

**INSTALLATION RESTORATION PROGRAM  
TWIN CITIES ARMY AMMUNITION PLANT**

**FISCAL YEAR 1993 ANNUAL MONITORING REPORT**

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Commander,  
Twin Cities Army Ammunition Plant  
New Brighton, Minnesota  
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Aberdeen Proving Ground, Maryland 21010-5401

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**FEDERAL CARTRIDGE COMPANY  
WENCK ASSOCIATES, INC.**

**ALLIANT TECHSYSTEMS, INC.  
CONESTOGA-ROVERS & ASSOCIATES, LTD.**

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**FY 1993 Annual Monitoring Report**

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## Acronyms

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$\mu\text{g/l}$	- micrograms per liter
1,1,1-TCE	- 1,1,1-Trichloroethane
1,2-DCE	- 1,2-Dichloroethene
AMR	- Annual Monitoring Report
BGRS	- Background Groundwater Recovery System
CRA	- Conestoga-Rovers and Associates
DNR	- Department of Natural Resources
EPA	- Environmental Protection Agency
FCC	- Federal Cartridge Company
FFA	- Federal Facilities Agreement
FS	- Feasibility Study
FY	- Fiscal Year
GRPP	- Groundwater Remediation Program Plan
HSL	- Hazardous Substance List
Interpoll	- Interpoll Laboratories, Inc.
IRA	- Interim Remedial Action
IRAP	- Interim Response Action Plan
IRDMIS	- Installation Restoration Data Management Information System
ISV	- In-Situ Volatilization
MDNR	- Minnesota Department of Natural Resources
mg/l	- milligrams per liter
MPCA	- Minnesota Pollution Control Agency
ND	- Non-Detect
NPDES	- National Pollutant Discharge Elimination System
OU1	- Operable Unit 1
OU2	- Operable Unit 2
OU3	- Operable Unit 3
PACE	- PACE, Inc.
PAR	- Performance Assessment Report
PCB	- Polychlorinated Biphenyls
PLC	- Programmable Logic Controller
PM	- Preventive Maintenance
PRI	- Potomac Research, Inc.
QA/QC	- Quality Assurance/Quality Control
QA	- Quality Assurance
QC	- Quality Control
RI/FS	- Remedial Investigation/Feasibility Study

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## Acronyms (Cont.)

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ROD	-	Record of Decision
TCAAP	-	Twin Cities Army Ammunition Plant
TCLEE	-	Tetrachloroethene
TGRS	-	TCAAP Groundwater Recovery System
TGRSE	-	TGRS Effluent
TGRSI	-	TGRS Influent
TRCLE	-	Trichloroethene
USAEC	-	United States Army Environmental Center
USATHAMA	-	United States Toxic and Hazardous Materials Agency
USEPA	-	United States Environmental Protection Agency
VOC	-	Volatile Organic Compound
Wenck	-	Wenck Associates, Inc.



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## Executive Summary

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This Fiscal Year 1993 (FY 93) Annual Monitoring Report summarizes and evaluates data from groundwater and surface water monitoring performed at the Twin Cities Army Ammunition Plant (TCAAP). The primary objectives of the report are to characterize groundwater conditions associated with known and potential contaminant source areas at TCAAP, and to assess the performance of Interim Remedial Action systems which are presently remediating groundwater. As final remedies are implemented for OU1, OU2, and OU3, the objective of the report will change to reflect more performance based monitoring for each of the operable units and less characterization monitoring.

Groundwater level monitoring indicated that water levels increased approximately 1.0 to 1.5 feet on the average in the aquifers of concern during FY 93. These increases were slightly less than those observed in FY 92. The direction of groundwater flow remained generally to the southwest.

Groundwater quality monitoring indicated that volatile organic compounds remain the contaminants of primary concern in groundwater. The extent of groundwater contamination, as represented by the 1  $\mu\text{g/l}$  contour, did not show appreciable increases or decreases during FY 93. While the magnitude of contamination remained relatively unchanged in FY 93, perhaps the most significant change was observed in the Lower Hillside Formation where concentrations of trichloroethene and 1,1,1-trichloroethane were less than 1,000  $\mu\text{g/l}$  at all wells in the north plume off-post.

Continued gradual decreases in concentrations in the vicinity of the two primary source areas at Sites D and G were also observed. The decreases indicate that remediation of soils at Sites D and G is effectively minimizing additional impacts to groundwater.

Operation of the interim groundwater recovery system at Site A continues to capture groundwater contamination in the immediate vicinity of the recovery well. However, the recovery system is not effectively capturing or containing all groundwater contamination at Site A. The Army is implementing further remedial actions for Site A during FY 94 to remove and contain contaminants on-post.

Activities planned for FY 94 include continued operation of the existing Interim Remedial Actions, along with continued groundwater monitoring and reporting. Other non-routine activities occurring during FY 94 include:

- startup of Site A groundwater removal action;
- completion of the OU2 (on-site source area) Feasibility Study;
- startup of the OU1 (north plume) groundwater remediation system;
- startup of the OU3 (south plume) groundwater remediation system; and
- completion of Site F closure activities.

---

## Section I Introduction

---

This Fiscal Year 1993 Annual Monitoring Report summarizes and evaluates data from groundwater and surface water monitoring performed at the Twin Cities Army Ammunition Plant (TCAAP). Fiscal Year 1993 (FY 93) extended from October 1, 1992, through September 30, 1993. Monitoring activities were performed in accordance with the "Fiscal Year 1993 Annual Monitoring Plan," submitted as part of the "Fiscal Year 1991 Annual Monitoring Report" (Final Report, October 1992) and approved October 8, 1992 (see approval letter in Appendix A).

The purposes of this report are to:

1. Provide a comprehensive source for groundwater and surface water data from TCAAP monitoring activities.
2. Characterize groundwater conditions associated with known and potential contaminant source areas at TCAAP.
3. Assess the performance of Interim Remedial Action (IRA) systems for remediation of groundwater contamination at Site A, Site I, and Site K, and the TCAAP Groundwater Recovery System (TGRS).
4. Characterize surface water conditions at sampling locations both at and near TCAAP.
5. Present the Fiscal Year 1995 Annual Monitoring Plan for TCAAP.

Monitoring activities and submittal of this report are in fulfillment of the Federal Facilities Agreement (FFA) signed August 12, 1987, between the United States Army (Army), United States Environmental Protection Agency (USEPA), and Minnesota Pollution Control Agency (MPCA). Minor modifications to the FFA were enacted in February 1992 and were discussed in the TCAAP FY 92 Annual Monitoring Report.

This report represents the collaboration of work performed by Federal Cartridge Company (FCC) and Alliant Techsystems, Inc. On behalf of FCC, Wenck Associates, Inc. (Wenck) prepared Sections I, II, IV, V, VI, VII, VIII, and IX of this report. On behalf of Alliant Techsystems, Inc., Conestoga-Rovers & Associates (CRA) prepared Sections X-XII. Wenck and CRA both contributed to Sections III and XIII-XV. The Fiscal Year 1993 Annual Monitoring Report consists of this volume, plus a set of 31 plan sheets submitted separately. In general, the tables, trend figures, contour maps, appendices, and discussion topics in this document are consistent with those presented in Fiscal Year 1992 Annual Monitoring Report. However, the nomenclature for the tables and figures was changed to reflect the chapter number in which they are initially referenced.

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## Section II Background

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### A. SITE DESCRIPTION

The Twin Cities Army Ammunition Plant, a government-owned, contractor-operated facility, is located near Arden Hills and New Brighton, Minnesota, in the northern portion of the Minneapolis-St. Paul metropolitan area (Figure II-1 and Plan Sheet 2). The facility occupies approximately a four-square mile area immediately east of U.S. Interstate Highway 35W and north of Minnesota Highway 96. Federal Cartridge Company is the contracted operator, and several other private companies, including Alliant Techsystems, Inc., conduct operations on the facility as tenants.

TCAAP was constructed in 1941 to provide small-caliber ammunition for the military needs of the United States. Production began in 1941 and since then there have been periods of activity and shutdown. TCAAP has been in standby status since 1976; however, in 1992 its status was changed to "modified caretaker" which indicates that it will no longer be maintained for the production of ammunition.

During periods of activity, solvents were utilized as part of the manufacturing process. Disposal of solvents at the TCAAP site resulted in groundwater contamination which has migrated beyond the site boundary. Groundwater contamination was first discovered in July 1981 at four of the six TCAAP production wells. Since that time, numerous on- and off-post wells have been installed to monitor and assess the movement and remediation of TCAAP groundwater contamination.

A number of known and potential contaminant source areas have been identified on the TCAAP property: Sites A, B, C, D, E, F, G, H, I, J, K, 129-3, 129-5, and 129-15. These sites are shown on Plan Sheet 3.

