0 HYDROGEOLOGY

Two groundwater contour maps (Plates 3 and 4) of the overburden aquifer are located in Appendix F. The two maps included are representative of the flow regime observed on all four measuring dates. Groundwater elevations within the bedrock aquifer have been included on these contour maps, but due to the lack of sufficient data points, were not contoured. Additional monitoring wells within the bedrock are necessary to fully evaluate groundwater flow in this underlying aquifer. Vertical hydraulic gradients between the overburden and bedrock aquifers were found to be in the downward direction at well pairs DGC-1, 3 and 4 (see Table 6 for groundwater elevation data).

Based on the average water level measurements recorded during a four month period and the results of hydraulic conductivity testing, groundwater flow within the overburden aquifer north of the drainage ditch is predominantly toward the west-northwest at a rate of between approximately 0.01 and 0.1 feet per day. This velocity was calculated using the following parameters.

hydraulic conductivity:	0.29 ft/day
hydraulic gradient:	.007 to .013
effective porosity:	10 to 15% (estimated)

The water table was generally encountered within 2 feet of the ground surface. As observed from the two groundwater contour maps, the drainage ditch has had a significant impact on groundwater flow at the site during the months of December through March. It appears that during those winter/spring months, when the groundwater levels are elevated, the drainage ditch acts as a local discharge point for groundwater. During the dryer summer and fall months, however, the water table may drop below the base of the drainage ditch. If this occurs the drainage ditch will no longer act as a discharge point and may, in fact, act as a recharge point after precipitation events. Additional water level measurements will verify any such seasonal flow variations.

There are several areas at the site that require further investigation in order to evaluate groundwater flow. One of those areas of uncertainty is located near DGC-1S/1B and PS-5 where a groundwater divide appears to exist. Additional monitoring wells are necessary to verify such a divide and determine the hydraulic connection, if any, with the acid neutralizing pit area east of the manufacturing building.

Groundwater flow south of the drainage ditch cannot be fully evaluated until additional piezometers/monitoring wells are installed in that area. Additionally, groundwater flow in this area is likely to be complicated by the presence of buildings, parking lots and underground utilities. Additional groundwater elevation control is necessary to evaluate such influences and determine flow conditions in this area.

11.0 SOIL GAS SURVEY

In the soil gas investigation performed by Pine & Swallow Associates (PSA), the pattern of occurrence and concentration of contaminants in the soil gas suggest at least two migration pathways from the evaporation pit: south-southwest toward micro-well pairs, PS-3 and PS-16, and northwest toward PS-10.

Another more localized source of a different chemistry appears to exist in the vicinity of PS-9.

According to PSA's results (see Table 8), trichloroethylene was the principal contaminant found in the soil gas at all but two locations. Other compounds found at lesser concentrations were those that arise from biological degradation of trichloroethylene in soils and groundwater (i.e., cis and trans 1,2-dichloroethylene and 1,1-dichloroethylene). Tetrachloroethylene was detected at soil gas sampling location E 0+72 (see Plate 1 in Appendix A) and was later confirmed in groundwater samples from micro-well PS-9 (see Plate 2 in Appendix B). The highest levels of volatiles in the soil gas were detected at soil gas location G 0+95. Groundwater samples from PS-10, installed near G 0+95, similarly exhibited the highest volatile organic compound (VOC) concentrations.

At other locations, most notably C 0+00 and D 0+00, soil gas analyses did not correlate well with associated groundwater results. At both of these soil gas sampling locations, no volatiles were detected in the soil atmosphere, while respective groundwater samples from micro-wells PS-4 and PS-1 indicated total VOC concentrations of 440 ppb and 3600 ppb, respectively. The absence of volatiles were probably due to a layer of clean water masking the underlying contaminated groundwater.

12.0 GROUNDWATER QUALITY

Groundwater sampling and analysis was performed on two occasions, December, 1986 and January, 1987. The initial analyses were performed in the field using a portable gas chromatograph. Only the micro-wells were sampled during this

Table 8
Soil Gas Results (PSA)
Relative Concentration (not ppb)

Sample Location	Date Tested	No VOC Detected	1,1 Dichloro-ethylene	trans-Dichloro-ethylene	cis-Dichloro-ethylene	Trichloro-ethylene	Tetrachloro-ethylene
A 0 + 220	12/8/86	X					
0 + 170	12/8/86				3	42	
0 + 120	12/8/86				16	490	
0 + 70	12/8/86				7	20	
0 + 20	12/8/86					2	
0 - 60	12/8/86			7	70	960	
0 - 110	12/8/86			12	30	680	
0 - 160	12/8/86					13	
B 0 + 500	12/8/86	X					
0 + 450	12/8/86					10	
0 + 400	12/8/86				31	900	
0 + 250	12/8/86	X					
0 + 200	12/8/86	X					
0 + 150	12/8/86	X					

Soil Gas Results (PSA) (cont'd)
Relative Concentration (not ppb)

Sample Location	Date Tested	No VOC Detected	1,1 Dichloro-ethylene	trans-Dichloro-ethylene	cis-Dichloro-ethylene	Trichloro-ethylene	Tetrachloro-ethylene
0 + 125	12/8/86		6	14	91	1100	
0 + 90	12/8/86				2	12	
0 + 00	12/8/86	X					
C 0 + 00	12/8/86	X					
D 0 + 00	12/8/86	X					
E 0 + 170	12/9/86	X					
0 + 120	12/9/86	X					
0 + 72	12/9/86						72
F 0 + 235	12/9/86					3	
0 + 155	12/9/86	X					
0 + 100	12/9/86	X					
0 + 75	12/9/86					14	
0 + 20	12/9/86	X					

Soil Gas Results (PSA) (cont'd) Relative Concentration (not ppb)

Sample Location	Date Tested	No VOC Detected	1,1 Dichloro-ethylene	trans-Dichloro-ethylene	cis-Dichloro-ethylene	Trichloro-ethylene	Tetrachloro-ethylene
G 0 + 95	12/9/86		63	380	20,000	8,800	
0 + 40	12/9/86				37	19	
0 - 10	12/9/86				11	12	
H 0 + 90	12/9/86		3		9	29	
0 + 45	12/9/86		5	9	10	840	
J 0 + 85	12/9/86		3		6	7	
0 + 50	12/9/86				10	11	
K 0 + 325	12/9/86	X					
0 + 235	12/9/86	X					

event. The second sampling round incorporated all of the 2-inch monitoring wells and selected micro-wells. Analysis for this round were performed by a NYSDEC-approved laboratory. A summary of the results from both sampling events is presented on Plate 5 in Appendix G.

12.1 Field Analyses

Twenty 1/2-inch micro wells were installed and sampled at the facility. All samples were collected on December 13 and 14, 1986 and analyzed in the field or within six days of collection for volatile organics using a photovac 10A10 portable gas chromatograph.

Varying concentrations of volatile organic compounds were detected in all twenty micro-wells (see Table 9). Trichloroethylene and the three dichlorinated ethylenes found in PSA's soil gas were the dominant compounds detected in the groundwater. As suggested by PSA's soil gas survey, tetrachloroethylene was the principal contaminant at PS-9 (23,000 ppb). The concentration ranges of the simple aromatics, benzene, toluene and ethylbenzene, were considerably lower than the chloroalkenes, except at PS-10, where toluene (42,000 ppb) and ethylbenzene (8700 ppb) ranked as significant constituents. Well PS-10 was the most contaminated location in terms of total volatiles (>550,000 ppb), which is consistent with the soil gas results in that area. Analyses of groundwater samples from shallow and deep micro-wells (3S & 3D and 16S & 16D) indicate a strong increase in concentration with depth.

12.2 Laboratory Analyses

On January 26 and 27, 1986, DGC personnel collected groundwater samples from the newly installed 2-inch monitoring wells and

Table 9

Field Groundwater Analyses (PSA) in ppb

Sample Location	Date Sampled	1,1 Di-chloro-ethylene	trans-Dichloro-ethylene	cis-Di-chloro-ethylene	Trichloro-ethylene	Tetra-chloro-ethylene	Benzene	Toluene	Ethyl Benzene	Other
PS-1	12/13/86		60	130	3,400	13	13			
PS-2	12/13/86	38	270	5,200	14,000	37	27	74		
PS-2	12/14/86	60	I	4,200	9,000	I	I	170		
PS-3S	12/13/86	7.2	I	130	22,000	I	3.6	I		
PS-3D	12/14/86	I	I	I	140,000	I	I	I		
PS-4	12/13/86	6.3	28	70	330	1.1	I	1.4		
PS-5	12/13/86			6.4	220	1.6	0.15	1.6		
PS-6	12/13/86	0.60		8.6	56			3.9		
PS-7	12/13/86	4.0	19	580	870	190	I	53		*
PS-8A	12/13/86			2.1	55	4.2		2.0		
PS-8B	12/13/86			2.4	49	2.0		2.0		
PS-9	12/13/86		0.60	11	150	23,000		5.9		
PS-10	12/13/86	I	13,000	300,000	190,000			42,000	8,700	

Field Groundwater Analyses (PSA)
in ppb
(cont'd)

Sample Location	Date Sampled	1,1 Di-chloro-ethylene	trans-Dichloro-ethylene	cis-Di-chloro-ethylene	Trichloro-ethylene	Tetra-chloro-ethylene	Benzene	Toluene	Ethyl Benzene	Other
PS-11B	12/13/86			0.45	0.12					
PS-12	12/13/86				0.10	2.8				
PS-13	12/14/86	0.40		310	1,600	3.2				
PS-14	12/14/86	I	170	2,800	16,000	I	I	470	150	
PS-15	12/13/86			0.66	1.2					
PS-16S	12/14/86	2.4	64	390	960	8.0	4.3			
PS-16D	12/14/86	6.0	96	320	15,000	40	53	20	49	

I -- interference due to coincident compounds

* -- at least fifteen additional compounds present

selected 1/2-inch micro-wells. The 2-inch wells were analyzed for base/neutral extractables (EPA Method 625), volatile organics (EPA Method 624) and three metals: tin, copper and zinc. The micro-wells were analyzed for volatile organics only. All samples were analyzed by ERCO of Cambridge, Massachusetts. Groundwater results from ERCO are located in Appendix H and summarized in Table 10.

Organic Analysis

Both the field and laboratory analysis of the micro-wells (PS-2, PS-3D, PS-7, PS-9 and PS-10) indicated that PS-2, 3D and 10 contained the greatest concentrations of trichloroethylene (TCE), toluene and 1,2-dichloroethylene (1,2-DCE). However, laboratory analysis revealed much higher TCE levels in PS-3D than in PS-10; whereas, field data indicated greater concentrations in PS-10. ERCO data also revealed elevated concentrations of xylenes in PS-10, acetone in PS-3D and PS-10, and vinyl chloride in PS-2, PS-7 and PS-10. High tetrachloroethylene (PCE) levels were found in PS-9 and PS-10 and moderate levels in PS-7.

Analysis of groundwater samples from the DGC wells revealed elevated vinyl chloride in DGC-1B, 2S and 4B and high 1,2-DCE in DGC-1B and 4B. Vinyl chloride and 1,2-DCE are biological degradation products of TCE and PCE. The presence of these compounds is not unusual, even though the compounds themselves were not used on site. The higher vinyl chloride and 1,2-DCE concentrations in PS-10 and 2 in comparison to PS-3D may indicate a greater degree of microbial degradation. PS-10 is located further away from the waste evaporation pit and possibly has had more time for transformation to occur. The results from DGC-1B located to the northeast of the plant confirm the

TABLE 10

Laboratory Groundwater Analyses (ERCO)
GE-Auburn
1-26-87

Compound	DGC-1S	DGC-1B	DGC-2S	DGC-3S	DGC-3B	DGC-4S	DGC-4B	DGC-5B	X-1(DGC-2S)	PS-2	PS-3D	PS-7	PS-9	PS-10	trip	blank
copper	.0052ppm	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--
tin	ND	ND	ND	ND	ND	ND	ND	ND	ND	--	--	--	--	--	--	--
zinc	ND	ND	ND	ND	ND	.009 ppm	ND	.14 ppm	ND	--	--	--	--	--	--	--
vinyl chloride	ND	410	280	ND	ND	ND	51	ND	220	400	ND	85	ND	9700	ND	ND
acetone	ND	1500	ND	ND	ND	ND	ND	ND	ND	ND	420,000	ND	ND	95,000	ND	ND
1,1-dichloroethylene	ND	2.4	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	trace	ND	ND
1,2-dichloroethylene	ND	140	12	ND	<2	trace	55	ND	8.8	5000	790	360	6.7	62,000	ND	ND
trichloroethylene	ND	9.9	ND	ND	ND	ND	2.1	ND	ND	11,000	380,000	120	55	39,000	ND	ND
toluene	ND	14	ND	ND	ND	ND	ND	ND	ND	49	2400	ND	ND	1900	ND	ND
ethylbenzene	ND	2.8	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	550	ND	ND
total xylenes	ND	13	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1800	ND	ND
tetrachloroethylene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	40	8900	2100	ND	ND
chloroform	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	250	ND	ND	ND	ND	ND

* units are in ppb unless otherwise stated.

presence of contamination in this area, as was indicated by field data from PS-5. The waste evaporation pit or the acid neutralization tank are possible sources of the elevated levels observed in DGC-1B.

Although methanol was detected in soil samples from the waste evaporation pit at concentrations exceeding 2,000 ppm during Phase I sampling, it was not detected in the monitoring wells and is not considered a parameter of concern. Methanol is a highly biodegradable compound and is readily oxidized by soil bacteria. Assessment of quality control (QC) data revealed acceptable percent recoveries for matrix and laboratory spikes and no methanol contamination of the lab blank water. The QC data supports the reported value of less than 1 mg/L in all monitoring well samples.

Base/neutral extractable analysis revealed the presence of bis (2-ethylhexyl) pthalate and diphenylamine in all samples (except DGC-4B which did not exhibit bis (2-ethylhexyl) pthalate) at trace concentrations less than the method detection limit. These levels are considered insignificant and are not an indication of site-derived contamination. Bis (2-ethylhexyl) pthalate was also detected in the laboratory blank water. The base/neutral library search did not reveal any significant unknown compounds.

Inorganics

Copper, tin and zinc values in all monitoring wells were below applicable groundwater standards. All levels were below or slightly above the method detection limit. Data indicates that metal contamination with regard to the parameters analyzed is not a concern.

APPENDIX A

Soil Gas Locations
(Plate 1)

APPENDIX B

Location of 1/2-inch Micro/
2-inch Monitoring Wells and
Geologic Cross-Sections (Plate 2)

APPENDIX C

Boring Logs & Core Logs

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK (518) 783-8102	TEST BORING LOG	BORING NO. DGC-1S

PROJECT	GE-Auburn
CLIENT	General Electric
DRILLING CONTRACTOR	CATOH Environmental Companies, Inc.
PURPOSE	Subsurface Investigation/ Monitoring Well Install.

SHEET 1 OF 2	
JOB NO.	2092-3-4926
ELEVATION	GR. 640.3'
DATUM	MSL
DATE STARTED	12-29-86
DATE FINISHED	12-29-86
DRILLER	Denny Barrows
INSPECTOR	Walter O. Howard

GROUNDWATER

DATE	TIME	DEPTH	CASING		CASING	SAMPLE	CORE
				TYPE	HSA	SS	
				DIAMETER	4¼" ID	2"	
				WEIGHT		140#	
				FALL		30"	

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSI-FICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-1	3 3 6 6	CL		Br $yC; rts; t cndrs	Rec=1.6' Damp
		S-2	5 11 13 15	CL		Br rd $yC Brown red SILTY CLAY (GLACIO-LACUSTRINE)	Rec=.7' Moist
5		S-3	4 5 11 16	CL		Br rd C s, $yC	Rec=1.4' Damp
		S-4	20 56 30 33	GC		Br rd $yC a, mf S, s(+) c(-)mf(+) G	Rec=1.0' WET
		S-5	5 15 15 15	GC		Br rd $yC a(-), c(+)mf(-) S, s(+) mf G; mtld (red) SAND	Rec=1.8' Moist
10							

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK	TEST BORING LOG	BORING NO. DGC-1S

PROJECT GE Auburn — SHEET 2 OF 2

CLIENT General Electric — JOB NO. 2092-3-4926

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-6	14 42 48 59	GC		Br c(-)mf(+) G a, cmf S, s(+) C&$	Rec=1.7' Damp
		S-7	81 52 36 44	GC		Same Brown red SILTY CLAY and, coarse to fine Sand, some medium to fine Gravel (GLACIAL TILL)	Rec=.9' Damp
15		S-8	21 30 42 74	GC		Rd br $yC s, cmf S, s mf G	Rec=.8' Moist
		S-9	71 56 63 60	GC		Br $yC a, c(+)mf S, s mf G	Rec=1.0' Damp
20		S-10	21 30 42 100/.1	CL		Br rd $yC Bedrock at 19.6'	Rec=1.4' Damp

TD=19.6'

WELL CONSTRUCTION

Lower Bentonite Pellet Seal	19.6' - 18.6'
Filter Pack	18.6' - 5.5'
10 Slot Screen	17.0' - 7.2'
Upper Bentonite Pellet Seal	5.5' - 3.5'
Cement Grout	3.5' - 0.0'

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK (518) 783-8102	TEST BORING LOG	BORING NO. DGC-1B

PROJECT	GE Auburn
CLIENT	General Electric
DRILLING CONTRACTOR	CATOH Environmental Companies, Inc.
PURPOSE	Subsurface Investigation/Monitoring Well Installation
SHEET	1 OF 1
JOB NO.	2092-3-4926
ELEVATION	GR 640.4'
DATUM	MSL
DATE STARTED	1-6-87
DATE FINISHED	1-8-87
DRILLER	Denny Barrows
INSPECTOR	Walter O. Howard

GROUNDWATER

DATE	TIME	DEPTH	CASING

	CASING	SAMPLE	CORE
TYPE	Flush joint	No	
DIAMETER	5¼" OD	sampling	
WEIGHT			
FALL			

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
						No samples collected; see boring log of DGC-1S for geology	
						Bedrock at 19.6'	
						T.D. = 34.0'	
5							
						Well Construction	
						Formational Collapse	34.0' - 33.0'
						10 Slot Screen	33.0' - 23.2'
						Filter Pack	33.0' - 22.5'
						Bentonite Pellet Seal	22.5' - 21.5'
						Cement/Bentonite Grout	21.5' - 0.0'
10							

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK (518) 783-8102	TEST BORING LOG	BORING NO. DGC-2S
		SHEET 1 OF 2

PROJECT	GE Auburn
CLIENT	General Electric
DRILLING CONTRACTOR	CATOH Environmental Companies, Inc.
PURPOSE	Subsurface Investigation /Monitoring Well Installation
JOB NO.	2092-3-4926
ELEVATION	GR. = 634.4'
DATUM	MSL
DATE STARTED	12-30-86
DATE FINISHED	12-30-86
DRILLER	Denny Barrows
INSPECTOR	Walter O. Howard

GROUNDWATER					CASING	SAMPLE	CORE
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS	
				DIAMETER	4¼" ID	2"	
				WEIGHT		140#	
				FALL		30"	

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSI-FICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-1	1 1 3 3	CL		Rd br $yC; t rts	Rec=1.3' Moist
		S-2	3 3 5 7	CL		Rd br $yC; lyr Cy$ .4' thick; Occ Gr $ seams Red brown SILTY CLAY; occasional gray SILT layers and seams (GLACIO-LACUSTRINE)	Rec=1.6' WET varved clay
5		S-3	3 3 3 4	CL		Same; 2 Gr $ lyrs both .3' thick	Rec=1.8' Damp/WET varved clay
		S-4	4 4 15 19	GC		Rd C; lyr br $yC s(-), mf G .5' thick (transition to till)	Rec=1.6' Damp/WET
10		S-5	4 33 11 14	GC		Br $yC a, mf S, s(+) c(-)mf(+) G	Rec=.6' Damp

DUNN GEOSCIENCE CORPORATION
LATHAM, NEW YORK

TEST BORING LOG

BORING NO. DGC-2S

PROJECT GE Auburn | **SHEET** 2 **OF** 2

CLIENT General Electric | **JOB NO** 2092-3-4926

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-6	30 76 95 100/.4	GC		Br cmf S, a Cy$, a c(-)mf(+) G Brown SILTY CLAY and(+), coarse(-) to fine Sand, some(+) coarse(-) to fine(+) Gravel (GLACIAL TILL)	Rec=1.4' Damp
		S-7	63 53 100/.4	GC		Dk br Cy$ s(+), cmf S, s c(-)mf(+) G Bedrock at 13.4'	Rec=1.3' Damp
						TD = 13.4'	Driller has spoon auger ref. at 13.4'
15							

WELL CONSTRUCTION

Lower Bentonite Pellet Seal	13.4' - 12.5'
Filter Pack	12.5' - 3.0'
10 Slot Screen	12.0' - 4.0'
Upper Bentonite Pellet Seal	3.0' - 2.0'
Cement Grout	2.0' - 0.0'

DUNN GEOSCIENCE CORPORATION
LATHAM, NEW YORK (518) 783-8102

TEST BORING LOG

BORING NO. DGC-3S

SHEET 1 **OF** 2

PROJECT GE Auburn

CLIENT General Electric

DRILLING CONTRACTOR CATOH Environmental Companies, Inc.

PURPOSE Subsurface Investigation/Monitoring Well Installation

JOB NO. 2092-3-4926

ELEVATION GR. = 637.1'

DATUM MSL

DATE STARTED 12-30-86

DATE FINISHED 12-31-86

DRILLER Denny Barrows

INSPECTOR Walter O. Howard

GROUNDWATER

DATE	TIME	DEPTH	CASING

	CASING	SAMPLE	CORE
TYPE	HSA	SS	
DIAMETER	4¼" ID	2"	
WEIGHT		140#	
FALL		30"	

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-1	1 1 2 2	CL		Br $yC; t rts	Rec=1.4' Damp
		S-2	2 7 5 9	CL		Br $yC; s Cy$ lyrs .05' thick	Rec=1.4' Moist/Damp varved clay
5		S-3	3 4 4 7	CL		Br $&C Brown red SILTY CLAY (GLACIO-LACUSTRINE)	Rec=.7' WET
		S-4	4 3 5 9	CL		Br C&S	Rec=.5' WET
		S-5	3 3 4 7	CL		Dk rd br C s, $yC	Rec=1.8' WET
10							

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK	TEST BORING LOG	BORING NO. DGC-3S
PROJECT GE Auburn		SHEET 2 OF 2
CLIENT General Electric		JOB NO 2092-3-4926

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-6	1	CL		Same; lyr Br C a, c(-)mf(+) S, s(+) mf G, t cbl fgmt	Rec=1.4' Moist; clay above Moist till
			1				
			13	GC		Brown CLAY and, coarse(+) to fine(+) S, some(+) medium to fine Gravel (GLACIAL TILL)	
			57				
						BEDROCK @ 12.0' TD = 12.0'	Driller has spoon & auger ref @ 12.0'
						Well Construction	
						Lower Bentonite Pellet Seal	12.0' - 11.0'
						Filter Pack	11.0' - 3.0'
						10 Slot Screen	10.5' - 4.0'
						Upper Bentonite Pellet Seal	3.0' - 1.8'
						Cement Grout	1.8' - 0.0'

DUNN GEOSCIENCE CORPORATION
LATHAM, NEW YORK (518) 783-8102

TEST BORING LOG

BORING NO. DGC-3B

PROJECT	GE Auburn
CLIENT	General Electric
DRILLING CONTRACTOR	CATOH Environmental Companies, Inc.
PURPOSE	Subsurface Investigations/Monitoring Well Installation

SHEET 1 OF	1
JOB NO.	2092-3-4926
ELEVATION	GR = 637.0'
DATUM	MSL
DATE STARTED	1-9-87
DATE FINISHED	1-9-87
DRILLER	Denny Barrows
INSPECTOR	Walter O. Howard

GROUNDWATER

DATE	TIME	DEPTH	CASING

	CASING	SAMPLE	CORE
TYPE	HSA/F.J.		
DIAMETER	4¼ID/5¼OD		
WEIGHT			
FALL			

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
						No samples collected; see boring log of DGC-3S for geology.	
						TD = 26.5'	
						Bedrock at 12.0'	
						Well Construction:	
						10 Slot Screen	26.5' - 16.7'
						Filter Pack	26.5' - 15.3'
						Bentonite Pellet Seal	15.3' - 13.9'
						Cement/Bentonite Grout	13.9' - 2.5'
						Cement Grout	2.5' - 0.0'
5							
10							

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK (518) 783-8102	TEST BORING LOG	BORING NO. DGC-4B

PROJECT	GE Auburn
CLIENT	General Electric
DRILLING CONTRACTOR	CATOH Environmental Companies, Inc.
PURPOSE	Subsurface Investigation/Monitoring Well Installation
SHEET	1 OF 1
JOB NO.	2092-3-4926
ELEVATION	GR = 638.9'
DATUM	MSL
DATE STARTED	1/5/87
DATE FINISHED	1/6/87
DRILLER	Denny Barrows
INSPECTOR	Walter O. Howard

GROUNDWATER

DATE	TIME	DEPTH	CASING		CASING	SAMPLE	CORE
				TYPE	FJ		
				DIAMETER	5¼" OD		
				WEIGHT			
				FALL			

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSI-FICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
						No samples collected; see boring log of DGC-4S for geology.	
						Bedrock at 14.8' T.D. = 28.9'	
						WELL CONSTRUCTION	
						Filter Pack	28.9 - 17.4'
5						10 Slot Screen	28.9 - 19.1'
						Bentonite Pellet Seal	17.4 - 16.1'
						Cement/Bentonite Grout	16.1 - 2.0'
						Cement Grout	2.0 - 0.0'
10							

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK (518) 783-8102	TEST BORING LOG	BORING NO. DGC-4S

PROJECT	GE Auburn
CLIENT	General Electric
DRILLING CONTRACTOR	CATOH Environmental Companies, Inc.
PURPOSE	Subsurface Investigation/Monitoring Well Installation

SHEET	1 OF 2
JOB NO.	2092-3-4926
ELEVATION	GR = 638.6'
DATUM	MSL
DATE STARTED	12-31-86
DATE FINISHED	12-31-86
DRILLER	Denny Barrows
INSPECTOR	Walter O. Howard

GROUNDWATER					CASING	SAMPLE	CORE
DATE	TIME	DEPTH	CASING	TYPE	HSA	SS	
				DIAMETER	4¼" ID	2"	
				WEIGHT		140#	
				FALL		30"	

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-1	3	CL		Br $&C; s rts	Rec=1.5' Damp
			5				
			5				
			6				
		S-2	6	CL		Dk Br Cy$; lyr lt br $ .1' thick Dark Brown SILT & CLAY (GLACIO-LACUSTRINE)	Rec=1.6' Damp
			9				
			15				
			15				
		S-3	8	CL		Dk Br $yC; m G fgmt in spoon tip	Rec=1.2' Damp
			12				
5			15	GC			Cobble at 6.0-6.3'
			14				
		S-4	7	GC		Br Cy$ s(+), cmf S, l(+) cmf G; t Or $	Rec=1.1' WET
			11				
			15				
			31				
		S-5	16	GC		Same; t Cbl fgmts; t Dk rd f S Brown CLAYEY SILT and(+) coarse to fine Sand, some(-) coarse(-) to fine(+) Gravel (GLACIAL TILL)	Rec=1.0' Moist
			76				
			41				
10			48				

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK	TEST BORING LOG	BORING NO. DGC-4S
PROJECT GE Auburn		SHEET 2 OF 2
CLIENT General Electric		JOB NO 2092-3-4926

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-6	19 21 26 31	GC		Br Cy$ S(+), cmf S, l(+) cmf G	Rec=1.2' WET
		S-7	76 72 81 39	GC		Br c(-)mf(+)S, a Cy$, s c(-)mf(+)G; cbl fgmt .3' thick; lyr $yC .25' thk @ bottom of spoon	Rec=1.4' Damp
15		S-8	49 100/.3			Same; no lyrs Bedrock at 14.8'	Rec=.4' Damp
						T.D. = 14.8'	Spoon and auger ref @ 14.8'
						WELL CONSTRUCTION	
						Lower Bentonite Pellet Seal	14.8' - 13.8'
						Filter Pack	13.8' - 4.5'
						10 Slot Screen	12.8' - 6.0'
						Upper Bentonite Pellet Seal	4.5' - 3.2'
						Cement Grout	3.2' - 0.0'

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK	TEST BORING LOG	BORING NO. DGC-5B
PROJECT GE Auburn		SHEET 2 OF 2
CLIENT General Electric		JOB NO. 2092-3-4926

DEPTH FT.	CASING BLOWS	SAMPLE NO.	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-6	100/.5			ROCK FRAGMENT Weathered Bedrock @ 10.5' Fresh Bedrock @ 13.0' T.D. = 23.2'	Rec=.05' WET Bedrock fragment in spoon tip. Spoon and auger refusal at 10.5' Drilling with air from 10.5' to 13.0' Size of rock chips being blown from boring indicates weathered bedrock zone.
15						WELL CONSTRUCTION	
						Filter Pack	23.2' - 12.0'
						10 Slot Screen	23.2' - 13.3'
						Bentonite Pellets Seal	12.0' - 9.9'
						Cement/Bentonite Grout	9.9' - 1.5'
						Cement Grout	1.5' - 0.0'

DUNN GEOSCIENCE CORPORATION LATHAM, NEW YORK (518) 783-8102	TEST BORING LOG	BORING NO. DGC-5B

PROJECT GE Auburn	SHEET 1 OF 2
CLIENT General Electric	JOB NO. 2092-3-4926
DRILLING CONTRACTOR CATOH Environmental Companies, Inc.	ELEVATION GR = 637.5'
PURPOSE Subsurface Investigation/Monitoring Well Installation	DATUM MSL

GROUNDWATER					CASING	SAMPLE	CORE	
DATE	TIME	DEPTH	CASING	TYPE	HSA/FJ	SS	NX	DATE STARTED 1/10/87
				DIAMETER	4¼"/5¼"	2"	2-1/8"ID	DATE FINISHED 1/10/87
				WEIGHT		140#		DRILLER Art Utter
				FALL		30"		INSPECTOR Walter O. Howard

DEPTH FT.	CASING BLOWS	SAMPLE NUMBER	BLOWS ON SAMPLE SPOON PER 6"	UNIFIED CLASSIFICATION	GRAPHIC LOG	IDENTIFICATION	REMARKS
		S-1	3 3 7 8	CL		Br $yC t, mf G; lyr $yC s(+), mf G .2' thick, t rts Brown SILTY CLAY, trace medium to fine Gravel; grading to medium to fine Sand, some clayey silt. (GLACIO-LACUSTRINE/POSS. FILL)	Rec=1.8' Damp/WET
		S-2	14 31 100/.0	CL		Br mfS, s Cy$ Large Cobble	Rec=.1' WET Spoon ref @ 3.0' Augered out cobble frgmnts
5		S-3	14 17 20 9	GC		Br c(-)mf(+)G a, mf(+)S, a(-) Cy$ Brown coarse(-) to fine(+) GRAVEL and (+), coarse to fine(+) Sand, and(-) Clayey Silt. (GLACIAL TILL)	Rec=.6' Moist
		S-4	42 39 36 21	GC		Br cmf G s, mf(+)S, s(-)Cy$	Rec=.5' Cobble at 6.0' Damp
		S-5	25 32 42 22	GC		Br Cy$ S, cmf S, s(-) c(-)mf(+)G	Rec=.5' Damp
10							

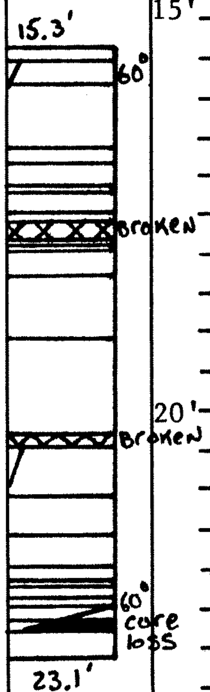
Dunn Geoscience Corporation
Core Log

Client: General Electric
Project: GE Auburn
Location: Auburn, New York

Logged by: K. Phelan/W. Howard Date Logged: 1/12/87
Drilling Co.: CATOH Environmental Companies, Inc.
Driller: Art Utter
Started: 1/10/87 Finished: 1/10/87

Hole: DGC-5B
Depth: 15.3'-23.1'
Elev.: 637.5'
Core Dia.: NX 2 1/8" ID

Member	Zone/Unit	Graphic Log 1" = 2.5'	Depth	Descriptive Log ROCK TYPE: color; grain size; texture; bedding; minerals; remarks, etc.	Angle of Bedding to Core	% Core Recovery
				Top of Weathered Rock = 10.0'; Top of fresh rock = 13.0'		
		15.3'	15'	Top of Core 15.3'		
		60°		LIMESTONE: Dark Gray (N3), fine grained; D-1 to D-2; S-1; F-2 to F-3 Thinly laminated. Minor calcite on 60° joints. Numerous horizontal breaks along bedding planes.	0°	
		broken		Run 1: 15.3' - 23.1'; Recovery = 7.53'; RQD = 63		96.6%
		broken	20'	20.4'-21.1' - Zone of incipient fractures (calcite healed) and pyrite	0°	
		60° core loss 23.1'		Bottom of core at 23.1' Bottom of Boring at 23.2'		
			25'			



Hole No.
Sheet 1 of 1

APPENDIX D

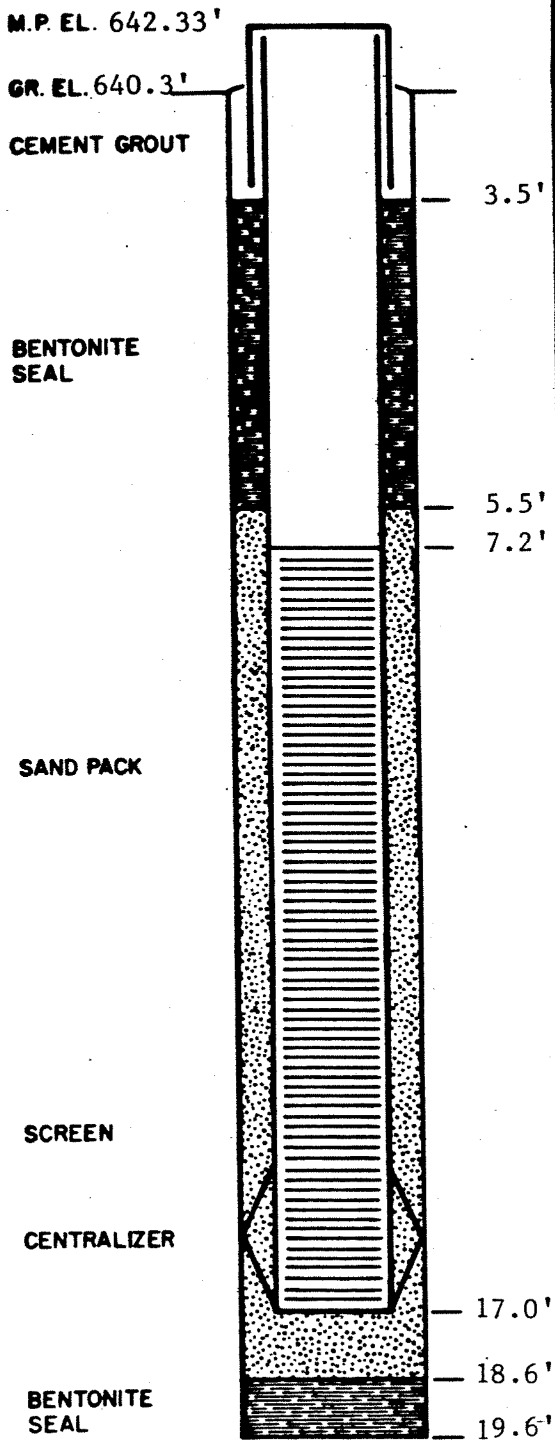
Well Completion Logs

MONITORING WELL COMPLETION LOG   WELL NO. DGC-1S

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 12/29/86
Date Developed 1/13-14/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Companies, Inc

Type of Well Overburden Monitoring (PVC)
Static Water Level 639.89' Date 1/12/87
Measuring Point top of riser
Total Depth of Well 17.0' below grade
Total Depth of Boring 19.6' below grade

Drilling Method
Type HSA Diameter 4¼" ID
Casing same

Sampling Method
Type SS Diameter 2"
Weight 140# Fall 30"
Interval continuous

Riser Pipe Left in Place
Material PVC Diameter 2"
Length 9.3 Joint Type Flush

Screen
Material PVC Diameter 2"
Slot Size 10 Interval 7.2'-17.0'
Stratigraphic Unit Screened glacial till

Filter Pack
Sand Grade 0 Gravel ____ Natural ____
Amount 3½ bags Interval 5.5'-18.6'

Seal(s)
Type Pellets Interval 18.6'-19.6'
Type Pellets Interval 3.5'-5.5'
Type ____ Interval ____

Locking Casing Yes ☒ No ☐

Notes:

Centralizer set at bottom of screen
Bedrock at 19.6'

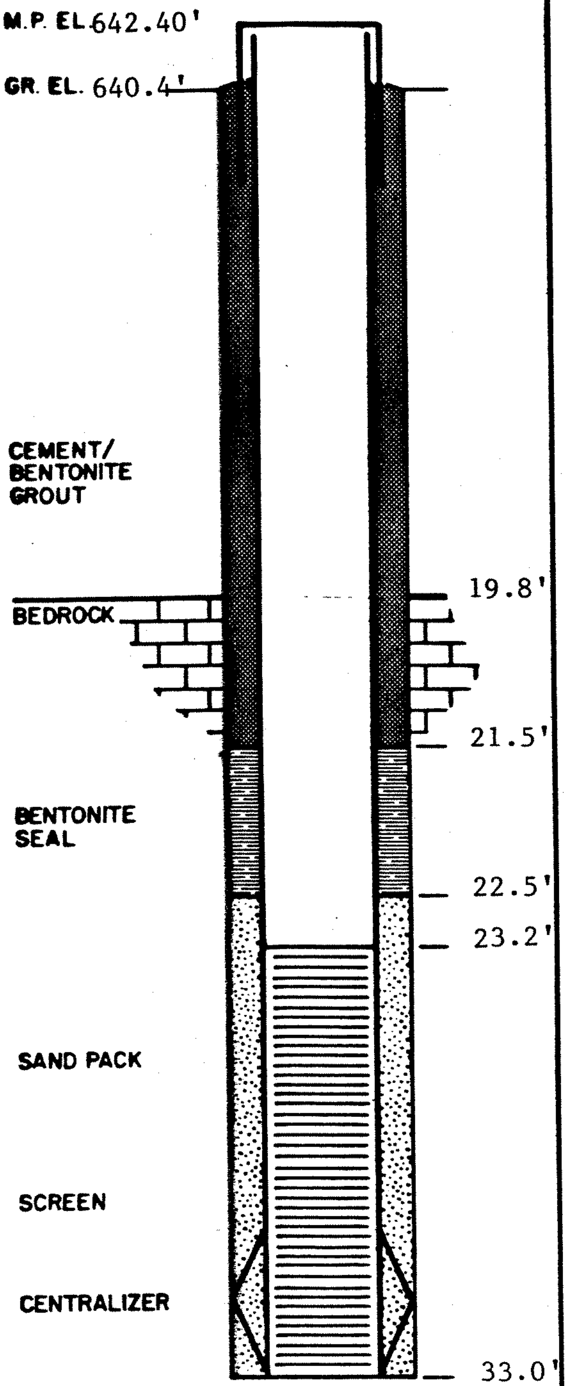
MONITORING WELL COMPLETION LOG

WELL NO. DGC-1B

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 1/6-8/87
Date Developed 1/13/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Cos., Inc.

Type of Well Bedrock Monitoring (PVC)
Static Water Level 631.63' **Date** 1/12/87
Measuring Point top of riser
Total Depth of Well 33.0' below grade.
Total Depth of Boring 34.0' below grade

Drilling Method
- **Type** Air Rotary **Diameter** 4½ OD
- **Casing** 5½" OD Flush joing casing to 28.9'

Sampling Method
- **Type** No sampling **Diameter**
- **Weight** **Fall**
- **Interval**

Riser Pipe Left in Place
- **Material** PVC **Diameter** 2"
- **Length** 25.2' **Joint Type** Flush

Screen
- **Material** PVC **Diameter** 2"
- **Slot Size** 10 **Interval** 23.2'-33.0'
- **Stratigraphic Unit Screened** Onodaga Limestone

Filter Pack
- **Sand** Grade 0 **Gravel** **Natural**
- **Amount** **Interval** 22.5'-33.0'

Seal(s)
- **Type** Bentonite Pellet **Interval** 21.5'-22.5'
- **Type** Cement **Interval**
- **Type** Bentonite Grout **Interval** Surface-21.5'

Locking Casing Yes ☒ No ☐

Notes:

1.0' of Limestone debris washed into bottom of boring
Weathered Bedrock at 19.8'
Fresh Bedrock at 24.0'

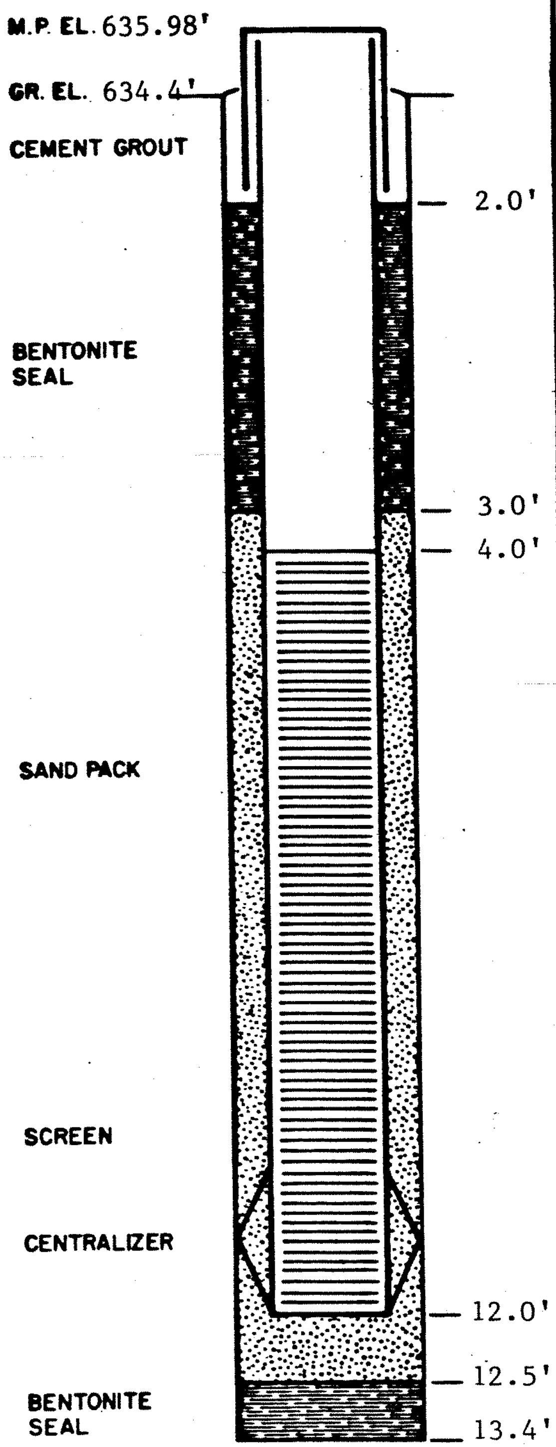
MONITORING WELL COMPLETION LOG

WELL NO. DGC-2S

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 12/30/86
Date Developed 1/14/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Cos., Inc.

Type of Well Overburden Monitoring (PVC)
Static Water Level 633.5' **Date** 1/12/87
Measuring Point top of riser
Total Depth of Well 12.0' below grade
Total Depth of Boring 13.4' below grade

Drilling Method
Type HSA Diameter 4¼" ID
Casing same

Sampling Method
Type SS Diameter 2"
Weight 140# Fall 30"
Interval continuous

Riser Pipe Left in Place
Material PVC Diameter 2"
Length 5.6' Joint Type Flush

Screen
Material PVC Diameter 2"
Slot Size 10 Interval 4.0'-12.0'
Stratigraphic Unit Screened glacial till/glacio-lacustrine

Filter Pack
Sand Grade 0 Gravel ____ Natural ____
Amount 2 bags Interval 3.0'-12.5'

Seal(s)
Type Pellets Interval 12.5'-13.4'
Type Pellets Interval 2.0'-3.0'
Type ____ Interval ____

Locking Casing Yes ☒ No ☐

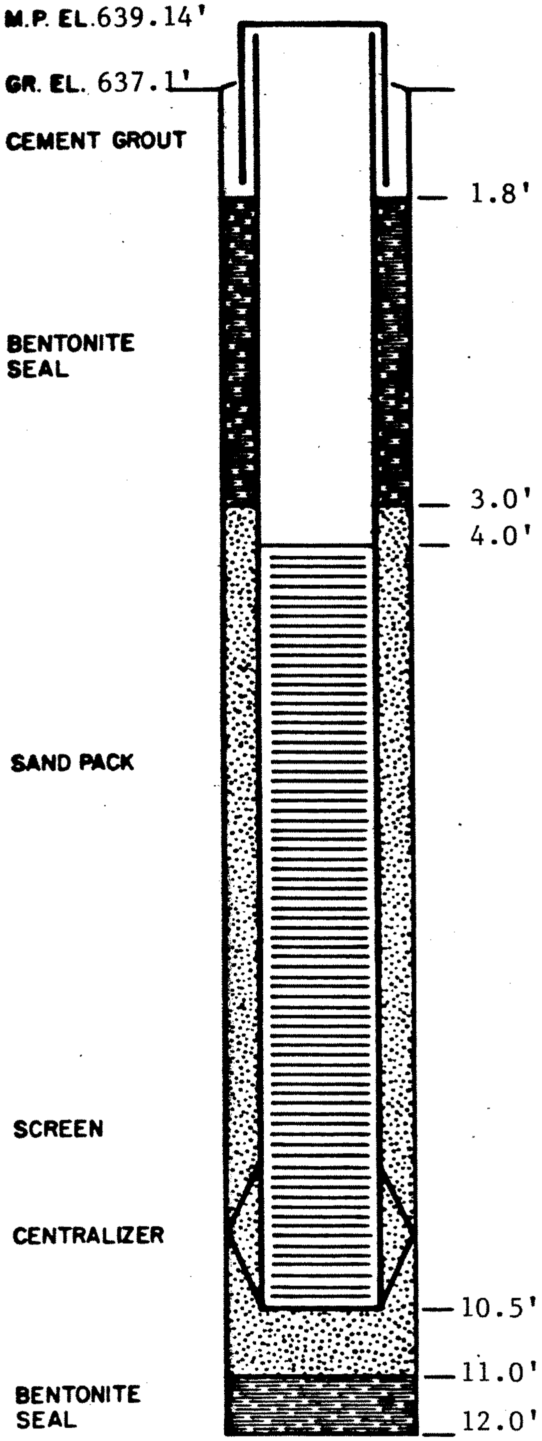
Notes:
Centralizer set at bottom of screen
Bedrock at 13.4'

MONITORING WELL COMPLETION LOG WELL NO. DGC-3S

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project: GE Auburn
Client: General Electric
Project No. 2092-3-4926
Date Drilled: 12/31/86
Date Developed: 1/13-14/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector: Walter O. Howard
Drilling Contractor: CATOH Environmental Cos., Inc.

Type of Well: Overburden Monitoring (PVC)
Static Water Level: 635.45' Date: 1/12/87
Measuring Point: top of riser
Total Depth of Well: 10.5' below grade
Total Depth of Boring: 12.0' below grade

Drilling Method
Type: HSA Diameter: 4¼"
Casing: same

Sampling Method
Type: SS Diameter: 2"
Weight: 140# Fall: 30"
Interval: continuous

Riser Pipe Left in Place
Material: PVC Diameter: 2"
Length: 6.0' Joint Type: Flush

Screen
Material: PVC Diameter: 2"
Slot Size: 10 Interval: 4.0'-10.5'
Stratigraphic Unit Screened: glaciolacustrine

Filter Pack
Sand: Grade 0 Gravel: ___ Natural: ___
Amount: 2½ bags Interval: 3.0'-11.0'

Seal(s)
Type: Pellets Interval: 11.0'-12.0'
Type: Pellets Interval: 1.8'-3.0'
Type: ___ Interval: ___

Locking Casing Yes ☒ No ☐

Notes:
Centralizer placed at bottom of screen
Bedrock at 12.0'

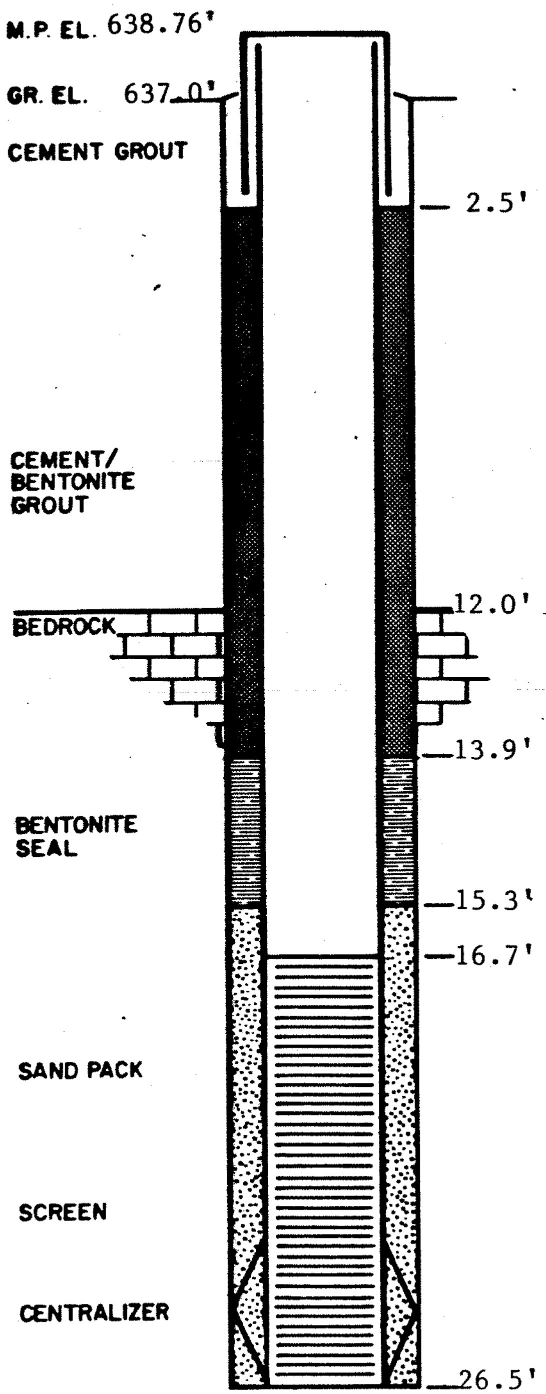
MONITORING WELL COMPLETION LOG

WELL NO. DGC-3B

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 1/9/87
Date Developed 1/13/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Cos., Inc.

Type of Well Bedrock Monitoring (PVC)
Static Water Level 634.9' **Date** 1/12/87
Measuring Point top of riser
Total Depth of Well 26.5' below grade
Total Depth of Boring 26.5' below grade

Drilling Method
- **Type** Air Rotary **Diameter** 4½" ID
- **Casing** 5½" OD Flush joint casing to 14.6'

Sampling Method
- **Type** No sampling **Diameter**
- **Weight** **Fall**
- **Interval**

Riser Pipe Left in Place
- **Material** PVC **Diameter** 2"
- **Length** 18.5' **Joint Type** Flush

Screen
- **Material** PVC **Diameter** 2"
- **Slot Size** 10 **Interval** 16.7'-26.5'
- **Stratigraphic Unit Screened** Onondaga Limestone

Filter Pack
- **Sand** Grade 0 **Gravel** **Natural**
- **Amount** **Interval** 15.3'-26.5'

Seal(s)
- **Type** Bentonite Pellet **Interval** 13.9'-15.3'
- **Type** Cement **Interval**
- **Type** Bentonite Grout **Interval** 2.5'-13.9'

Locking Casing Yes ☒ No ☐

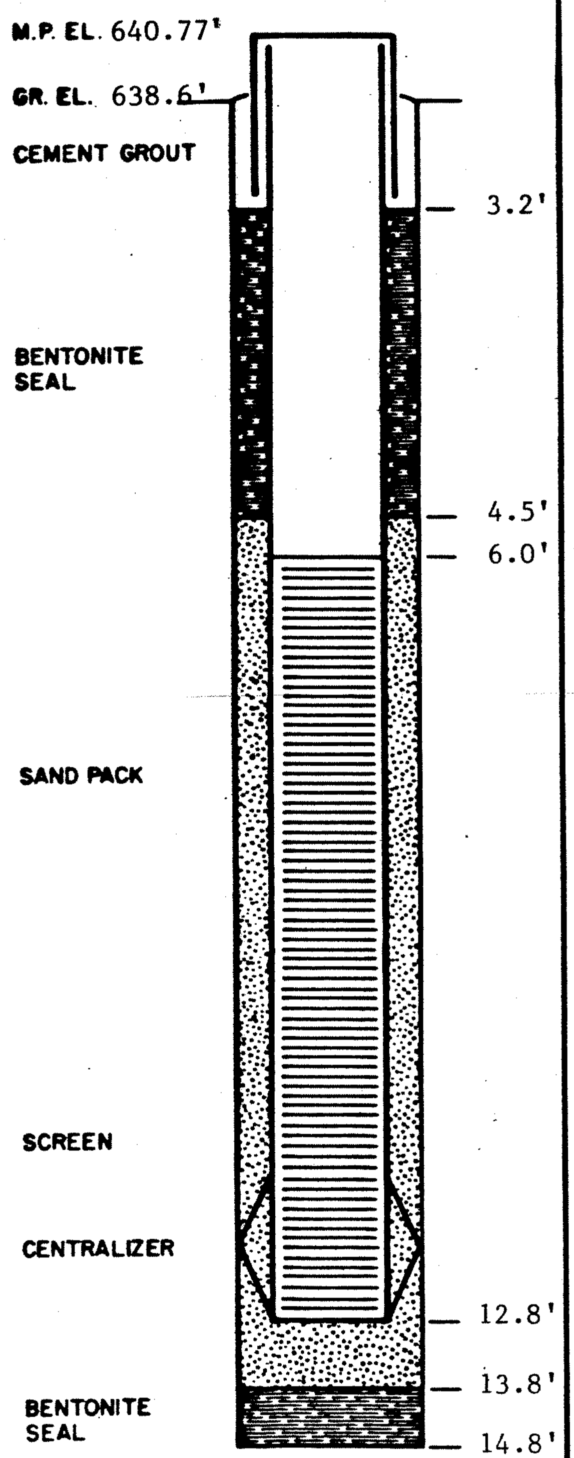
Notes:

MONITORING WELL COMPLETION LOG   WELL NO. DGC-4S

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 12/31/86
Date Developed 1/12-14/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Cos., Inc.

Type of Well Overburden Monitoring (PVC)
Static Water Level 634.72' **Date** 1/12/87
Measuring Point top of riser
Total Depth of Well 12.8' below grade
Total Depth of Boring 14.8' below grade

Drilling Method
Type HSA Diameter 4¼"
Casing same

Sampling Method
Type SS Diameter 2"
Weight 140# Fall 30"
Interval continuous

Riser Pipe Left in Place
Material PVC Diameter 2"
Length 8.0' Joint Type Flush

Screen
Material PVC Diameter 2"
Slot Size 10 Interval 6.0'-12.8'
Stratigraphic Unit Screened glacial till

Filter Pack
Sand Grade 0 Gravel ___ Natural ___
Amount 2½ bags Interval 4.5'-13.8'

Seal(s)
Type Pellets Interval 13.8'-14.8'
Type Pellets Interval 3.2'-4.5'
Type ___ Interval ___

Locking Casing Yes ☒ No ☐

Notes:
Centralizer placed at bottom of screen
Bedrock at 14.8'

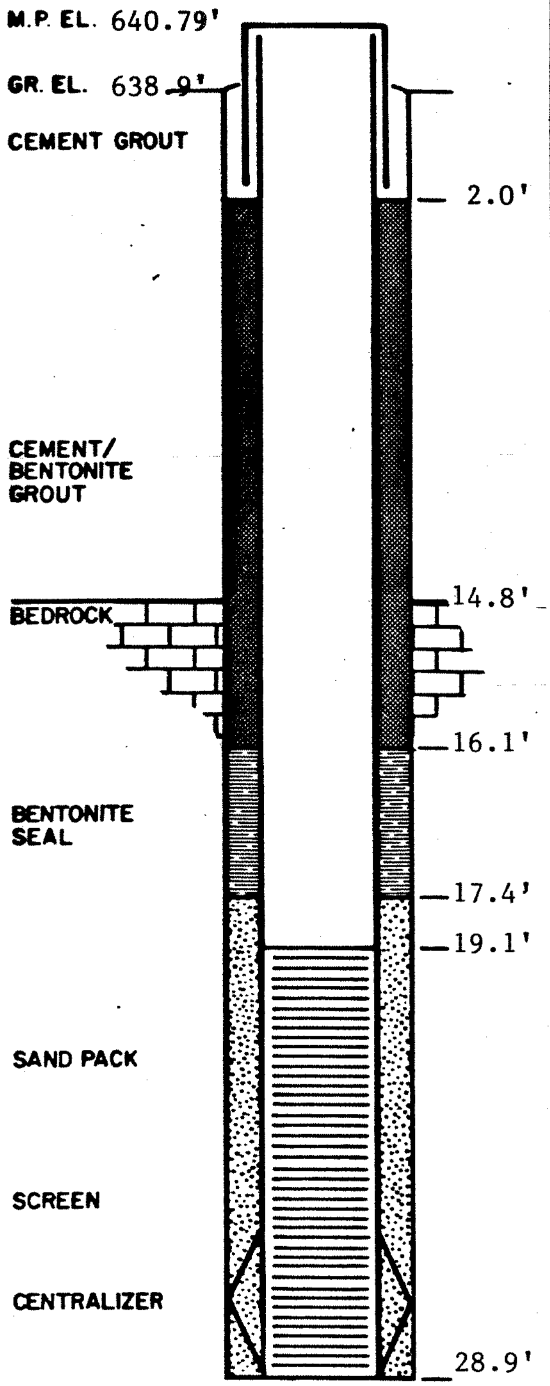
MONITORING WELL COMPLETION LOG

WELL NO. DGC-4B

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 1/5-6/87
Date Developed 1/12/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Cos., Inc.

Type of Well Bedrock Monitoring (PVC)
Static Water Level 633.55' **Date** 1/12/87
Measuring Point top of riser
Total Depth of Well 28.9' below grade
Total Depth of Boring 28.9' below grade

Drilling Method
Type Air Rotary **Diameter** 4½" OD
Casing 5¼" OD Flush joing casing to 16.0'

Sampling Method
Type No sampling **Diameter**
Weight **Fall**
Interval

Riser Pipe Left in Place
Material PVC **Diameter** 2"
Length 21.0' **Joint Type** Flush

Screen
Material PVC **Diameter** 2"
Slot Size 10 **Interval** 19.1'-28.9'
Stratigraphic Unit Screened Onondaga Limestone

Filter Pack
Sand Grade 0 **Gravel** **Natural**
Amount **Interval** 17.4'-28.9'

Seal(s)
Type Bentonite Pellets **Interval** 16.1'-17.4'
Type Cement **Interval**
Type Bentonite Grout **Interval** 2.0'-16.1'
Locking Casing Yes ☒ No ☐
Notes:

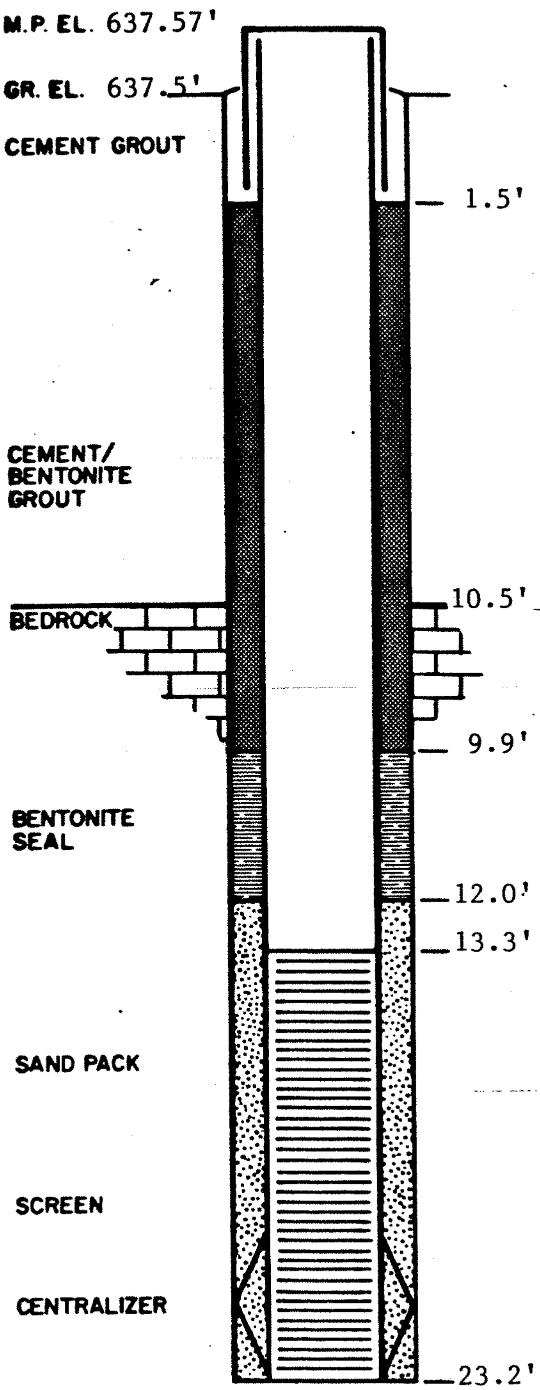
MONITORING WELL COMPLETION LOG

WELL NO. DGC-5B

DUNN GEOSCIENCE CORPORATION
5 Northway Lane, North
Latham, New York 12110
(518) 783-8102

Project GE Auburn
Client General Electric
Project No. 2092-3-4926
Date Drilled 1/10/87
Date Developed 1/12/87

WELL CONSTRUCTION DETAIL



NOT TO SCALE

Inspector Walter O. Howard
Drilling Contractor CATOH Environmental Cos., Inc.

Type of Well Bedrock Monitoring (PVC)
Static Water Level flowing **Date** 1/12/87
Measuring Point top of riser
Total Depth of Well 23.2' below grade
Total Depth of Boring 23.2' below grade

Drilling Method
- **Type** Air Rotary/Core **Diameter** 4½"
- **Casing** Augered to 10.5' Removed Augers 5¼" OD Flush joing casing to 14.8'

Sampling Method
- **Type** Split Spoon **Diameter** 2"
- **Weight** 140# **Fall** 30"
- **Interval** continuous

Riser Pipe Left in Place
- **Material** PVC **Diameter** 2"
- **Length** 13.4' **Joint Type** Flush

Screen
- **Material** PVC **Diameter** 2"
- **Slot Size** 10 **Interval** 13.3'-23.2'
- **Stratigraphic Unit Screened** Onondaga Limestone

Filter Pack
- **Sand** Grade 0 **Gravel** ____ **Natural** ____
- **Amount** ____ **Interval** 12.0'-23.2'

Seal(s)
- **Type** Bentonite Pellet **Interval** 9.9'-12.0'
- **Type** Cement **Interval** ____
- **Type** Bentonite Grout **Interval** 1.5'-9.9'

Locking Casing Yes ☒ No ☐

Notes:
Weathered Bedrock at 10.5'
Fresh Bedrock at 13.0'
Installed curb box instead of PROTECTIVE CASING

APPENDIX E

Hydraulic Conductivity Results

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-19

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 13.10 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 31.50
INITIAL DEPTH/PRES. = 34.90
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	34.9000	0.00000	-0.10201	0.10201
23.0000	35.1000	-0.08004	-0.11409	0.03483
51.0000	35.2000	-0.12260	-0.13053	0.00793
78.0000	35.3000	-0.16705	-0.14563	-0.02142
120.0000	35.4000	-0.21357	-0.17359	-0.03998
1[illegible]3.0000	35.5000	-0.26236	-0.20714	-0.05522
318.0000	35.6000	-0.31366	-0.27983	-0.03382
463.0000	35.8000	-0.42488	-0.36371	-0.06117
588.0000	35.8000	-0.49468	-0.43091	0.00593
708.0000	35.9000	-0.4355[illegible]	-0.47[illegible]	0.01240
888.0000	36.0000	-0.55[illegible]	-0.5925[illegible]	0.04052