**B. HYDROGEOLOGIC UNITS AND WELL NOMENCLATURE**

On- and off-post monitoring wells have been installed in several hydrogeologic units beneath the site. These hydrogeologic units, as referred to in this report, are described below:

Unit 1: Called the Fridley Formation, this unit consists of alluvium and lacustrine deposits above the Twin Cities Formation (Unit 2). The formation is made up of fine- to medium-grained sand and clayey silt which acts as an unconfined aquifer with an estimated hydraulic conductivity of  $8.3 \times 10^{-3}$  cm/sec (International Technology Corp. 1992). The Unit 1 deposits are discontinuous at TCAAP and range in thickness up to 50 feet. They are predominantly limited to the north, east, and southwest portions of the site. Groundwater in Unit 1 is also discontinuous.

Unit 2: The Twin Cities Formation consists of glacial till and, similar to Unit 1, is discontinuous at TCAAP. Unit 2 is generally regarded as an aquitard to vertical migration of groundwater; however, sand and gravel lenses may contain water.

Unit 3: This unit consists primarily of the Hillside Sand Formation which is continuous beneath TCAAP. Near the center of TCAAP, the Hillside Sand is overlain by the Arsenal Sand, which forms a kame. There is no distinct lithologic contact between the Hillside Sand and the Arsenal Sand, and both are considered included in Unit 3. Unit 3 ranges in thickness from 25 to 450 feet. For monitoring purposes, the Unit 3 aquifer thickness has been arbitrarily subdivided into thirds designated as upper, middle, and lower.

Unit 4: This unit consists collectively of the Prairie du Chien and Jordan bedrock formations. For monitoring purposes, the Prairie du Chien is referred to as upper Unit 4, while the Jordan is lower Unit 4.

In order to identify the hydrogeologic unit in which each well is completed, the United States Army Environmental Center (USAEC), formerly the United States Army Toxic and Hazardous Materials Agency (USATHAMA), developed a standardized identification system for wells at TCAAP. Well designations consist of six characters, such as 03U093. The first two characters represent the hydrogeologic unit in which the well is completed, as follows:

- 01 - Unit 1
- 03 - Unit 3
- 04 - Unit 4: Prairie du Chien or Jordan
- PJ - Unit 4: Prairie du Chien and Jordan

The third character represents the relative position of the well screen or open hole within the specified hydrogeologic unit, as follows:

- U - upper portion
- M - middle portion
- L - lower portion

- J - Jordan sandstone
- F - fully penetrating Unit 3
- # - open hole (total or partial thickness)

The remaining three characters represent the well number, as follows:

- 001 thru 500 USAEC wells and additional wells installed by others adjacent to an existing well with the 001-500 designation.
- 501 thru 600 TCAAP wells and FCC wells.
- 601 thru 800 On-post Alliant Techsystems, Inc. wells.
- 801 thru 900 Off-post Alliant Techsystems, Inc. and FCC wells.
- 901 thru 999 Off-post wells (to be determined).

Off-post wells installed by parties other than USAEC, TCAAP, Alliant Techsystems, Inc., or FCC are designated by their Minnesota unique number. A well designation cross reference guide is included as Appendix B which lists all wells of concern, the USAEC designation or Minnesota unique number, and any other name(s) the wells may have. Well locations are illustrated on Plan Sheets 3 and 4.



### C. DATA MANAGEMENT

A monitoring program was initiated in January 1984 by USAEC to obtain water level and water quality data at TCAAP. Each year has been divided into quarters with each quarter assigned a number. Accordingly, FY 93 was comprised of Quarter 37 (October through December), Quarter 38 (January through March), Quarter 39 (April through June), and Quarter 40 (July through September).

Data collected at TCAAP is stored in the USAEC Installation Restoration Data Management Information System (IRDMIS). The IRDMIS is managed by Potomac Research, Inc. (PRI) on behalf of USAEC.

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## Section III

### Summary of Relevant Activities in Fiscal Year 1993

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#### A. MODIFICATIONS TO THE MONITORING SYSTEM

Three TCAAP production wells were abandoned in FY 93 due to decreased demand. These were production wells 6, 7, and 8 with USAEC numbers PJ#506, PJ#507, and PJ#508, respectively. These wells have been omitted from the Annual Monitoring Plan and are indicated on the appropriate plan sheets and figures as abandoned.

The Highview Junior High School well (409556) had been vandalized in 1992 including damage to the well cap and contamination of the well with debris. The well was redeveloped in FY 93. The well was not sampled during the spring sampling event as scheduled, although a sample was collected after redevelopment and split with the MPCA. Analytical results were not available in FY 93.

#### B. OFF-POST WELL INSTALLATION

New wells were installed in two areas in FY 93 to aid in definition of groundwater flow and groundwater quality where there had previously been some uncertainty. The installation included two wells near the TCAAP boundary between TCAAP and Rush Lake and four wells further downgradient between the St. Anthony municipal wells and Gross Golf Course.

The wells installed near the TCAAP boundary were installed at the request of the MPCA to verify that the TGRS was providing adequate contaminant capture in this area. The two wells consisted of a lower Unit 3 well (03L833) and an upper Unit 4 well (04U833). The locations of the wells are shown on the appropriate plan sheets.

The wells installed between the St. Anthony municipal wells and the Gross Golf Course were installed to better define the contaminant plume in this area and to gather information regarding the source of the elevated contaminant concentrations at the Gross Golf Course production well.

The locations of the new wells were chosen based on the predicted capture zone of the municipal well fields. The new wells were placed outside the capture zone to determine if contaminants are migrating from TCAAP through this capture zone, or if the contaminants are the remnants of a previous breakthrough, or if they originate from a separate source.

The four wells included a Jordan well (04J882) placed with an existing upper Unit 4 well (04U882) to produce a well nest, a new well nest (04U834 and 04J834), and a separate Jordan well (04J835). The locations of the wells are shown on Plan Sheets 4, 23, and 25 and on Figures VI-10 and VI-12.

The new wells were sampled in March and in May 1993 and the results of the sample analysis are included in the discussions in Chapters VI and VII.

Documentation of the well installation and development methods and materials is included in Appendix I.

### C. REMEDIATION ACTIVITIES

During FY 93, activities continued on the remediation of Unit 1 groundwater in the vicinity of Site A. Three piezometers (01U142-01U144) were installed in July 1992 in preparation of the pump test conducted at 01U117 in August 1992. This information was used in the preparation of Final Engineering Evaluation/Cost Analysis Site A - Twin Cities Army Ammunition Plant which was completed in July 1993 (International Technology Corp, 1993). Additional work to be conducted in FY 94 will include the installation and startup of the Site A groundwater removal action.

During FY 93, closure of Site F was begun. Site F is a Resource Conservation Recovery Act (RCRA) site which contains metal-contaminated soils. Site remediation is being conducted using soil washing/soil leaching technology and is scheduled to be completed during FY 94. No groundwater impacts resulted from activities at Site F.

Well installations were completed for the operable Unit 3 (OU3) groundwater extraction system located off-TCAAP in FY 93. The scope of OU3 is discussed in the OU3 Feasibility Study (CRA, July 1992). The purpose of OU3 is to prevent further migration of the south plume of VOCs. Work completed for OU3 included:

- 1) construction of one Prairie du Chien extraction well; and
- 2) construction of two monitoring well nests (04U864/04J864, and 04U866/04J866) and one single monitoring well (04J865).

The treatment center for OU3 is under construction and will be completed in spring 1994.

Additional remediation activities scheduled for FY 94 include startup of the Operable Unit 1 (north plume) groundwater remediation system and completion of the Operable Unit 2 (on-site source area) Feasibility Study.

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## Section IV

### Data Collection and Presentation

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#### A. GROUNDWATER LEVELS

##### 1. Data Collection and Management

Groundwater level measurements were performed at monitoring wells in all aquifer units during FY 93 in accordance with the Fiscal Year 1993 Groundwater Level Monitoring Plan. A copy of this plan is included as Appendix C. Data collected in conjunction with the OU1 and OU2 feasibility studies is not included in this report.

The Fiscal Year 1993 Groundwater Level Monitoring Plan established the monitoring responsibilities for both FCC and Alliant Techsystems, Inc. The intent was to delegate monitoring at each well to one party or the other in order to avoid duplication of effort.

Water level monitoring delegated to FCC was performed by PACE, Inc. (PACE) while monitoring for Alliant Techsystems, Inc. was conducted by CRA.

For each assigned well, both PACE and CRA measured the depth-to-water from top of casing. Using the distance from top of casing to ground surface, PACE and CRA determined the depth-to-water from ground surface. This information was then submitted to PRI for entry into the IRDMIS. The IRDMIS contains ground surface elevations measured to tenths of a foot for all wells monitored at and near TCAAP. The ground surface elevations are designated TOS: Top of Surface. The IRDMIS does not include top of casing elevations. PRI subtracted the depth-to-water below ground surface, from the ground surface elevation, to arrive at the groundwater elevation. Because the ground surface elevations are

only recorded to tenths of a foot, the resulting groundwater elevations are also only reported to tenths of a foot.