B0 = -0.1020
B1 = -0.0336
R-SQUARED = 0.9240

BASIC TIME LAG = [illegible] SECONDS

HYDRAULIC CONDUCTIVITY = 1.[illegible]E-05 CM/SEC
5.[illegible]E-02 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 13.10 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 37.50
INITIAL DEPTH/PRES. = 34.90
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	34.9000
23.0000	35.1000
51.0000	35.2000
78.0000	35.3000
128.0000	35.4000
188.0000	35.5000
318.0000	35.6000
468.0000	35.8000
588.0000	35.8000
708.0000	35.9000
888.0000	36.0000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = 1.032E-04 CM/SEC = 2.926E-01 FT/DAY
K(1, 3) = 7.130E-05 CM/SEC = 2.021E-01 FT/DAY
K(1, 4) = 6.352E-05 CM/SEC = 1.801E-01 FT/DAY
K(1, 5) = 4.94[illegible]E-05 CM/SEC = 1.40[illegible]E-01 FT/DAY
K(1, 6) = 4.137E-05 CM/SEC = 1.173E-01 FT/DAY
K(1, 7) = 2.925E-05 CM/SEC = 8.293E-02 FT/DAY
K(1, 8) = 2.603E-05 CM/SEC = 7.38[illegible]E-02 FT/DAY
K(1, 9) = 2.143E-05 CM/SEC = 6.075E-02 FT/DAY
K(1,10) = 2.074E-05 CM/SEC = 5.[illegible]E-02 FT/DAY
K(1,11) = 1.837E-05 CM/SEC = 5.208E-02 FT/DAY
K(2, 3) = [illegible]
K(2, 4) = 4.693E-05 CM/SEC = 1.330E-01 FT/DAY
K(2, 5) = 3.762E-05 CM/SEC = 1.066E-01 FT/DAY
K(2, 6) = 3.277E-05 CM/SEC = 9.290E-02 FT/DAY
K(2, 7) = 2.349E-05 CM/SEC = 6.6[illegible]E-02 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 13.10 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 37.40
INITIAL DEPTH/PRES. = 40.60
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	40.6000
8.0000	40.2000
17.0000	40.1000
25.0000	40.0000
35.0000	39.9000
50.0000	39.8000
62.0000	39.7000
75.0000	39.6000
88.0000	39.5000
101.0000	39.4000
120.0000	39.3000
150.0000	39.1000
180.0000	38.9000
240.0000	38.7000
300.0000	38.5000
420.0000	38.1000
600.0000	37.8000
780.0000	37.6000
900.0000	37.5000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, [illegible]) = 4.[illegible]E-0[illegible] [illegible] = 1.403E+00 FT/DAY
[illegible] = [illegible] = [illegible].402E-01 FT/DAY
[illegible] = [illegible] = [illegible]E-01 FT/DAY
[illegible] = [illegible] = 8.[illegible]E-01 FT/DAY
K(1, [illegible]) = 1.[illegible]E-0[illegible] CM/SEC = 4.[illegible]E-01 FT/DAY
K(1, [illegible]) = 1.[illegible]E-0[illegible] CM/SEC = [illegible].478E-01 FT/DAY
K(1, [illegible]) = 1.[illegible]E-04 CM/SEC = 4.200E-01 FT/DAY

```
K( 2,11) =  1.612E-05 CM/SEC =  4.568E-02 FT/DAY
K( 3, 4) =  4.883E-05 CM/SEC =  1.384E-01 FT/DAY
K( 3, 5) =  3.504E-05 CM/SEC =  9.933E-02 FT/DAY
K( 3, 6) =  3.026E-05 CM/SEC =  8.577E-02 FT/DAY
K( 3, 7) =  2.122E-05 CM/SEC =  6.016E-02 FT/DAY
K( 3, 8) =  2.150E-05 CM/SEC =  6.094E-02 FT/DAY
K( 3, 9) =  1.670E-05 CM/SEC =  4.733E-02 FT/DAY
K( 3,10) =  1.638E-05 CM/SEC =  4.644E-02 FT/DAY
K( 3,11) =  1.515E-05 CM/SEC =  4.294E-02 FT/DAY
K( 4, 5) =  2.760E-05 CM/SEC =  7.822E-02 FT/DAY
K( 4, 6) =  2.570E-05 CM/SEC =  7.285E-02 FT/DAY
K( 4, 7) =  1.812E-05 CM/SEC =  5.136E-02 FT/DAY
K( 4, 8) =  1.961E-05 CM/SEC =  5.558E-02 FT/DAY
K( 4, 9) =  1.499E-05 CM/SEC =  4.250E-02 FT/DAY
K( 4,10) =  1.499E-05 CM/SEC =  4.250E-02 FT/DAY
K( 4,11) =  1.402E-05 CM/SEC =  3.975E-02 FT/DAY
K( 5, 6) =  2.412E-05 CM/SEC =  6.837E-02 FT/DAY
K( 5, 7) =  1.562E-05 CM/SEC =  4.429E-02 FT/DAY
K( 5, 8) =  1.843E-05 CM/SEC =  5.225E-02 FT/DAY
K( 5, 9) =  1.362E-05 CM/SEC =  3.862E-02 FT/DAY
K( 5,10) =  1.391E-05 CM/SEC =  3.942E-02 FT/DAY
K( 5,11) =  1.313E-05 CM/SEC =  3.722E-02 FT/DAY
K( 6, 7) =  1.170E-05 CM/SEC =  3.317E-02 FT/DAY
K( 6, 8) =  1.721E-05 CM/SEC =  4.880E-02 FT/DAY
K( 6, 9) =  1.205E-05 CM/SEC =  3.416E-02 FT/DAY
K( 6,10) =  1.273E-05 CM/SEC =  3.608E-02 FT/DAY
K( 6,11) =  1.219E-05 CM/SEC =  3.455E-02 FT/DAY
K( 7, 8) =  2.199E-05 CM/SEC =  6.234E-02 FT/DAY
K( 7, 9) =  1.222E-05 CM/SEC =  3.463E-02 FT/DAY
K( 7,10) =  1.307E-05 CM/SEC =  3.705E-02 FT/DAY
K( 7,11) =  1.230E-05 CM/SEC =  3.487E-02 FT/DAY
K( 8, 9) =  0.000E-01 CM/SEC =  0.000E-01 FT/DAY
K( 8,10) =  7.492E-06 CM/SEC =  2.124E-02 FT/DAY
K( 8,11) =  8.839E-06 CM/SEC =  2.505E-02 FT/DAY
K( 9,10) =  1.498E-05 CM/SEC =  4.248E-02 FT/DAY
K( 9,11) =  1.237E-05 CM/SEC =  3.508E-02 FT/DAY
K(10,11) =  1.063E-05 CM/SEC =  3.014E-02 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  2.409E-05 CM/SEC
                                  6.827E-02 FT/DAY
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```
K( 1,12) =  1.251E-04 CM/SEC =  3.545E-01 FT/DAY
K( 1,13) =  1.248E-04 CM/SEC =  3.539E-01 FT/DAY
K( 1,14) =  1.113E-04 CM/SEC =  3.156E-01 FT/DAY
K( 1,15) =  1.056E-04 CM/SEC =  2.993E-01 FT/DAY
K( 1,16) =  1.073E-04 CM/SEC =  3.042E-01 FT/DAY
K( 1,17) =  1.028E-04 CM/SEC =  2.914E-01 FT/DAY
K( 1,18) =  1.054E-04 CM/SEC =  2.989E-01 FT/DAY
K( 1,19) =  1.142E-04 CM/SEC =  3.238E-01 FT/DAY
K( 2, 3) =  1.199E-04 CM/SEC =  3.397E-01 FT/DAY
K( 2, 4) =  1.293E-04 CM/SEC =  3.665E-01 FT/DAY
K( 2, 5) =  1.245E-04 CM/SEC =  3.529E-01 FT/DAY
K( 2, 6) =  1.089E-04 CM/SEC =  3.086E-01 FT/DAY
K( 2, 7) =  1.080E-04 CM/SEC =  3.063E-01 FT/DAY
K( 2, 8) =  1.068E-04 CM/SEC =  3.026E-01 FT/DAY
K( 2, 9) =  1.067E-04 CM/SEC =  3.023E-01 FT/DAY
K( 2,10) =  1.073E-04 CM/SEC =  3.042E-01 FT/DAY
K( 2,11) =  1.027E-04 CM/SEC =  2.911E-01 FT/DAY
K( 2,12) =  1.042E-04 CM/SEC =  2.954E-01 FT/DAY
K( 2,13) =  1.076E-04 CM/SEC =  3.051E-01 FT/DAY
K( 2,14) =  9.809E-05 CM/SEC =  2.780E-01 FT/DAY
K( 2,15) =  9.490E-05 CM/SEC =  2.690E-01 FT/DAY
K( 2,16) =  9.980E-05 CM/SEC =  2.829E-01 FT/DAY
K( 2,17) =  9.749E-05 CM/SEC =  2.764E-01 FT/DAY
K( 2,18) =  1.014E-04 CM/SEC =  2.874E-01 FT/DAY
K( 2,19) =  1.108E-04 CM/SEC =  3.141E-01 FT/DAY
K( 3, 4) =  1.399E-04 CM/SEC =  3.966E-01 FT/DAY
K( 3, 5) =  1.268E-04 CM/SEC =  3.595E-01 FT/DAY
K( 3, 6) =  1.059E-04 CM/SEC =  3.001E-01 FT/DAY
K( 3, 7) =  1.057E-04 CM/SEC =  2.996E-01 FT/DAY
K( 3, 8) =  1.047E-04 CM/SEC =  2.969E-01 FT/DAY
K( 3, 9) =  1.050E-04 CM/SEC =  2.976E-01 FT/DAY
K( 3,10) =  1.060E-04 CM/SEC =  3.004E-01 FT/DAY
K( 3,11) =  1.012E-04 CM/SEC =  2.868E-01 FT/DAY
K( 3,12) =  1.032E-04 CM/SEC =  2.924E-01 FT/DAY
K( 3,13) =  1.070E-04 CM/SEC =  3.032E-01 FT/DAY
K( 3,14) =  9.721E-05 CM/SEC =  2.756E-01 FT/DAY
K( 3,15) =  9.411E-05 CM/SEC =  2.668E-01 FT/DAY
K( 3,16) =  9.935E-05 CM/SEC =  2.816E-01 FT/DAY
K( 3,17) =  9.715E-05 CM/SEC =  2.754E-01 FT/DAY
K( 3,18) =  1.012E-04 CM/SEC =  2.868E-01 FT/DAY
K( 3,19) =  1.107E-04 CM/SEC =  3.138E-01 FT/DAY
K( 4, 5) =  1.163E-04 CM/SEC =  3.297E-01 FT/DAY
K( 4, 6) =  9.496E-05 CM/SEC =  2.692E-01 FT/DAY
K( 4, 7) =  9.828E-05 CM/SEC =  2.786E-01 FT/DAY
K( 4, 8) =  9.909E-05 CM/SEC =  2.809E-01 FT/DAY
K( 4, 9) =  1.005E-04 CM/SEC =  2.850E-01 FT/DAY
K( 4,10) =  1.024E-04 CM/SEC =  2.902E-01 FT/DAY
K( 4,11) =  9.793E-05 CM/SEC =  2.776E-01 FT/DAY
K( 4,12) =  1.008E-04 CM/SEC =  2.858E-01 FT/DAY
K( 4,13) =  1.053E-04 CM/SEC =  2.984E-01 FT/DAY
K( 4,14) =  9.562E-05 CM/SEC =  2.710E-01 FT/DAY
K( 4,15) =  9.277E-05 CM/SEC =  2.630E-01 FT/DAY
K( 4,16) =  9.853E-05 CM/SEC =  2.793E-01 FT/DAY
K( 4,17) =  9.655E-05 CM/SEC =  2.737E-01 FT/DAY
K( 4,18) =  1.008E-04 CM/SEC =  2.856E-01 FT/DAY
K( 4,19) =  1.104E-04 CM/SEC =  3.131E-01 FT/DAY
K( 5, 6) =  8.072E-05 CM/SEC =  2.288E-01 FT/DAY
K( 5, 7) =  9.159E-05 CM/SEC =  2.596E-01 FT/DAY
K( 5, 8) =  9.479E-05 CM/SEC =  2.687E-01 FT/DAY
K( 5, 9) =  9.757E-05 CM/SEC =  2.766E-01 FT/DAY
K( 5,10) =  1.003E-04 CM/SEC =  2.843E-01 FT/DAY
K( 5,11) =  9.576E-05 CM/SEC =  2.714E-01 FT/DAY
K( 5,12) =  9.947E-05 CM/SEC =  2.820E-01 FT/DAY
K( [illegible]) =  [illegible] CM/SEC =  [illegible] FT/DAY
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K( 5,16) =  9.807E-05 CM/SEC =  2.780E-01 FT/DAY
K( 5,17) =  9.620E-05 CM/SEC =  2.727E-01 FT/DAY
K( 5,18) =  1.006E-04 CM/SEC =  2.850E-01 FT/DAY
K( 5,19) =  1.104E-04 CM/SEC =  3.129E-01 FT/DAY
K( 6, 7) =  1.052E-04 CM/SEC =  2.982E-01 FT/DAY
K( 6, 8) =  1.032E-04 CM/SEC =  2.926E-01 FT/DAY
K( 6, 9) =  1.042E-04 CM/SEC =  2.954E-01 FT/DAY
K( 6,10) =  1.060E-04 CM/SEC =  3.006E-01 FT/DAY
K( 6,11) =  9.898E-05 CM/SEC =  2.806E-01 FT/DAY
K( 6,12) =  1.023E-04 CM/SEC =  2.899E-01 FT/DAY
K( 6,13) =  1.072E-04 CM/SEC =  3.040E-01 FT/DAY
K( 6,14) =  9.571E-05 CM/SEC =  2.713E-01 FT/DAY
K( 6,15) =  9.256E-05 CM/SEC =  2.624E-01 FT/DAY
K( 6,16) =  9.877E-05 CM/SEC =  2.800E-01 FT/DAY
K( 6,17) =  9.662E-05 CM/SEC =  2.739E-01 FT/DAY
K( 6,18) =  1.010E-04 CM/SEC =  2.862E-01 FT/DAY
K( 6,19) =  1.109E-04 CM/SEC =  3.143E-01 FT/DAY
K( 7, 8) =  1.014E-04 CM/SEC =  2.875E-01 FT/DAY
K( 7, 9) =  1.038E-04 CM/SEC =  2.942E-01 FT/DAY
K( 7,10) =  1.063E-04 CM/SEC =  3.013E-01 FT/DAY
K( 7,11) =  9.770E-05 CM/SEC =  2.769E-01 FT/DAY
K( 7,12) =  1.019E-04 CM/SEC =  2.888E-01 FT/DAY
K( 7,13) =  1.074E-04 CM/SEC =  3.045E-01 FT/DAY
K( 7,14) =  9.507E-05 CM/SEC =  2.695E-01 FT/DAY
K( 7,15) =  9.192E-05 CM/SEC =  2.606E-01 FT/DAY
K( 7,16) =  9.855E-05 CM/SEC =  2.794E-01 FT/DAY
K( 7,17) =  9.643E-05 CM/SEC =  2.734E-01 FT/DAY
K( 7,18) =  1.009E-04 CM/SEC =  2.860E-01 FT/DAY
K( 7,19) =  1.110E-04 CM/SEC =  3.146E-01 FT/DAY
K( 8, 9) =  1.061E-04 CM/SEC =  3.009E-01 FT/DAY
K( 8,10) =  1.087E-04 CM/SEC =  3.082E-01 FT/DAY
K( 8,11) =  9.663E-05 CM/SEC =  2.739E-01 FT/DAY
K( 8,12) =  1.020E-04 CM/SEC =  2.890E-01 FT/DAY
K( 8,13) =  1.082E-04 CM/SEC =  3.067E-01 FT/DAY
K( 8,14) =  9.457E-05 CM/SEC =  2.681E-01 FT/DAY
K( 8,15) =  9.137E-05 CM/SEC =  2.590E-01 FT/DAY
K( 8,16) =  9.845E-05 CM/SEC =  2.791E-01 FT/DAY
K( 8,17) =  9.631E-05 CM/SEC =  2.730E-01 FT/DAY
K( 8,18) =  1.009E-04 CM/SEC =  2.860E-01 FT/DAY
K( 8,19) =  1.111E-04 CM/SEC =  3.150E-01 FT/DAY
K( 9,10) =  1.113E-04 CM/SEC =  3.155E-01 FT/DAY
K( 9,11) =  9.276E-05 CM/SEC =  2.630E-01 FT/DAY
K( 9,12) =  1.011E-04 CM/SEC =  2.865E-01 FT/DAY
K( 9,13) =  1.085E-04 CM/SEC =  3.075E-01 FT/DAY
K( 9,14) =  9.358E-05 CM/SEC =  2.653E-01 FT/DAY
K( 9,15) =  9.047E-05 CM/SEC =  2.564E-01 FT/DAY
K( 9,16) =  9.815E-05 CM/SEC =  2.782E-01 FT/DAY
K( 9,17) =  9.606E-05 CM/SEC =  2.723E-01 FT/DAY
K( 9,18) =  1.008E-04 CM/SEC =  2.857E-01 FT/DAY
K( 9,19) =  1.112E-04 CM/SEC =  3.152E-01 FT/DAY
K(10,11) =  8.007E-05 CM/SEC =  2.270E-01 FT/DAY
K(10,12) =  9.837E-05 CM/SEC =  2.789E-01 FT/DAY
K(10,13) =  1.080E-04 CM/SEC =  3.062E-01 FT/DAY
K(10,14) =  9.192E-05 CM/SEC =  2.606E-01 FT/DAY
K(10,15) =  8.910E-05 CM/SEC =  2.526E-01 FT/DAY
K(10,16) =  9.761E-05 CM/SEC =  2.767E-01 FT/DAY
K(10,17) =  9.566E-05 CM/SEC =  2.712E-01 FT/DAY
K(10,18) =  1.006E-04 CM/SEC =  2.851E-01 FT/DAY
K(10,19) =  1.112E-04 CM/SEC =  3.152E-01 FT/DAY
K(11,12) =  1.100E-04 CM/SEC =  3.117E-01 FT/DAY
K(11,13) =  1.169E-04 CM/SEC =  3.312E-01 FT/DAY
K(11,14) =  9.380E-05 CM/SEC =  2.659E-01 FT/DAY
K(11,15) =  9.006E-05 CM/SEC =  2.553E-01 FT/DAY
K(11,16) =  9.872E-05 CM/SEC =  2.798E-01 FT/DAY
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DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 13.10 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 37.40
INITIAL DEPTH/PRES. = 40.60
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	40.6000	0.00000	-0.08794	0.08794
8.0000	40.2000	-0.13353	-0.11625	-0.01729
17.0000	40.1000	-0.16990	-0.14809	-0.02181
25.0000	40.0000	-0.20764	-0.17640	-0.03124
35.0000	39.9000	-0.24686	-0.21179	-0.03507
50.0000	39.8000	-0.28768	-0.26487	-0.02281
62.0000	39.7000	-0.33024	-0.30733	-0.02291
75.0000	39.6000	-0.37469	-0.35333	-0.02136
88.0000	39.5000	-0.42121	-0.39933	-0.02188
101.0000	39.4000	-0.47000	-0.44534	-0.02467
120.0000	39.3000	-0.52130	-0.51257	-0.00873
150.0000	39.1000	-0.63252	-0.61873	-0.01380
180.0000	38.9000	-0.75769	-0.72489	-0.03280
240.0000	38.7000	-0.90079	-0.93720	0.03641
300.0000	38.5000	-1.06784	-1.14952	0.08168
420.0000	38.1000	-1.51983	-1.57415	0.05432
600.0000	37.8000	-2.07945	-2.21110	0.13165
780.0000	37.6000	-2.77260	-2.84804	0.07544
900.0000	37.5000	-3.46575	-3.27267	-0.19308

B0 = -0.0879
M1 = -0.2123
R-SQUARED = 0.9947

BASIC TIME LAG = 257.74[illegible] SECONDS

HYDRAULIC CONDUCTIVITY = 1.151E-04 CM/SEC
3.262E-01 FT/DAY

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K(11,18) =  1.012E-04 CM/SEC =  2.868E-01 FT/DAY
K(11,19) =  1.120E-04 CM/SEC =  3.174E-01 FT/DAY
K(12,13) =  1.237E-04 CM/SEC =  3.508E-01 FT/DAY
K(12,14) =  8.841E-05 CM/SEC =  2.506E-01 FT/DAY
K(12,15) =  8.608E-05 CM/SEC =  2.440E-01 FT/DAY
K(12,16) =  9.747E-05 CM/SEC =  2.763E-01 FT/DAY
K(12,17) =  9.537E-05 CM/SEC =  2.703E-01 FT/DAY
K(12,18) =  1.008E-04 CM/SEC =  2.856E-01 FT/DAY
K(12,19) =  1.120E-04 CM/SEC =  3.176E-01 FT/DAY
K(13,14) =  7.074E-05 CM/SEC =  2.005E-01 FT/DAY
K(13,15) =  7.666E-05 CM/SEC =  2.173E-01 FT/DAY
K(13,16) =  9.419E-05 CM/SEC =  2.670E-01 FT/DAY
K(13,17) =  9.334E-05 CM/SEC =  2.646E-01 FT/DAY
K(13,18) =  9.960E-05 CM/SEC =  2.823E-01 FT/DAY
K(13,19) =  1.116E-04 CM/SEC =  3.162E-01 FT/DAY
K(14,15) =  8.258E-05 CM/SEC =  2.341E-01 FT/DAY
K(14,16) =  1.020E-04 CM/SEC =  2.891E-01 FT/DAY
K(14,17) =  9.711E-05 CM/SEC =  2.753E-01 FT/DAY
K(14,18) =  1.028E-04 CM/SEC =  2.914E-01 FT/DAY
K(14,19) =  1.153E-04 CM/SEC =  3.267E-01 FT/DAY
K(15,16) =  1.117E-04 CM/SEC =  3.167E-01 FT/DAY
K(15,17) =  1.000E-04 CM/SEC =  2.835E-01 FT/DAY
K(15,18) =  1.053E-04 CM/SEC =  2.986E-01 FT/DAY
K(15,19) =  1.185E-04 CM/SEC =  3.360E-01 FT/DAY
K(16,17) =  9.221E-05 CM/SEC =  2.614E-01 FT/DAY
K(16,18) =  1.032E-04 CM/SEC =  2.926E-01 FT/DAY
K(16,19) =  1.202E-04 CM/SEC =  3.408E-01 FT/DAY
K(17,18) =  1.142E-04 CM/SEC =  3.238E-01 FT/DAY
K(17,19) =  1.371E-04 CM/SEC =  3.885E-01 FT/DAY
K(18,19) =  1.713E-04 CM/SEC =  4.856E-01 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  1.093E-04 CM/SEC
                                  3.099E-01 FT/DAY
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DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 10.50 FEET

TEST TYPE: SLUG

DATE OF TEST: 3/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 40.00
INITIAL DEPTH/PRES. = 40.90
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	40.9000	0.00000	-0.02570	0.02570
8.0000	40.5000	-0.58779	-0.41566	-0.17213
16.0000	40.4000	-0.81093	-0.90312	0.09219
24.0000	40.3000	-1.09862	-1.19559	0.09697
32.0000	40.2000	-1.50408	-1.58556	0.08148
42.0000	40.1000	-2.19724	-2.07302	-0.12422

B0 = -0.0257
B1 = -2.9247
R-SQUARED = 0.9757

BASIC TIME LAG = 1[illegible].907 SECONDS

HYDRAULIC CONDUCTIVITY = 1.952E-03 CM/SEC
5.534E-00 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1B

WELL PARAMETERS:	RISER DIAMETER	=	2.00 INCHES
	SCREEN/PACK DIAMETER	=	5.25 INCHES
	SCREEN LENGTH	=	10.50 FEET

TEST TYPE: SLUG

DATE OF TEST: 3-19-87

TEST PARAMETERS:	BASELINE DEPTH/PRES.	=	40.00
	INITIAL DEPTH/PRES.	=	40.90
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
0.0000	40.9000
8.0000	40.5000
18.0000	40.4000
24.0000	40.3000
32.0000	40.2000
42.0000	40.1000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) =	2.867E-03	CM/SEC =	8.127E+00	FT/DAY
K(1, 3) =	1.758E-03	CM/SEC =	4.983E+00	FT/DAY
K(1, 4) =	1.786E-03	CM/SEC =	5.063E+00	FT/DAY
K(1, 5) =	1.834E-03	CM/SEC =	5.199E+00	FT/DAY
K(1, 6) =	2.041E-03	CM/SEC =	5.786E+00	FT/DAY
K(2, 3) =	8.707E-04	CM/SEC =	2.468E+00	FT/DAY
K(2, 4) =	1.246E-03	CM/SEC =	3.531E+00	FT/DAY
K(2, 5) =	1.490E-03	CM/SEC =	4.223E+00	FT/DAY
K(2, 6) =	1.847E-03	CM/SEC =	5.236E+00	FT/DAY
K(3, 4) =	1.871E-03	CM/SEC =	5.303E+00	FT/DAY
K(3, 5) =	1.932E-03	CM/SEC =	5.476E+00	FT/DAY
K(3, 6) =	2.234E-03	CM/SEC =	6.332E+00	FT/DAY
K(4, 5) =	1.978E-03	CM/SEC =	5.606E+00	FT/DAY
K(4, 6) =	2.382E-03	CM/SEC =	6.751E+00	FT/DAY
K(5, 6) =	2.705E-03	CM/SEC =	7.667E+00	FT/DAY

AVERAGE HYDRAULIC CONDUCTIVITY = 1.924E-03 CM/SEC
5.454E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 10.50 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 39.80
INITIAL DEPTH/PRES. = 38.90
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	38.9000	0.00000	-0.13012	0.13012
6.0000	39.0000	-0.11778	-0.20765	0.08987
9.0000	39.1000	-0.25131	-0.24662	-0.00469
17.0000	39.2000	-0.40547	-0.34980	-0.05567
30.0000	39.3000	-0.58778	-0.51779	-0.07000
48.0000	39.4000	-0.81093	-0.75039	-0.06054
69.0000	39.5000	-1.09861	-1.02176	-0.07685
103.0000	39.6000	-1.50407	-1.46112	-0.04295
167.0000	39.7000	-2.19724	-2.28816	0.09092

B0 = -0.1301
B1 = -0.7753
R-SQUARED = 0.9873

BASIC TIME LAG = 67.316 SECONDS

HYDRAULIC CONDUCTIVITY = 5.796E-04 CM/SEC
1.643E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 10.50 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 39.70
INITIAL DEPTH/PRES. = 43.20
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	43.2000	0.00000	-0.15745	0.15745
5.0000	42.2000	-0.33647	-0.26120	-0.07528
11.0000	42.0000	-0.41985	-0.38568	-0.03417
15.0000	41.8000	-0.51083	-0.46868	-0.04215
19.0000	41.6000	-0.61091	-0.55167	-0.05924
24.0000	41.5000	-0.66498	-0.65541	-0.00957
30.0000	41.3000	-0.78276	-0.77990	-0.00286
34.0000	41.1000	-0.91629	-0.86289	-0.05340
39.0000	41.0000	-0.99040	-0.96663	-0.02377
44.0000	40.9000	-1.07044	-1.07037	-0.00007
51.0000	40.8000	-1.15745	-1.21561	0.05815
57.0000	40.6000	-1.35813	-1.34010	-0.01803
65.0000	40.5000	-1.47591	-1.50608	0.03018
71.0000	40.4000	-1.60944	-1.63057	0.02113
78.0000	40.3000	-1.76359	-1.77581	0.01222
84.0000	40.2000	-1.94591	-1.90030	-0.04561
105.0000	40.1000	-2.16906	-2.33601	0.16695
114.0000	40.0000	-2.45674	-2.52274	0.06600
128.0000	39.9000	-2.86220	-2.81321	-0.04899
159.0000	39.8000	-3.55536	-3.45641	-0.09896

B0 = -0.1575
B1 = -1.0440
R-SQUARED = 0.[illegible]4[illegible]

BASIC TIME LAG = 40.604 SECONDS

HYDRAULIC CONDUCTIVITY = 9.6[illegible]E-04 CM/SEC
[illegible] FT/DAY

K(3, 8) =	5.200E-04 CM/SEC =	1.474E+00 FT/DAY
K(3, 9) =	4.806E-04 CM/SEC =	1.362E+00 FT/DAY
K(4, 5) =	5.472E-04 CM/SEC =	1.551E+00 FT/DAY
K(4, 6) =	5.104E-04 CM/SEC =	1.447E+00 FT/DAY
K(4, 7) =	5.201E-04 CM/SEC =	1.474E+00 FT/DAY
K(4, 8) =	4.985E-04 CM/SEC =	1.413E+00 FT/DAY
K(4, 9) =	4.661E-04 CM/SEC =	1.321E+00 FT/DAY
K(5, 6) =	4.837E-04 CM/SEC =	1.371E+00 FT/DAY
K(5, 7) =	5.111E-04 CM/SEC =	1.449E+00 FT/DAY
K(5, 8) =	4.898E-04 CM/SEC =	1.388E+00 FT/DAY
K(5, 9) =	4.584E-04 CM/SEC =	1.299E+00 FT/DAY
K(6, 7) =	5.345E-04 CM/SEC =	1.515E+00 FT/DAY
K(6, 8) =	4.917E-04 CM/SEC =	1.394E+00 FT/DAY
K(6, 9) =	4.546E-04 CM/SEC =	1.289E+00 FT/DAY
K(7, 8) =	4.653E-04 CM/SEC =	1.319E+00 FT/DAY
K(7, 9) =	4.374E-04 CM/SEC =	1.240E+00 FT/DAY
K(8, 9) =	4.226E-04 CM/SEC =	1.198E+00 FT/DAY

AVERAGE HYDRAULIC CONDUCTIVITY = 6.258E-04 CM/SEC
1.774E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1B

WELL PARAMETERS:	RISER DIAMETER	=	2.00 INCHES
	SCREEN/PACK DIAMETER	=	5.25 INCHES
	SCREEN LENGTH	=	10.50 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS:	BASELINE DEPTH/PRES.	=	39.80
	INITIAL DEPTH/PRES.	=	38.90
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
0.0000	38.9000
6.0000	39.0000
9.0000	39.1000
17.0000	39.2000
30.0000	39.3000
48.0000	39.4000
69.0000	39.5000
103.0000	39.6000
167.0000	39.7000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2)	=	7.660E-04	CM/SEC	=	2.171E+00	FT/DAY
K(1, 3)	=	1.090E-03	CM/SEC	=	3.088E+00	FT/DAY
K(1, 4)	=	9.306E-04	CM/SEC	=	2.638E+00	FT/DAY
K(1, 5)	=	7.645E-04	CM/SEC	=	2.167E+00	FT/DAY
K(1, 6)	=	6.592E-04	CM/SEC	=	1.869E+00	FT/DAY
K(1, 7)	=	6.[illegible]3E-04	CM/SEC	=	1.761E+00	FT/DAY
K(1, 8)	=	5.670E-04	CM/SEC	=	1.615E+00	FT/DAY
K(1, 9)	=	5.134E-04	CM/SEC	=	1.455E+00	FT/DAY
K(2, 3)	=	1.737E-03	CM/SEC	=	4.923E+00	FT/DAY
K(2, 4)	=	1.020E-03	CM/SEC	=	2.893E+00	FT/DAY
K(2, 5)	=	7.641E-04	CM/SEC	=	2.166E+00	FT/DAY
K(2, 6)	=	6.440E-04	CM/SEC	=	1.825E+00	FT/DAY
K(2, 7)	=	6.075E-04	CM/SEC	=	1.722E+00	FT/DAY
K(2, 8)	=	5.576E-04	CM/SEC	=	1.581E+00	FT/DAY
K(2, 9)	=	5.040E-04	CM/SEC	=	1.429E+00	FT/DAY
K(3, 4)	=	7.519E-04	CM/SEC	=	2.131E+00	FT/DAY
K(3, 5)	=	6.252E-04	CM/SEC	=	1.772E+00	FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-1B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 10.50 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 39.70
INITIAL DEPTH/PRES. = 43.20
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	43.2000
5.0000	42.2000
11.0000	42.0000
15.0000	41.8000
19.0000	41.6000
24.0000	41.5000
30.0000	41.3000
34.0000	41.1000
37.0000	41.0000
44.0000	40.9000
51.0000	40.8000
57.0000	40.6000
65.0000	40.5000
71.0000	40.4000
78.0000	40.3000
84.0000	40.2000
105.0000	40.1000
114.0000	40.0000
128.0000	39.9000
159.0000	39.8000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = [illegible]E-03 CM/SEC = [illegible]E+00 FT/DAY
K(1, 3) = [illegible] CM/SEC = [illegible]E+00 FT/DAY
K(1, 4) = [illegible]E-03 CM/SEC = 1.767E+00 FT/DAY
K(1, 5) = [illegible]E-03 CM/SEC = 3.556E+00 FT/DAY
K(1, 6) = [illegible]E-03 CM/SEC = [illegible]E+00 FT/DAY
K(1, 7) = [illegible]E-03 CM/SEC = 2.886E+00 FT/DAY

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K( 1,10) =   9.493E-04 CM/SEC =   2.691E+00 FT/DAY
K( 1,11) =   8.855E-04 CM/SEC =   2.510E+00 FT/DAY
K( 1,12) =   9.297E-04 CM/SEC =   2.635E+00 FT/DAY
K( 1,13) =   8.860E-04 CM/SEC =   2.511E+00 FT/DAY
K( 1,14) =   8.845E-04 CM/SEC =   2.507E+00 FT/DAY
K( 1,15) =   8.822E-04 CM/SEC =   2.501E+00 FT/DAY
K( 1,16) =   9.039E-04 CM/SEC =   2.562E+00 FT/DAY
K( 1,17) =   8.060E-04 CM/SEC =   2.285E+00 FT/DAY
K( 1,18) =   8.409E-04 CM/SEC =   2.384E+00 FT/DAY
K( 1,19) =   8.725E-04 CM/SEC =   2.473E+00 FT/DAY
K( 1,20) =   8.725E-04 CM/SEC =   2.473E+00 FT/DAY
K( 2, 3) =   5.422E-04 CM/SEC =   1.537E+00 FT/DAY
K( 2, 4) =   6.803E-04 CM/SEC =   1.928E+00 FT/DAY
K( 2, 5) =   7.649E-04 CM/SEC =   2.168E+00 FT/DAY
K( 2, 6) =   6.746E-04 CM/SEC =   1.912E+00 FT/DAY
K( 2, 7) =   6.966E-04 CM/SEC =   1.974E+00 FT/DAY
K( 2, 8) =   7.801E-04 CM/SEC =   2.211E+00 FT/DAY
K( 2, 9) =   7.505E-04 CM/SEC =   2.127E+00 FT/DAY
K( 2,10) =   7.343E-04 CM/SEC =   2.082E+00 FT/DAY
K( 2,11) =   6.964E-04 CM/SEC =   1.974E+00 FT/DAY
K( 2,12) =   7.666E-04 CM/SEC =   2.173E+00 FT/DAY
K( 2,13) =   7.410E-04 CM/SEC =   2.100E+00 FT/DAY
K( 2,14) =   7.526E-04 CM/SEC =   2.133E+00 FT/DAY
K( 2,15) =   7.628E-04 CM/SEC =   2.162E+00 FT/DAY
K( 2,16) =   7.949E-04 CM/SEC =   2.253E+00 FT/DAY
K( 2,17) =   7.151E-04 CM/SEC =   2.027E+00 FT/DAY
K( 2,18) =   7.590E-04 CM/SEC =   2.152E+00 FT/DAY
K( 2,19) =   8.012E-04 CM/SEC =   2.271E+00 FT/DAY
K( 2,20) =   8.156E-04 CM/SEC =   2.312E+00 FT/DAY
K( 3, 4) =   8.874E-04 CM/SEC =   2.516E+00 FT/DAY
K( 3, 5) =   9.319E-04 CM/SEC =   2.641E+00 FT/DAY
K( 3, 6) =   7.357E-04 CM/SEC =   2.086E+00 FT/DAY
K( 3, 7) =   7.453E-04 CM/SEC =   2.113E+00 FT/DAY
K( 3, 8) =   8.422E-04 CM/SEC =   2.387E+00 FT/DAY
K( 3, 9) =   7.951E-04 CM/SEC =   2.254E+00 FT/DAY
K( 3,10) =   7.[illegible]93E-04 CM/SEC =   2.1[illegible]1E+00 FT/DAY
K( 3,11) =   7.195E-04 CM/SEC =   2.040E+00 FT/DAY
K( 3,12) =   7.959E-04 CM/SEC =   2.256E+00 FT/DAY
K( 3,13) =   7.631E-04 CM/SEC =   2.163E+00 FT/DAY
K( 3,14) =   7.736E-04 CM/SEC =   2.193E+00 FT/DAY
K( 3,15) =   7.826E-04 CM/SEC =   2.215E+00 FT/DAY
K( 3,16) =   8.157E-04 CM/SEC =   2.312E+00 FT/DAY
K( 3,17) =   7.261E-04 CM/SEC =   2.058E+00 FT/DAY
K( 3,18) =   7.716E-04 CM/SEC =   2.187E+00 FT/DAY
K( 3,19) =   8.145E-04 CM/SEC =   2.309E+00 FT/DAY
K( 3,20) =   8.267E-04 CM/SEC =   2.343E+00 FT/DAY
K( 4, 5) =   9.763E-04 CM/SEC =   2.767E+00 FT/DAY
K( 4, 6) =   6.683E-04 CM/SEC =   1.894E+00 FT/DAY
K( 4, 7) =   7.074E-04 CM/SEC =   2.005E+00 FT/DAY
K( 4, 8) =   8.327E-04 CM/SEC =   2.360E+00 FT/DAY
K( 4, 9) =   7.797E-04 CM/SEC =   2.210E+00 FT/DAY
K( 4,10) =   7.530E-04 CM/SEC =   2.134E+00 FT/DAY
K( 4,11) =   7.009E-04 CM/SEC =   1.987E+00 FT/DAY
K( 4,12) =   7.872E-04 CM/SEC =   2.231E+00 FT/DAY
K( 4,13) =   7.318E-04 CM/SEC =   2.075E+00 FT/DAY
K( 4,14) =   7.655E-04 CM/SEC =   2.170E+00 FT/DAY
K( 4,15) =   7.[illegible]59E-04 CM/SEC =   2.1[illegible]E+00 FT/DAY
K( 4,16) =   8.115E-04 CM/SEC =   2.300E+00 FT/DAY
K( 4,17) =   7.189E-04 CM/SEC =   2.038E+00 FT/DAY
K( 4,18) =   7.[illegible]69E-04 CM/SEC =   2.1[illegible]E+00 FT/DAY
K( 4,19) =   8.119E-04 CM/SEC =   2.302E+00 FT/DAY
K( 4,20) =   8.[illegible]50E-04 CM/SEC =   2.[illegible]E+00 FT/DAY
K( 5, 6) =   4.219E-04 CM/SEC =   1.196E+00 FT/DAY
K( 5, 7) =   6.[illegible]96E-04 CM/SEC =   1.[illegible]E+00 FT/DAY
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[illegible](5,10)	= 7.[illegible]77E-04 CM/SEC	=	2.0[illegible]E+00 FT/DAY
[illegible] 5,11)	= [illegible] CM/SEC	=	[illegible] FT/DAY
[illegible]	= [illegible] CM/SEC	=	[illegible] FT/DAY
[illegible] 5,13)	= 7.[illegible]37E-04 CM/SEC	=	2.0[illegible] FT/DAY
[illegible],14)	= [illegible]E-04 CM/SEC	=	[illegible] FT/DAY
[illegible]	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]	=	[illegible] FT/DAY
[illegible]	= [illegible]E-04 [illegible]	=	[illegible] 00 FT/DAY
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible](6, 7)	= [illegible]E-04 [illegible]	=	[illegible]
[illegible]	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]E-04 CM/SEC	=	[illegible] FT/DAY
[illegible](6,10)	= [illegible]E-04 CM/SEC	=	2.0[illegible] FT/DAY
[illegible](6,11)	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible](6,12)	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible](6,13)	= [illegible]E-04 CM/SEC	=	[illegible]E+00 FT/DAY
[illegible](6,14)	= [illegible]E-04 CM/SEC	=	[illegible] FT/DAY
[illegible](6,15)	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible](6,16)	= [illegible]E-04 CM/SEC	=	2.0[illegible] FT/DAY
[illegible](6,17)	= [illegible]E-04 CM/SEC	=	2.[illegible]E+00 FT/DAY
[illegible]	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible](7,10)	= [illegible]E-04 CM/SEC	=	2.[illegible]E+00 FT/DAY
[illegible](7, 9)	= [illegible]E-03 CM/SEC	=	[illegible] FT/DAY
[illegible](7, [illegible])	= [illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible](7,[illegible])	= 8.[illegible]E-04 CM/SEC	=	2.[illegible] FT/DAY
[illegible]	= [illegible]E-04 CM/SEC	=	[illegible] FT/DAY
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]E-04 CM/SEC	=	[illegible] FT/DAY
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible](7,1[illegible])	= [illegible]E-04 CM/SEC	=	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]E-04 CM/SEC	=	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]E-04 CM/SEC	=	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible]	= [illegible]E-04 [illegible]	=	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	= [illegible]E-04 [illegible]	=	[illegible]
[illegible]	= [illegible]	=	[illegible]
[illegible]	[illegible]E-04 [illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]
[illegible]	[illegible]	[illegible]	[illegible]

K(10,16) =	8.540E-04	CM/SEC =	2.421E+00	FT/DAY
K(10,17) =	7.027E-04	CM/SEC =	1.992E+00	FT/DAY
K(10,18) =	7.727E-04	CM/SEC =	2.190E+00	FT/DAY
K(10,19) =	8.323E-04	CM/SEC =	2.359E+00	FT/DAY
K(10,20) =	8.431E-04	CM/SEC =	2.390E+00	FT/DAY
K(11,12) =	1.305E-03	CM/SEC =	3.699E+00	FT/DAY
K(11,13) =	8.876E-04	CM/SEC =	2.516E+00	FT/DAY
K(11,14) =	8.818E-04	CM/SEC =	2.500E+00	FT/DAY
K(11,15) =	8.760E-04	CM/SEC =	2.483E+00	FT/DAY
K(11,16) =	9.323E-04	CM/SEC =	2.643E+00	FT/DAY
K(11,17) =	7.310E-04	CM/SEC =	2.072E+00	FT/DAY
K(11,18) =	8.047E-04	CM/SEC =	2.281E+00	FT/DAY
K(11,19) =	8.639E-04	CM/SEC =	2.449E+00	FT/DAY
K(11,20) =	8.663E-04	CM/SEC =	2.456E+00	FT/DAY
K(12,13) =	5.745E-04	CM/SEC =	1.628E+00	FT/DAY
K(12,14) =	7.004E-04	CM/SEC =	1.985E+00	FT/DAY
K(12,15) =	7.534E-04	CM/SEC =	2.136E+00	FT/DAY
K(12,16) =	8.494E-04	CM/SEC =	2.408E+00	FT/DAY
K(12,17) =	6.592E-04	CM/SEC =	1.869E+00	FT/DAY
K(12,18) =	7.521E-04	CM/SEC =	2.132E+00	FT/DAY
K(12,19) =	8.266E-04	CM/SEC =	2.343E+00	FT/DAY
K(12,20) =	8.405E-04	CM/SEC =	2.383E+00	FT/DAY
K(13,14) =	8.684E-04	CM/SEC =	2.462E+00	FT/DAY
K(13,15) =	8.635E-04	CM/SEC =	2.448E+00	FT/DAY
K(13,16) =	9.652E-04	CM/SEC =	2.736E+00	FT/DAY
K(13,17) =	6.762E-04	CM/SEC =	1.917E+00	FT/DAY
K(13,18) =	7.810E-04	CM/SEC =	2.214E+00	FT/DAY
K(13,19) =	8.586E-04	CM/SEC =	2.434E+00	FT/DAY
K(13,20) =	8.632E-04	CM/SEC =	2.447E+00	FT/DAY
K(14,15) =	8.593E-04	CM/SEC =	2.436E+00	FT/DAY
K(14,16) =	1.010E-03	CM/SEC =	2.863E+00	FT/DAY
K(14,17) =	6.422E-04	CM/SEC =	1.821E+00	FT/DAY
K(14,18) =	7.689E-04	CM/SEC =	2.179E+00	FT/DAY
K(14,19) =	8.576E-04	CM/SEC =	2.431E+00	FT/DAY
K(14,20) =	8.628E-04	CM/SEC =	2.446E+00	FT/DAY
K(15,16) =	1.186E-03	CM/SEC =	3.361E+00	FT/DAY
K(15,17) =	5.860E-04	CM/SEC =	1.661E+00	FT/DAY
K(15,18) =	7.513E-04	CM/SEC =	2.130E+00	FT/DAY
K(15,19) =	8.573E-04	CM/SEC =	2.430E+00	FT/DAY
K(15,20) =	8.631E-04	CM/SEC =	2.447E+00	FT/DAY
K(16,17) =	4.146E-04	CM/SEC =	1.175E+00	FT/DAY
K(16,18) =	6.644E-04	CM/SEC =	1.883E+00	FT/DAY
K(16,19) =	8.126E-04	CM/SEC =	2.303E+00	FT/DAY
K(16,20) =	8.373E-04	CM/SEC =	2.374E+00	FT/DAY
K(17,18) =	1.247E-03	CM/SEC =	3.535E+00	FT/DAY
K(17,19) =	1.176E-03	CM/SEC =	3.333E+00	FT/DAY
K(17,20) =	1.002E-03	CM/SEC =	2.840E+00	FT/DAY
K(18,19) =	1.130E-03	CM/SEC =	3.203E+00	FT/DAY
K(18,20) =	9.526E-04	CM/SEC =	2.700E+00	FT/DAY
K(19,20) =	8.725E-04	CM/SEC =	2.473E+00	FT/DAY

AVERAGE HYDRAULIC CONDUCTIVITY = 8.181E-04 CM/SEC
2.319E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-2S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 8.61 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 27.30
INITIAL DEPTH/PRES. = 23.10
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	23.1000	0.00000	-0.04140	0.04140
4.0000	23.2000	-0.02410	-0.04396	0.01986
22.0000	23.3000	-0.04879	-0.05551	0.00672
56.0000	23.4000	-0.07411	-0.07733	0.00322
88.0000	23.5000	-0.10008	-0.09787	-0.00222
124.0000	23.6000	-0.12675	-0.12097	-0.00578
165.0000	23.7000	-0.15415	-0.14728	-0.00687
210.0000	23.8000	-0.18232	-0.17616	-0.00616
251.0000	23.9000	-0.21131	-0.20247	-0.00884
298.0000	24.0000	-0.24116	-0.23263	-0.00853
339.0000	24.1000	-0.27193	-0.25894	-0.01300
388.0000	24.2000	-0.30368	-0.29038	-0.01330
455.0000	24.3000	-0.33647	-0.33338	-0.00309
490.0000	24.4000	-0.37037	-0.35584	-0.01454
600.0000	24.6000	-0.44183	-0.42643	-0.01541
796.0000	24.9000	-0.55962	-0.55220	-0.00741
870.0000	25.0000	-0.60218	-0.59969	-0.00248
1026.0000	25.2000	-0.69315	-0.69980	0.00665
1218.0000	25.4000	-0.79323	-0.82301	0.02978

B0 = -0.0414
B1 = -0.0385
R-SQUARED = 0.9957

BASIC TIME LAG = 1493.807 SECONDS

HYDRAULIC CONDUCTIVITY = 2.676E-05 CM/SEC
7.584E-02 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-2S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 8.61 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 27.30
INITIAL DEPTH/PRES. = 23.10
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	23.1000
4.0000	23.2000
22.0000	23.3000
56.0000	23.4000
88.0000	23.5000
124.0000	23.6000
165.0000	23.7000
210.0000	23.8000
251.0000	23.9000
298.0000	24.0000
339.0000	24.1000
388.0000	24.2000
455.0000	24.3000
490.0000	24.4000
600.0000	24.6000
796.0000	24.9000
870.0000	25.0000
1026.0000	25.2000
1218.0000	25.4000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = 2.408E-04 CM/SEC = 6.825E-01 FT/DAY
K(1, 3) = 8.864E-05 CM/SEC = 2.513E-01 FT/DAY
K(1, 4) = 5.289E-05 CM/SEC = 1.499E-01 FT/DAY
K(1, 5) = 4.546E-05 CM/SEC = 1.289E-01 FT/DAY
K(1, 6) = 4.085E-05 CM/SEC = 1.158E-01 FT/DAY
K(1, 7) = 3.734E-05 CM/SEC = 1.058E-01 FT/DAY
K(1, 8) = 3.470E-05 CM/SEC = 9.836E-02 FT/DAY

K(1,11) = 3.208E-05 CM/SEC = [illegible] FT/DAY
K(1,12) = 3.128E-05 CM/SEC = 8.867E-02 FT/DAY
K(1,13) = 2.956E-05 CM/SEC = 8.378E-02 FT/DAY
K(1,14) = 3.021E-05 CM/SEC = 8.563E-02 FT/DAY
K(1,15) = 2.943E-05 CM/SEC = 8.343E-02 FT/DAY
K(1,16) = 2.810E-05 CM/SEC = 7.965E-02 FT/DAY
K(1,17) = 2.766E-05 CM/SEC = 7.842E-02 FT/DAY
K(1,18) = 2.700E-05 CM/SEC = 7.654E-02 FT/DAY
K(1,19) = 2.603E-05 CM/SEC = 7.378E-02 FT/DAY
K(2, 3) = 5.483E-05 CM/SEC = 1.554E-01 FT/DAY
K(2, 4) = 3.844E-05 CM/SEC = 1.090E-01 FT/DAY
K(2, 5) = 3.615E-05 CM/SEC = 1.025E-01 FT/DAY
K(2, 6) = 3.419E-05 CM/SEC = 9.692E-02 FT/DAY
K(2, 7) = 3.229E-05 CM/SEC = 9.152E-02 FT/DAY
K(2, 8) = 3.070E-05 CM/SEC = 8.702E-02 FT/DAY
K(2, 9) = 3.029E-05 CM/SEC = 8.587E-02 FT/DAY
K(2,10) = 2.951E-05 CM/SEC = 8.365E-02 FT/DAY
K(2,11) = 2.957E-05 CM/SEC = 8.382E-02 FT/DAY
K(2,12) = 2.910E-05 CM/SEC = 8.249E-02 FT/DAY
K(2,13) = 2.768E-05 CM/SEC = 7.847E-02 FT/DAY
K(2,14) = 2.848E-05 CM/SEC = 8.072E-02 FT/DAY
K(2,15) = 2.801E-05 CM/SEC = 7.941E-02 FT/DAY
K(2,16) = 2.702E-05 CM/SEC = 7.660E-02 FT/DAY
K(2,17) = 2.668E-05 CM/SEC = 7.563E-02 FT/DAY
K(2,18) = 2.616E-05 CM/SEC = 7.417E-02 FT/DAY
K(2,19) = 2.532E-05 CM/SEC = 7.178E-02 FT/DAY
K(3, 4) = 2.976E-05 CM/SEC = 8.436E-02 FT/DAY
K(3, 5) = 3.106E-05 CM/SEC = 8.805E-02 FT/DAY
K(3, 6) = 3.055E-05 CM/SEC = 8.659E-02 FT/DAY
K(3, 7) = 2.945E-05 CM/SEC = 8.347E-02 FT/DAY
K(3, 8) = 2.839E-05 CM/SEC = 8.047E-02 FT/DAY
K(3, 9) = 2.836E-05 CM/SEC = 8.040E-02 FT/DAY
K(3,10) = 2.786E-05 CM/SEC = 7.897E-02 FT/DAY
K(3,11) = 2.813E-05 CM/SEC = 7.975E-02 FT/DAY
K(3,12) = 2.783E-05 CM/SEC = 7.890E-02 FT/DAY
K(3,13) = 2.655E-05 CM/SEC = 7.527E-02 FT/DAY
K(3,14) = 2.746E-05 CM/SEC = 7.785E-02 FT/DAY
K(3,15) = 2.718E-05 CM/SEC = 7.704E-02 FT/DAY
K(3,16) = 2.638E-05 CM/SEC = 7.477E-02 FT/DAY
K(3,17) = 2.608E-05 CM/SEC = 7.393E-02 FT/DAY
K(3,18) = 2.565E-05 CM/SEC = 7.271E-02 FT/DAY
K(3,19) = 2.488E-05 CM/SEC = 7.052E-02 FT/DAY
K(4, 5) = 3.244E-05 CM/SEC = 9.197E-02 FT/DAY
K(4, 6) = 3.094E-05 CM/SEC = 8.771E-02 FT/DAY
K(4, 7) = 2.935E-05 CM/SEC = 8.320E-02 FT/DAY
K(4, 8) = 2.808E-05 CM/SEC = 7.961E-02 FT/DAY
K(4, 9) = 2.812E-05 CM/SEC = 7.971E-02 FT/DAY
K(4,10) = 2.759E-05 CM/SEC = 7.821E-02 FT/DAY
K(4,11) = 2.794E-05 CM/SEC = 7.920E-02 FT/DAY
K(4,12) = 2.764E-05 CM/SEC = 7.834E-02 FT/DAY
K(4,13) = 2.628E-05 CM/SEC = 7.450E-02 FT/DAY
K(4,14) = 2.728E-05 CM/SEC = 7.734E-02 FT/DAY
K(4,15) = 2.702E-05 CM/SEC = 7.658E-02 FT/DAY
K(4,16) = 2.622E-05 CM/SEC = 7.433E-02 FT/DAY
K(4,17) = 2.593E-05 CM/SEC = 7.350E-02 FT/DAY
K(4,18) = 2.551E-05 CM/SEC = 7.230E-02 FT/DAY
K(4,19) = 2.473E-05 CM/SEC = 7.011E-02 FT/DAY
K(5, 6) = 2.961E-05 CM/SEC = 8.393E-02 FT/DAY
K(5, 7) = 2.806E-05 CM/SEC = 7.955E-02 FT/DAY
K(5, 8) = 2.694E-05 CM/SEC = 7.637E-02 FT/DAY
K(5, 9) = 2.727E-05 CM/SEC = 7.731E-02 FT/DAY
K(5,10) = 2.685E-05 CM/SEC = 7.611E-02 FT/DAY
K(5,11) = 2.736E-05 CM/SEC = 7.757E-02 FT/DAY
K(5,12) = 2.712E-05 CM/SEC = 7.689E-02 FT/DAY

K(5,15)	=	2.668E-05	CM/SEC	=	7.[illegible]E-02	FT/DAY
K(5,16)	=	2.594E-05	CM/SEC	=	7.353E-02	FT/DAY
K(5,17)	=	2.566E-05	CM/SEC	=	7.274E-02	FT/DAY
K(5,18)	=	2.527E-05	CM/SEC	=	7.163E-02	FT/DAY
K(5,19)	=	2.452E-05	CM/SEC	=	6.950E-02	FT/DAY
K(6, 7)	=	2.671E-05	CM/SEC	=	7.571E-02	FT/DAY
K(6, 8)	=	2.583E-05	CM/SEC	=	7.321E-02	FT/DAY
K(6, 9)	=	2.661E-05	CM/SEC	=	7.543E-02	FT/DAY
K(6,10)	=	2.628E-05	CM/SEC	=	7.449E-02	FT/DAY
K(6,11)	=	2.699E-05	CM/SEC	=	7.650E-02	FT/DAY
K(6,12)	=	2.679E-05	CM/SEC	=	7.593E-02	FT/DAY
K(6,13)	=	2.532E-05	CM/SEC	=	7.178E-02	FT/DAY
K(6,14)	=	2.660E-05	CM/SEC	=	7.541E-02	FT/DAY
K(6,15)	=	2.646E-05	CM/SEC	=	7.499E-02	FT/DAY
K(6,16)	=	2.574E-05	CM/SEC	=	7.298E-02	FT/DAY
K(6,17)	=	2.547E-05	CM/SEC	=	7.220E-02	FT/DAY
K(6,18)	=	2.510E-05	CM/SEC	=	7.114E-02	FT/DAY
K(6,19)	=	2.435E-05	CM/SEC	=	6.902E-02	FT/DAY
K(7, 8)	=	2.502E-05	CM/SEC	=	7.092E-02	FT/DAY
K(7, 9)	=	2.656E-05	CM/SEC	=	7.530E-02	FT/DAY
K(7,10)	=	2.615E-05	CM/SEC	=	7.412E-02	FT/DAY
K(7,11)	=	2.705E-05	CM/SEC	=	7.669E-02	FT/DAY
K(7,12)	=	2.680E-05	CM/SEC	=	7.597E-02	FT/DAY
K(7,13)	=	2.513E-05	CM/SEC	=	7.123E-02	FT/DAY
K(7,14)	=	2.659E-05	CM/SEC	=	7.537E-02	FT/DAY
K(7,15)	=	2.643E-05	CM/SEC	=	7.493E-02	FT/DAY
K(7,16)	=	2.568E-05	CM/SEC	=	7.280E-02	FT/DAY
K(7,17)	=	2.540E-05	CM/SEC	=	7.200E-02	FT/DAY
K(7,18)	=	2.502E-05	CM/SEC	=	7.092E-02	FT/DAY
K(7,19)	=	2.426E-05	CM/SEC	=	6.876E-02	FT/DAY
K(8, 9)	=	2.826E-05	CM/SEC	=	8.010E-02	FT/DAY
K(8,10)	=	2.672E-05	CM/SEC	=	7.575E-02	FT/DAY
K(8,11)	=	2.776E-05	CM/SEC	=	7.870E-02	FT/DAY
K(8,12)	=	2.725E-05	CM/SEC	=	7.724E-02	FT/DAY
K(8,13)	=	2.515E-05	CM/SEC	=	7.128E-02	FT/DAY
K(8,14)	=	2.684E-05	CM/SEC	=	7.609E-02	FT/DAY
K(8,15)	=	2.660E-05	CM/SEC	=	7.539E-02	FT/DAY
K(8,16)	=	2.573E-05	CM/SEC	=	7.294E-02	FT/DAY
K(8,17)	=	2.543E-05	CM/SEC	=	7.207E-02	FT/DAY
K(8,18)	=	2.502E-05	CM/SEC	=	7.092E-02	FT/DAY
K(8,19)	=	2.422E-05	CM/SEC	=	6.866E-02	FT/DAY
K(9,10)	=	2.539E-05	CM/SEC	=	7.196E-02	FT/DAY
K(9,11)	=	2.753E-05	CM/SEC	=	7.805E-02	FT/DAY
K(9,12)	=	2.695E-05	CM/SEC	=	7.639E-02	FT/DAY
K(9,13)	=	2.452E-05	CM/SEC	=	6.951E-02	FT/DAY
K(9,14)	=	2.660E-05	CM/SEC	=	7.540E-02	FT/DAY
K(9,15)	=	2.640E-05	CM/SEC	=	7.483E-02	FT/DAY
K(9,16)	=	2.554E-05	CM/SEC	=	7.241E-02	FT/DAY
K(9,17)	=	2.524E-05	CM/SEC	=	7.154E-02	FT/DAY
K(9,18)	=	2.485E-05	CM/SEC	=	7.044E-02	FT/DAY
K(9,19)	=	2.405E-05	CM/SEC	=	6.818E-02	FT/DAY
K(10,11)	=	3.000E-05	CM/SEC	=	8.503E-02	FT/DAY
K(10,12)	=	2.776E-05	CM/SEC	=	7.870E-02	FT/DAY
K(10,13)	=	2.426E-05	CM/SEC	=	6.878E-02	FT/DAY
K(10,14)	=	2.690E-05	CM/SEC	=	7.624E-02	FT/DAY
K(10,15)	=	2.656E-05	CM/SEC	=	7.528E-02	FT/DAY
K(10,16)	=	2.556E-05	CM/SEC	=	7.245E-02	FT/DAY
K(10,17)	=	2.523E-05	CM/SEC	=	7.150E-02	FT/DAY
K(10,18)	=	2.481E-05	CM/SEC	=	7.034E-02	FT/DAY
K(10,19)	=	2.398E-05	CM/SEC	=	6.798E-02	FT/DAY
K(11,12)	=	2.590E-05	CM/SEC	=	7.341E-02	FT/DAY
K(11,13)	=	2.224E-05	CM/SEC	=	6.303E-02	FT/DAY
K(11,14)	=	2.606E-05	CM/SEC	=	7.386E-02	FT/DAY
K(11,15)	=	2.602E-05	CM/SEC	=	7.375E-02	FT/DAY

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K(11,18) =  2.450E-05 CM/SEC =  6.946E-02 FT/DAY
K(11,19) =  2.370E-05 CM/SEC =  6.719E-02 FT/DAY
K(12,13) =  1.956E-05 CM/SEC =  5.545E-02 FT/DAY
K(12,14) =  2.613E-05 CM/SEC =  7.408E-02 FT/DAY
K(12,15) =  2.604E-05 CM/SEC =  7.383E-02 FT/DAY
K(12,16) =  2.507E-05 CM/SEC =  7.107E-02 FT/DAY
K(12,17) =  2.475E-05 CM/SEC =  7.016E-02 FT/DAY
K(12,18) =  2.440E-05 CM/SEC =  6.916E-02 FT/DAY
K(12,19) =  2.357E-05 CM/SEC =  6.682E-02 FT/DAY
K(13,14) =  3.871E-05 CM/SEC =  1.097E-01 FT/DAY
K(13,15) =  2.904E-05 CM/SEC =  8.232E-02 FT/DAY
K(13,16) =  2.615E-05 CM/SEC =  7.414E-02 FT/DAY
K(13,17) =  2.559E-05 CM/SEC =  7.254E-02 FT/DAY
K(13,18) =  2.497E-05 CM/SEC =  7.077E-02 FT/DAY
K(13,19) =  2.393E-05 CM/SEC =  6.782E-02 FT/DAY
K(14,15) =  2.596E-05 CM/SEC =  7.360E-02 FT/DAY
K(14,16) =  2.472E-05 CM/SEC =  7.007E-02 FT/DAY
K(14,17) =  2.438E-05 CM/SEC =  6.911E-02 FT/DAY
K(14,18) =  2.407E-05 CM/SEC =  6.822E-02 FT/DAY
K(14,19) =  2.322E-05 CM/SEC =  6.581E-02 FT/DAY
K(15,16) =  2.402E-05 CM/SEC =  6.808E-02 FT/DAY
K(15,17) =  2.374E-05 CM/SEC =  6.728E-02 FT/DAY
K(15,18) =  2.358E-05 CM/SEC =  6.684E-02 FT/DAY
K(15,19) =  2.273E-05 CM/SEC =  6.442E-02 FT/DAY
K(16,17) =  2.299E-05 CM/SEC =  6.516E-02 FT/DAY
K(16,18) =  2.320E-05 CM/SEC =  6.578E-02 FT/DAY
K(16,19) =  2.213E-05 CM/SEC =  6.272E-02 FT/DAY
K(17,18) =  2.331E-05 CM/SEC =  6.607E-02 FT/DAY
K(17,19) =  2.194E-05 CM/SEC =  6.220E-02 FT/DAY
K(18,19) =  2.083E-05 CM/SEC =  5.906E-02 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  2.897E-05 CM/SEC
                                  8.212E-02 FT/DAY
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DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-3S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 5.00 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 20.00
INITIAL DEPTH/PRES. = 15.20
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
7.0000	15.6000	-0.08701	-0.25604	0.16903
11.0000	15.8000	-0.13353	-0.25897	0.12544
15.0000	16.0000	-0.18232	-0.26189	0.07957
19.0000	16.2000	-0.23362	-0.26482	0.03120
32.0000	16.4000	-0.28768	-0.27433	-0.01335
47.0000	16.5000	-0.31585	-0.28530	-0.03055
62.0000	16.6000	-0.34484	-0.29628	-0.04856
82.0000	16.7000	-0.37469	-0.31091	-0.06379
115.0000	16.8000	-0.40546	-0.33505	-0.07042
155.0000	16.9000	-0.43721	-0.36431	-0.07290
202.0000	17.0000	-0.47000	-0.39869	-0.07131
272.0000	17.1000	-0.50391	-0.46453	-0.03937
352.0000	17.2000	-0.53900	-0.50843	-0.03057
387.0000	17.3000	-0.57536	-0.53403	-0.04133
402.0000	17.4000	-0.61310	-0.55158	-0.06152
602.0000	17.6000	-0.69315	-0.74984	0.05669
892.0000	18.0000	-0.87547	-0.90344	0.02797
977.0000	18.2000	-0.98083	-0.98027	-0.00056
1192.0000	18.4000	-1.09861	-1.12293	0.02432

Y0 = -0.2509
Y1 = -0.0439
R SQUARED = 0.9394

[illegible] = 1023.564 SECONDS

HYDRAULIC CONDUCTIVITY = 5.598E-05 CM/SEC
1.587E-01 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-3S

WELL PARAMETERS:	RISER DIAMETER	=	2.00	INCHES
	SCREEN/PACK DIAMETER	=	8.00	INCHES
	SCREEN LENGTH	=	5.00	FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS:	BASELINE DEPTH/PRES.	=	20.00
	INITIAL DEPTH/PRES.	=	15.20
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
7.0000	15.6000
11.0000	15.8000
15.0000	16.0000
19.0000	16.2000
32.0000	16.4000
47.0000	16.5000
62.0000	16.6000
82.0000	16.7000
115.0000	16.8000
155.0000	16.9000
202.0000	17.0000
292.0000	17.1000
352.0000	17.2000
387.0000	17.3000
452.0000	17.4000
682.0000	17.6000
892.0000	18.0000
997.0000	18.2000
1192.0000	18.4000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = 6.666E-04 CM/SEC = 1.890E+00 FT/DAY
K(1, 3) = 6.829E-04 CM/SEC = 1.936E+00 FT/DAY
K(1, 4) = 7.003E-04 CM/SEC = 1.985E+00 FT/DAY
K(1, 5) = 4.601E-04 CM/SEC = 1.304E+00 FT/DAY
K(1, 6) = 3.279E-04 CM/SEC = 9.296E-01 FT/DAY
K(1, 7) = 2.687E-04 CM/SEC = 7.617E-01 FT/DAY
K(1, 8) = 2.199E-04 CM/SEC = 6.233E-01 FT/DAY

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K( 1,11) =  1.126E-04 CM/SEC =  3.191E-01 FT/DAY
K( 1,12) =  8.385E-05 CM/SEC =  2.377E-01 FT/DAY
K( 1,13) =  7.510E-05 CM/SEC =  2.129E-01 FT/DAY
K( 1,14) =  7.366E-05 CM/SEC =  2.088E-01 FT/DAY
K( 1,15) =  6.777E-05 CM/SEC =  1.921E-01 FT/DAY
K( 1,16) =  5.147E-05 CM/SEC =  1.459E-01 FT/DAY
K( 1,17) =  5.107E-05 CM/SEC =  1.448E-01 FT/DAY
K( 1,18) =  5.175E-05 CM/SEC =  1.467E-01 FT/DAY
K( 1,19) =  4.893E-05 CM/SEC =  1.387E-01 FT/DAY
K( 2, 3) =  6.992E-04 CM/SEC =  1.982E+00 FT/DAY
K( 2, 4) =  7.171E-04 CM/SEC =  2.033E+00 FT/DAY
K( 2, 5) =  4.208E-04 CM/SEC =  1.193E+00 FT/DAY
K( 2, 6) =  2.903E-04 CM/SEC =  8.229E-01 FT/DAY
K( 2, 7) =  2.375E-04 CM/SEC =  6.732E-01 FT/DAY
K( 2, 8) =  1.947E-04 CM/SEC =  5.519E-01 FT/DAY
K( 2, 9) =  1.499E-04 CM/SEC =  4.249E-01 FT/DAY
K( 2,10) =  1.209E-04 CM/SEC =  3.427E-01 FT/DAY
K( 2,11) =  1.010E-04 CM/SEC =  2.862E-01 FT/DAY
K( 2,12) =  7.555E-05 CM/SEC =  2.142E-01 FT/DAY
K( 2,13) =  6.816E-05 CM/SEC =  1.932E-01 FT/DAY
K( 2,14) =  6.736E-05 CM/SEC =  1.909E-01 FT/DAY
K( 2,15) =  6.233E-05 CM/SEC =  1.767E-01 FT/DAY
K( 2,16) =  4.781E-05 CM/SEC =  1.355E-01 FT/DAY
K( 2,17) =  4.827E-05 CM/SEC =  1.368E-01 FT/DAY
K( 2,18) =  4.926E-05 CM/SEC =  1.396E-01 FT/DAY
K( 2,19) =  4.684E-05 CM/SEC =  1.328E-01 FT/DAY
K( 3, 4) =  7.350E-04 CM/SEC =  2.084E+00 FT/DAY
K( 3, 5) =  3.553E-04 CM/SEC =  1.007E+00 FT/DAY
K( 3, 6) =  2.392E-04 CM/SEC =  6.780E-01 FT/DAY
K( 3, 7) =  1.982E-04 CM/SEC =  5.618E-01 FT/DAY
K( 3, 8) =  1.646E-04 CM/SEC =  4.665E-01 FT/DAY
K( 3, 9) =  1.279E-04 CM/SEC =  3.626E-01 FT/DAY
K( 3,10) =  1.044E-04 CM/SEC =  2.958E-01 FT/DAY
K( 3,11) =  8.818E-05 CM/SEC =  2.500E-01 FT/DAY
K( 3,12) =  6.655E-05 CM/SEC =  1.886E-01 FT/DAY
K( 3,13) =  6.067E-05 CM/SEC =  1.720E-01 FT/DAY
K( 3,14) =  6.056E-05 CM/SEC =  1.717E-01 FT/DAY
K( 3,15) =  5.650E-05 CM/SEC =  1.602E-01 FT/DAY
K( 3,16) =  4.390E-05 CM/SEC =  1.244E-01 FT/DAY
K( 3,17) =  4.530E-05 CM/SEC =  1.284E-01 FT/DAY
K( 3,18) =  4.661E-05 CM/SEC =  1.321E-01 FT/DAY
K( 3,19) =  4.462E-05 CM/SEC =  1.265E-01 FT/DAY
K( 4, 5) =  2.384E-04 CM/SEC =  6.758E-01 FT/DAY
K( 4, 6) =  1.684E-04 CM/SEC =  4.772E-01 FT/DAY
K( 4, 7) =  1.483E-04 CM/SEC =  4.203E-01 FT/DAY
K( 4, 8) =  1.284E-04 CM/SEC =  3.639E-01 FT/DAY
K( 4, 9) =  1.026E-04 CM/SEC =  2.909E-01 FT/DAY
K( 4,10) =  8.581E-05 CM/SEC =  2.432E-01 FT/DAY
K( 4,11) =  7.404E-05 CM/SEC =  2.099E-01 FT/DAY
K( 4,12) =  5.675E-05 CM/SEC =  1.609E-01 FT/DAY
K( 4,13) =  5.257E-05 CM/SEC =  1.490E-01 FT/DAY
K( 4,14) =  5.323E-05 CM/SEC =  1.509E-01 FT/DAY
K( 4,15) =  5.024E-05 CM/SEC =  1.424E-01 FT/DAY
K( 4,16) =  3.973E-05 CM/SEC =  1.126E-01 FT/DAY
K( 4,17) =  4.214E-05 CM/SEC =  1.195E-01 FT/DAY
K( 4,18) =  4.379E-05 CM/SEC =  1.241E-01 FT/DAY
K( 4,19) =  4.227E-05 CM/SEC =  1.198E-01 FT/DAY
K( 5, 6) =  1.[illegible]E-04 CM/SEC =  3.002E-01 FT/DAY
K( 5, 7) =  1.092E-04 CM/SEC =  3.076E-01 FT/DAY
K( 5, 8) =  [illegible] CM/SEC =  2.628E-01 FT/DAY
K( 5, 9) =  [illegible].134E-05 CM/SEC =  2.306E-01 FT/DAY
K( 5,10) =  [illegible]E-05 CM/SEC =  1.975E-01 FT/DAY
K( 5,11) =  [illegible].14[illegible]E-05 CM/SEC =  1.740E-01 FT/DAY
K( 5,12) =  4.767E-05 CM/SEC =  1.351E-01 FT/DAY
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K( 5,15) = [illegible]
K( 5,16) =  3.576E-05 CM/SEC =  1.014E-01 FT/DAY
K( 5,17) =  3.918E-05 CM/SEC =  1.111E-01 FT/DAY
K( 5,18) =  4.117E-05 CM/SEC =  1.167E-01 FT/DAY
K( 5,19) =  4.007E-05 CM/SEC =  1.136E-01 FT/DAY
K( 6, 7) =  1.108E-04 CM/SEC =  3.140E-01 FT/DAY
K( 6, 8) =  9.637E-05 CM/SEC =  2.732E-01 FT/DAY
K( 6, 9) =  7.554E-05 CM/SEC =  2.141E-01 FT/DAY
K( 6,10) =  6.441E-05 CM/SEC =  1.826E-01 FT/DAY
K( 6,11) =  5.701E-05 CM/SEC =  1.616E-01 FT/DAY
K( 6,12) =  4.400E-05 CM/SEC =  1.247E-01 FT/DAY
K( 6,13) =  4.194E-05 CM/SEC =  1.189E-01 FT/DAY
K( 6,14) =  4.375E-05 CM/SEC =  1.240E-01 FT/DAY
K( 6,15) =  4.207E-05 CM/SEC =  1.193E-01 FT/DAY
K( 6,16) =  3.406E-05 CM/SEC =  9.654E-02 FT/DAY
K( 6,17) =  3.796E-05 CM/SEC =  1.076E-01 FT/DAY
K( 6,18) =  4.012E-05 CM/SEC =  1.137E-01 FT/DAY
K( 6,19) =  3.919E-05 CM/SEC =  1.111E-01 FT/DAY
K( 7, 8) =  8.556E-05 CM/SEC =  2.425E-01 FT/DAY
K( 7, 9) =  6.557E-05 CM/SEC =  1.859E-01 FT/DAY
K( 7,10) =  5.693E-05 CM/SEC =  1.614E-01 FT/DAY
K( 7,11) =  5.125E-05 CM/SEC =  1.453E-01 FT/DAY
K( 7,12) =  3.964E-05 CM/SEC =  1.124E-01 FT/DAY
K( 7,13) =  3.838E-05 CM/SEC =  1.088E-01 FT/DAY
K( 7,14) =  4.066E-05 CM/SEC =  1.152E-01 FT/DAY
K( 7,15) =  3.943E-05 CM/SEC =  1.118E-01 FT/DAY
K( 7,16) =  3.220E-05 CM/SEC =  9.128E-02 FT/DAY
K( 7,17) =  3.665E-05 CM/SEC =  1.039E-01 FT/DAY
K( 7,18) =  3.899E-05 CM/SEC =  1.105E-01 FT/DAY
K( 7,19) =  3.824E-05 CM/SEC =  1.084E-01 FT/DAY
K( 8, 9) =  5.345E-05 CM/SEC =  1.515E-01 FT/DAY
K( 8,10) =  4.909E-05 CM/SEC =  1.392E-01 FT/DAY
K( 8,11) =  4.553E-05 CM/SEC =  1.291E-01 FT/DAY
K( 8,12) =  3.527E-05 CM/SEC =  9.997E-02 FT/DAY
K( 8,13) =  3.488E-05 CM/SEC =  9.888E-02 FT/DAY
K( 8,14) =  3.771E-05 CM/SEC =  1.069E-01 FT/DAY
K( 8,15) =  3.693E-05 CM/SEC =  1.047E-01 FT/DAY
K( 8,16) =  3.042E-05 CM/SEC =  8.624E-02 FT/DAY
K( 8,17) =  3.544E-05 CM/SEC =  1.005E-01 FT/DAY
K( 8,18) =  3.797E-05 CM/SEC =  1.076E-01 FT/DAY
K( 8,19) =  3.738E-05 CM/SEC =  1.060E-01 FT/DAY
K( 9,10) =  4.[illegible]50E-05 CM/SEC =  1.270E-01 FT/DAY
K( 9,11) =  4.[illegible]52E-05 CM/SEC =  1.205E-01 FT/DAY
K( 9,12) =  3.188E-05 CM/SEC =  9.037E-02 FT/DAY
K( 9,13) =  3.230E-05 CM/SEC =  9.155E-02 FT/DAY
K( 9,14) =  3.580E-05 CM/SEC =  1.015E-01 FT/DAY
K( 9,15) =  3.532E-05 CM/SEC =  1.001E-01 FT/DAY
K( 9,16) =  2.908E-05 CM/SEC =  8.244E-02 FT/DAY
K( 9,17) =  3.467E-05 CM/SEC =  9.829E-02 FT/DAY
K( 9,18) =  3.739E-05 CM/SEC =  1.060E-01 FT/DAY
K( 9,19) =  3.[illegible]09E-05 CM/SEC =  1.046E-01 FT/DAY
K(10,11) =  3.999E-05 CM/SEC =  1.134E-01 FT/DAY
K(10,12) =  2.790E-05 CM/SEC =  7.910E-02 FT/DAY
K(10,13) =  2.[illegible]62E-05 CM/SEC =  8.3[illegible]6E-02 FT/DAY
K(10,14) =  3.413E-05 CM/SEC =  9.675E-02 FT/DAY
K(10,15) =  3.[illegible]75E-05 CM/SEC =  9.6[illegible]3E-02 FT/DAY
K(10,16) =  2.[illegible]84E-05 CM/SEC =  7.891E-02 FT/DAY
K(10,17) =  3.409E-05 CM/SEC =  9.662E-02 FT/DAY
K(10,18) =  3.701E-05 CM/SEC =  1.049E-01 FT/DAY
K(10,19) =  3.[illegible]E-05 CM/SEC =  1.036E-01 FT/DAY
K(11,12) =  2.159E-05 CM/SEC =  6.120E-02 FT/DAY
K(11,13) =  2.[illegible]6E-05 CM/SEC =  7.473E-02 FT/DAY
K(11,14) =  3.[illegible]44E-05 CM/SEC =  [illegible].254E-02 FT/DAY
K(11,15) =  3.281E-05 CM/SEC =  9.301E-02 FT/DAY
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K(11,18) =  3.683E-05 CM/SEC =  1.044E-01 FT/DAY
K(11,19) =  3.640E-05 CM/SEC =  1.032E-01 FT/DAY
K(12,13) =  3.352E-05 CM/SEC =  9.503E-02 FT/DAY
K(12,14) =  4.312E-05 CM/SEC =  1.222E-01 FT/DAY
K(12,15) =  3.912E-05 CM/SEC =  1.109E-01 FT/DAY
K(12,16) =  2.781E-05 CM/SEC =  7.884E-02 FT/DAY
K(12,17) =  3.550E-05 CM/SEC =  1.006E-01 FT/DAY
K(12,18) =  3.878E-05 CM/SEC =  1.099E-01 FT/DAY
K(12,19) =  3.788E-05 CM/SEC =  1.074E-01 FT/DAY
K(13,14) =  5.956E-05 CM/SEC =  1.688E-01 FT/DAY
K(13,15) =  4.248E-05 CM/SEC =  1.204E-01 FT/DAY
K(13,16) =  2.678E-05 CM/SEC =  7.590E-02 FT/DAY
K(13,17) =  3.572E-05 CM/SEC =  1.012E-01 FT/DAY
K(13,18) =  3.927E-05 CM/SEC =  1.113E-01 FT/DAY
K(13,19) =  3.819E-05 CM/SEC =  1.082E-01 FT/DAY
K(14,15) =  3.328E-05 CM/SEC =  9.434E-02 FT/DAY
K(14,16) =  2.289E-05 CM/SEC =  6.487E-02 FT/DAY
K(14,17) =  3.406E-05 CM/SEC =  9.656E-02 FT/DAY
K(14,18) =  3.810E-05 CM/SEC =  1.080E-01 FT/DAY
K(14,19) =  3.726E-05 CM/SEC =  1.056E-01 FT/DAY
K(15,16) =  1.995E-05 CM/SEC =  5.655E-02 FT/DAY
K(15,17) =  3.418E-05 CM/SEC =  9.689E-02 FT/DAY
K(15,18) =  3.868E-05 CM/SEC =  1.096E-01 FT/DAY
K(15,19) =  3.761E-05 CM/SEC =  1.066E-01 FT/DAY
K(16,17) =  4.977E-05 CM/SEC =  1.411E-01 FT/DAY
K(16,18) =  5.235E-05 CM/SEC =  1.484E-01 FT/DAY
K(16,19) =  4.557E-05 CM/SEC =  1.292E-01 FT/DAY
K(17,18) =  5.752E-05 CM/SEC =  1.630E-01 FT/DAY
K(17,19) =  4.264E-05 CM/SEC =  1.209E-01 FT/DAY
K(18,19) =  3.462E-05 CM/SEC =  9.814E-02 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  9.349E-05 CM/SEC
                                  2.650E-01 FT/DAY
```