For preparation of this Fiscal Year 1993 Annual Monitoring Report, Wenck received groundwater elevation data from both FCC and CRA on computer diskettes. The FCC data was retrieved directly from the IRDMIS; whereas, the CRA data was submitted from their own database. All data were then converted into Lotus 1-2-3 format to permit preparation of the groundwater elevation data table (Table IV-1). The groundwater elevation data table presents not only the data for FY 93, but also historic data for every well monitored since November 1987 (Quarter 16).

It should be noted that the reference elevations for TCAAP wells were resurveyed during July-September 1992. This new survey information has been entered into the IRDMIS; therefore, the FY 93 groundwater elevations in Table IV-1 are based upon the new reference information. Historical data are based on the previous elevation information.

To permit comparison between what monitoring was planned and what data were made available to Wenck, notations have been added to the Fiscal Year 1993 Groundwater Level Monitoring Plan (Appendix C) to indicate what actual FY 93 data are contained in the groundwater elevation data table (Table IV-1). For missing data which were to have been collected by FCC or Alliant Techsystems, Inc., correspondence is included in Appendix A.2 providing explanations.

Discrepancies were noted in the groundwater elevation data for wells 03U087 and 04U510 in FY 93. Well 03U087 has shown groundwater elevations ranging from 851.5 feet to 856.6 feet over the past five years. However, in March 1993, the groundwater elevation was measured at 875.2 feet and in March 1992 it was 881.2 feet. Similarly, well 04U510 has a typical groundwater elevation of about 860 to 862 feet; however, in March 1993 two separate measurements on the same day gave elevations of 863.1 feet and 866.1 feet. A 4.4-foot difference was also measured in a 24-hour period in March 1992. In each case, the higher

values are anomalous and are presumably due to measurement error, transposition of digits, or some other reason although the exact cause of the anomalies is unknown.

## 2. Hydrographs

A figure was prepared to illustrate hydrographs for six Unit 1 wells at Site A. These hydrographs are discussed further in Section IX.B of this report. Other hydrographs for wells, at locations selected by the contractors and regulatory agencies, are presented in the appendices as supporting information for evaluation of the TGRS in Section X.

## 3. Groundwater Elevation Contour Maps

As indicated in the Fiscal Year 1993 Groundwater Level Monitoring Plan (Appendix C), extensive water level monitoring was performed during March 1993 (Quarter 38) and September 1993 (Quarter 40). The groundwater elevation data from Quarter 38 and Quarter 40 were used to prepare contour maps to illustrate groundwater flow directions.

Groundwater elevation contour maps were prepared using Quarter 38 and Quarter 40 data for the TCAAP site (on-post), and using Quarter 38 data for the overall study area (off-post). Individual maps were developed for upper Unit 3, lower Unit 3, and upper Unit 4. These maps are presented as plan sheets and figures. The figures are simply reductions of the plan sheets and are intended to provide the reader with a general illustration of the groundwater flow conditions. For detailed review of wells and data, the reader should refer to the plan sheets. The on-post groundwater elevation contour maps were prepared by CRA while the off-post contour maps were prepared by Wenck. New survey data collected during July through September 1992 were used on all maps for the FY 93 AMR following its incorporation into IRDMIS. The on-post and off-post contour maps are discussed further in Section V of this report.

Groundwater elevation contour maps were not prepared for the middle Unit 3 aquifer since there are not enough wells screened in this aquifer to justify contouring. However, the data from middle Unit 3 wells for Quarter 38 are shown on the lower Unit 3 contour maps with the data in parentheses. The middle Unit 3 elevations were not used to derive the contour lines, unless there were no nearby lower Unit 3 wells to rely upon. In general, the difference in water levels between middle Unit 3 and lower Unit 3 is insignificant.

For the same reason, wells completed in the Jordan aquifer (04J), and wells completed as open holes intersecting both the Prairie du Chien and Jordan (PJ#), were not used for preparing the upper Unit 4 groundwater elevation contours. These elevations are shown on the upper Unit 4 contour maps with the data in parentheses.

## **B. GROUNDWATER QUALITY**

### **1. Data Collection and Management**

Groundwater quality samples were collected at monitoring wells during FY 93 in accordance with the Fiscal Year 1993 Groundwater Quality Monitoring Plan, a copy of which is included as Appendix D. The plan established the monitoring responsibilities for both FCC and Alliant Techsystems, Inc. The intent was to delegate monitoring at each well to one of the two parties in order to avoid duplication of effort.

Appendix E summarizes the individual parameters included within each analytical category as indicated on the Groundwater Quality Monitoring Plan. Halogenated volatile organic compounds (Category 1) were the parameters of primary interest, while select wells were sampled for aromatic volatile organic compounds (Category 7), metals (Category 2), and cyanide (Category 4).



Quarterly groundwater sampling and analysis delegated to FCC was performed by PACE, Inc. All monthly Site A sampling and analysis was also performed by PACE, Inc. The wells delegated to Alliant Techsystems, Inc. were sampled by CRA and the analysis was performed by PACE.

All laboratory data for both FCC and Alliant Techsystems, Inc. monitoring was submitted to PRI for entry into the IRDMIS. Data validation is conducted through IRDMIS in accordance with procedures and requirements outlined in the TCAAP QAPP. The data validation process involves constructing control charts of tabulated data and analyzing the data to insure that it meets certain Record Check Requirements and Group Check Requirements. For a more detailed description of the data validation process, the TCAAP QAPP and the IRDMIS User's Guide should be consulted. After entry into the IRDMIS, FCC and CRA retrieved the data for FY 93 and provided it to Wenck on computer diskettes.

All groundwater quality data received by Wenck was converted into Lotus 1-2-3 format to permit preparation of tables. Organic groundwater quality data for FY 93 is presented in Table IV-2, along with historic data back to November 1987 (Quarter 16). Table IV-3 presents inorganic groundwater quality data in a similar manner and Table IV-4 presents PCB data for surface water sampling conducted during FY 93.

To permit comparison between what monitoring was planned and what data were made available to Wenck, notations have been added to the Fiscal Year 1993 Groundwater Quality Monitoring Plan (Appendix D) to indicate the data which are not in the water quality data tables (Tables IV-2, IV-3, and IV-4). For missing data which were to have been collected by FCC or Alliant Techsystems, Inc., correspondence is included in Appendix A providing explanations. Additional data was also collected by the MPCA in FY 93; however, this data was not available at the time of this report.

## **2. Exceedances of Groundwater Action Criteria**

In accordance with Attachment 3 of the FFA, all exceedances of the action criteria set forth in Table 3.7A of the FFA have been designated on Table IV-2 by shading. The action criteria are only intended to indicate locations where additional work may be required. In most instances, particularly on-post, the exceedances are already being addressed by Interim Remedial Actions. The action criteria are not intended to be cleanup levels.

Further discussion of the groundwater action criteria exceedances for VOCs is provided in Section VII of this report. All of the inorganic groundwater action criteria exceedances occurred in well 01U350 at Site A and are discussed in Section IX.

## **3. Groundwater Quality Contour Maps and Cross Sections**

As indicated on the Fiscal Year 1993 Groundwater Quality Monitoring Plan (Appendix D), the most extensive sampling event performed during FY 93 was in March (Quarter 38). The groundwater quality data from Quarter 38 were used to prepare contour maps to illustrate the spatial distribution of groundwater contamination.

Contour maps are provided for trichloroethene and 1,1,1-trichloroethane, as these are the principal individual contaminants on a concentration basis. Contour maps were prepared by Wenck for both the TCAAP site (on-post) and the overall study area (off-post), with individual maps for upper Unit 3, lower Unit 3, and upper Unit 4. These maps are presented as plan sheets with reductions presented as figures. The figures are simply reductions of the plan sheets and are intended to provide the reader with a general illustration of the groundwater quality conditions. For detailed review of wells and data, the reader should refer to the plan sheets.

Contaminant concentrations for middle Unit 3 wells for Quarter 38 are shown in parentheses on the lower Unit 3 contour maps, but were not used for contouring purposes. Similarly, wells completed in the Jordan aquifer (04J) and wells completed as open holes intersecting both the Prairie du Chien and Jordan (PJ#) are shown with the data in parentheses on the upper Unit 4 maps, but were not used to develop contour lines.

Contaminant concentrations at recovery wells are also shown in parentheses on the maps, but were not used to prepare the contours. Concentrations of recovery wells generally represent an average contaminant value for all groundwater being drawn to the well; hence, the concentrations do not necessarily represent a discrete location or depth.

To complement the groundwater quality contour maps, two cross sections have been prepared to illustrate the vertical distribution of groundwater contamination. One section line passes through the source area at Site G and follows the north plume off-post, extending past Gross Golf Course (well 200812). The second section line passes through the source area at Site I and traces the south plume off-post. Geologic information and the positions of well screens and open holes were taken from well logs obtained from the MPCA, FCC, and CRA.