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-3B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.20 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 30.00
INITIAL DEPTH/PRES. = 33.10
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	33.1000	0.00000	-0.06673	0.06673
3.0000	32.8000	-0.10178	-0.12893	0.02714
7.0000	32.6000	-0.17589	-0.21186	0.03597
11.0000	32.4000	-0.25593	-0.29479	0.03885
16.0000	32.1000	-0.38947	-0.39845	0.00898
19.0000	32.0000	-0.43825	-0.46064	0.02239
22.0000	31.8000	-0.54362	-0.52284	-0.02077
26.0000	31.7000	-0.60077	-0.60577	0.00500
29.0000	31.5000	-0.72594	-0.66797	-0.05797
36.0000	31.4000	-0.79493	-0.81309	0.01816
40.0000	31.2000	-0.94906	-0.89602	-0.05306
48.0000	31.0000	-1.13140	-1.06188	-0.06952
62.0000	30.8000	-1.35455	-1.35213	-0.00241
73.0000	30.6000	-1.64223	-1.58019	-0.06204
93.0000	30.4000	-2.04769	-1.99454	-0.05266
130.0000	30.2000	-2.74084	-2.76193	0.02110
166.0000	30.1000	-3.43398	-3.50829	0.07431

B0 = -0.0667
B1 = -1.2439
R-SQUARED = 0.9972

BASIC TIME LAG = [illegible]

HYDRAULIC CONDUCTIVITY = 8.2[illegible] -04 CM/SEC
[illegible] FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-3B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.20 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 30.00
INITIAL DEPTH/PRES. = 33.10
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	33.1000
3.0000	32.8000
7.0000	32.6000
11.0000	32.4000
16.0000	32.1000
19.0000	32.0000
22.0000	31.8000
26.0000	31.7000
29.0000	31.5000
36.0000	31.4000
40.0000	31.2000
48.0000	31.0000
62.0000	30.8000
73.0000	30.6000
93.0000	30.4000
130.0000	30.2000
166.0000	30.1000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = 1.262E-03 CM/SEC = 3.577E+00 FT/DAY
K(1, 3) = 8.645E-04 CM/SEC = 2.449E+00 FT/DAY
K(1, 4) = 8.653E-04 CM/SEC = 2.453E+00 FT/DAY
K(1, 5) = 9.052E-04 CM/SEC = 2.566E+00 FT/DAY
K(1, 6) = 8.578E-04 CM/SEC = 2.432E+00 FT/DAY
K(1, 7) = 9.190E-04 CM/SEC = 2.605E+00 FT/DAY
K(1, 8) = 8.573E-04 CM/SEC = 2.426E+00 FT/DAY
K(1, 9) = 9.310E-04 CM/SEC = 2.639E+00 FT/DAY
K(1,10) = 8.212E-04 CM/SEC = 2.328E+00 FT/DAY

K(1,13)	=	8.12[illegible]E-04	CM/SEC	=	2.30[illegible]E+00	FT/DAY
K(1,14)	=	8.366E-04	CM/SEC	=	2.372E+00	FT/DAY
K(1,15)	=	8.189E-04	CM/SEC	=	2.321E+00	FT/DAY
K(1,16)	=	7.841E-04	CM/SEC	=	2.223E+00	FT/DAY
K(1,17)	=	7.693E-04	CM/SEC	=	2.181E+00	FT/DAY
K(2, 3)	=	6.890E-04	CM/SEC	=	1.953E+00	FT/DAY
K(2, 4)	=	7.166E-04	CM/SEC	=	2.031E+00	FT/DAY
K(2, 5)	=	8.230E-04	CM/SEC	=	2.333E+00	FT/DAY
K(2, 6)	=	7.821E-04	CM/SEC	=	2.217E+00	FT/DAY
K(2, 7)	=	8.648E-04	CM/SEC	=	2.452E+00	FT/DAY
K(2, 8)	=	8.069E-04	CM/SEC	=	2.287E+00	FT/DAY
K(2, 9)	=	8.928E-04	CM/SEC	=	2.531E+00	FT/DAY
K(2,10)	=	7.812E-04	CM/SEC	=	2.214E+00	FT/DAY
K(2,11)	=	8.517E-04	CM/SEC	=	2.414E+00	FT/DAY
K(2,12)	=	8.509E-04	CM/SEC	=	2.412E+00	FT/DAY
K(2,13)	=	7.897E-04	CM/SEC	=	2.238E+00	FT/DAY
K(2,14)	=	8.184E-04	CM/SEC	=	2.320E+00	FT/DAY
K(2,15)	=	8.041E-04	CM/SEC	=	2.279E+00	FT/DAY
K(2,16)	=	7.728E-04	CM/SEC	=	2.191E+00	FT/DAY
K(2,17)	=	7.603E-04	CM/SEC	=	2.155E+00	FT/DAY
K(3, 4)	=	7.442E-04	CM/SEC	=	2.110E+00	FT/DAY
K(3, 5)	=	8.825E-04	CM/SEC	=	2.502E+00	FT/DAY
K(3, 6)	=	8.131E-04	CM/SEC	=	2.305E+00	FT/DAY
K(3, 7)	=	9.117E-04	CM/SEC	=	2.584E+00	FT/DAY
K(3, 8)	=	8.317E-04	CM/SEC	=	2.357E+00	FT/DAY
K(3, 9)	=	9.298E-04	CM/SEC	=	2.636E+00	FT/DAY
K(3,10)	=	7.939E-04	CM/SEC	=	2.250E+00	FT/DAY
K(3,11)	=	8.714E-04	CM/SEC	=	2.470E+00	FT/DAY
K(3,12)	=	8.667E-04	CM/SEC	=	2.457E+00	FT/DAY
K(3,13)	=	7.970E-04	CM/SEC	=	2.259E+00	FT/DAY
K(3,14)	=	8.263E-04	CM/SEC	=	2.342E+00	FT/DAY
K(3,15)	=	8.095E-04	CM/SEC	=	2.295E+00	FT/DAY
K(3,16)	=	7.755E-04	CM/SEC	=	2.198E+00	FT/DAY
K(3,17)	=	7.621E-04	CM/SEC	=	2.160E+00	FT/DAY
K(4, 5)	=	9.932E-04	CM/SEC	=	2.815E+00	FT/DAY
K(4, 6)	=	8.476E-04	CM/SEC	=	2.403E+00	FT/DAY
K(4, 7)	=	9.726E-04	CM/SEC	=	2.757E+00	FT/DAY
K(4, 8)	=	8.550E-04	CM/SEC	=	2.424E+00	FT/DAY
K(4, 9)	=	9.71[illegible]E-04	CM/SEC	=	2.753E+00	FT/DAY
K(4,10)	=	8.018E-04	CM/SEC	=	2.273E+00	FT/DAY
K(4,11)	=	8.889E-04	CM/SEC	=	2.520E+00	FT/DAY
K(4,12)	=	8.[illegible]00E-04	CM/SEC	=	2.494E+00	FT/DAY
K(4,13)	=	8.01[illegible]E-04	CM/SEC	=	2.271E+00	FT/DAY
K(4,14)	=	8.316E-04	CM/SEC	=	2.357E+00	FT/DAY
K(4,15)	=	8.126E-04	CM/SEC	=	2.304E+00	FT/DAY
K(4,16)	=	7.766E-04	CM/SEC	=	2.201E+00	FT/DAY
K(4,17)	=	7.625E-04	CM/SEC	=	2.162E+00	FT/DAY
K(5, 6)	=	6.048E-04	CM/SEC	=	1.714E+00	FT/DAY
K(5, 7)	=	9.555E-04	CM/SEC	=	2.708E+00	FT/DAY
K(5, 8)	=	7.8[illegible]9E-04	CM/SEC	=	2.228E+00	FT/DAY
K(5, 9)	=	9.626E-04	CM/SEC	=	2.729E+00	FT/DAY
K(5,10)	=	7.540E-04	CM/SEC	=	2.137E+00	FT/DAY
K(5,11)	=	[illegible]72E-04	CM/SEC	=	2.458E+00	FT/DAY
K(5,12)	=	[illegible].620E-04	CM/SEC	=	2.444E+00	FT/DAY
K(5,13)	=	7.[illegible]E-04	CM/SEC	=	2.212E+00	FT/DAY
K(5,14)	=	8.174E-04	CM/SEC	=	2.317E+00	FT/DAY
K(5,15)	=	[illegible]9E-04	CM/SEC	=	2.270E+00	FT/DAY
K(5,16)	=	7.[illegible]1E-04	CM/SEC	=	2.174E+00	FT/DAY
K(5,17)	=	7.[illegible]9E-04	CM/SEC	=	2.140E+00	FT/DAY
K(6, 7)	=	1.[illegible]E-03	CM/SEC	=	3.70[illegible]E+00	FT/DAY
K(6, 8)	=	8.[illegible]4E-04	CM/SEC	=	2.448E+00	FT/DAY
K(6, 9)	=	1.[illegible]E-03	CM/SEC	=	3.033E+00	FT/DAY
K(6,10)	=	7.[illegible]E-04	CM/SEC	=	2.212E+00	FT/DAY
K(6,11)	=	9.[illegible]47E-04	CM/SEC	=	2.564E+00	FT/DAY

K(6,14) =	8.292E-04 CM/SEC =	2.350E+00 FT/DAY
K(6,15) =	8.089E-04 CM/SEC =	2.293E+00 FT/DAY
K(6,16) =	7.715E-04 CM/SEC =	2.187E+00 FT/DAY
K(6,17) =	7.579E-04 CM/SEC =	2.148E+00 FT/DAY
K(7, 8) =	5.314E-04 CM/SEC =	1.506E+00 FT/DAY
K(7, 9) =	9.687E-04 CM/SEC =	2.746E+00 FT/DAY
K(7,10) =	6.676E-04 CM/SEC =	1.892E+00 FT/DAY
K(7,11) =	8.377E-04 CM/SEC =	2.375E+00 FT/DAY
K(7,12) =	8.408E-04 CM/SEC =	2.383E+00 FT/DAY
K(7,13) =	7.540E-04 CM/SEC =	2.137E+00 FT/DAY
K(7,14) =	8.011E-04 CM/SEC =	2.271E+00 FT/DAY
K(7,15) =	7.878E-04 CM/SEC =	2.233E+00 FT/DAY
K(7,16) =	7.566E-04 CM/SEC =	2.145E+00 FT/DAY
K(7,17) =	7.465E-04 CM/SEC =	2.116E+00 FT/DAY
K(8, 9) =	1.552E-03 CM/SEC =	4.398E+00 FT/DAY
K(8,10) =	7.221E-04 CM/SEC =	2.047E+00 FT/DAY
K(8,11) =	9.253E-04 CM/SEC =	2.623E+00 FT/DAY
K(8,12) =	8.970E-04 CM/SEC =	2.543E+00 FT/DAY
K(8,13) =	7.787E-04 CM/SEC =	2.207E+00 FT/DAY
K(8,14) =	8.241E-04 CM/SEC =	2.336E+00 FT/DAY
K(8,15) =	8.032E-04 CM/SEC =	2.277E+00 FT/DAY
K(8,16) =	7.653E-04 CM/SEC =	2.169E+00 FT/DAY
K(8,17) =	7.526E-04 CM/SEC =	2.133E+00 FT/DAY
K(9,10) =	3.666E-04 CM/SEC =	1.039E+00 FT/DAY
K(9,11) =	7.544E-04 CM/SEC =	2.139E+00 FT/DAY
K(9,12) =	7.937E-04 CM/SEC =	2.250E+00 FT/DAY
K(9,13) =	7.084E-04 CM/SEC =	2.008E+00 FT/DAY
K(9,14) =	7.745E-04 CM/SEC =	2.195E+00 FT/DAY
K(9,15) =	7.681E-04 CM/SEC =	2.177E+00 FT/DAY
K(9,16) =	7.419E-04 CM/SEC =	2.103E+00 FT/DAY
K(9,17) =	7.351E-04 CM/SEC =	2.084E+00 FT/DAY
K(10,11) =	1.433E-03 CM/SEC =	4.063E+00 FT/DAY
K(10,12) =	1.043E-03 CM/SEC =	2.956E+00 FT/DAY
K(10,13) =	8.005E-04 CM/SEC =	2.269E+00 FT/DAY
K(10,14) =	8.517E-04 CM/SEC =	2.414E+00 FT/DAY
K(10,15) =	8.174E-04 CM/SEC =	2.317E+00 FT/DAY
K(10,16) =	7.699E-04 CM/SEC =	2.182E+00 FT/DAY
K(10,17) =	7.550E-04 CM/SEC =	2.140E+00 FT/DAY
K(11,12) =	8.476E-04 CM/SEC =	2.403E+00 FT/DAY
K(11,13) =	6.854E-04 CM/SEC =	1.943E+00 FT/DAY
K(11,14) =	7.812E-04 CM/SEC =	2.214E+00 FT/DAY
K(11,15) =	7.709E-04 CM/SEC =	2.185E+00 FT/DAY
K(11,16) =	7.404E-04 CM/SEC =	2.099E+00 FT/DAY
K(11,17) =	7.334E-04 CM/SEC =	2.079E+00 FT/DAY
K(12,13) =	5.928E-04 CM/SEC =	1.680E+00 FT/DAY
K(12,14) =	7.599E-04 CM/SEC =	2.154E+00 FT/DAY
K(12,15) =	7.573E-04 CM/SEC =	2.147E+00 FT/DAY
K(12,16) =	7.299E-04 CM/SEC =	2.069E+00 FT/DAY
K(12,17) =	7.257E-04 CM/SEC =	2.057E+00 FT/DAY
K(13,14) =	9.726E-04 CM/SEC =	2.757E+00 FT/DAY
K(13,15) =	8.316E-04 CM/SEC =	2.357E+00 FT/DAY
K(13,16) =	7.582E-04 CM/SEC =	2.149E+00 FT/DAY
K(13,17) =	7.436E-04 CM/SEC =	2.108E+00 FT/DAY
K(14,15) =	7.540E-04 CM/SEC =	2.137E+00 FT/DAY
K(14,16) =	7.168E-04 CM/SEC =	2.032E+00 FT/DAY
K(14,17) =	7.165E-04 CM/SEC =	2.031E+00 FT/DAY
K(15,16) =	6.967E-04 CM/SEC =	1.975E+00 FT/DAY
K(15,17) =	7.063E-04 CM/SEC =	2.002E+00 FT/DAY
K(16,17) =	7.161E-04 CM/SEC =	2.030E+00 FT/DAY

AVERAGE HYDRAULIC CONDUCTIVITY = [illegible]E-04 CM/SEC
2.334E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-3B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.20 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 30.00
INITIAL DEPTH/PRES. = 27.40
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	27.4000	0.00000	-0.11009	0.11009
4.0000	27.7000	-0.12260	-0.16812	0.04551
7.0000	27.8000	-0.16705	-0.21163	0.04456
10.0000	27.9000	-0.21357	-0.25515	0.04158
13.0000	28.0000	-0.26236	-0.29867	0.03630
19.0000	28.1000	-0.31366	-0.37119	0.05754
20.0000	28.2000	-0.36773	-0.40021	0.03248
24.0000	28.3000	-0.42488	-0.45823	0.03335
29.0000	28.5000	-0.55005	-0.53076	-0.01929
35.0000	28.7000	-0.69315	-0.61779	-0.07536
52.0000	29.0000	-0.95551	-0.86439	-0.09113
73.0000	29.2000	-1.17866	-1.16900	-0.00965
77.0000	29.4000	-1.46634	-1.22703	-0.23931
114.0000	29.6000	-1.87180	-1.76373	-0.10807
146.0000	29.8000	-2.56495	-2.51803	-0.04692
230.0000	29.9000	-3.25809	-3.44639	0.19829

B0 = -0.1101
B1 = -0.8703
R-SQUARED = 0.93[illegible]

FALL TIME LAG = 61.749 SECONDS

HYDRAULIC CONDUCTIVITY = 6.062E-04 CM/SEC
1.718E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-3B

WELL PARAMETERS:	RISER DIAMETER	=	2.00	INCHES
	SCREEN/PACK DIAMETER	=	5.25	INCHES
	SCREEN LENGTH	=	11.20	FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS:	BASELINE DEPTH/PRES.	=	30.00
	INITIAL DEPTH/PRES.	=	27.40
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
0.0000	27.4000
4.0000	27.7000
7.0000	27.8000
10.0000	27.9000
13.0000	28.0000
18.0000	28.1000
20.0000	28.2000
24.0000	28.3000
29.0000	28.5000
35.0000	28.7000
52.0000	29.0000
73.0000	29.2000
77.0000	29.4000
114.0000	29.6000
166.0000	29.8000
230.0000	29.9000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2)	=	1.140E-03	CM/SEC	=	3.231E+00	FT/DAY
K(1, 3)	=	8.5[illegible]E-04	CM/SEC	=	[illegible].[illegible]16E+00	FT/DAY
K(1, 4)	=	7.[illegible]E-04	CM/SEC	=	2.[illegible]2E+00	FT/DAY
K(1, 5)	=	7.5[illegible]E-04	CM/SEC	=	2.1[illegible]E+00	FT/DAY
K(1, 6)	=	6.831E-04	CM/SEC	=	1.937E+00	FT/DAY
K(1, 7)	=	6.8[illegible]E-04	CM/SEC	=	1.938E+00	FT/DAY
K(1, 8)	=	6.5[illegible]E-04	CM/SEC	=	1.866E+00	FT/DAY
K(1, 9)	=	7.0[illegible]E-04	CM/SEC	=	2.000E+00	FT/DAY
K(1,10)	=	7.3[illegible]E-04	CM/SEC	=	2.098E+00	FT/DAY
K(1,11)	=	6.[illegible]34E-04	CM/SEC	=	1.937E+00	FT/DAY

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K( 1,14) =  6.106E-04 CM/SEC =  1.731E+00 FT/DAY
K( 1,15) =  5.746E-04 CM/SEC =  1.629E+00 FT/DAY
K( 1,16) =  5.268E-04 CM/SEC =  1.493E+00 FT/DAY
K( 2, 3) =  5.511E-04 CM/SEC =  1.562E+00 FT/DAY
K( 2, 4) =  5.639E-04 CM/SEC =  1.598E+00 FT/DAY
K( 2, 5) =  5.775E-04 CM/SEC =  1.637E+00 FT/DAY
K( 2, 6) =  5.075E-04 CM/SEC =  1.439E+00 FT/DAY
K( 2, 7) =  5.698E-04 CM/SEC =  1.615E+00 FT/DAY
K( 2, 8) =  5.621E-04 CM/SEC =  1.593E+00 FT/DAY
K( 2, 9) =  6.359E-04 CM/SEC =  1.802E+00 FT/DAY
K( 2,10) =  6.845E-04 CM/SEC =  1.940E+00 FT/DAY
K( 2,11) =  6.453E-04 CM/SEC =  1.829E+00 FT/DAY
K( 2,12) =  5.692E-04 CM/SEC =  1.613E+00 FT/DAY
K( 2,13) =  6.846E-04 CM/SEC =  1.941E+00 FT/DAY
K( 2,14) =  5.914E-04 CM/SEC =  1.676E+00 FT/DAY
K( 2,15) =  5.607E-04 CM/SEC =  1.589E+00 FT/DAY
K( 2,16) =  5.160E-04 CM/SEC =  1.463E+00 FT/DAY
K( 3, 4) =  5.767E-04 CM/SEC =  1.635E+00 FT/DAY
K( 3, 5) =  5.908E-04 CM/SEC =  1.675E+00 FT/DAY
K( 3, 6) =  4.957E-04 CM/SEC =  1.405E+00 FT/DAY
K( 3, 7) =  5.741E-04 CM/SEC =  1.627E+00 FT/DAY
K( 3, 8) =  5.640E-04 CM/SEC =  1.599E+00 FT/DAY
K( 3, 9) =  6.474E-04 CM/SEC =  1.835E+00 FT/DAY
K( 3,10) =  6.988E-04 CM/SEC =  1.981E+00 FT/DAY
K( 3,11) =  6.516E-04 CM/SEC =  1.847E+00 FT/DAY
K( 3,12) =  5.700E-04 CM/SEC =  1.616E+00 FT/DAY
K( 3,13) =  6.903E-04 CM/SEC =  1.957E+00 FT/DAY
K( 3,14) =  5.925E-04 CM/SEC =  1.680E+00 FT/DAY
K( 3,15) =  5.609E-04 CM/SEC =  1.590E+00 FT/DAY
K( 3,16) =  5.155E-04 CM/SEC =  1.461E+00 FT/DAY
K( 4, 5) =  6.048E-04 CM/SEC =  1.715E+00 FT/DAY
K( 4, 6) =  4.653E-04 CM/SEC =  1.319E+00 FT/DAY
K( 4, 7) =  5.733E-04 CM/SEC =  1.625E+00 FT/DAY
K( 4, 8) =  5.613E-04 CM/SEC =  1.591E+00 FT/DAY
K( 4, 9) =  6.586E-04 CM/SEC =  1.867E+00 FT/DAY
K( 4,10) =  7.134E-04 CM/SEC =  2.022E+00 FT/DAY
K( 4,11) =  6.570E-04 CM/SEC =  1.862E+00 FT/DAY
K( 4,12) =  5.697E-04 CM/SEC =  1.615E+00 FT/DAY
K( 4,13) =  6.954E-04 CM/SEC =  1.971E+00 FT/DAY
K( 4,14) =  5.930E-04 CM/SEC =  1.681E+00 FT/DAY
K( 4,15) =  5.606E-04 CM/SEC =  1.587E+00 FT/DAY
K( 4,16) =  5.147E-04 CM/SEC =  1.459E+00 FT/DAY
K( 5, 6) =  3.[illegible]5E-04 CM/SEC =  1.091E+00 FT/DAY
K( 5, 7) =  5.598E-04 CM/SEC =  1.587E+00 FT/DAY
K( 5, 8) =  5.490E-04 CM/SEC =  1.556E+00 FT/DAY
K( 5, 9) =  6.527E-04 CM/SEC =  1.85[illegible]E+00 FT/DAY
K( 5,10) =  7.292E-04 CM/SEC =  2.064E+00 FT/DAY
K( 5,11) =  6.610E-04 CM/SEC =  1.874E+00 FT/DAY
K( 5,12) =  5.680E-04 CM/SEC =  1.610E+00 FT/DAY
K( 5,13) =  6.996E-04 CM/SEC =  1.983E+00 FT/DAY
K( 5,14) =  5.924E-04 CM/SEC =  1.680E+00 FT/DAY
K( 5,15) =  5.597E-04 CM/SEC =  1.587E+00 FT/DAY
K( 5,16) =  5.134E-04 CM/SEC =  1.455E+00 FT/DAY
K( 6, 7) =  [illegible]E-03 CM/SEC =  2.650E+00 FT/DAY
K( 6, 8) =  6.894E-04 CM/SEC =  1.954E+00 FT/DAY
K( 6, 9) =  [illegible]2E-04 CM/SEC =  2.[illegible] FT/DAY
K( 6,10) =  [illegible]02E-04 CM/SEC =  2.[illegible] FT/DAY
K( 6,11) =  [illegible]1E-04 CM/SEC =  1.9[illegible] FT/DAY
K( 6,12) =  [illegible]E-04 CM/SEC =  1.[illegible] FT/DAY
[illegible]
K( 6,14) =  [illegible]E-04 CM/SEC =  1.71[illegible] FT/DAY
K( 6,15) =  [illegible]E-04 CM/SEC =  1.[illegible] FT/DAY
K( 6,16) =  5.16[illegible]E-04 CM/SEC =  1.464E+00 FT/DAY
K( 7, 8) =  [illegible]4[illegible]E-04 CM/SEC =  1.[illegible] FT/DAY
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K( 7,11) =  6.831E-04 CM/SEC =  1.936E+00 FT/DAY
K( 7,12) =  5.690E-04 CM/SEC =  1.613E+00 FT/DAY
K( 7,13) =  7.168E-04 CM/SEC =  2.032E+00 FT/DAY
K( 7,14) =  5.951E-04 CM/SEC =  1.687E+00 FT/DAY
K( 7,15) =  5.597E-04 CM/SEC =  1.587E+00 FT/DAY
K( 7,16) =  5.119E-04 CM/SEC =  1.451E+00 FT/DAY
K( 8, 9) =  9.310E-04 CM/SEC =  2.639E+00 FT/DAY
K( 8,10) =  9.070E-04 CM/SEC =  2.571E+00 FT/DAY
K( 8,11) =  7.048E-04 CM/SEC =  1.998E+00 FT/DAY
K( 8,12) =  5.721E-04 CM/SEC =  1.622E+00 FT/DAY
K( 8,13) =  7.308E-04 CM/SEC =  2.072E+00 FT/DAY
K( 8,14) =  5.979E-04 CM/SEC =  1.695E+00 FT/DAY
K( 8,15) =  5.605E-04 CM/SEC =  1.589E+00 FT/DAY
K( 8,16) =  5.115E-04 CM/SEC =  1.450E+00 FT/DAY
K( 9,10) =  8.870E-04 CM/SEC =  2.514E+00 FT/DAY
K( 9,11) =  6.556E-04 CM/SEC =  1.858E+00 FT/DAY
K( 9,12) =  5.313E-04 CM/SEC =  1.506E+00 FT/DAY
K( 9,13) =  7.099E-04 CM/SEC =  2.012E+00 FT/DAY
K( 9,14) =  5.783E-04 CM/SEC =  1.639E+00 FT/DAY
K( 9,15) =  5.470E-04 CM/SEC =  1.550E+00 FT/DAY
K( 9,16) =  5.011E-04 CM/SEC =  1.420E+00 FT/DAY
K(10,11) =  5.740E-04 CM/SEC =  1.627E+00 FT/DAY
K(10,12) =  4.752E-04 CM/SEC =  1.347E+00 FT/DAY
K(10,13) =  6.846E-04 CM/SEC =  1.941E+00 FT/DAY
K(10,14) =  5.549E-04 CM/SEC =  1.573E+00 FT/DAY
K(10,15) =  5.314E-04 CM/SEC =  1.506E+00 FT/DAY
K(10,16) =  4.892E-04 CM/SEC =  1.387E+00 FT/DAY
K(11,12) =  3.952E-04 CM/SEC =  1.120E+00 FT/DAY
K(11,13) =  7.599E-04 CM/SEC =  2.154E+00 FT/DAY
K(11,14) =  5.496E-04 CM/SEC =  1.558E+00 FT/DAY
K(11,15) =  5.250E-04 CM/SEC =  1.488E+00 FT/DAY
K(11,16) =  4.811E-04 CM/SEC =  1.364E+00 FT/DAY
K(12,13) =  2.675E-03 CM/SEC =  7.582E+00 FT/DAY
K(12,14) =  6.287E-04 CM/SEC =  1.782E+00 FT/DAY
K(12,15) =  5.544E-04 CM/SEC =  1.571E+00 FT/DAY
K(12,16) =  4.926E-04 CM/SEC =  1.376E+00 FT/DAY
K(13,14) =  4.076E-04 CM/SEC =  1.155E+00 FT/DAY
K(13,15) =  4.591E-04 CM/SEC =  1.301E+00 FT/DAY
K(13,16) =  4.355E-04 CM/SEC =  1.235E+00 FT/DAY
K(14,15) =  4.957E-04 CM/SEC =  1.405E+00 FT/DAY
K(14,16) =  4.445E-04 CM/SEC =  1.260E+00 FT/DAY
K(15,16) =  4.028E-04 CM/SEC =  1.142E+00 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  6.333E-04 CM/SEC
                                  1.795E+00 FT/DAY
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DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-4S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 5.37 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 18.80
INITIAL DEPTH/PRES. = 16.20
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	16.2000	0.00000	-0.36846	0.36846
5.0000	16.7000	-0.21357	-0.40888	0.19531
8.0000	16.9000	-0.31366	-0.43314	0.11948
14.0000	17.1000	-0.42488	-0.48164	0.05676
17.0000	17.3000	-0.55005	-0.50590	-0.04415
22.0000	17.4000	-0.61904	-0.54632	-0.07272
25.0000	17.5000	-0.69315	-0.57057	-0.12257
31.0000	17.6000	-0.77319	-0.61908	-0.15411
39.0000	17.7000	-0.86020	-0.68376	-0.17645
54.0000	17.8000	-0.95551	-0.80502	-0.15049
74.0000	17.9000	-1.06087	-0.96671	-0.09416
89.0000	18.0000	-1.17866	-1.08798	-0.09068
111.0000	18.1000	-1.31219	-1.26584	-0.04635
137.0000	18.2000	-1.46634	-1.47603	0.00969
164.0000	18.3000	-1.64866	-1.69431	0.04566
236.0000	18.5000	-2.15949	-2.27640	0.11691
287.0000	18.6000	-2.56495	-2.68870	0.12375
347.0000	18.7000	-3.25811	-3.17377	-0.08434

DC = -0.3685
D1 = -0.4581
R-SQUARED = 0.9712

BASIC TIME LAG = 78.1[illegible]8 SECONDS

HYDRAULIC CONDUCTIVITY = [illegible].012E-04 CM/SEC
1.[illegible]00E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-4S

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 8.00 INCHES
SCREEN LENGTH = 5.37 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 18.80
INITIAL DEPTH/PRES. = 16.20
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	16.2000
5.0000	16.7000
8.0000	16.9000
14.0000	17.1000
17.0000	17.3000
22.0000	17.4000
25.0000	17.5000
31.0000	17.6000
39.0000	17.7000
54.0000	17.8000
74.0000	17.9000
89.0000	18.0000
111.0000	18.1000
137.0000	18.2000
164.0000	18.3000
236.0000	18.5000
287.0000	18.6000
347.0000	18.7000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = [illegible].140E-03 CM/SEC = 6.6[illegible]E+00 FT/DAY
K(1, 3) = 2.140E-03 CM/SEC = 6.066E+00 FT/DAY
K(1, 4) = 1.[illegible]E-03 CM/SEC = 4.712E+00 FT/DAY
K(1, 5) = 1.772E-03 CM/SEC = 5.0[illegible]E+00 FT/DAY
K(1, 6) = 1.54[illegible]E-03 CM/SEC = 4.369E+00 FT/DAY
K(1, 7) = 1.519E-03 CM/SEC = 4.306E+00 FT/DAY
K(1, 8) = 1.[illegible]46E-03 CM/SEC = 3.873E+00 FT/DAY
K(1, 9) = 1.208E-03 CM/SEC = 3.425E+00 FT/DAY

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K( 1,12) = 7.254E-04 CM/SEC = 2.056E+00 FT/DAY
K( 1,13) = 6.476E-04 CM/SEC = 1.836E+00 FT/DAY
K( 1,14) = 5.863E-04 CM/SEC = 1.662E+00 FT/DAY
K( 1,15) = 5.507E-04 CM/SEC = 1.561E+00 FT/DAY
K( 1,16) = 5.012E-04 CM/SEC = 1.421E+00 FT/DAY
K( 1,17) = 4.896E-04 CM/SEC = 1.388E+00 FT/DAY
K( 1,18) = 5.143E-04 CM/SEC = 1.458E+00 FT/DAY
K( 2, 3) = 1.827E-03 CM/SEC = 5.180E+00 FT/DAY
K( 2, 4) = 1.286E-03 CM/SEC = 3.646E+00 FT/DAY
K( 2, 5) = 1.536E-03 CM/SEC = 4.354E+00 FT/DAY
K( 2, 6) = 1.307E-03 CM/SEC = 3.703E+00 FT/DAY
K( 2, 7) = 1.314E-03 CM/SEC = 3.723E+00 FT/DAY
K( 2, 8) = 1.179E-03 CM/SEC = 3.342E+00 FT/DAY
K( 2, 9) = 1.042E-03 CM/SEC = 2.953E+00 FT/DAY
K( 2,10) = 8.294E-04 CM/SEC = 2.351E+00 FT/DAY
K( 2,11) = 6.727E-04 CM/SEC = 1.907E+00 FT/DAY
K( 2,12) = 6.293E-04 CM/SEC = 1.784E+00 FT/DAY
K( 2,13) = 5.677E-04 CM/SEC = 1.609E+00 FT/DAY
K( 2,14) = 5.199E-04 CM/SEC = 1.474E+00 FT/DAY
K( 2,15) = 4.944E-04 CM/SEC = 1.401E+00 FT/DAY
K( 2,16) = 4.614E-04 CM/SEC = 1.308E+00 FT/DAY
K( 2,17) = 4.568E-04 CM/SEC = 1.295E+00 FT/DAY
K( 2,18) = 4.876E-04 CM/SEC = 1.382E+00 FT/DAY
K( 3, 4) = 1.015E-03 CM/SEC = 2.878E+00 FT/DAY
K( 3, 5) = 1.439E-03 CM/SEC = 4.078E+00 FT/DAY
K( 3, 6) = 1.195E-03 CM/SEC = 3.387E+00 FT/DAY
K( 3, 7) = 1.223E-03 CM/SEC = 3.466E+00 FT/DAY
K( 3, 8) = 1.094E-03 CM/SEC = 3.102E+00 FT/DAY
K( 3, 9) = 9.658E-04 CM/SEC = 2.738E+00 FT/DAY
K( 3,10) = 7.643E-04 CM/SEC = 2.167E+00 FT/DAY
K( 3,11) = 6.202E-04 CM/SEC = 1.758E+00 FT/DAY
K( 3,12) = 5.[illegible]50E-04 CM/SEC = 1.658E+00 FT/DAY
K( 3,13) = 5.310E-04 CM/SEC = 1.505E+00 FT/DAY
K( 3,14) = 4.895E-04 CM/SEC = 1.387E+00 FT/DAY
K( 3,15) = 4.[illegible]E-04 CM/SEC = 1.329E+00 FT/DAY
K( 3,16) = 4.435E-04 CM/SEC = 1.257E+00 FT/DAY
K( 3,17) = 4.420E-04 CM/SEC = 1.253E+00 FT/DAY
K( 3,18) = 4.758E-04 CM/SEC = 1.349E+00 FT/DAY
K( 4, 5) = 2.285E-03 CM/SEC = 6.478E+00 FT/DAY
K( 4, 6) = 1.329E-03 CM/SEC = 3.768E+00 FT/DAY
K( 4, 7) = 1.336E-03 CM/SEC = 3.787E+00 FT/DAY
K( 4, 8) = 1.122E-03 CM/SEC = 3.181E+00 FT/DAY
K( 4, 9) = [illegible].538E-04 CM/SEC = 2.704E+00 FT/DAY
K( 4,10) = 7.267E-04 CM/SEC = 2.060E+00 FT/DAY
K( 4,11) = 5.806E-04 CM/SEC = 1.646E+00 FT/DAY
K( 4,12) = 5.506E-04 CM/SEC = 1.561E+00 FT/DAY
K( 4,13) = 5.011E-04 CM/SEC = 1.420E+00 FT/DAY
K( 4,14) = 4.638E-04 CM/SEC = 1.315E+00 FT/DAY
K( 4,15) = 4.469E-04 CM/SEC = 1.267E+00 FT/DAY
K( 4,16) = 4.[illegible]80E-04 CM/SEC = 1.213E+00 FT/DAY
K( 4,17) = 4.294E-04 CM/SEC = 1.217E+00 FT/DAY
K( 4,18) = 4.661E-04 CM/SEC = 1.321E+00 FT/DAY
K( 5, 6) = [illegible].559E-04 CM/SEC = 2.143E+00 FT/DAY
K( 5, 7) = 9.798E-04 CM/SEC = 2.778E+00 FT/DAY
K( 5, 8) = [illegible].731E-04 CM/SEC = 2.475E+00 FT/DAY
K( 5, 9) = 7.[illegible]E-04 CM/SEC = 2.189E+00 FT/DAY
K( 5,10) = 6.[illegible]E-04 CM/SEC = 1.702E+00 FT/DAY
K( 5,11) = [illegible]E-04 CM/SEC = 1.392E+00 FT/DAY
K( 5,12) = [illegible]E-04 CM/SEC = 1.356E+00 FT/DAY
K( 5,13) = [illegible]E-04 CM/SEC = 1.25[illegible]E+00 FT/DAY
K( 5,14) = 4.[illegible]E-04 CM/SEC = 1.186E+00 FT/DAY
K( 5,15) = 4.[illegible]E-04 CM/SEC = 1.140E+00 FT/DAY
K( 5,16) = 4.[illegible]E-04 CM/SEC = 1.141E+00 FT/DAY
K( 5,17) = 4.[illegible]E-04 CM/SEC = 1.159E+00 FT/DAY
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K(6, 8)	=	9.382E-04	CM/SEC	=	2.660E+00	FT/DAY
K(6, 9)	=	7.771E-04	CM/SEC	=	2.203E+00	FT/DAY
K(6,10)	=	5.760E-04	CM/SEC	=	1.633E+00	FT/DAY
K(6,11)	=	4.654E-04	CM/SEC	=	1.319E+00	FT/DAY
K(6,12)	=	4.575E-04	CM/SEC	=	1.297E+00	FT/DAY
K(6,13)	=	4.266E-04	CM/SEC	=	1.209E+00	FT/DAY
K(6,14)	=	4.036E-04	CM/SEC	=	1.144E+00	FT/DAY
K(6,15)	=	3.972E-04	CM/SEC	=	1.126E+00	FT/DAY
K(6,16)	=	3.943E-04	CM/SEC	=	1.118E+00	FT/DAY
K(6,17)	=	4.022E-04	CM/SEC	=	1.140E+00	FT/DAY
K(6,18)	=	4.448E-04	CM/SEC	=	1.261E+00	FT/DAY
K(7, 8)	=	7.308E-04	CM/SEC	=	2.071E+00	FT/DAY
K(7, 9)	=	6.536E-04	CM/SEC	=	1.853E+00	FT/DAY
K(7,10)	=	4.956E-04	CM/SEC	=	1.405E+00	FT/DAY
K(7,11)	=	4.111E-04	CM/SEC	=	1.165E+00	FT/DAY
K(7,12)	=	4.155E-04	CM/SEC	=	1.178E+00	FT/DAY
K(7,13)	=	3.943E-04	CM/SEC	=	1.118E+00	FT/DAY
K(7,14)	=	3.782E-04	CM/SEC	=	1.072E+00	FT/DAY
K(7,15)	=	3.766E-04	CM/SEC	=	1.067E+00	FT/DAY
K(7,16)	=	3.807E-04	CM/SEC	=	1.079E+00	FT/DAY
K(7,17)	=	3.914E-04	CM/SEC	=	1.109E+00	FT/DAY
K(7,18)	=	4.363E-04	CM/SEC	=	1.237E+00	FT/DAY
K(8, 9)	=	5.958E-04	CM/SEC	=	1.689E+00	FT/DAY
K(8,10)	=	4.342E-04	CM/SEC	=	1.231E+00	FT/DAY
K(8,11)	=	3.665E-04	CM/SEC	=	1.039E+00	FT/DAY
K(8,12)	=	3.829E-04	CM/SEC	=	1.086E+00	FT/DAY
K(8,13)	=	3.691E-04	CM/SEC	=	1.046E+00	FT/DAY
K(8,14)	=	3.582E-04	CM/SEC	=	1.015E+00	FT/DAY
K(8,15)	=	3.606E-04	CM/SEC	=	1.022E+00	FT/DAY
K(8,16)	=	3.704E-04	CM/SEC	=	1.050E+00	FT/DAY
K(8,17)	=	3.834E-04	CM/SEC	=	1.087E+00	FT/DAY
K(8,18)	=	4.308E-04	CM/SEC	=	1.221E+00	FT/DAY
K(9,10)	=	3.481E-04	CM/SEC	=	9.866E-01	FT/DAY
K(9,11)	=	3.141E-04	CM/SEC	=	8.903E-01	FT/DAY
K(9,12)	=	3.489E-04	CM/SEC	=	9.890E-01	FT/DAY
K(9,13)	=	3.439E-04	CM/SEC	=	9.748E-01	FT/DAY
K(9,14)	=	3.388E-04	CM/SEC	=	9.604E-01	FT/DAY
K(9,15)	=	3.455E-04	CM/SEC	=	9.794E-01	FT/DAY
K(9,16)	=	3.613E-04	CM/SEC	=	1.024E+00	FT/DAY
K(9,17)	=	3.765E-04	CM/SEC	=	1.067E+00	FT/DAY
K(9,18)	=	4.265E-04	CM/SEC	=	1.209E+00	FT/DAY
K(10,11)	=	[illegible].886E-04	CM/SEC	=	8.150E-01	FT/DAY
K(10,12)	=	3.492E-04	CM/SEC	=	9.900E-01	FT/DAY
K(10,13)	=	3.428E-04	CM/SEC	=	9.716E-01	FT/DAY
K(10,14)	=	3.371E-04	CM/SEC	=	9.557E-01	FT/DAY
K(10,15)	=	3.402E-04	CM/SEC	=	9.724E-01	FT/DAY
K(10,16)	=	3.624E-04	CM/SEC	=	1.027E+00	FT/DAY
K(10,17)	=	3.784E-04	CM/SEC	=	1.073E+00	FT/DAY
K(10,18)	=	4.305E-04	CM/SEC	=	1.220E+00	FT/DAY
K(11,12)	=	4.301E-04	CM/SEC	=	1.219E+00	FT/DAY
K(11,13)	=	3.721E-04	CM/SEC	=	1.055E+00	FT/DAY
K(11,14)	=	3.[illegible]E-04	CM/SEC	=	9.994E-01	FT/DAY
K(11,15)	=	3.577E-04	CM/SEC	=	1.014E+00	FT/DAY
K(11,16)	=	3.71[illegible]E-04	CM/SEC	=	1.053E+00	FT/DAY
K(11,17)	=	3.860E-04	CM/SEC	=	1.096E+00	FT/DAY
K(11,18)	=	4.409E-04	CM/SEC	=	1.250E+00	FT/DAY
K(12,13)	=	[illegible]E-04	CM/SEC	=	[illegible].423E-01	FT/DAY
K(12,14)	=	[illegible]E-04	CM/SEC	=	[illegible].306E-01	FT/DAY
K(12,15)	=	[illegible]E-04	CM/SEC	=	[illegible]E-01	FT/DAY
K(12,16)	=	[illegible]	CM/SEC	=	1.006E+00	FT/DAY
K(12,17)	=	[illegible]E-04	CM/SEC	=	1.037E+00	FT/DAY
K(12,18)	=	[illegible]E-04	CM/SEC	=	1.2[illegible]E+00	FT/DAY
K(13,14)	=	[illegible]E-04	CM/SEC	=	9.206E-01	FT/DAY
K(13,15)	=	[illegible]E-04	CM/SEC	=	[illegible].858E-01	FT/DAY

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K(13,18) =  4.517E-04 CM/SEC =  1.280E+00 FT/DAY
K(14,15) =  3.699E-04 CM/SEC =  1.049E+00 FT/DAY
K(14,16) =  3.835E-04 CM/SEC =  1.087E+00 FT/DAY
K(14,17) =  4.012E-04 CM/SEC =  1.137E+00 FT/DAY
K(14,18) =  4.674E-04 CM/SEC =  1.325E+00 FT/DAY
K(15,16) =  3.886E-04 CM/SEC =  1.102E+00 FT/DAY
K(15,17) =  4.081E-04 CM/SEC =  1.157E+00 FT/DAY
K(15,18) =  4.818E-04 CM/SEC =  1.366E+00 FT/DAY
K(16,17) =  4.355E-04 CM/SEC =  1.234E+00 FT/DAY
K(16,18) =  5.422E-04 CM/SEC =  1.537E+00 FT/DAY
K(17,18) =  6.328E-04 CM/SEC =  1.794E+00 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  6.424E-04 CM/SEC
                                  1.821E+00 FT/DAY
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DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-4B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.50 FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 40.00
INITIAL DEPTH/PRES. = 43.90
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	43.9000	0.00000	-0.07204	0.07204
3.0000	43.6000	-0.08004	-0.12613	0.04606
7.0000	43.4000	-0.13720	-0.19824	0.06104
10.0000	43.2000	-0.19783	-0.25233	0.05450
13.0000	43.1000	-0.22958	-0.30642	0.07684
16.0000	42.9000	-0.29627	-0.36050	0.06424
20.0000	42.6000	-0.40547	-0.43262	0.02715
26.0000	42.3000	-0.52807	-0.54079	0.01272
29.0000	42.2000	-0.57252	-0.59488	0.02236
33.0000	42.1000	-0.61904	-0.66699	0.04795
35.0000	41.9000	-0.71912	-0.70305	-0.01607
38.0000	41.8000	-0.77319	-0.75714	-0.01606
44.0000	41.6000	-0.89097	-0.86531	-0.02567
49.0000	41.4000	-1.02450	-0.95545	-0.06905
56.0000	41.2000	-1.17865	-1.08165	-0.09700
65.0000	41.0000	-1.36098	-1.24391	-0.11706
77.0000	40.8000	-1.58412	-1.46026	-0.12386
93.0000	40.6000	-1.87181	-1.74872	-0.12309
116.0000	40.4000	-2.27726	-2.16338	-0.11388
160.0000	40.2000	-2.97041	-2.95665	-0.01376
212.0000	40.1000	-3.66308	-3.89415	0.23057

B0 = -0.0720
B1 = -1.0817
R-SQUARED = 0.9920

BASIC TIME LAG = 11.471 SECONDS

HYDRAULIC CONDUCTIVITY = 7.064E-04 CM/SEC

K(1, 9)	=	7.199E-04	CM/SEC	=	2.041E+00	FT/DAY
K(1,10)	=	6.840E-04	CM/SEC	=	1.939E+00	FT/DAY
K(1,11)	=	7.492E-04	CM/SEC	=	2.124E+00	FT/DAY
K(1,12)	=	7.419E-04	CM/SEC	=	2.103E+00	FT/DAY
K(1,13)	=	7.384E-04	CM/SEC	=	2.093E+00	FT/DAY
K(1,14)	=	7.624E-04	CM/SEC	=	2.161E+00	FT/DAY
K(1,15)	=	7.675E-04	CM/SEC	=	2.175E+00	FT/DAY
K(1,16)	=	7.635E-04	CM/SEC	=	2.164E+00	FT/DAY
K(1,17)	=	7.502E-04	CM/SEC	=	2.126E+00	FT/DAY
K(1,18)	=	7.339E-04	CM/SEC	=	2.080E+00	FT/DAY
K(1,19)	=	7.158E-04	CM/SEC	=	2.029E+00	FT/DAY
K(1,20)	=	6.769E-04	CM/SEC	=	1.919E+00	FT/DAY
K(1,21)	=	6.301E-04	CM/SEC	=	1.786E+00	FT/DAY
K(2, 3)	=	5.210E-04	CM/SEC	=	1.477E+00	FT/DAY
K(2, 4)	=	6.135E-04	CM/SEC	=	1.739E+00	FT/DAY
K(2, 5)	=	5.452E-04	CM/SEC	=	1.546E+00	FT/DAY
K(2, 6)	=	6.065E-04	CM/SEC	=	1.719E+00	FT/DAY
K(2, 7)	=	6.980E-04	CM/SEC	=	1.979E+00	FT/DAY
K(2, 8)	=	7.103E-04	CM/SEC	=	2.013E+00	FT/DAY
K(2, 9)	=	6.907E-04	CM/SEC	=	1.958E+00	FT/DAY
K(2,10)	=	6.551E-04	CM/SEC	=	1.857E+00	FT/DAY
K(2,11)	=	7.282E-04	CM/SEC	=	2.064E+00	FT/DAY
K(2,12)	=	7.221E-04	CM/SEC	=	2.047E+00	FT/DAY
K(2,13)	=	7.212E-04	CM/SEC	=	2.044E+00	FT/DAY
K(2,14)	=	7.487E-04	CM/SEC	=	2.122E+00	FT/DAY
K(2,15)	=	7.558E-04	CM/SEC	=	2.143E+00	FT/DAY
K(2,16)	=	7.533E-04	CM/SEC	=	2.135E+00	FT/DAY
K(2,17)	=	7.411E-04	CM/SEC	=	2.101E+00	FT/DAY
K(2,18)	=	7.259E-04	CM/SEC	=	2.058E+00	FT/DAY
K(2,19)	=	7.090E-04	CM/SEC	=	2.010E+00	FT/DAY
K(2,20)	=	6.713E-04	CM/SEC	=	1.903E+00	FT/DAY
K(2,21)	=	6.252E-04	CM/SEC	=	1.772E+00	FT/DAY
K(3, 4)	=	7.369E-04	CM/SEC	=	2.089E+00	FT/DAY
K(3, 5)	=	5.614E-04	CM/SEC	=	1.591E+00	FT/DAY
K(3, 6)	=	6.444E-04	CM/SEC	=	1.827E+00	FT/DAY
K(3, 7)	=	7.525E-04	CM/SEC	=	2.133E+00	FT/DAY
K(3, 8)	=	7.501E-04	CM/SEC	=	2.126E+00	FT/DAY
K(3, 9)	=	7.215E-04	CM/SEC	=	2.045E+00	FT/DAY
K(3,10)	=	6.758E-04	CM/SEC	=	1.916E+00	FT/DAY
K(3,11)	=	7.578E-04	CM/SEC	=	2.148E+00	FT/DAY
K(3,12)	=	7.491E-04	CM/SEC	=	2.121E+00	FT/DAY
K(3,13)	=	7.428E-04	CM/SEC	=	2.106E+00	FT/DAY
K(3,14)	=	7.703E-04	CM/SEC	=	2.184E+00	FT/DAY
K(3,15)	=	7.750E-04	CM/SEC	=	2.197E+00	FT/DAY
K(3,16)	=	7.694E-04	CM/SEC	=	2.181E+00	FT/DAY
K(3,17)	=	7.537E-04	CM/SEC	=	2.137E+00	FT/DAY
K(3,18)	=	7.355E-04	CM/SEC	=	2.085E+00	FT/DAY
K(3,19)	=	7.159E-04	CM/SEC	=	2.029E+00	FT/DAY
K(3,20)	=	6.752E-04	CM/SEC	=	1.914E+00	FT/DAY
K(3,21)	=	6.272E-04	CM/SEC	=	1.778E+00	FT/DAY
K(4, 5)	=	3.859E-04	CM/SEC	=	1.094E+00	FT/DAY
K(4, 6)	=	5.982E-04	CM/SEC	=	1.696E+00	FT/DAY
K(4, 7)	=	7.571E-04	CM/SEC	=	2.146E+00	FT/DAY
K(4, 8)	=	7.526E-04	CM/SEC	=	2.133E+00	FT/DAY
K(4, 9)	=	7.191E-04	CM/SEC	=	2.038E+00	FT/DAY
K(4,10)	=	6.678E-04	CM/SEC	=	1.893E+00	FT/DAY
K(4,11)	=	7.603E-04	CM/SEC	=	2.155E+00	FT/DAY
K(4,12)	=	7.493E-04	CM/SEC	=	2.124E+00	FT/DAY
K(4,13)	=	7.434E-04	CM/SEC	=	2.107E+00	FT/DAY
K(4,14)	=	7.729E-04	CM/SEC	=	2.191E+00	FT/DAY
K(4,15)	=	7.775E-04	CM/SEC	=	2.204E+00	FT/DAY
K(4,16)	=	7.711E-04	CM/SEC	=	2.186E+00	FT/DAY
K(4,17)	=	7.545E-04	CM/SEC	=	2.139E+00	FT/DAY
K(4,18)	=	7.354E-04	CM/SEC	=	2.085E+00	FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-4B

WELL PARAMETERS:			
RISER DIAMETER	=	2.00	INCHES
SCREEN/PACK DIAMETER	=	5.25	INCHES
SCREEN LENGTH	=	11.50	FEET

TEST TYPE: SLUG

DATE OF TEST: 03/19/87

TEST PARAMETERS:		
BASELINE DEPTH/PRES.	=	40.00
INITIAL DEPTH/PRES.	=	43.90
TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
0.0000	43.9000
3.0000	43.6000
7.0000	43.4000
10.0000	43.2000
13.0000	43.1000
16.0000	42.9000
20.0000	42.6000
26.0000	42.3000
29.0000	42.2000
33.0000	42.1000
35.0000	41.9000
38.0000	41.8000
44.0000	41.6000
49.0000	41.4000
56.0000	41.2000
65.0000	41.0000
77.0000	40.8000
93.0000	40.6000
116.0000	40.4000
160.0000	40.2000
212.0000	40.1000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = [illegible]E-04 CM/SEC = [illegible]E+00 FT/DAY
K(1, 3) = 7.147E-04 CM/SEC = 2.026E+00 FT/DAY
K(1, 4) = 7.213E-04 CM/SEC = 2.045E+00 FT/DAY
K(1, [illegible]) = 6.439E-04 CM/SEC = 1.825E+00 FT/DAY
K(1, [illegible]) = 6.752E-04 CM/SEC = 1.914E+00 FT/DAY

K(4,21)	=	6.256E-04	CM/SEC	=	1.773E+00	FT/DAY
K(5, 6)	=	8.106E-04	CM/SEC	=	2.298E+00	FT/DAY
K(5, 7)	=	9.162E-04	CM/SEC	=	2.597E+00	FT/DAY
K(5, 8)	=	8.372E-04	CM/SEC	=	2.373E+00	FT/DAY
K(5, 9)	=	7.816E-04	CM/SEC	=	2.215E+00	FT/DAY
K(5,10)	=	7.101E-04	CM/SEC	=	2.013E+00	FT/DAY
K(5,11)	=	8.114E-04	CM/SEC	=	2.300E+00	FT/DAY
K(5,12)	=	7.929E-04	CM/SEC	=	2.248E+00	FT/DAY
K(5,13)	=	7.780E-04	CM/SEC	=	2.205E+00	FT/DAY
K(5,14)	=	8.052E-04	CM/SEC	=	2.282E+00	FT/DAY
K(5,15)	=	8.048E-04	CM/SEC	=	2.281E+00	FT/DAY
K(5,16)	=	7.934E-04	CM/SEC	=	2.249E+00	FT/DAY
K(5,17)	=	7.717E-04	CM/SEC	=	2.188E+00	FT/DAY
K(5,18)	=	7.485E-04	CM/SEC	=	2.122E+00	FT/DAY
K(5,19)	=	7.249E-04	CM/SEC	=	2.055E+00	FT/DAY
K(5,20)	=	6.799E-04	CM/SEC	=	1.927E+00	FT/DAY
K(5,21)	=	6.292E-04	CM/SEC	=	1.784E+00	FT/DAY
K(6, 7)	=	9.955E-04	CM/SEC	=	2.822E+00	FT/DAY
K(6, 8)	=	8.452E-04	CM/SEC	=	2.396E+00	FT/DAY
K(6, 9)	=	7.749E-04	CM/SEC	=	2.196E+00	FT/DAY
K(6,10)	=	6.923E-04	CM/SEC	=	1.962E+00	FT/DAY
K(6,11)	=	8.115E-04	CM/SEC	=	2.300E+00	FT/DAY
K(6,12)	=	7.905E-04	CM/SEC	=	2.241E+00	FT/DAY
K(6,13)	=	7.745E-04	CM/SEC	=	2.195E+00	FT/DAY
K(6,14)	=	8.047E-04	CM/SEC	=	2.281E+00	FT/DAY
K(6,15)	=	8.044E-04	CM/SEC	=	2.280E+00	FT/DAY
K(6,16)	=	7.923E-04	CM/SEC	=	2.246E+00	FT/DAY
K(6,17)	=	7.698E-04	CM/SEC	=	2.182E+00	FT/DAY
K(6,18)	=	7.461E-04	CM/SEC	=	2.115E+00	FT/DAY
K(6,19)	=	7.223E-04	CM/SEC	=	2.048E+00	FT/DAY
K(6,20)	=	6.771E-04	CM/SEC	=	1.919E+00	FT/DAY
K(6,21)	=	6.264E-04	CM/SEC	=	1.776E+00	FT/DAY
K(7, 8)	=	7.451E-04	CM/SEC	=	2.112E+00	FT/DAY
K(7, 9)	=	6.768E-04	CM/SEC	=	1.919E+00	FT/DAY
K(7,10)	=	5.991E-04	CM/SEC	=	1.698E+00	FT/DAY
K(7,11)	=	7.625E-04	CM/SEC	=	2.161E+00	FT/DAY
K(7,12)	=	7.449E-04	CM/SEC	=	2.112E+00	FT/DAY
K(7,13)	=	7.376E-04	CM/SEC	=	2.091E+00	FT/DAY
K(7,14)	=	7.784E-04	CM/SEC	=	2.206E+00	FT/DAY
K(7,15)	=	7.831E-04	CM/SEC	=	2.220E+00	FT/DAY
K(7,16)	=	7.742E-04	CM/SEC	=	2.195E+00	FT/DAY
K(7,17)	=	7.540E-04	CM/SEC	=	2.137E+00	FT/DAY
K(7,18)	=	7.324E-04	CM/SEC	=	2.076E+00	FT/DAY
K(7,19)	=	7.110E-04	CM/SEC	=	2.015E+00	FT/DAY
K(7,20)	=	6.680E-04	CM/SEC	=	1.894E+00	FT/DAY
K(7,21)	=	6.180E-04	CM/SEC	=	1.754E+00	FT/DAY
K(8, 9)	=	5.403E-04	CM/SEC	=	1.532E+00	FT/DAY
K(8,10)	=	4.739E-04	CM/SEC	=	1.343E+00	FT/DAY
K(8,11)	=	7.741E-04	CM/SEC	=	2.194E+00	FT/DAY
K(8,12)	=	7.448E-04	CM/SEC	=	2.111E+00	FT/DAY
K(8,13)	=	7.352E-04	CM/SEC	=	2.084E+00	FT/DAY
K(8,14)	=	7.870E-04	CM/SEC	=	2.231E+00	FT/DAY
K(8,15)	=	7.909E-04	CM/SEC	=	2.242E+00	FT/DAY
K(8,16)	=	7.787E-04	CM/SEC	=	2.207E+00	FT/DAY
K(8,17)	=	7.550E-04	CM/SEC	=	2.140E+00	FT/DAY
K(8,18)	=	7.313E-04	CM/SEC	=	2.073E+00	FT/DAY
K(8,19)	=	[illegible]	CM/SEC	=	[illegible]	FT/DAY
K(8,20)	=	[illegible]	CM/SEC	=	1.804E+00	FT/DAY
K(8,21)	=	6.147E-04	CM/SEC	=	1.742E+00	FT/DAY
K(9,10)	=	[illegible]	CM/SEC	=	[illegible]	FT/DAY
K(9,11)	=	[illegible]	CM/SEC	=	2.521E+00	FT/DAY
K(9,12)	=	[illegible]	CM/SEC	=	[illegible]	FT/DAY
K(9,13)	=	7.741E-04	CM/SEC	=	2.194E+00	FT/DAY
K(9,14)	=	8.240E-04	CM/SEC	=	2.336E+00	FT/DAY

K(9,17) = 7.685E-04 CM/SEC = 2.178E+00 FT/DAY
K(9,18) = 7.403E-04 CM/SEC = 2.098E+00 FT/DAY
K(9,19) = 7.145E-04 CM/SEC = 2.025E+00 FT/DAY
K(9,20) = 6.674E-04 CM/SEC = 1.892E+00 FT/DAY
K(9,21) = 6.159E-04 CM/SEC = 1.746E+00 FT/DAY
K(10,11) = 1.825E-03 CM/SEC = 5.172E+00 FT/DAY
K(10,12) = 1.124E-03 CM/SEC = 3.187E+00 FT/DAY
K(10,13) = 9.014E-04 CM/SEC = 2.555E+00 FT/DAY
K(10,14) = 9.240E-04 CM/SEC = 2.619E+00 FT/DAY
K(10,15) = 8.872E-04 CM/SEC = 2.515E+00 FT/DAY
K(10,16) = 8.454E-04 CM/SEC = 2.396E+00 FT/DAY
K(10,17) = 7.998E-04 CM/SEC = 2.267E+00 FT/DAY
K(10,18) = 7.613E-04 CM/SEC = 2.158E+00 FT/DAY
K(10,19) = 7.285E-04 CM/SEC = 2.065E+00 FT/DAY
K(10,20) = 6.751E-04 CM/SEC = 1.914E+00 FT/DAY
K(10,21) = 6.202E-04 CM/SEC = 1.758E+00 FT/DAY
K(11,12) = 6.572E-04 CM/SEC = 1.863E+00 FT/DAY
K(11,13) = 6.963E-04 CM/SEC = 1.974E+00 FT/DAY
K(11,14) = 7.954E-04 CM/SEC = 2.255E+00 FT/DAY
K(11,15) = 7.979E-04 CM/SEC = 2.262E+00 FT/DAY
K(11,16) = 7.801E-04 CM/SEC = 2.211E+00 FT/DAY
K(11,17) = 7.510E-04 CM/SEC = 2.129E+00 FT/DAY
K(11,18) = 7.247E-04 CM/SEC = 2.054E+00 FT/DAY
K(11,19) = 7.014E-04 CM/SEC = 1.988E+00 FT/DAY
K(11,20) = 6.567E-04 CM/SEC = 1.862E+00 FT/DAY
K(11,21) = 6.066E-04 CM/SEC = 1.719E+00 FT/DAY
K(12,13) = 7.158E-04 CM/SEC = 2.029E+00 FT/DAY
K(12,14) = 8.331E-04 CM/SEC = 2.361E+00 FT/DAY
K(12,15) = 8.214E-04 CM/SEC = 2.328E+00 FT/DAY
K(12,16) = 7.938E-04 CM/SEC = 2.250E+00 FT/DAY
K(12,17) = 7.582E-04 CM/SEC = 2.149E+00 FT/DAY
K(12,18) = 7.284E-04 CM/SEC = 2.065E+00 FT/DAY
K(12,19) = 7.031E-04 CM/SEC = 1.993E+00 FT/DAY
K(12,20) = 6.567E-04 CM/SEC = 1.862E+00 FT/DAY
K(12,21) = 6.057E-04 CM/SEC = 1.717E+00 FT/DAY
K(13,14) = 9.738E-04 CM/SEC = 2.760E+00 FT/DAY
K(13,15) = 8.742E-04 CM/SEC = 2.478E+00 FT/DAY
K(13,16) = 8.161E-04 CM/SEC = 2.313E+00 FT/DAY
K(13,17) = 7.659E-04 CM/SEC = 2.171E+00 FT/DAY
K(13,18) = 7.299E-04 CM/SEC = 2.069E+00 FT/DAY
K(13,19) = 7.021E-04 CM/SEC = 1.990E+00 FT/DAY
K(13,20) = 6.537E-04 CM/SEC = 1.853E+00 FT/DAY
K(13,21) = 6.018E-04 CM/SEC = 1.706E+00 FT/DAY
K(14,15) = 8.030E-04 CM/SEC = 2.276E+00 FT/DAY
K(14,16) = 7.668E-04 CM/SEC = 2.174E+00 FT/DAY
K(14,17) = 7.288E-04 CM/SEC = 2.066E+00 FT/DAY
K(14,18) = 7.022E-04 CM/SEC = 1.990E+00 FT/DAY
K(14,19) = 6.818E-04 CM/SEC = 1.933E+00 FT/DAY
K(14,20) = 6.392E-04 CM/SEC = 1.812E+00 FT/DAY
K(14,21) = 5.904E-04 CM/SEC = 1.673E+00 FT/DAY
K(15,16) = 7.387E-04 CM/SEC = 2.094E+00 FT/DAY
K(15,17) = 7.040E-04 CM/SEC = 1.996E+00 FT/DAY
K(15,18) = 6.831E-04 CM/SEC = 1.936E+00 FT/DAY
K(15,19) = 6.677E-04 CM/SEC = 1.893E+00 FT/DAY
K(15,20) = 6.282E-04 CM/SEC = 1.781E+00 FT/DAY
K(15,21) = 5.808E-04 CM/SEC = 1.646E+00 FT/DAY
K(16,17) = 6.731E-04 CM/SEC = 1.908E+00 FT/DAY
K(16,18) = 6.[illegible]52E-04 CM/SEC = 1.8[illegible]E+00 FT/DAY
K(16,19) = [illegible]531E-04 CM/SEC = 1.857E+00 FT/DAY
K(16,20) = 6.[illegible]E-04 CM/SEC = 1.[illegible]E+00 FT/DAY
K(16,21) = 5.712E-04 CM/SEC = 1.619E+00 FT/DAY
K(17,18) = 6.756E-04 CM/SEC = 1.[illegible]E+00 FT/DAY
K(17,19) = 6.481E-04 CM/SEC = 1.837E+00 FT/DAY
K(17,20) = 6.090E-04 CM/SEC = 1.726E+00 FT/DAY