The two cross sections along with contoured trichloroethene and 1,1,1-trichloroethane data from March 1993 (Quarter 38) are presented as plan sheets with reductions presented as figures.

Further discussion of the groundwater quality contour maps and cross sections for on- and off-post is provided in Section VI of this report.

For Site A, concentration contour maps were developed for 1,2-dichloroethene, trichloroethene, and tetrachloroethene as these are the principal contaminants at Site A. Contour maps for Site A were prepared only for Unit 1 since this is the aquifer of primary concern. Further discussion of the Site A groundwater quality is provided in Section IX.C of this report.

#### **4. Water Quality Trend Figures**

Water quality trend figures have been prepared for select wells and parameters to illustrate changes in concentrations versus time. In addition, Appendix G presents trichloroethene trend plots for the TGRS recovery wells.

The selected wells and parameters are the same as those presented in the Fiscal Year 1992 Annual Monitoring Report. Nearly all trends illustrate trichloroethene concentrations since this compound is the primary indicator of contamination for most of the study area. At Site 129-15 and Site A, trends for additional VOC parameters were prepared. Wells were generally selected to represent conditions near known source areas, the southwest boundary area, and off-post.

Further discussion of the water quality trend figures is included in Section VII, while discussion of the trend figures for Site A is provided in Section IX.C of this report.

#### **C. SURFACE WATER QUALITY**

Surface water monitoring during FY 93 at TCAAP consisted of performing the sampling required by the TCAAP National Pollutant Discharge Elimination System (NPDES) permit. Under the permit, the Army is required to monitor six locations, five of which are monitored by FCC (20100-20500) and one of which is monitored by Alliant Techsystems, Inc. (20201). An additional nine locations not required by the NPDES Permit are monitored by FCC. The sampling point locations are discussed later in Section VIII of this report. Monitoring is performed for VOCs, PCBs, metals, radionuclides, and various inorganic parameters.

The surface water monitoring and laboratory analysis for FCC was performed by Interpoll Laboratories. All FCC data for NPDES monitoring were submitted to PRI for entry into the IRDMIS. FCC retrieved the data from the IRDMIS and provided it to Wenck on computer

diskettes. The data were converted into Lotus 1-2-3 format and is presented as Tables IV-4 (PCB data), IV-5 (organic data), and IV-6 (inorganic data). Further discussion of surface water quality data collected by FCC are presented in Section VIII of this report.

#### **D. GROUNDWATER PUMPING**

Groundwater pumping data were collected to aid in evaluating the effect which the pumping has on the shape and migration of the contaminant plume. The data were compiled primarily from a database maintained by the Minnesota Department of Natural Resources (MDNR). The database includes all permitted wells in Minnesota. Permits are required for wells with pumping rates greater than 10,000 gallons per day or 1,000,000 gallons per year.

A computer record search was performed by the MDNR which included the following areas indicated by township and range: T28N; R23W; T28N, R24W; T29N, R23W; T29N, R24W; T30N, R23W; and T30N, R24W. The data retrieved included well and permit information and groundwater pumping data for 1991 and 1992. Following receipt of the data, the search area was manually narrowed to include only the area surrounding the plume.

Certain data were missing from the MDNR database and the data were supplemented by performing a physical record search at the MDNR offices in St. Paul to fill the data deficiencies. Additional data were also obtained from the City of St. Anthony regarding the St. Anthony municipal wells.

The data are presented in Table IV-7. The table includes all permitted wells in the vicinity of the plume and is divided into "High Capacity Wells" and "Other Wells." High capacity wells are defined as those wells with a permitted pumping rate of greater than or equal to 50 gallons per minute. The pumping wells which encompass the TCAAP Groundwater Recovery System (TGRS) are not included in Table IV-7.

The calendar year 1993 pumping volume data were not available from the MDNR at the time of publishing of this report and, therefore, the cities of New Brighton and St. Anthony were contacted by telephone to determine their 1993 groundwater use. As shown by the data in Table IV-7, the pumping from these two municipalities includes the vast majority of the groundwater use in the vicinity of the TCAAP plume.

The following data were supplied by the cities:

<u>MN Unique No.</u>	<u>Common Name</u>	<u>1993 Pumping Volume (Million Gallons)</u>
206793	NBM #3	234
206792	NBM #4	352
206796	NBM #5	80
206797	NBM #6	138
206791	NBM #7	0
206795	NBM #8	3
206794	NBM #9	0
161432	NBM #10	17
--	NBM #11	10
110485	NBM #12	17
200803	SAM #3	117
200804	SAM #4	154
200524	SAM #5	70

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## Section V

### Discussion of Groundwater Flow

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#### A. UPPER UNIT 1

Unit 1 is discontinuous beneath TCAAP and is primarily a concern only at Sites A, B, C, I, J, and K. Unit 1 is generally absent in the central portion of TCAAP where glacial kame deposits (Unit 3) occur at the surface. Groundwater elevation contour maps are presented and discussed in the sections of this report regarding Sites A and K.

#### B. UPPER UNIT 3

Groundwater elevation contours for on-post upper Unit 3 are shown on Figures V-1 and V-2 (Plan Sheets 5 and 6) for March and September 1993, respectively. Similarly, Figure V-3 (Plan Sheet 7) presents the groundwater elevation contours in March 1993 for off-post upper Unit 3. Groundwater elevations determined during March 1993 allow assessment of flow directions on-post and in the area southwest of TCAAP, extending approximately 1 mile to near Interstate 694.

The general groundwater flow direction in upper Unit 3 is to the southwest, which is consistent with last year's interpretation. Local variations in flow direction range from west to south. Detailed discussion of pumping effects on groundwater flow conditions in the vicinity of the TGRS is discussed in Section X.

Compared to last year, off-post groundwater elevations in upper Unit 3 are an average of 1.5 feet higher. This trend of increasing water levels continued through successive

measurements in FY 93. Horizontal hydraulic gradients calculated from groundwater elevation contours at various off-post locations are similar to last year's and indicate a range of approximately 0.004 to 0.002 feet per foot.

### **C. LOWER UNIT 3**

Figures V-4 and V-5 (Plan Sheets 8 and 9) present on-post lower Unit 3 groundwater elevation contours using March and September 1993 data, respectively. Figure V-6 (Plan Sheet 10) presents off-post lower Unit 3 contours for March 1993. The groundwater flow direction in lower Unit 3 is generally to the southwest and is very similar to that of upper Unit 3, with a more westerly component near the TCAAP boundary shifting to a southerly direction near Rush Lake and then due southwest. Detailed discussion of pumping effects on groundwater flow conditions in the vicinity of the TGRS is discussed in Section X. Off-post groundwater elevations are about 1.5 feet higher than last year on the average. Horizontal hydraulic gradients calculated from the groundwater elevation contours at various off-post locations indicate a range of approximately 0.004 to 0.0007 feet per foot.

### **D. UPPER UNIT 4**

Figures V-7 and V-8 (Plan Sheets 11 and 12) show on-post upper Unit 4 groundwater elevation contours using March and September 1993 data, respectively. Figure V-9 (Plan Sheet 13) presents off-post upper Unit 4 contours for March 1993. Figures V-7 and V-8 show that on-post groundwater in upper Unit 4 flows to the southwest with little variation. Detailed discussion of pumping effects on groundwater flow conditions in the vicinity of the TGRS is discussed in Section X. The observed off-post groundwater flow pattern is, in general, similar to the findings of the past several years with an overall flow to the southwest. The groundwater flow direction ranges from south to southwest near TCAAP and gradually bends more westward near Long Lake. Beyond Pike Lake, the flow direction



begins a gradual bending southward which is likely in response to pumping at New Brighton Municipal Wells #3 and #6 (206793 and 206797). Near the New Brighton wells, the flow direction continues curving southward towards the St. Anthony municipal well field.

Off-post groundwater elevations are, on average, 0.5 feet higher than last year. At the southern end of the study area, near wells 04U881, 04U882, and 04U883, the groundwater elevation ranged from 1.0 to 2.0 feet higher than last year. Horizontal hydraulic gradients calculated for the groundwater elevation contours at various locations indicate a range of approximately 0.004 to 0.0007 feet per foot.

#### E. SUMMARY

The groundwater elevation data collected for Unit 3 and upper Unit 4 indicate that the trend of decreasing water levels for several years prior to 1992 has been reversed. However, groundwater elevations are still lower than levels measured during the late 1980s in most cases.

Groundwater flow directions on-post and off-post in upper and lower Unit 3 and upper Unit 4 all exhibit a general southwestward trend. Local variations are observed, particularly near the southwest boundary and further off-post in upper Unit 4 where the groundwater flow direction gradually bends more southward. The off-post upper Unit 4 groundwater elevation contour map suggests that the New Brighton and St. Anthony municipal well fields influence groundwater flow by creating a more southward component to the overall flow regime.

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## Section VI

### Discussion of Groundwater Quality for the Overall Study Area

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The purpose of this section is to discuss the overall extent of contamination for the study area, including both on-post and off-post. The discussion is based primarily upon the groundwater quality contour maps presented as Figures VI-1 through VI-12 (Plan Sheets 14 through 25) and cross sections A-A' and B-B' presented as Figures VI-13 and VI-14 (Plan Sheets 26 and 27).

The cross sections provide a perspective of the vertical extent of the trichloroethene and 1,1,1-trichloroethane concentrations over the entire study area for each plume. The cross sections also show the wide range of elevations that the upper, middle, and lower wells are screened at indicating that the well designation is not an accurate indication of the well placement in all cases.

Discussion of specific sites or areas is provided in Section VII of this report, including trends in contaminant concentrations. Because inorganic monitoring was limited during FY 93, this entire section is devoted to groundwater quality with respect to VOCs. All statements and interpretations should be regarded as referring to VOC groundwater quality only.

**A. UPPER UNIT 1**

The Unit 1 aquifer is discontinuous beneath TCAAP, principally occurring beneath the northern, western, and southwestern portions of the site. Groundwater impacts are not widespread in Unit 1, but contamination is present near Sites A, I, and K. Sites B and C also represent potential concerns. Because the impacts are limited to these relatively localized areas, overall groundwater quality contour maps were not prepared for Unit 1. For the purposes of this report, detail maps for Site A have been prepared to illustrate groundwater quality contours and will be presented later in Section IX. Discussion of groundwater quality for Sites A, K, and I are provided in Sections IX, XI, and XII of this report, respectively.

**B. UPPER UNIT 3**

**1. Background Conditions**

Background conditions for organic groundwater quality at TCAAP are provided by monitoring wells near the upgradient (eastern) property boundary. Upper Unit 3 wells monitored for this purpose (03U007 and 03U009) were not sampled during FY 93. These wells are monitored once every other year and will be sampled in FY 94. There were no detections in these wells when they were last sampled in March 1992.

## 2. Contaminant Plume Characterization

### a. Trichloroethene

Trichloroethene continues to be the most prevalent contaminant, both on-post and off-post, with respect to concentration values. Groundwater quality contour maps of trichloroethene concentrations in upper Unit 3 are presented as Figures VI-1 and VI-2 (Plan Sheets 14 and 15) representing the on-post and off-post concentrations, respectively. The trichloroethene concentrations are also presented on Figure VI-13 (Plan Sheet 26) as cross sections A-A' and B-B' which are constructed roughly along the axes of the "north" and "south" plumes, respectively.

Figure VI-1 (Plan Sheet 14) shows that the north plume originates from plumes at Sites D and G which converge in the area of Building 503. The highest on-post concentrations associated with the north plume are downgradient of these two sites at wells 03U317 (12,000  $\mu\text{g/l}$ , March 1993) and 03U021 (5,100  $\mu\text{g/l}$ , March 1993). Well 03U317 is a recovery well (source recovery well #5) and was not contoured on Figure VI-1 (Plan Sheet 14) since the data obtained from the recovery well represents the average concentration of all groundwater entering the well.

Historically, well 03U093 has had the highest concentrations at the entire site and was as high as 79,000  $\mu\text{g/l}$  in December 1987. Well 03U093 is located immediately downgradient of Site D. In the past four years, the concentration at this well has dropped from 40,000  $\mu\text{g/l}$  in May 1990, to 8,600  $\mu\text{g/l}$  in March 1991, to 2,000  $\mu\text{g/l}$  in March 1992, and to 340  $\mu\text{g/l}$  in March 1993. Similarly, well 03U094 had the highest concentration of the wells near Site G in December 1987 at 18,000  $\mu\text{g/l}$ . The concentration in this well had dropped to 2,600  $\mu\text{g/l}$  in March 1992 but increased to 3,200  $\mu\text{g/l}$  in March 1993. The general inference is

that the source area for groundwater contamination is being reduced by the ISV systems at Sites D and G and that the TGRS source control wells are removing contaminated groundwater immediately downgradient of both Sites D and G.

In general, the 1,000  $\mu\text{g}/\text{l}$  contour is similar to past years on-post. Due to decreases in the concentration at 03U093 and 03U014 from 2,000  $\mu\text{g}/\text{l}$  and 8,200  $\mu\text{g}/\text{l}$  in March 1992 to 340  $\mu\text{g}/\text{l}$  and 19.30  $\mu\text{g}/\text{l}$ , respectively, in March 1993, the 1,000  $\mu\text{g}/\text{l}$  contour has shifted slightly southwest and west in the vicinity of Sites D and G. An increase in the concentration at well 03U671, near Building 501, has shifted the 1,000  $\mu\text{g}/\text{l}$  contour further south.

Like the 1,000  $\mu\text{g}/\text{l}$  contour, the 100  $\mu\text{g}/\text{l}$  contour did not change significantly on-post from FY92 to FY93. The most significant changes were shifts inward (shrinking) near 03U017 and 03U014, and an outward shift near 03U711.

Cross section A-A' (Figure VI-13 and Plan Sheet 26) shows that the portion of the north plume represented by the 1,000  $\mu\text{g}/\text{l}$  contour continues to flow around well 03M806 as it did last year. This effect is perhaps due to a less permeable "clayey" zone that causes the plume to flow around it. Cross section A-A' also shows that The 1,000  $\mu\text{g}/\text{l}$  contour has contracted since last year to exclude well 03L806 and well 03L809, where the concentrations decreased from 4,300  $\mu\text{g}/\text{l}$  and 1,800  $\mu\text{g}/\text{l}$  in March 1992 to 410  $\mu\text{g}/\text{l}$  and 390  $\mu\text{g}/\text{l}$ , respectively, in March 1993.

Contaminant concentrations at many wells downgradient of Site I continued to decrease as was observed in 1992. As examples, wells 03U003 and 03U703, which are on the southeast and northwest sides of the plume, respectively, decreased in concentrations from 990 to 450  $\mu\text{g}/\text{l}$  and from 520 to 180  $\mu\text{g}/\text{l}$  from March 1992 to March 1993, respectively.

The increase of trichloroethene concentration at well 03U801 from 0.58  $\mu\text{g}/\text{l}$  in March 1992 to 11,000  $\mu\text{g}/\text{l}$  in March 1993 resulted in an introduction of a new 10,000  $\mu\text{g}/\text{l}$  contour in the southern plume. This well has been experiencing large variations in concentrations over the past several years, presumably due to its close proximity to the TGRS pumping wells.

The downgradient extent of the south plume in upper Unit 3 is defined by a concentration of  $<0.5 \mu\text{g}/\text{l}$  (March 1993) at well 03U673. However, the cross section interpretation shown on B-B' (Figure VI-13 or Plan Sheet 26) suggests that the contaminant plume is just below 03U673 in middle Unit 3.

The 10  $\mu\text{g}/\text{l}$  and 1  $\mu\text{g}/\text{l}$  contours also contracted in slightly on the north side of the plume in response to reduced concentrations of wells 03U084 and 03U702. On the south side, the plume shifted inward around wells 03U672 and 03U658; however, it also shifted out around 03U004 where there had been no detection in FY 92.

Wells near Site H (03U005 and 03U099 which did not have detections in March 1992, had trichloroethene concentrations of 1.13  $\mu\text{g}/\text{l}$  and 1.92  $\mu\text{g}/\text{l}$ , respectively, in March 1993, requiring the addition of a 1  $\mu\text{g}/\text{l}$  contour at this location (southwest of Site H).

Figure VI-2 (Plan Sheet 15) shows the northern plume associated with Sites D and G extending off-post in a gradual westward to southwestward arc as it has in previous years. It appears that the off-post portion of the plume has not extended further downgradient this year, however, the plume has apparently narrowed to the west as evidenced by a decrease in contaminant concentrations at 03U831 to  $<0.5 \mu\text{g}/\text{l}$ .

The western edge of the plume has not changed significantly from last year.

The 1,000  $\mu\text{g/l}$  and 100  $\mu\text{g/l}$  contours end approximately in the area shown on cross section A-A' where Unit 3 is shown to pinch out. Also, based on cross section A-A', the 100- $\mu\text{g/l}$ , 10- $\mu\text{g/l}$ , and 1- $\mu\text{g/l}$  contours near Long Lake are interpreted to bend back toward the southwest, even though no data are available for contouring in this area in upper Unit 3.

The overall trend of the plume matches the overall trend of the groundwater elevation contours and the overall evaluation of trichloroethene concentrations in upper Unit 3 is that of plume reduction near source areas and gradual movement of the plume off-post.