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K(18,20) =  5.979E-04 CM/SEC =  1.695E+00 FT/DAY
K(18,21) =  5.490E-04 CM/SEC =  1.556E+00 FT/DAY
K(19,20) =  5.744E-04 CM/SEC =  1.628E+00 FT/DAY
K(19,21) =  5.266E-04 CM/SEC =  1.493E+00 FT/DAY
K(20,21) =  4.861E-04 CM/SEC =  1.378E+00 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  7.260E-04 CM/SEC
                                  2.058E+00 FT/DAY
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DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-4B

WELL PARAMETERS:			
	RISER DIAMETER	=	2.00 INCHES
	SCREEN/PACK DIAMETER	=	5.25 INCHES
	SCREEN LENGTH	=	11.50 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS:			
	BASELINE DEPTH/PRES.	=	40.00
	INITIAL DEPTH/PRES.	=	37.10
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	37.1000	0.00000	-0.04465	0.04465
4.0000	37.4000	-0.10920	-0.11213	0.00293
7.0000	37.5000	-0.14842	-0.16274	0.0143[illegible]
10.0000	37.6000	-0.18924	-0.21336	0.02412
13.0000	37.7000	-0.23180	-0.26397	0.03217
16.0000	37.9000	-0.32277	-0.31459	-0.00819
19.0000	38.0000	-0.37156	-0.36520	-0.00636
22.0000	38.1000	-0.42286	-0.41581	-0.00704
25.0000	38.2000	-0.47692	-0.46643	-0.01050
29.0000	38.3000	-0.53409	-0.53391	-0.00017
32.0000	38.4000	-0.59471	-0.58453	-0.01018
36.0000	38.5000	-0.65925	-0.65201	-0.00723
40.0000	38.6000	-0.72824	-0.71950	-0.00874
44.0000	38.7000	-0.80235	-0.78698	-0.01536
49.0000	38.8000	-0.88239	-0.87134	-0.01105
54.0000	38.9000	-0.96940	-0.95570	-0.01371
59.0000	39.0000	-1.06471	-1.04005	-0.02466
66.0000	39.1000	-1.17007	-1.15815	-0.01192
73.0000	39.2000	-1.28784	-1.27625	-0.01160
90.0000	39.4000	-1.57554	-1.56306	-0.01248
115.0000	39.6000	-1.98100	-1.98485	0.00785
157.0000	39.8000	-2.67415	-2.69344	0.01930
192.0000	39.9000	-3.31731	-3.34047	0.01785

B0 = -0.0446
B1 = -1.01[illegible]
R-SQUARED = 0.99[illegible]

BASIC TIME LAG = 56.[illegible] SECONDS

HYDRAULIC CONDUCTIVITY = 6.439E-04 CM/SEC

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-4B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.50 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 40.00
INITIAL DEPTH/PRES. = 37.10
TIME SCALE = 60.0000

TIME	DEPTH/PRES.
0.0000	37.1000
4.0000	37.4000
7.0000	37.5000
10.0000	37.6000
13.0000	37.7000
16.0000	37.9000
19.0000	38.0000
22.0000	38.1000
25.0000	38.2000
29.0000	38.3000
32.0000	38.4000
36.0000	38.5000
40.0000	38.6000
44.0000	38.7000
49.0000	38.8000
54.0000	38.9000
59.0000	39.0000
66.0000	39.1000
75.0000	39.2000
90.0000	39.4000
115.0000	39.6000
157.0000	39.8000
196.0000	39.9000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) = 9.958E-04 CM/SEC = 2.822E+00 FT/DAY
K(1, 3) = 7.733E-04 CM/SEC = 2.192E+00 FT/DAY
K(1, 4) = 6.900E-04 CM/SEC = 1.956E+00 FT/DAY

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K( 1, 7) =  7.131E-04 CM/SEC =  2.021E+00 FT/DAY
K( 1, 8) =  7.009E-04 CM/SEC =  1.987E+00 FT/DAY
K( 1, 9) =  6.956E-04 CM/SEC =  1.972E+00 FT/DAY
K( 1,10) =  6.715E-04 CM/SEC =  1.904E+00 FT/DAY
K( 1,11) =  6.777E-04 CM/SEC =  1.921E+00 FT/DAY
K( 1,12) =  6.677E-04 CM/SEC =  1.893E+00 FT/DAY
K( 1,13) =  6.639E-04 CM/SEC =  1.882E+00 FT/DAY
K( 1,14) =  6.649E-04 CM/SEC =  1.885E+00 FT/DAY
K( 1,15) =  6.566E-04 CM/SEC =  1.861E+00 FT/DAY
K( 1,16) =  6.546E-04 CM/SEC =  1.856E+00 FT/DAY
K( 1,17) =  6.580E-04 CM/SEC =  1.865E+00 FT/DAY
K( 1,18) =  6.464E-04 CM/SEC =  1.832E+00 FT/DAY
K( 1,19) =  6.433E-04 CM/SEC =  1.823E+00 FT/DAY
K( 1,20) =  6.383E-04 CM/SEC =  1.809E+00 FT/DAY
K( 1,21) =  6.281E-04 CM/SEC =  1.781E+00 FT/DAY
K( 1,22) =  6.211E-04 CM/SEC =  1.761E+00 FT/DAY
K( 1,23) =  6.201E-04 CM/SEC =  1.758E+00 FT/DAY
K( 2, 3) =  4.767E-04 CM/SEC =  1.351E+00 FT/DAY
K( 2, 4) =  4.864E-04 CM/SEC =  1.379E+00 FT/DAY
K( 2, 5) =  4.967E-04 CM/SEC =  1.408E+00 FT/DAY
K( 2, 6) =  6.490E-04 CM/SEC =  1.840E+00 FT/DAY
K( 2, 7) =  6.378E-04 CM/SEC =  1.808E+00 FT/DAY
K( 2, 8) =  6.354E-04 CM/SEC =  1.801E+00 FT/DAY
K( 2, 9) =  6.385E-04 CM/SEC =  1.810E+00 FT/DAY
K( 2,10) =  6.197E-04 CM/SEC =  1.757E+00 FT/DAY
K( 2,11) =  6.323E-04 CM/SEC =  1.792E+00 FT/DAY
K( 2,12) =  6.268E-04 CM/SEC =  1.777E+00 FT/DAY
K( 2,13) =  6.270E-04 CM/SEC =  1.777E+00 FT/DAY
K( 2,14) =  6.319E-04 CM/SEC =  1.791E+00 FT/DAY
K( 2,15) =  6.265E-04 CM/SEC =  1.776E+00 FT/DAY
K( 2,16) =  6.273E-04 CM/SEC =  1.778E+00 FT/DAY
K( 2,17) =  6.335E-04 CM/SEC =  1.796E+00 FT/DAY
K( 2,18) =  6.239E-04 CM/SEC =  1.769E+00 FT/DAY
K( 2,19) =  6.229E-04 CM/SEC =  1.766E+00 FT/DAY
K( 2,20) =  6.217E-04 CM/SEC =  1.762E+00 FT/DAY
K( 2,21) =  6.149E-04 CM/SEC =  1.743E+00 FT/DAY
K( 2,22) =  6.113E-04 CM/SEC =  1.733E+00 FT/DAY
K( 2,23) =  6.124E-04 CM/SEC =  1.736E+00 FT/DAY
K( 3, 4) =  4.962E-04 CM/SEC =  1.406E+00 FT/DAY
K( 3, 5) =  5.067E-04 CM/SEC =  1.436E+00 FT/DAY
K( 3, 6) =  7.064E-04 CM/SEC =  2.002E+00 FT/DAY
K( 3, 7) =  6.780E-04 CM/SEC =  1.922E+00 FT/DAY
K( 3, 8) =  6.671E-04 CM/SEC =  1.891E+00 FT/DAY
K( 3, 9) =  6.655E-04 CM/SEC =  1.886E+00 FT/DAY
K( 3,10) =  6.392E-04 CM/SEC =  1.812E+00 FT/DAY
K( 3,11) =  6.509E-04 CM/SEC =  1.845E+00 FT/DAY
K( 3,12) =  6.423E-04 CM/SEC =  1.821E+00 FT/DAY
K( 3,13) =  6.40[illegible]E-04 CM/SEC =  1.816E+00 FT/DAY
K( 3,14) =  6.448E-04 CM/SEC =  1.827E+00 FT/DAY
K( 3,15) =  6.372E-04 CM/SEC =  1.806E+00 FT/DAY
K( 3,16) =  6.369E-04 CM/SEC =  1.805E+00 FT/DAY
K( 3,17) =  6.425E-04 CM/SEC =  1.821E+00 FT/DAY
K( 3,18) =  6.314E-04 CM/SEC =  1.790E+00 FT/DAY
K( 3,19) =  6.295E-04 CM/SEC =  1.784E+00 FT/DAY
K( 3,20) =  6.270E-04 CM/SEC =  1.777E+00 FT/DAY
K( 3,21) =  6.187E-04 CM/SEC =  1.754E+00 FT/DAY
K( 3,22) =  6.[illegible]40E-04 CM/SEC =  1.740E+00 FT/DAY
K( 3,23) =  6.[illegible]4[illegible]E-04 CM/SEC =  1.742E+00 FT/DAY
K( 4, 5) =  5.17[illegible]E-04 CM/SEC =  1.466E+00 FT/DAY
K( 4, 6) =  [illegible]E-04 CM/SEC =  2.[illegible]E+00 FT/DAY
K( 4, 7) =  7.[illegible]E-04 CM/SEC =  2.074E+00 FT/DAY
K( 4, 8) =  7.09[illegible]E-04 CM/SEC =  2.012E+00 FT/DAY
K( 4, 9) =  [illegible]E-04 CM/SEC =  1.782E+00 FT/DAY
K( 4,10) =  6.[illegible]18E-04 CM/SEC =  1.876E+00 FT/DAY
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K( 4,13) =  6.551E-04 CM/SEC =  1.857E+00 FT/DAY
K( 4,14) =  6.575E-04 CM/SEC =  1.864E+00 FT/DAY
K( 4,15) =  6.481E-04 CM/SEC =  1.837E+00 FT/DAY
K( 4,16) =  6.465E-04 CM/SEC =  1.833E+00 FT/DAY
K( 4,17) =  6.515E-04 CM/SEC =  1.847E+00 FT/DAY
K( 4,18) =  6.387E-04 CM/SEC =  1.810E+00 FT/DAY
K( 4,19) =  6.359E-04 CM/SEC =  1.802E+00 FT/DAY
K( 4,20) =  6.319E-04 CM/SEC =  1.791E+00 FT/DAY
K( 4,21) =  6.222E-04 CM/SEC =  1.764E+00 FT/DAY
K( 4,22) =  6.164E-04 CM/SEC =  1.747E+00 FT/DAY
K( 4,23) =  6.164E-04 CM/SEC =  1.747E+00 FT/DAY
K( 5, 6) =  1.106E-03 CM/SEC =  3.134E+00 FT/DAY
K( 5, 7) =  8.494E-04 CM/SEC =  2.408E+00 FT/DAY
K( 5, 8) =  7.741E-04 CM/SEC =  2.194E+00 FT/DAY
K( 5, 9) =  7.448E-04 CM/SEC =  2.111E+00 FT/DAY
K( 5,10) =  6.889E-04 CM/SEC =  1.953E+00 FT/DAY
K( 5,11) =  6.965E-04 CM/SEC =  1.974E+00 FT/DAY
K( 5,12) =  6.777E-04 CM/SEC =  1.921E+00 FT/DAY
K( 5,13) =  6.704E-04 CM/SEC =  1.900E+00 FT/DAY
K( 5,14) =  6.711E-04 CM/SEC =  1.902E+00 FT/DAY
K( 5,15) =  6.590E-04 CM/SEC =  1.868E+00 FT/DAY
K( 5,16) =  6.560E-04 CM/SEC =  1.859E+00 FT/DAY
K( 5,17) =  6.602E-04 CM/SEC =  1.872E+00 FT/DAY
K( 5,18) =  6.455E-04 CM/SEC =  1.830E+00 FT/DAY
K( 5,19) =  6.418E-04 CM/SEC =  1.819E+00 FT/DAY
K( 5,20) =  6.363E-04 CM/SEC =  1.804E+00 FT/DAY
K( 5,21) =  6.253E-04 CM/SEC =  1.773E+00 FT/DAY
K( 5,22) =  6.184E-04 CM/SEC =  1.753E+00 FT/DAY
K( 5,23) =  6.180E-04 CM/SEC =  1.752E+00 FT/DAY
K( 6, 7) =  5.930E-04 CM/SEC =  1.681E+00 FT/DAY
K( 6, 8) =  6.082E-04 CM/SEC =  1.724E+00 FT/DAY
K( 6, 9) =  6.245E-04 CM/SEC =  1.770E+00 FT/DAY
K( 6,10) =  5.927E-04 CM/SEC =  1.680E+00 FT/DAY
K( 6,11) =  6.197E-04 CM/SEC =  1.757E+00 FT/DAY
K( 6,12) =  6.134E-04 CM/SEC =  1.739E+00 FT/DAY
K( 6,13) =  6.160E-04 CM/SEC =  1.746E+00 FT/DAY
K( 6,14) =  6.245E-04 CM/SEC =  1.770E+00 FT/DAY
K( 6,15) =  6.183E-04 CM/SEC =  1.753E+00 FT/DAY
K( 6,16) =  6.205E-04 CM/SEC =  1.759E+00 FT/DAY
K( 6,17) =  6.292E-04 CM/SEC =  1.783E+00 FT/DAY
K( 6,18) =  6.179E-04 CM/SEC =  1.752E+00 FT/DAY
K( 6,19) =  6.174E-04 CM/SEC =  1.750E+00 FT/DAY
K( 6,20) =  6.173E-04 CM/SEC =  1.750E+00 FT/DAY
K( 6,21) =  6.108E-04 CM/SEC =  1.731E+00 FT/DAY
K( 6,22) =  6.081E-04 CM/SEC =  1.724E+00 FT/DAY
K( 6,23) =  6.100E-04 CM/SEC =  1.729E+00 FT/DAY
K( 7, 8) =  6.234E-04 CM/SEC =  1.767E+00 FT/DAY
K( 7, 9) =  6.403E-04 CM/SEC =  1.815E+00 FT/DAY
K( 7,10) =  5.926E-04 CM/SEC =  1.680E+00 FT/DAY
K( 7,11) =  6.259E-04 CM/SEC =  1.774E+00 FT/DAY
K( 7,12) =  6.171E-04 CM/SEC =  1.749E+00 FT/DAY
K( 7,13) =  6.193E-04 CM/SEC =  1.756E+00 FT/DAY
K( 7,14) =  6.[illegible]E-04 CM/SEC =  1.7[illegible]E+00 FT/DAY
K( 7,15) =  6.209E-04 CM/SEC =  1.760E+00 FT/DAY
K( 7,16) =  6.228E-04 CM/SEC =  1.766E+00 FT/DAY
K( 7,17) =  6.319E-04 CM/SEC =  1.791E+00 FT/DAY
K( 7,18) =  [illegible]95E-04 CM/SEC =  1.[illegible]56E+00 FT/DAY
K( 7,19) =  6.187E-04 CM/SEC =  1.754E+00 FT/DAY
K( 7,20) =  6.183E-04 CM/SEC =  1.753E+00 FT/DAY
K( 7,21) =  6.[illegible]13E-04 CM/SEC =  1.7[illegible]E+00 FT/DAY
K( 7,22) =  6.094E-04 CM/SEC =  1.725E+00 FT/DAY
K( 7,23) =  6.103E-04 CM/SEC =  1.730E+00 FT/DAY
K( 8, 9) =  5.872E-04 CM/SEC =  1.643E+00 FT/DAY
K( 8,10) =  5.794E-04 CM/SEC =  1.642E+00 FT/DAY
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K( 8,13) =  6.186E-04 CM/SEC =  1.754E+00 FT/DAY
K( 8,14) =  6.290E-04 CM/SEC =  1.783E+00 FT/DAY
K( 8,15) =  6.206E-04 CM/SEC =  1.759E+00 FT/DAY
K( 8,16) =  6.228E-04 CM/SEC =  1.765E+00 FT/DAY
K( 8,17) =  6.325E-04 CM/SEC =  1.793E+00 FT/DAY
K( 8,18) =  6.192E-04 CM/SEC =  1.755E+00 FT/DAY
K( 8,19) =  6.184E-04 CM/SEC =  1.753E+00 FT/DAY
K( 8,20) =  6.181E-04 CM/SEC =  1.752E+00 FT/DAY
K( 8,21) =  6.109E-04 CM/SEC =  1.732E+00 FT/DAY
K( 8,22) =  6.081E-04 CM/SEC =  1.724E+00 FT/DAY
K( 8,23) =  6.100E-04 CM/SEC =  1.729E+00 FT/DAY
K( 9,10) =  5.210E-04 CM/SEC =  1.477E+00 FT/DAY
K( 9,11) =  6.135E-04 CM/SEC =  1.739E+00 FT/DAY
K( 9,12) =  6.044E-04 CM/SEC =  1.713E+00 FT/DAY
K( 9,13) =  6.109E-04 CM/SEC =  1.732E+00 FT/DAY
K( 9,14) =  6.245E-04 CM/SEC =  1.770E+00 FT/DAY
K( 9,15) =  6.160E-04 CM/SEC =  1.746E+00 FT/DAY
K( 9,16) =  6.192E-04 CM/SEC =  1.755E+00 FT/DAY
K( 9,17) =  6.304E-04 CM/SEC =  1.787E+00 FT/DAY
K( 9,18) =  6.165E-04 CM/SEC =  1.747E+00 FT/DAY
K( 9,19) =  6.160E-04 CM/SEC =  1.746E+00 FT/DAY
K( 9,20) =  6.163E-04 CM/SEC =  1.747E+00 FT/DAY
K( 9,21) =  6.094E-04 CM/SEC =  1.727E+00 FT/DAY
K( 9,22) =  6.070E-04 CM/SEC =  1.721E+00 FT/DAY
K( 9,23) =  6.092E-04 CM/SEC =  1.727E+00 FT/DAY
K(10,11) =  7.369E-04 CM/SEC =  2.089E+00 FT/DAY
K(10,12) =  6.520E-04 CM/SEC =  1.848E+00 FT/DAY
K(10,13) =  6.436E-04 CM/SEC =  1.824E+00 FT/DAY
K(10,14) =  6.521E-04 CM/SEC =  1.849E+00 FT/DAY
K(10,15) =  6.350E-04 CM/SEC =  1.800E+00 FT/DAY
K(10,16) =  6.349E-04 CM/SEC =  1.800E+00 FT/DAY
K(10,17) =  6.450E-04 CM/SEC =  1.828E+00 FT/DAY
K(10,18) =  6.268E-04 CM/SEC =  1.777E+00 FT/DAY
K(10,19) =  6.247E-04 CM/SEC =  1.771E+00 FT/DAY
K(10,20) =  6.225E-04 CM/SEC =  1.765E+00 FT/DAY
K(10,21) =  6.135E-04 CM/SEC =  1.739E+00 FT/DAY
K(10,22) =  6.096E-04 CM/SEC =  1.728E+00 FT/DAY
K(10,23) =  6.113E-04 CM/SEC =  1.733E+00 FT/DAY
K(11,12) =  5.883E-04 CM/SEC =  1.668E+00 FT/DAY
K(11,13) =  6.086E-04 CM/SEC =  1.725E+00 FT/DAY
K(11,14) =  6.309E-04 CM/SEC =  1.788E+00 FT/DAY
K(11,15) =  6.170E-04 CM/SEC =  1.749E+00 FT/DAY
K(11,16) =  6.210E-04 CM/SEC =  1.760E+00 FT/DAY
K(11,17) =  6.347E-04 CM/SEC =  1.799E+00 FT/DAY
K(11,18) =  6.170E-04 CM/SEC =  1.749E+00 FT/DAY
K(11,19) =  6.165E-04 CM/SEC =  1.747E+00 FT/DAY
K(11,20) =  6.166E-04 CM/SEC =  1.748E+00 FT/DAY
K(11,21) =  6.090E-04 CM/SEC =  1.726E+00 FT/DAY
K(11,22) =  6.056E-04 CM/SEC =  1.717E+00 FT/DAY
K(11,23) =  6.090E-04 CM/SEC =  1.726E+00 FT/DAY
K(12,13) =  [illegible].209E-04 CM/SEC =  1.783E+00 FT/DAY
K(12,14) =  6.522E-04 CM/SEC =  1.849E+00 FT/DAY
K(12,15) =  6.2[illegible]9E-04 CM/SEC =  1.774E+00 FT/DAY
K(12,16) =  6.2[illegible]E-04 CM/SEC =  1.781E+00 FT/DAY
K(12,17) =  6.428E-04 CM/SEC =  1.822E+00 FT/DAY
K(12,18) =  6.[illegible]09E-04 CM/SEC =  1.760E+00 FT/DAY
K(12,19) =  6.19[illegible]E-04 CM/SEC =  1.756E+00 FT/DAY
K(12,20) =  6.[illegible]81E-04 CM/SEC =  1.754E+00 FT/DAY
K(12,21) =  6.[illegible]0[illegible]E-04 CM/SEC =  1.729E+00 FT/DAY
K(12,22) =  [illegible]E-04 CM/SEC =  1.72[illegible]E+00 FT/DAY
K(12,23) =  6.[illegible]E-04 CM/SEC =  1.728E+00 FT/DAY
K(13,14) =  6.756E-04 CM/SEC =  1.915E+00 FT/DAY
K(13,15) =  6.245E-04 CM/SEC =  1.770E+00 FT/DAY
K(13,16) =  6.281E-04 CM/SEC =  1.781E+00 FT/DAY
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K(13,19) = 6.184E-04 CM/SEC = 1.753E+00 FT/DAY
K(13,20) = 6.179E-04 CM/SEC = 1.752E+00 FT/DAY
K(13,21) = 6.091E-04 CM/SEC = 1.726E+00 FT/DAY
K(13,22) = 6.064E-04 CM/SEC = 1.719E+00 FT/DAY
K(13,23) = 6.090E-04 CM/SEC = 1.726E+00 FT/DAY
K(14,15) = 5.837E-04 CM/SEC = 1.655E+00 FT/DAY
K(14,16) = 6.091E-04 CM/SEC = 1.727E+00 FT/DAY
K(14,17) = 6.378E-04 CM/SEC = 1.808E+00 FT/DAY
K(14,18) = 6.095E-04 CM/SEC = 1.728E+00 FT/DAY
K(14,19) = 6.105E-04 CM/SEC = 1.730E+00 FT/DAY
K(14,20) = 6.129E-04 CM/SEC = 1.737E+00 FT/DAY
K(14,21) = 6.053E-04 CM/SEC = 1.716E+00 FT/DAY
K(14,22) = 6.040E-04 CM/SEC = 1.712E+00 FT/DAY
K(14,23) = 6.073E-04 CM/SEC = 1.722E+00 FT/DAY
K(15,16) = 6.346E-04 CM/SEC = 1.799E+00 FT/DAY
K(15,17) = 6.648E-04 CM/SEC = 1.885E+00 FT/DAY
K(15,18) = 6.170E-04 CM/SEC = 1.749E+00 FT/DAY
K(15,19) = 6.160E-04 CM/SEC = 1.746E+00 FT/DAY
K(15,20) = 6.165E-04 CM/SEC = 1.747E+00 FT/DAY
K(15,21) = 6.070E-04 CM/SEC = 1.721E+00 FT/DAY
K(15,22) = 6.049E-04 CM/SEC = 1.715E+00 FT/DAY
K(15,23) = 6.081E-04 CM/SEC = 1.724E+00 FT/DAY
K(16,17) = 6.951E-04 CM/SEC = 1.970E+00 FT/DAY
K(16,18) = 6.098E-04 CM/SEC = 1.728E+00 FT/DAY
K(16,19) = 6.112E-04 CM/SEC = 1.732E+00 FT/DAY
K(16,20) = 6.139E-04 CM/SEC = 1.740E+00 FT/DAY
K(16,21) = 6.047E-04 CM/SEC = 1.714E+00 FT/DAY
K(16,22) = 6.035E-04 CM/SEC = 1.711E+00 FT/DAY
K(16,23) = 6.072E-04 CM/SEC = 1.721E+00 FT/DAY
K(17,18) = 5.488E-04 CM/SEC = 1.556E+00 FT/DAY
K(17,19) = 5.812E-04 CM/SEC = 1.647E+00 FT/DAY
K(17,20) = 6.009E-04 CM/SEC = 1.703E+00 FT/DAY
K(17,21) = 5.966E-04 CM/SEC = 1.691E+00 FT/DAY
K(17,22) = 5.988E-04 CM/SEC = 1.697E+00 FT/DAY
K(17,23) = 6.040E-04 CM/SEC = 1.712E+00 FT/DAY
K(18,19) = 6.136E-04 CM/SEC = 1.739E+00 FT/DAY
K(18,20) = 6.160E-04 CM/SEC = 1.746E+00 FT/DAY
K(18,21) = 6.035E-04 CM/SEC = 1.711E+00 FT/DAY
K(18,22) = 6.027E-04 CM/SEC = 1.708E+00 FT/DAY
K(18,23) = 6.070E-04 CM/SEC = 1.721E+00 FT/DAY
K(19,20) = 6.171E-04 CM/SEC = 1.749E+00 FT/DAY
K(19,21) = 6.018E-04 CM/SEC = 1.706E+00 FT/DAY
K(19,22) = 6.018E-04 CM/SEC = 1.706E+00 FT/DAY
K(19,23) = 6.066E-04 CM/SEC = 1.719E+00 FT/DAY
K(20,21) = 5.914E-04 CM/SEC = 1.676E+00 FT/DAY
K(20,22) = 5.979E-04 CM/SEC = 1.695E+00 FT/DAY
K(20,23) = 6.049E-04 CM/SEC = 1.715E+00 FT/DAY
K(21,22) = 6.018E-04 CM/SEC = 1.706E+00 FT/DAY
K(21,23) = 6.090E-04 CM/SEC = 1.726E+00 FT/DAY
K(22,23) = 6.165E-04 CM/SEC = 1.747E+00 FT/DAY

AVERAGE HYDRAULIC CONDUCTIVITY = 6.320E-04 CM/SEC
1.792E+00 FT/DAY

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-5B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.20 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 40.00
INITIAL DEPTH/PRES. = 36.80
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
0.0000	36.6000	0.00000	-0.49202	0.49202
4.0000	38.0000	-0.47000	-0.73857	0.26856
8.0000	38.8000	-0.98083	-0.98511	0.00428
11.0000	39.1000	-1.26851	-1.17000	-0.09849
14.0000	39.3000	-1.51982	-1.35493	-0.16490
17.0000	39.5000	-1.85630	-1.53983	-0.31646
20.0000	39.6000	-2.07944	-1.72474	-0.35469
33.0000	39.8000	-2.77259	-2.52601	-0.24657
55.0000	39.9000	-3.46575	-3.88201	0.41626

B0 = -0.4920
B1 = -3.6982
R-SQUARED = 0.9145

BASIC TIME LAG = 8.242 SECONDS

HYDRAULIC CONDUCTIVITY = 4.513E-03 CM/SEC
1.279E+01 FT/DAY

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K( 3, 8) =  2.665E-03 CM/SEC =  7.556E+00 FT/DAY
K( 3, 9) =  1.966E-03 CM/SEC =  5.574E+00 FT/DAY
K( 4, 5) =  3.116E-03 CM/SEC =  8.831E+00 FT/DAY
K( 4, 6) =  3.643E-03 CM/SEC =  1.033E+01 FT/DAY
K( 4, 7) =  3.351E-03 CM/SEC =  9.499E+00 FT/DAY
K( 4, 8) =  2.543E-03 CM/SEC =  7.207E+00 FT/DAY
K( 4, 9) =  1.857E-03 CM/SEC =  5.264E+00 FT/DAY
K( 5, 6) =  4.171E-03 CM/SEC =  1.182E+01 FT/DAY
K( 5, 7) =  3.469E-03 CM/SEC =  9.833E+00 FT/DAY
K( 5, 8) =  2.452E-03 CM/SEC =  6.951E+00 FT/DAY
K( 5, 9) =  1.765E-03 CM/SEC =  5.003E+00 FT/DAY
K( 6, 7) =  2.766E-03 CM/SEC =  7.841E+00 FT/DAY
K( 6, 8) =  2.130E-03 CM/SEC =  6.037E+00 FT/DAY
K( 6, 9) =  1.575E-03 CM/SEC =  4.465E+00 FT/DAY
K( 7, 8) =  1.983E-03 CM/SEC =  5.621E+00 FT/DAY
K( 7, 9) =  1.473E-03 CM/SEC =  4.176E+00 FT/DAY
K( 8, 9) =  1.172E-03 CM/SEC =  3.322E+00 FT/DAY


AVERAGE HYDRAULIC CONDUCTIVITY =  3.123E-03 CM/SEC
                                  8.852E+00 FT/DAY
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DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: MIKE D. PALLESCHI
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-5B

WELL PARAMETERS:	RISER DIAMETER	=	2.00	INCHES
	SCREEN/PACK DIAMETER	=	5.25	INCHES
	SCREEN LENGTH	=	11.20	FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS:	BASELINE DEPTH/PRES.	=	40.00
	INITIAL DEPTH/PRES.	=	36.80
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
0.0000	36.8000
4.0000	38.0000
8.0000	38.8000
11.0000	39.1000
14.0000	39.3000
17.0000	39.5000
20.0000	39.6000
33.0000	39.8000
55.0000	39.9000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2) =	4.370E-03	CM/SEC =	1.239E+01	FT/DAY
K(1, 3) =	4.560E-03	CM/SEC =	1.293E+01	FT/DAY
K(1, 4) =	4.289E-03	CM/SEC =	1.216E+01	FT/DAY
K(1, 5) =	4.037E-03	CM/SEC =	1.144E+01	FT/DAY
K(1, 6) =	4.061E-03	CM/SEC =	1.151E+01	FT/DAY
K(1, 7) =	3.867E-03	CM/SEC =	1.096E+01	FT/DAY
K(1, 8) =	3.125E-03	CM/SEC =	8.857E+00	FT/DAY
K(1, 9) =	2.344E-03	CM/SEC =	6.643E+00	FT/DAY
K(2, 3) =	4.749E-03	CM/SEC =	1.346E+01	FT/DAY
K(2, 4) =	4.242E-03	CM/SEC =	1.203E+01	FT/DAY
K(2, 5) =	3.904E-03	CM/SEC =	1.107E+01	FT/DAY
K(2, 6) =	3.966E-03	CM/SEC =	1.124E+01	FT/DAY
K(2, 7) =	3.741E-03	CM/SEC =	1.060E+01	FT/DAY
K(2, 8) =	2.953E-03	CM/SEC =	8.370E+00	FT/DAY
K(2, 9) =	2.105E-03	CM/SEC =	[illegible]	FT/DAY
K(3, 4) =	3.566E-03	CM/SEC =	1.011E+01	FT/DAY
K(3, 5) =	3.341E-03	CM/SEC =	9.470E+00	FT/DAY

DUNN GEOSCIENCE CORPORATION

HVORSLEV HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-5B

WELL PARAMETERS: RISER DIAMETER = 2.00 INCHES
SCREEN/PACK DIAMETER = 5.25 INCHES
SCREEN LENGTH = 11.20 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS: BASELINE DEPTH/PRES. = 40.00
INITIAL DEPTH/PRES. = 37.00
TIME SCALE = 60.0000

TIME	DEPTH/PRES.	LNF	REGRESSION	RESIDUALS
5.0000	38.6000	-0.76214	-0.88792	0.12578
7.0000	38.9000	-1.00330	-1.01379	0.01049
10.0000	39.1000	-1.20397	-1.20261	-0.00137
13.0000	39.3000	-1.45529	-1.39142	-0.06387
16.0000	39.4000	-1.60944	-1.58023	-0.02921
19.0000	39.5000	-1.79176	-1.76904	-0.02272
22.0000	39.6000	-2.01490	-1.95785	-0.05705
26.0000	39.7000	-2.30259	-2.20960	-0.09299
36.0000	39.8000	-2.70805	-2.83897	0.13093

B0 = -0.5732
B1 = -3.7762
R-SQUARED = 0.9340

BASIC TIME LAG = 6.781 SECONDS

HYDRAULIC CONDUCTIVITY = 5.495E-03 CM/SEC
1.555E+01 FT/DAY

DUNN GEOSCIENCE CORPORATION

DM-7 HYDRAULIC CONDUCTIVITY PROGRAM

PROJECT NAME: GE AUBURN
PROJECT NUMBER: 2092-3-4926
USER NAME: KRISTEN F. BEGOR
RUN DATE: 3/31/1987

WELL IDENTIFICATION: DGC-5B

WELL PARAMETERS:	RISER DIAMETER	=	2.00 INCHES
	SCREEN/PACK DIAMETER	=	5.25 INCHES
	SCREEN LENGTH	=	11.20 FEET

TEST TYPE: BAIL

DATE OF TEST: 03/19/87

TEST PARAMETERS:	BASELINE DEPTH/PRES.	=	40.00
	INITIAL DEPTH/PRES.	=	37.00
	TIME SCALE	=	60.0000

TIME	DEPTH/PRES.
5.0000	38.6000
7.0000	38.9000
10.0000	39.1000
13.0000	39.3000
16.0000	39.4000
19.0000	39.5000
22.0000	39.6000
26.0000	39.7000
36.0000	39.8000

HYDRAULIC CONDUCTIVITY RESULTS

K(1, 2)	=	4.485E-03 CM/SEC	=	1.271E+01	FT/DAY
K(1, 3)	=	3.186E-03 CM/SEC	=	9.316E+00	FT/DAY
K(1, 4)	=	3.222E-03 CM/SEC	=	9.134E+00	FT/DAY
K(1, 5)	=	2.[illegible]65E-03 CM/SEC	=	8.120E+00	FT/DAY
K(1, 6)	=	2.735E-03 CM/SEC	=	7.753E+00	FT/DAY
K(1, 7)	=	2.741E-03 CM/SEC	=	7.769E+00	FT/DAY
K(1, 8)	=	2.728E-03 CM/SEC	=	7.733E+00	FT/DAY
K(1, 9)	=	2.334E-03 CM/SEC	=	6.617E+00	FT/DAY
K(2, 3)	=	2.488E-03 CM/SEC	=	7.052E+00	FT/DAY
K(2, 4)	=	2.[illegible]E-03 CM/SEC	=	7.941E+00	FT/DAY
K(2, 5)	=	2.[illegible]E-03 CM/SEC	=	7.100E+00	FT/DAY
K(2, 6)	=	2.[illegible]44E-03 CM/SEC	=	6.927E+00	FT/DAY
K(2, 7)	=	[illegible]E-03 CM/SEC	=	7.110E+00	FT/DAY
K(2, 8)	=	2.[illegible]43E-03 CM/SEC	=	7.209E+00	FT/DAY
K(2, 9)	=	2.[illegible]E-03 CM/SEC	=	6.197E+00	FT/DAY
K(3, 4)	=	[illegible]E-03 CM/SEC	=	8.531E+00	FT/DAY
K(3, 5)	=	2.513E-03 CM/SEC	=	7.124E+00	FT/DAY

K(3, 8) =	2.554E-03 CM/SEC =	7.239E+00 FT/DAY
K(3, 9) =	2.151E-03 CM/SEC =	6.099E+00 FT/DAY
K(4, 5) =	1.911E-03 CM/SEC =	5.417E+00 FT/DAY
K(4, 6) =	2.086E-03 CM/SEC =	5.912E+00 FT/DAY
K(4, 7) =	2.312E-03 CM/SEC =	6.555E+00 FT/DAY
K(4, 8) =	2.424E-03 CM/SEC =	6.871E+00 FT/DAY
K(4, 9) =	2.026E-03 CM/SEC =	5.742E+00 FT/DAY
K(5, 6) =	2.260E-03 CM/SEC =	6.407E+00 FT/DAY
K(5, 7) =	2.513E-03 CM/SEC =	7.124E+00 FT/DAY
K(5, 8) =	2.578E-03 CM/SEC =	7.307E+00 FT/DAY
K(5, 9) =	2.043E-03 CM/SEC =	5.791E+00 FT/DAY
K(6, 7) =	2.766E-03 CM/SEC =	7.841E+00 FT/DAY
K(6, 8) =	2.714E-03 CM/SEC =	7.693E+00 FT/DAY
K(6, 9) =	2.005E-03 CM/SEC =	5.682E+00 FT/DAY
K(7, 8) =	2.675E-03 CM/SEC =	7.582E+00 FT/DAY
K(7, 9) =	1.841E-03 CM/SEC =	5.219E+00 FT/DAY
K(8, 9) =	1.508E-03 CM/SEC =	4.274E+00 FT/DAY

AVERAGE HYDRAULIC CONDUCTIVITY = 2.522E-03 CM/SEC
7.150E+00 FT/DAY

APPENDIX F

Groundwater Contour Maps
(Plates 3 and 4)

APPENDIX G

PSA & ERCO Groundwater Results
(Plate 5)

APPENDIX H

ERCO Results

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience

INORGANIC ANALYSIS

SAMPLE RECEIVED: 01/28/87

ANALYSIS COMPLETED: 02/09/87

RESULTS IN: µg/ml (ppm)

REPORTED BY: CAK

CHECKED BY: LAS

- Data Report -

ERCO ID	Client ID	Cu	Sn	Zn
87-001077	DGC-1B	<0.005	<0.050	<0.005
87-001079	DGC-3B	<0.005	<0.050	<0.005
87-001080	DGC-4B	<0.005	<0.050	<0.005
87-001081	DGC-5B	<0.005	<0.050	0.14
87-001082	DGC-1S	0.0052	<0.050	<0.005
87-001083	DGC-2S	<0.005	<0.050	<0.005
87-001084	DGC-3S	<0.005	<0.050	<0.005
87-001085	DGC-4S	<0.005	<0.050	0.009
87-001086	DGC-X1	<0.005	<0.050	<0.005
ERCO Blank		<0.005	<0.050	<0.005

If customer has any questions regarding analysis, refer to sample in question by its ERCO ID#.