**b. 1,1,1-Trichloroethane**

Groundwater quality contour maps for 1,1,1-trichloroethane in upper Unit 3 have been prepared as Figures VI-3 and VI-4 (Plan Sheets 16 and 17) representing on-post and off-post concentrations, respectively. Similar to the trichloroethene contour maps, 1,1,1-trichloroethane contour maps indicate that Sites D and G are the principal sources for this contaminant. However, the maximum concentrations for 1,1,1-trichloroethane are significantly lower than those for trichloroethene. In addition, comparison of the horizontal and vertical extent of high concentration contours and of high well concentration values for 1,1,1-trichloroethane versus trichloroethene shows that the former is much less pervasive. This observation can be seen by comparing the corresponding contour maps and cross sections A-A' and B-B' for each compound.

The highest 1,1,1-trichloroethane concentrations are those downgradient from the source areas at Sites D and G. The highest concentrations are represented by the 1,000  $\mu\text{g/l}$  contour extending from this area toward the southwest TCAAP boundary. The 1,000  $\mu\text{g/l}$  contour appears to have shifted slightly to the south on

the north and south sides this year as indicated by increases in concentration at 03U671 and 03U708 and decreases at 03U017 and 03U018.

The 1,000  $\mu\text{g}/\text{l}$  contour from Sites D and G extends west-southwest slightly beyond well 03F306, as shown on Figure VI-3 (Plan Sheet 16) and on cross section A-A' (Figure VI-14 and Plan Sheet 27). Cross section A-A' that indicates the extent of the 1,000  $\mu\text{g}/\text{l}$  contour has remained relatively unchanged in upper Unit 3 in FY 93.

Figure VI-3 (Plan Sheet 16) indicates that the 100  $\mu\text{g}/\text{l}$  contour shifted southward over the past year, similar to the shift of the 1,000  $\mu\text{g}/\text{l}$  contour, as indicated by a decrease in the concentration at well 03U806 and an increase at 03U711.

Similarly, the 10  $\mu\text{g}/\text{l}$  and 1  $\mu\text{g}/\text{l}$  contours have shifted slightly to the south in the vicinity of 03U017 and 03U702 as the result of decreases in 1,1,1-trichloroethane concentrations.

The south plume originating from Site I is similar to last year, however it is slightly smaller due to a decrease in concentration at 03U710 from 150  $\mu\text{g}/\text{l}$  (March 1992) to 99  $\mu\text{g}/\text{l}$  (March 1993). Decreases at 03U029 from 150  $\mu\text{g}/\text{l}$  (March 1991) to 45  $\mu\text{g}/\text{l}$  (March 1992) to 18  $\mu\text{g}/\text{l}$  (March 1993) imply that the source area at Site I is diminishing.

Figure VI-4 (Plan Sheet 17) shows the north plume extends off-post gradually curving more southward. The southern extent of the north plume in upper Unit 3, as defined by the 10  $\mu\text{g}/\text{l}$  and 1  $\mu\text{g}/\text{l}$  contours, is based on cross section A-A' (Figure IV-14 and Plan Sheet 27) and on results for wells 03U822 and 03U832. Similar to the off-post trichloroethene contour map, the off-post 1,1,1-trichloroethane contour map shows a slight widening of the plume and a southwestward shift near Long Lake.



The south plume appears to diminish in upper Unit 3 near well 03U801 as shown on Figure VI-4 (Plan Sheet 17) and on cross section B-B' (Figure VI-14 and Plan Sheet 27).

## C. LOWER UNIT 3

### 1. Background Conditions

Well 03L007 along the upgradient TCAAP boundary is used to monitor background conditions in lower Unit 3. This well is monitored once every other year and it was not sampled during FY 93. The well was sampled during FY 92 and no VOC contamination was detected. It will be sampled again in FY 94.

### 2. Contaminant Plume Characterization

#### a. Trichloroethene

Contour maps for trichloroethene concentrations in lower Unit 3 are provided as Figures VI-5 and VI-6 (Plan Sheets 18 and 19) representing on-post and off-post concentrations, respectively. Recovery wells and middle Unit 3 wells are also shown on the plan sheets, but were not used for contouring purposes. Cross sections A-A' and B-B', which include horizontal and vertical trichloroethene distribution in lower Unit 3, are shown on Figure VI-13 (Plan Sheet 26). It is worth noting that cross section A-A' shows the much deeper screen elevations of lower Unit 3 wells 03L014 and 03L113 located in the bedrock valley region.

Figure VI-6 (Plan Sheet 19) indicates that the 1,000  $\mu\text{g/l}$  contour for the northern plume associated with Sites D and G merges in the vicinity of Building 503.

Although lower Unit 3 wells are not present in the vicinity of Site D, the contours shown on Figure VI-5 (Plan Sheet 18) suggest a distinct lobe from Site D, similar to the lobe defined by 03L020 from Site G.

A separate trichloroethene plume, similar to upper Unit 3, appears downgradient of Site I. The center of this lower Unit 3 plume is near 03L673 and is further off-post than the corresponding upper Unit 3 portion. This observation is readily reinforced by review of cross section B-B' (Figure VI-13 and Plan Sheet 26).

The on-post contour map shown on Figure VI-5 (Plan Sheet 18) is similar to last year's map. The primary difference was a contracting of the 1,000  $\mu\text{g}/\text{l}$  contour in response to a reduction in the concentration at 03L806 from 4,300  $\mu\text{g}/\text{l}$  in March 1992 to 410  $\mu\text{g}/\text{l}$  in March 1993. A decrease in the concentration at 03L809 from 1,800  $\mu\text{g}/\text{l}$  in March 1992 to 390  $\mu\text{g}/\text{l}$  in March 1993 resulted in elimination of the 1,000  $\mu\text{g}/\text{l}$  contour from the off-post map (Figure VI-6 and Plan Sheet 19). The reduction of concentration at 03L806 and 03L809 is attributed to pumping contaminated groundwater through recovery wells 03F306 and 03F307.

The 100  $\mu\text{g}/\text{l}$  and 10  $\mu\text{g}/\text{l}$  contours remained relatively unchanged in FY 93 with the exception of a contraction of the 100  $\mu\text{g}/\text{l}$  contour near 03L021 and an outward movement of the 10  $\mu\text{g}/\text{l}$  contour near 03L017.

On-post, the extent of contamination, as defined by the 1  $\mu\text{g}/\text{l}$  contour, is similar to last year's findings. The 1  $\mu\text{g}/\text{l}$  contour contracted south in the vicinity of 03L084 and west in the vicinity of 03L078 in response to a reduction in concentration at these two wells. The 1  $\mu\text{g}/\text{l}$  contour near Site D has extended slightly to the east this year in response to an increase in concentration at 03L091 from  $< 1.04$   $\mu\text{g}/\text{l}$  in March 1992 to 1.16  $\mu\text{g}/\text{l}$  in March 1993.

Concentrations for the Unit 3 recovery wells along the southwest boundary on Figure VI-5 (Plan Sheet 18) were not used for contouring. The concentration at 03F308 matches well with the lower Unit 3 contours, while values at 03F302, 03F303, and 03F305 match more closely with those of upper Unit 3 contours; well 03F304 matches both. The above relationships appear to be functions of screened depth and thickness of the Unit 3 aquifer for each respective well. Wells 03F305 through 03F308 are located where Unit 3 extends deeper; thus, these wells are generally screened deeper than 03F302 through 03F304. It should be noted that the concentration at 03F312 does not (usually) match well with either the upper or lower Unit 3 contour maps, which is likely the result of mixing of both upper and lower Unit 3 water, along with clean water, since the extraction well is located near the edge of the plume. Refer to Section X for further discussion of the TGRS.

Off-post, the north plume from Sites D and G gradually curves southward towards the southeast edge of Long Lake, as shown on Figure VI-6 (Plan Sheet 19). As discussed earlier, the 1,000  $\mu\text{g}/\text{l}$  contour has been eliminated from the off-post map as a result of reduction of trichloroethene concentrations in 03L806 and 03L809 to values less than 1,000  $\mu\text{g}/\text{l}$ . The 1,000  $\mu\text{g}/\text{l}$  contour was also eliminated from around 409597 due to a decrease in concentration at this well.

Cross section A-A' (Figure VI-13 and Plan Sheet 26) shows that the 100  $\mu\text{g}/\text{l}$ , 10  $\mu\text{g}/\text{l}$ , and 1  $\mu\text{g}/\text{l}$  contours for the north plume curve southwestward ending near 409556, where Unit 3 is shown to pinch out. The overall extent of the north plume has not changed in the past year, however, it has contracted laterally on the southeast edge of the plume, where the 1  $\mu\text{g}/\text{l}$  and 10  $\mu\text{g}/\text{l}$  contours were shifted north due to a non-detection in well 409557 in March 1993 which had a concentration of 9.29  $\mu\text{g}/\text{l}$  in March 1992.

The overall trend of the north plume is similar to the overall trend of the groundwater elevation contour maps for lower Unit 3 and upper Unit 4 (Figures V-6 and V-9 and Plan Sheets 10 and 13). The overall trend of the north plume is also similar to the trend of trichloroethene concentration contours for upper Unit 4 (Figure VI-10 and Plan Sheet 23), which is discussed in following sections.

The 1,000  $\mu\text{g}/\text{l}$  and 100  $\mu\text{g}/\text{l}$  contours for the south plume appear to be limited between wells 03L673 and 03L848 as shown on cross section B-B' (Figure VI-13 and Plan Sheet 26) and on Figure VI-6 (Plan Sheet 19).

This plume also bends southward from TCAAP, but does not extend as far south as the north plume. The north and south plumes are clearly shown to be separated by the results of  $<0.50 \mu\text{g}/\text{l}$  for 03L841, 409557, and 03L861 in March 1993.

A concentration of 6.67  $\mu\text{g}/\text{l}$  was detected in well 03L858, located just north of the St. Anthony wells 3 and 4 in March 1993. This well has had detections ranging from 5 to 11  $\mu\text{g}/\text{l}$  historically, but was reported at  $<0.5 \mu\text{g}/\text{l}$  in March 1991. As shown on cross-section A-A' (Figure VI-13 and Plan Sheet 26), this well is located at a much higher elevation than other Unit 3 wells and is actually in a hydraulically separate unit. This well has had detections of carbon tetrachloride between 30 and 43  $\mu\text{g}/\text{l}$  in the past four years. Carbon tetrachloride is not typically found in the plumes emanating from TCAAP indicating that this well is intercepting contaminants from a different source.

**b. 1,1,1-Trichloroethane**

Contour maps for 1,1,1-trichloroethane concentrations in lower Unit 3 are presented as Figures VI-7 and VI-8 (Plan Sheets 20 and 21) representing on-post and off-post concentrations, respectively. Cross sections A-A' and B-B' with 1,1,1-trichloroethane contours are presented as Figure VI-14 and Plan Sheet 27.

Similar to the contour maps for trichloroethene, the plumes from Sites D and G are merged on-post in lower Unit 3. Figures VI-7 and VI-8 (Plan Sheets 20 and 21) show more separation between the north plume and the south plume than do the corresponding trichloroethene contour maps.

Figures VI-7 and VI-8 (Plan Sheets 20 and 21) show that the 1,000  $\mu\text{g}/\text{l}$  contour for the north plume has contracted significantly as a result of a decrease in 1,1,1-trichloroethane concentration in 03L077 and 03L806 from 1,300 and 1,200  $\mu\text{g}/\text{l}$  in March 1992 to 950 and 25  $\mu\text{g}/\text{l}$  in March 1993, respectively. Well 03M806 showed a decrease in concentration as indicated by the addition of a less than 1  $\mu\text{g}/\text{l}$  contour around the well in March 1993 which had not been present in previous years. This reduction in 1,1,1-trichloroethane concentration is attributed to the TGRS treatment system.

The limit of the 1,1,1-trichloroethane plume, as defined by the 1- $\mu\text{g}/\text{l}$  contour, is narrower on-post than the trichloroethene plume.

Based on cross section A-A', (Figures VI-14 and Plan Sheet 27) the contours on Figure VI-8 (Plan Sheet 21) suggest that the lower Unit 3 1,1,1-trichloroethane north plume bends sharply between Rush Lake and Long Lake and subsequently trends southwest past Pike Lake towards well 409556 where Unit 3 appears to pinch out. This interpretation is supported by the groundwater elevation contour

maps for lower Unit 3 and upper Unit 4, and the general trend of 1,1,1-trichloroethane and trichloroethene contours for upper Unit 4.

The south plume originating from Site I does not appear to have significantly impacted lower Unit 3 on-post, as seen on Figure VI-8 (Plan Sheet 21) and cross section B-B' (Figure VI-14 and Plan Sheet 27). Impacts off-post are delineated as defined by the 1- $\mu\text{g/l}$  contour which extends between 03L673 and 03L848.

#### **D. UPPER UNIT 4**

##### **1. Background Conditions**

Background conditions for organic groundwater quality in the upper Unit 4 are provided by monitoring wells 04U007 and 04U510 near the eastern TCAAP boundary. These wells were sampled during FY 92 and no VOC detections were reported. These wells are monitored once every other year; therefore, they were not sampled during FY 93 and will be sampled in FY 94.

##### **2. Contaminant Plume Characterization**

###### **a. Trichloroethene**

Contour maps for trichloroethene concentrations in upper Unit 4 are included as Figures VI-9 and VI-10 (Plan Sheets 22 and 23) representing on-post and off-post concentrations, respectively. Figure VI-9 (Plan Sheet 22) and cross section A-A' on Figure VI-13 (Plan Sheet 26) show that the maximum trichloroethene concentrations on-post in upper Unit 4 are defined by the 1,000  $\mu\text{g/l}$  contour near well 04U077. This well decreased in concentration from 2,400  $\mu\text{g/l}$  in March 1991 to 970  $\mu\text{g/l}$  in March 1992 and increased to 1,700  $\mu\text{g/l}$  in March 1993. The

highest trichloroethene concentration (3,200  $\mu\text{g}/\text{l}$ ) was observed off-post at well 04U806, southwest of well 04U077.

Similar to last year, an unusual feature is created by the 1 and 10  $\mu\text{g}/\text{l}$  contours near wells 04U001, 04U713, and 04U714. Pumping at wells PJ#313 and PJ#311 may be decreasing trichloroethene concentrations near 04U713, thus causing the sharp contours.

The 1  $\mu\text{g}/\text{l}$  contour extended on-post around 04U003 (south plume) as shown on Figure VI-9 (Plan Sheet 22). This was a result of the increase of trichloroethene concentration from  $<0.50$   $\mu\text{g}/\text{l}$  in March 1992 to 4.23  $\mu\text{g}/\text{l}$  in March 1993.

Figure VI-10 (Plan Sheet 23) shows that the maximum concentrations of the south plume for upper Unit 4 are defined by the 100  $\mu\text{g}/\text{l}$  contour around 04U673. The concentration at 04U673 decreased from 3,100  $\mu\text{g}/\text{l}$  in May 1990 to 990  $\mu\text{g}/\text{l}$  in March 1991 to 460  $\mu\text{g}/\text{l}$  in March 1992 to 280  $\mu\text{g}/\text{l}$  in March 1993. The 100  $\mu\text{g}/\text{l}$  contour contracted north as a result of a decrease of trichloroethene concentration in 04U845 from 100.00  $\mu\text{g}/\text{l}$  in March 1992 to 84.00  $\mu\text{g}/\text{l}$  in March 1993.

Figure VI-10 (Plan Sheet 23) also illustrates that the north plume originating from Sites D and G swings southward away from TCAAP and apparently bends back westward in the vicinity of Long Lake. Furthermore, as noted last year, the north plume appears to split into two lobes in the vicinity of Long Lake as defined by the 100  $\mu\text{g}/\text{l}$  contour, which extends west around 409549, then back east toward 04U849, and finally back west towards 206797. The westward shift of the plume is most likely in response to pumping at New Brighton municipal wells #3 and #6 (206793 and 206797), but the cause for the plume split is not obvious. Previous concentrations at 04U849 decreased from 460  $\mu\text{g}/\text{l}$  on December 1, 1987 to a low of 18.10  $\mu\text{g}/\text{l}$  on April 18, 1990, then increased to

31.80 and 120.00  $\mu\text{g/l}$  in March 1991 and March 1992, respectively, and decreased to 50.90  $\mu\text{g/l}$  in March 1993.

Unlike last year, the 1,000  $\mu\text{g/l}$  contour is interpreted to extend further southeast, for the north plume beyond well 04U844 as shown on Figure VI-10 (Plan Sheet 23) and cross section A-A' (Figure VI-13 and Plan Sheet 26). The concentration at 04U844 increased from 860  $\mu\text{g/l}$  in March 1992 to 1,100  $\mu\text{g/l}$  in March 1993. Typically the concentration at this well has been between 900 and 1,100  $\mu\text{g/l}$ .

Figure VI-10 (Plan Sheet 23) indicates that the 1  $\mu\text{g/l}$  contour encompasses both the north and south plumes migrating southwest away from TCAAP. The 10  $\mu\text{g/l}$  contours show separation between the two plumes near TCAAP, but further south, in the vicinity of 04U832, the 10  $\mu\text{g/l}$  contours indicate a gradual merging of the two plumes. Further south the plumes diverge once again as evidenced by historic low concentrations at well 409548. The low concentrations at this well suggests this is an area of relatively lower hydraulic conductivity in the Prairie du Chien, perhaps a less fractured zone.

Figure VI-10 (Plan Sheet 23) also shows that the 1  $\mu\text{g/l}$  contour for the north plume has contracted west in the vicinity of Poplar Lake as a result of a decrease of trichloroethene concentration in 04U852 from 1.67  $\mu\text{g/l}$  in March 1992 to 0.75  $\mu\text{g/l}$  in March 1993 and in 409555 from 1.04  $\mu\text{g/l}$  in August 1988 to <0.50 in March 1993.