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1S
ERCO ID: 87-001082
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a]	----------- *
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate	-------- *
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_6-Nitrobenzene 72
Fluorobiphenyl 78

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1B
ERCO ID: 87-001077
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
BASE/NEUTRAL COMPOUNDS

- Data Report -

1B Acenaphthene	ND	56B Nitrobenzene	ND
5B Benzidine	ND	61B n-Nitrosodimethylamine	ND
8B 1,2,4-Trichlorobenzene	ND	62B n-Nitrosodiphenylamine[a]	*
9B Hexachlorobenzene	ND	63B n-Nitrosodi-n-propylamine	ND
12B Hexachloroethane	ND	66B Bis(2-ethylhexyl)phthalate	*
18B Bis(2-chloroethyl)ether	ND	67B Butyl benzyl phthalate	ND
20B 2-Chloronaphthalene	ND	68B Di-n-butyl phthalate	ND
25B 1,2-Dichlorobenzene	ND	69B Di-n-octyl phthalate	ND
26B 1,3-Dichlorobenzene	ND	70B Diethyl phthalate	ND
27B 1,4-Dichlorobenzene	ND	71B Dimethyl phthalate	ND
28B 3,3-Dichlorobenzidine	ND	72B Benzo(a)anthracene	ND
35B 2,4-Dinitrotoluene	ND	73B Benzo(a)pyrene	ND
36B 2,6-Dinitrotoluene	ND	74B Benzo(b)fluoranthene	ND
37B 1,2-Diphenylhydrazine	ND	75B Benzo(k)fluoranthene	ND
39B Fluoranthene	ND	76B Chrysene	ND
40B 4-Chlorophenyl phenyl ether	ND	77B Acenaphthylene	ND
41B 4-Bromophenyl phenyl ether	ND	78B Anthracene	ND
42B Bis(2-chloroisopropyl)ether	ND	79B Benzo(ghi)perylene	ND
43B Bis(2-chloroethoxy)methane	ND	80B Fluorene	ND
52B Hexachlorobutadiene	ND	81B Phenanthrene	ND
53B Hexachlorocyclopentadiene	ND	82B Dibenzo(a,h)anthracene	ND
54B Isophorone	ND	83B Indeno(1,2,3-cd)pyrene	ND
55B Naphthalene	ND	84B Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 66
Fluorobiphenyl 72

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-2S
ERCO ID: 87-001083
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a]	----------- *
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate	-------- *
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 69
Fluorobiphenyl 77

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3S
ERCO ID: 87-001084
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a]	*
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate	*
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: EP
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 66
Fluorobiphenyl 72

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3B
ERCO ID: 87-001079
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a]	----------- *
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate	-------- *
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 67
Fluorobiphenyl 74

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4S
ERCO ID: 87-001085
SAMPLE RECEIVED: 01/27/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a]	----------- *
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate	-------- *
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 70
Fluorobiphenyl 72

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4B
ERCO ID: 87-001080
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a] -----------	*
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate	ND
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_6-Nitrobenzene 65
Fluorobiphenyl 73

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-5B
ERCO ID: 87-001081
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a] -----------	*
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate --------	*
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 70
Fluorobiphenyl 69

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-X1
ERCO ID: 87-001086
SAMPLE RECEIVED: 01/27/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a] -----------	*
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate --------	*
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_5-Nitrobenzene 69
Fluorobiphenyl 73

CLIENT: Dunn Geoscience
CLIENT ID: Blank
ERCO ID: 87-001086B
SAMPLE RECEIVED: 01/27/87
ANALYSIS COMPLETED: 02/12/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS BASE/NEUTRAL COMPOUNDS

- Data Report -

1B	Acenaphthene	ND	56B	Nitrobenzene	ND
5B	Benzidine	ND	61B	n-Nitrosodimethylamine	ND
8B	1,2,4-Trichlorobenzene	ND	62B	n-Nitrosodiphenylamine[a] -----------	*
9B	Hexachlorobenzene	ND	63B	n-Nitrosodi-n-propylamine	ND
12B	Hexachloroethane	ND	66B	Bis(2-ethylhexyl)phthalate --------	*
18B	Bis(2-chloroethyl)ether	ND	67B	Butyl benzyl phthalate	ND
20B	2-Chloronaphthalene	ND	68B	Di-n-butyl phthalate	ND
25B	1,2-Dichlorobenzene	ND	69B	Di-n-octyl phthalate	ND
26B	1,3-Dichlorobenzene	ND	70B	Diethyl phthalate	ND
27B	1,4-Dichlorobenzene	ND	71B	Dimethyl phthalate	ND
28B	3,3-Dichlorobenzidine	ND	72B	Benzo(a)anthracene	ND
35B	2,4-Dinitrotoluene	ND	73B	Benzo(a)pyrene	ND
36B	2,6-Dinitrotoluene	ND	74B	Benzo(b)fluoranthene	ND
37B	1,2-Diphenylhydrazine	ND	75B	Benzo(k)fluoranthene	ND
39B	Fluoranthene	ND	76B	Chrysene	ND
40B	4-Chlorophenyl phenyl ether	ND	77B	Acenaphthylene	ND
41B	4-Bromophenyl phenyl ether	ND	78B	Anthracene	ND
42B	Bis(2-chloroisopropyl)ether	ND	79B	Benzo(ghi)perylene	ND
43B	Bis(2-chloroethoxy)methane	ND	80B	Fluorene	ND
52B	Hexachlorobutadiene	ND	81B	Phenanthrene	ND
53B	Hexachlorocyclopentadiene	ND	82B	Dibenzo(a,h)anthracene	ND
54B	Isophorone	ND	83B	Indeno(1,2,3-cd)pyrene	ND
55B	Naphthalene	ND	84B	Pyrene	ND

ND = None detected above the average reporting limit of 20.
[a]Analyzed as Diphenylamine.
*Trace concentrations detected below the average reporting limit.

Reported by: ED
Checked by: PD

SURROGATE RECOVERIES (%): d_6-Nitrobenzene 63
Fluorobiphenyl 72

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1S
ERCO ID: 87-001082
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
VOLATILE ORGANIC
COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: [signature]
Checked by: [signature]

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 105
d_8-toluene 99

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1B
ERCO ID: 87-001077
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
VOLATILE ORGANIC
COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride ------------------	410	Trichloroethene -----------------	9.9
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone ----------------------	1,500	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene --------------	2.4	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene --------	440	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene -------------------------	14
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene -------------------	2.8
Bromodichloromethane	<2	Styrene	<2
		Total xylenes -------------------	13

Reported by: *CB*
Checked by: *AB*

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 102
d_8-toluene 98

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-2S
ERCO ID: 87-001083
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: μg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	280	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	12	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: AB

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 108
d_8-toluene 100

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3S
ERCO ID: 87-001084
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by:

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 109
d_8-toluene 99

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3B
ERCO ID: 87-001079
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene ---------	<2*	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

*Trace concentrations detected below the reporting limit.

Reported by:
Checked by:

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 104
d_8-toluene 100

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4S
ERCO ID: 87-001085
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene ---------	<2*	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

*Trace concentrations detected below the reporting limit.

Reported by: CB
Checked by: [signature]

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 109
d_8-toluene 98

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4B
ERCO ID: 87-001080
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride -------------------	51	Trichloroethene -----------------	2.1
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene ---------	55	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: LS

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 106
d_8-toluene 99

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-5B
ERCO ID: 87-001081
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB

Checked by: [signature]

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 105

d_8-toluene 101

CLIENT: Dunn Geoscience
CLIENT ID: DGC-X1
ERCO ID: 87-001086
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride ------------------	220	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene --------	8.8	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: JS

COMMENTS: ERCO Procedural Blank - Water F523

SURROGATE RECOVERIES (%): d$_4$-1,2-dichloroethane 109
d$_8$-toluene 98

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: PS-2
ERCO ID: 87-001087
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
VOLATILE ORGANIC
COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<50	1,2-Dichloropropane	<20
Bromomethane	<50	trans-1,3-Dichloropropene	<20
Vinyl chloride ------------------	400	Trichloroethene --------------	11,000
Chloroethane	<50	Dibromochloromethane	<20
Methylene chloride	<50	1,1,2-Trichloroethane	<20
Acetone	<500	Benzene	<20
Carbon disulfide	<20	cis-1,3-Dichloropropene	<20
1,1-Dichloroethene	<20	2-Chloroethylvinylether	<100
1,1-Dichloroethane	<20	Bromoform	<20
trans-1,2-Dichloroethene ------	5,000	4-Methyl-2-pentanone	<100
Chloroform	<20	2-Hexanone	<100
1,2-Dichloroethane	<20	Tetrachloroethene	<20
2-Butanone	<100	1,1,2,2-Tetrachloroethane	<20
1,1,1-Trichloroethane	<20	Toluene --------------------------	49
Carbon tetrachloride	<20	Chlorobenzene	<20
Vinyl acetate	<100	Ethylbenzene	<20
Bromodichloromethane	<20	Styrene	<20
		Total xylenes	<20

Reported by: CB
Checked by: AB

COMMENTS: ERCO Procedural Blank - Water F539

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 101
d_8-toluene 97

CLIENT: Dunn Geoscience
CLIENT ID: PS-7
ERCO ID: 87-001089
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride -------------------	85	Trichloroethene -----------------	120
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene --------	360	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene ----------------	40
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: [signature]

COMMENTS: ERCO Procedural Blank - Water 9975

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 101
d_8-toluene 100

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: PS-9
ERCO ID: 87-001090
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene ------------------	55
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<100	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene --------	6.7	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene -------------	8,900
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: AS

COMMENTS: ERCO Procedural Blank - Water 9975

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 104
d_8-toluene 102

CLIENT: Dunn Geoscience
CLIENT ID: PS-10
ERCO ID: 87-001091
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<500	1,2-Dichloropropane	<200
Bromomethane	<500	trans-1,3-Dichloropropene	<200
Vinyl chloride	9,700	Trichloroethene	39,000
Chloroethane	<500	Dibromochloromethane	<200
Methylene chloride	<5,000	1,1,2-Trichloroethane	<200
Acetone	95,000	Benzene	<200
Carbon disulfide	<200	cis-1,3-Dichloropropene	<200
1,1-Dichloroethene	<200*	2-Chloroethylvinylether	<1,000
1,1-Dichloroethane	<200	Bromoform	<200
trans-1,2-Dichloroethene	62,000	4-Methyl-2-pentanone	<1,000
Chloroform	<200	2-Hexanone	<1,000
1,2-Dichloroethane	<200	Tetrachloroethene	2,100
2-Butanone	<1,000	1,1,2,2-Tetrachloroethane	<200
1,1,1-Trichloroethane	<200	Toluene	1,900
Carbon tetrachloride	<200	Chlorobenzene	<200
Vinyl acetate	<1,000	Ethylbenzene	550
Bromodichloromethane	<200	Styrene	<200
		Total xylenes	1,800

*Trace concentrations detected below the reporting limit.

Reported by: CB
Checked by: [signature]

COMMENTS: ERCO Procedural Blank - Water 9975

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 102
d_8-toluene 97

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: PS-30
ERCO ID: 87-001088
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

\- Data Report -

Compound	Result	Compound	Result
Chloromethane	<500	1,2-Dichloropropane	<200
Bromomethane	<500	trans-1,3-Dichloropropene	<200
Vinyl chloride	<500	Trichloroethene	380,000
Chloroethane	<500	Dibromochloromethane	<200
Methylene chloride	<5,000	1,1,2-Trichloroethane	<200
Acetone	420,000	Benzene	<200
Carbon disulfide	<200	cis-1,3-Dichloropropene	<200
1,1-Dichloroethene	<200	2-Chloroethylvinylether	<1,000
1,1-Dichloroethane	<200	Bromoform	<200
trans-1,2-Dichloroethene	790	4-Methyl-2-pentanone	<1,000
Chloroform	250	2-Hexanone	<1,000
1,2-Dichloroethane	<200	Tetrachloroethene	<200
2-Butanone	<1,000	1,1,2,2-Tetrachloroethane	<200
1,1,1-Trichloroethane	<200	Toluene	2,400
Carbon tetrachloride	<200	Chlorobenzene	<200
Vinyl acetate	<1,000	Ethylbenzene	<200
Bromodichloromethane	<200	Styrene	<200
		Total xylenes	<200

Reported by:
Checked by:

COMMENTS: ERCO Procedural Blank - Water 9975

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 100
d_8-toluene 99

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT:	Dunn Geoscience		SUMMARY OF ORGANIC
CLIENT ID:	ERCO Procedural Blank - Water		PRIORITY POLLUTANT ANALYSIS
ERCO ID:	F539		VOLATILE ORGANIC
SAMPLE RECEIVED:	01/28/87		COMPOUNDS
ANALYSIS COMPLETED:	02/03/87		
RESULTS IN:	µg/l (ppb)		- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB

Checked by: NS AMW

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 97

d_8-toluene 99

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: Field Blank
ERCO ID: 87-001092
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/03/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: AS

COMMENTS: ERCO Procedural Blank - Water 9975

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 105
d_8-toluene 97

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: ERCO Procedural Blank - Water
ERCO ID: F523
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: μg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: NS / ADW

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 98
d_8-toluene 99

CLIENT: Dunn Geoscience
CLIENT ID: ERCO Procedural Blank - Water
ERCO ID: 9975
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/02/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: NS AW

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 98
d_8-toluene 98

CLIENT: Dunn Geoscience
CLIENT ID: Laboratory Control Spike Dup.
ERCO ID: F519
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 01/31/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC
PRIORITY POLLUTANT ANALYSIS
VOLATILE ORGANIC
COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene ----------------	46 (93)
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<5	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene ----------------------	50 (100)
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene --------------	45 (91)	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene ----------------------	44 (88)
Carbon tetrachloride	<2	Chlorobenzene -----------------	45 (91)
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: NS AOW

COMMENTS: Percent recovery, in parentheses, is based on a spike concentration of 50 µg/l.

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 88
d_8-toluene 92

CLIENT: Dunn Geoscience
CLIENT ID: Laboratory Control Spike
ERCO ID: F507
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 01/31/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	48 (95)
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<5	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	49 (99)
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	51 (102)	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	47 (94)
Carbon tetrachloride	<2	Chlorobenzene	48 (96)
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: CB
Checked by: LS

COMMENTS: Percent recovery, in parentheses, is based on a spike concentration of 50 µg/l.

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 97
d_8-toluene 94

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ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1S
ERCO ID: 87-001082
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1B
ERCO ID: 87-001077
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (μg/l)
Dimethyl benzene isomer	BN	387	8

ERCO/ A DIVISION OF **ENSECO** INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-2S
ERCO ID: 87-001083
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3S
ERCO ID: 87-001084
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4B
ERCO ID: 87-001080
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
Unknown	BN	2206	18

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3B
ERCO ID: 87-001079
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4S
ERCO ID: 87-001085
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

CLIENT: Dunn Geoscience
CLIENT ID: DGC-5B
ERCO ID: 87-001081
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-X1
ERCO ID: 87-001086
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (µg/l)
No unknowns	BN		

CLIENT: Dunn Geoscience
CLIENT ID: Blank
ERCO ID: 87-001086B
REPORTED BY: PD
CHECKED BY: MFS

ORGANICS ANALYSIS
TENTATIVELY IDENTIFIED COMPOUNDS
BY EPA METHOD 625

- Data Report -

Compound name	Fraction	Scan no.	Estimated concentration (μg/l)
No unknowns	BN		

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience

CLIENT ID: DGC-1S

ERCO ID: 87-001082

SAMPLE RECEIVED: 01/28/87

ANALYSIS COMPLETED: 02/18/87

RESULTS IN: mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]

Checked by: [signature]

CLIENT: Dunn Geoscience
CLIENT ID: DGC-1B
ERCO ID: 87-001077
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/1 (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]
Checked by: [signature]

CLIENT:	Dunn Geoscience
CLIENT ID:	DGC-2S
ERCO ID:	87-001083
SAMPLE RECEIVED:	01/28/87
ANALYSIS COMPLETED:	02/18/87
RESULTS IN:	mg/1 (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by:

Checked by:

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3B
ERCO ID: 87-001079
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]
Checked by: [signature]

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-3S
ERCO ID: 87-001084
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/1 (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]
Checked by: [signature]

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience

CLIENT ID: DGC-4S

ERCO ID: 87-001085

SAMPLE RECEIVED: 01/28/87

ANALYSIS COMPLETED: 02/18/87

RESULTS IN: mg/1 (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by:

Checked by:

CLIENT: Dunn Geoscience
CLIENT ID: DGC-5B
ERCO ID: 87-001081
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]
Checked by: [signature]

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-4B
ERCO ID: 87-001080
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by:
Checked by:

ERCO/ A DIVISION OF **ENSECO** INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-X1
ERCO ID: 87-001086
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

\- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]
Checked by: [signature]

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: DGC-X1 Matrix Spike
ERCO ID: 87-001086 Matrix Spike
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/18/87
RESULTS IN: mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result*
Methanol	220 (111)

ND = Not detected at or above 5 ppm.

*Percent recovery, in parentheses, is based on a spike concentration of 200 ppm.

Reported by: [signature]
Checked by: [signature]

CLIENT:	Dunn Geoscience
CLIENT ID:	ERCO Procedural Blank - Water
ERCO ID:	HP-5-00000
SAMPLE RECEIVED:	01/28/87
ANALYSIS COMPLETED:	02/18/87
RESULTS IN:	mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result
Methanol	ND

ND = Not detected at or above 5 ppm.

Reported by: [signature]

Checked by: [signature]

CLIENT:	Dunn Geoscience
CLIENT ID:	Laboratory Control Spike
ERCO ID:	HP-17-11111
SAMPLE RECEIVED:	01/28/87
ANALYSIS COMPLETED:	02/18/87
RESULTS IN:	mg/l (ppm)

SOLVENT ANALYSIS BY DIRECT AQUEOUS INJECTION

- Data Report -

Compound	Result*
Methanol	200 (103)

ND = Not detected at or above 5 ppm.

*Percent recovery, in parentheses, is based on a spike concentration of 200 ppm.

Reported by:

Checked by:

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: ERCO Blank
ERCO ID: 87-001009B
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/05/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS

- Data Report -

ACID COMPOUNDS

21A	2,4,6-Trichlorophenol	ND
22A	p-Chloro-m-cresol	ND
24A	2-Chlorophenol	ND
31A	2,4-Dichlorophenol	ND
34A	2,4-Dimethylphenol	ND
57A	2-Nitrophenol	ND
58A	4-Nitrophenol	ND
59A	2,4-Dinitrophenol	ND
60A	4,6-Dinitro-o-cresol	ND
64A	Pentachlorophenol	ND
65A	Phenol	ND

BASE/NEUTRAL COMPOUNDS

1B	Acenaphthene	ND
5B	Benzidine	ND
8B	1,2,4-Trichlorobenzene	ND
9B	Hexachlorobenzene	ND
12B	Hexachloroethane	ND
18B	Bis(2-chloroethyl)ether	ND
20B	2-Chloronaphthalene	ND
25B	1,2-Dichlorobenzene	ND
26B	1,3-Dichlorobenzene	ND
27B	1,4-Dichlorobenzene	ND
28B	3,3-Dichlorobenzidine	ND
35B	2,4-Dinitrotoluene	ND
36B	2,6-Dinitrotoluene	ND
37B	1,2-Diphenylhydrazine	ND
39B	Fluoranthene	ND
40B	4-Chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

41B	4-Bromophenyl phenyl ether	ND
42B	Bis(2-chloroisopropyl)ether	ND
43B	Bis(2-chloroethoxy)methane	ND
52B	Hexachlorobutadiene	ND
53B	Hexachlorocyclopentadiene	ND
54B	Isophorone	ND
55B	Naphthalene	ND
56B	Nitrobenzene	ND
61B	n-Nitrosodimethylamine	ND
62B	n-Nitrosodiphenylamine[a]	ND
63B	n-Nitrosodi-n-propylamine	ND
66B	Bis(2-ethylhexyl)phthalate -------	26
67B	Butyl benzyl phthalate	ND
68B	Di-n-butyl phthalate	ND
69B	Di-n-octyl phthalate	ND
70B	Diethyl phthalate	ND
71B	Dimethyl phthalate	ND
72B	Benzo(a)anthracene	ND
73B	Benzo(a)pyrene	ND
74B	Benzo(b)fluoranthene	ND
75B	Benzo(k)fluoranthene	ND
76B	Chrysene	ND
77B	Acenaphthylene	ND
78B	Anthracene	ND
79B	Benzo(ghi)perylene	ND
80B	Fluorene	ND
81B	Phenanthrene	ND
82B	Dibenzo(a,h)anthracene	ND
83B	Indeno(1,2,3-cd)pyrene	ND
84B	Pyrene	ND

ND = None detected above the average reporting limit of 10 ppb for acids and 10 ppb for B/N.

[a]Analyzed as diphenylamine.

Reported by: CK
Checked by: GB

SURROGATE RECOVERIES (%):

ACID		BASE/NEUTRAL	
d_6-Phenol	25	d_6-Nitrobenzene	94
2-Fluorophenol	39	Fluorobiphenyl	70

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT: Dunn Geoscience
CLIENT ID: Blank Spike
ERCO ID: 87-001009BS
SAMPLE RECEIVED: 01/28/87
ANALYSIS COMPLETED: 02/05/87
RESULTS IN: µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS

- Data Report -

ACID COMPOUNDS

21A	2,4,6-Trichlorophenol	ND
22A	p-Chloro-m-cresol ---------	170 (83)
24A	2-Chlorophenol ------------	130 (66)
31A	2,4-Dichlorophenol	ND
34A	2,4-Dimethylphenol	ND
57A	2-Nitrophenol	ND
58A	4-Nitrophenol --------------	34 (17)
59A	2,4-Dinitrophenol	ND
60A	4,6-Dinitro-o-cresol	ND
64A	Pentachlorophenol ----------	77 (38)
65A	Phenol ---------------------	61 (31)

BASE/NEUTRAL COMPOUNDS

1B	Acenaphthene ---------------	81 (81)
5B	Benzidine	ND
8B	1,2,4-Trichlorobenzene -----	71 (71)
9B	Hexachlorobenzene	ND
12B	Hexachloroethane	ND
18B	Bis(2-chloroethyl)ether	ND
20B	2-Chloronaphthalene	ND
25B	1,2-Dichlorobenzene	ND
26B	1,3-Dichlorobenzene	ND
27B	1,4-Dichlorobenzene	ND
28B	3,3-Dichlorobenzidine	ND
35B	2,4-Dinitrotoluene ---------	89 (89)
36B	2,6-Dinitrotoluene	ND
37B	1,2-Diphenylhydrazine	ND
39B	Fluoranthene	ND
40B	4-Chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

41B	4-Bromophenyl phenyl ether	ND
42B	Bis(2-chloroisopropyl)ether	ND
43B	Bis(2-chloroethoxy)methane	ND
52B	Hexachlorobutadiene	ND
53B	Hexachlorocyclopentadiene	ND
54B	Isophorone	ND
55B	Naphthalene	ND
56B	Nitrobenzene	ND
61B	n-Nitrosodimethylamine	ND
62B	n-Nitrosodiphenylamine[a]	ND
63B	n-Nitrosodi-n-propylamine	ND
66B	Bis(2-ethylhexyl)phthalate --	18
67B	Butyl benzyl phthalate	ND
68B	Di-n-butyl phthalate	ND
69B	Di-n-octyl phthalate	ND
70B	Diethyl phthalate	ND
71B	Dimethyl phthalate	ND
72B	Benzo(a)anthracene	ND
73B	Benzo(a)pyrene	ND
74B	Benzo(b)fluoranthene	ND
75B	Benzo(k)fluoranthene	ND
76B	Chrysene	ND
77B	Acenaphthylene	ND
78B	Anthracene	ND
79B	Benzo(ghi)perylene	ND
80B	Fluorene	ND
81B	Phenanthrene	ND
82B	Dibenzo(a,h)anthracene	ND
83B	Indeno(1,2,3-cd)pyrene	ND
84B	Pyrene --------------------	100 (101)

ND = None detected above the average reporting limit of 20 ppb for acids and 20 ppb for B/N.

Reported by: CK
Checked by: GB

[a]Analyzed as diphenylamine.

NOTE: Percent recovery, in parentheses, is based on a spiking level of 200 ppb for acids and 100 ppb for BN.

1,4 Dichlorobenzene and N-nitrosodi-n-propylamine were not added to the spiking solution.

SURROGATE RECOVERIES (%):

ACID		BASE/NEUTRAL	
d_6-Phenol	30	d_5-Nitrobenzene	93
2-Fluorophenol	47	Fluorobiphenyl	72

ERCO/ A DIVISION OF ENSECO INCORPORATED

CLIENT:	Dunn Geoscience
CLIENT ID:	Blank Spike Duplicate
ERCO ID:	87-001009BSD
SAMPLE RECEIVED:	01/28/87
ANALYSIS COMPLETED:	02/05/87
RESULTS IN:	μg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS

- Data Report -

ACID COMPOUNDS

21A	2,4,6-Trichlorophenol	ND
22A	p-Chloro-m-cresol	160 (82)
24A	2-Chlorophenol	130 (64)
31A	2,4-Dichlorophenol	ND
34A	2,4-Dimethylphenol	ND
57A	2-Nitrophenol	ND
58A	4-Nitrophenol	24 (12)
59A	2,4-Dinitrophenol	ND
60A	4,6-Dinitro-o-cresol	ND
64A	Pentachlorophenol	65 (33)
65A	Phenol	62 (31)

BASE/NEUTRAL COMPOUNDS

1B	Acenaphthene	55 (55)
5B	Benzidine	ND
8B	1,2,4-Trichlorobenzene	54 (54)
9B	Hexachlorobenzene	ND
12B	Hexachloroethane	ND
18B	Bis(2-chloroethyl)ether	ND
20B	2-Chloronaphthalene	ND
25B	1,2-Dichlorobenzene	ND
26B	1,3-Dichlorobenzene	ND
27B	1,4-Dichlorobenzene	ND
28B	3,3-Dichlorobenzidine	ND
35B	2,4-Dinitrotoluene	53 (53)
36B	2,6-Dinitrotoluene	ND
37B	1,2-Diphenylhydrazine	ND
39B	Fluoranthene	ND
40B	4-Chlorophenyl phenyl ether	ND

BASE/NEUTRAL COMPOUNDS

41B	4-Bromophenyl phenyl ether	ND
42B	Bis(2-chloroisopropyl)ether	ND
43B	Bis(2-chloroethoxy)methane	ND
52B	Hexachlorobutadiene	ND
53B	Hexachlorocyclopentadiene	ND
54B	Isophorone	ND
55B	Naphthalene	ND
56B	Nitrobenzene	ND
61B	n-Nitrosodimethylamine	ND
62B	n-Nitrosodiphenylamine[a]	ND
63B	n-Nitrosodi-n-propylamine	ND
66B	Bis(2-ethylhexyl)phthalate	63
67B	Butyl benzyl phthalate	ND
68B	Di-n-butyl phthalate	ND
69B	Di-n-octyl phthalate	ND
70B	Diethyl phthalate	ND
71B	Dimethyl phthalate	ND
72B	Benzo(a)anthracene	ND
73B	Benzo(a)pyrene	ND
74B	Benzo(b)fluoranthene	ND
75B	Benzo(k)fluoranthene	ND
76B	Chrysene	ND
77B	Acenaphthylene	ND
78B	Anthracene	ND
79B	Benzo(ghi)perylene	ND
80B	Fluorene	ND
81B	Phenanthrene	ND
82B	Dibenzo(a,h)anthracene	ND
83B	Indeno(1,2,3-cd)pyrene	ND
84B	Pyrene	71 (71)

ND = None detected above the average reporting limit of 20 ppb for acids and 20 ppb for B/N.

Reported by: EP
Checked by: GB

[a]Analyzed as diphenylamine.

NOTE: Percent recovery, in parentheses, is based on a spiking level of 200 ppb for acids and 100 ppb for BN.

1,4 Dichlorobenzene and N-nitrosodi-n-propylamine were not added to the spiking solution.

SURROGATE RECOVERIES (%):

ACID		BASE/NEUTRAL	
d_6-Phenol	30	d_5-Nitrobenzene	67
2-Fluorophenol	45	Fluorobiphenyl	54

CLIENT:	Dunn Geoscience
CLIENT ID:	Trip Blank
ERCO ID:	87-001078
SAMPLE RECEIVED:	01/28/87
ANALYSIS COMPLETED:	02/03/87
RESULTS IN:	µg/l (ppb)

SUMMARY OF ORGANIC PRIORITY POLLUTANT ANALYSIS VOLATILE ORGANIC COMPOUNDS

- Data Report -

Compound	Result	Compound	Result
Chloromethane	<5	1,2-Dichloropropane	<2
Bromomethane	<5	trans-1,3-Dichloropropene	<2
Vinyl chloride	<5	Trichloroethene	<2
Chloroethane	<5	Dibromochloromethane	<2
Methylene chloride	<50	1,1,2-Trichloroethane	<2
Acetone	<50	Benzene	<2
Carbon disulfide	<2	cis-1,3-Dichloropropene	<2
1,1-Dichloroethene	<2	2-Chloroethylvinylether	<10
1,1-Dichloroethane	<2	Bromoform	<2
trans-1,2-Dichloroethene	<2	4-Methyl-2-pentanone	<10
Chloroform	<2	2-Hexanone	<10
1,2-Dichloroethane	<2	Tetrachloroethene	<2
2-Butanone	<10	1,1,2,2-Tetrachloroethane	<2
1,1,1-Trichloroethane	<2	Toluene	<2
Carbon tetrachloride	<2	Chlorobenzene	<2
Vinyl acetate	<10	Ethylbenzene	<2
Bromodichloromethane	<2	Styrene	<2
		Total xylenes	<2

Reported by: GB

Checked by: [signature]

COMMENTS: ERCO Procedural Blank - Water F539

SURROGATE RECOVERIES (%): d_4-1,2-dichloroethane 100

d_8-toluene 100