The 10  $\mu\text{g/l}$  and 1  $\mu\text{g/l}$  contours suggest that the north plume bends once more southward in the vicinity of well 206797, probably in response to pumping of St. Anthony municipal wells located further south near Silver Lake Road.

Figure VI-10 (Plan Sheet 23) and cross section A-A' on Figure VI-13 (Plan Sheet 26) provide evidence for a separate source of trichloroethene which is



contributing to the plume south of County Road C. The available data results in a 100  $\mu\text{g}/\text{l}$  contour line around 200812 and 512761 (Gross Golf Course production wells). This interpretation is supported by additional data which were collected in May 1993 (Quarter 39) from the new wells installed during the off-post well installation discussed in Section III.B and Appendix I of this report. Well 04U834, located between the St. Anthony municipal wells and the Gross Golf Course, had a trichloroethene concentration of 21.1  $\mu\text{g}/\text{l}$  in May 1993. Based on this additional data, the 10  $\mu\text{g}/\text{l}$  contours from the TCAAP plume have been connected with the 10  $\mu\text{g}/\text{l}$  contours from the plume south of County Road C. However, the 100  $\mu\text{g}/\text{l}$  contours remain separated by a distance of over 2 miles and cross section A-A' (Figure VI-13 and Plan Sheet 26), which runs roughly through the axis of the north plume further shows that it is unlikely that the northern 100  $\mu\text{g}/\text{l}$  contour near 206797 is connected with the 100  $\mu\text{g}/\text{l}$  contour near Gross Golf Course (200812 and 512761).

The MPCA sampled the St. Anthony municipal wells #3 and #4 (200804 and 200803) in April 1993 and analysis showed trichloroethene concentrations of 20.0  $\mu\text{g}/\text{l}$  in each well. However, it should be noted that these wells pump at high capacities and the concentrations may be diluted.

**b. 1,1,1-Trichloroethane**

Contour maps for 1,1,1-trichloroethane are presented as Figures VI-11 and VI-12 (Plan Sheets 24 and 25) representing on-post and off-post, respectively. Figure VI-14 (Plan Sheet 27), presents cross sections for 1,1,1-trichloroethane through the north and south plumes. The shapes of the plumes are generally the same as for trichloroethene, but the 1,1,1-trichloroethane concentrations are lower.

Unlike previous years, this year the maximum concentration of the plume from Sites D and G is defined by a 100  $\mu\text{g}/\text{l}$  contour (as opposed to 1,000  $\mu\text{g}/\text{l}$ ) around 04U806 extending to Building 503, as shown on Figure VI-12 (Plan Sheet 25) and cross section A-A' (Figure VI-14 and Plan Sheet 27). The elimination of the 1,000  $\mu\text{g}/\text{l}$  contour is a result of a decrease in the concentration at well 04U806 from 1,400  $\mu\text{g}/\text{l}$  in March 1992 to 720  $\mu\text{g}/\text{l}$  in March 1993.

Near Long Lake, the north plume bends westward and branches into two lobes, similar to the trichloroethene plume, as shown by the 10  $\mu\text{g}/\text{l}$  contour. The 10  $\mu\text{g}/\text{l}$  contour extends further west and south past New Brighton municipal well #6 (206797) and encompassing well 04U871.

Impacts to upper Unit 4 from the south plume are limited to a small area near 04U673, as defined by the 1  $\mu\text{g}/\text{l}$  contour shown on Figure VI-12 (Plan Sheet 25) and cross section B-B' (Figure VI-14 and Plan Sheet 27). The 1  $\mu\text{g}/\text{l}$  contour is shown to have expanded this year and connected to the north plume as a result of detections of 1.27, 1.68, 1.26, and 1.52  $\mu\text{g}/\text{l}$  at wells 04U003, 409547, 04U671, and 04U848, respectively.

Similar to the trichloroethene contour map for upper Unit 4, Figure VI-9 (Plan Sheet 22) and cross section A-A' (Figure VI-14 and Plan Sheet 27) suggest that a separate source of 1,1,1-trichloroethane may be contributing to the plume south of County Road C. The 10  $\mu\text{g}/\text{l}$  contours for the two plumes remain separated by a distance of over 2 miles. As with the trichloroethene contour maps, this interpretation is supported by new data collected during the FY 93 off-post well installation described in Section III.B and Appendix I of this report. Well 04U834 had a 1,1,1-trichloroethane concentration of 1.78  $\mu\text{g}/\text{l}$ . The MPCA data collected from the St. Anthony municipal wells also support this interpretation with concentrations of 1.3 and 1.7  $\mu\text{g}/\text{l}$  in wells 200803 and 200804, respectively.

## E. VINYL CHLORIDE

Relative to the other VOC compounds, vinyl chloride has a low groundwater action criteria which justifies special discussion for this parameter. As set forth in revised Table 3.7A of the FFA, the groundwater action criteria for vinyl chloride is 0.015  $\mu\text{g/l}$ . During FY 93, similar to previous years, vinyl chloride was not detected in any wells above the method detection limits, as shown in Table IV-2.

## F. SUMMARY

The groundwater quality contour maps indicate that Sites D and G are sources for VOC contamination. The plumes from these two sites merge in the vicinity of Building 503 on-post, and continue to progress off-post as the "north" plume. In general, the north plume continues to show reductions in contaminant concentrations near the source areas. The reduction near the source areas indicates that remediation of the soils at Sites D and G is effectively minimizing additional impacts to groundwater.

The contour maps also show that Site I is a source area of VOC contamination; however, the magnitude and extent of the Site I plume (the "south" plume) are less than those of the plume associated with Sites D and G. The main body of the Site I plume is clearly distinguishable from the plume associated with Sites D and G.

The on-post upper Unit 3 aquifer has the most VOC contamination. As the contamination moves downgradient, it is also migrating progressively deeper within the series of aquifer units. Thus, relative to lower Unit 3 and upper Unit 4, contamination in upper Unit 3 represents the highest concentrations on-post, but the lateral extent of contamination in this unit off-post is the least. Conversely, upper Unit 4 shows the least impact on-post, but the greatest impact off-post.

Contamination in upper and lower Unit 3 and upper Unit 4 trends southwestward as it migrates away from TCAAP. Near Long Lake, apparently in response to pumping at New Brighton municipal wells #3 and #6, the path of the plume swings south. Unit 3 appears to pinch out into a clay unit near 409556 and New Brighton municipal well #3. Upon encountering the relatively impermeable clay in Unit 3, the contaminants are apparently moving completely downward into the underlying Prairie du Chien (upper Unit 4). In this same area, the plume turns southward once more towards the St. Anthony municipal well field.

Well 03L858, located approximately 1/2 mile north of County Road C, had a detection of trichloroethene of 6.67  $\mu\text{g/l}$  in March 1993. This well is at a much higher elevation than all other lower Unit 3 wells and is essentially in a completely separate hydrologic unit. Furthermore, this well had a detection of carbon tetrachloride (30.80  $\mu\text{g/l}$ ) in March 1993. Carbon tetrachloride is not typically encountered at TCAAP, which suggests that the well is being impacted by a source other than TCAAP.

The data suggest trichloroethene and 1,1,1-trichloroethane from TCAAP may have migrated south of County Road C. Furthermore, the plume cross sections (Figures VI-13 and VI-14 and Plan Sheets 26 and 27) indicate the possibility that a separate source, unrelated to TCAAP, may be contributing to the concentrations at wells 200812, 234546, 234547, and 512761 located south of County Road C. This interpretation is supported by data collected from new wells installed in FY 93 between the TCAAP plume and the plume south of County Road C. The data from these new wells are generally at least an order of magnitude lower than the data from the Gross Golf Course wells. Furthermore, the wells installed in the Jordan Formation (04J wells) have much lower contaminant concentrations than the wells installed in the Prairie du Chien Formation (04U wells) indicating that contaminant transport is occurring primarily in the Prairie du Chien Formation.

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## Section VII

### Discussion of Groundwater Quality for Specific Areas

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#### A. KNOWN OR POTENTIAL SOURCE AREAS

##### 1. Site A

Discussion of groundwater quality data for Site A is presented in Section IX of this report.

##### 2. Site B

Site B, located along the northern boundary of TCAAP, consists of old building foundations where waste disposal was suspected. However, historic groundwater sampling at Site B has not detected any significant groundwater contamination.

No sampling was performed at Site B during FY 93. Wells 01U036 and 03U082 at Site B were sampled during March 1992 for halogenated VOCs (Category 1). The results showed that no halogenated VOCs were detected. Well 03U082 will be sampled in FY 94 as a continued check on groundwater quality.

##### 3. Site C

Site C, located along Mounds View Road in the north-central portion of TCAAP, was documented as a potential disposal site. Historic groundwater sampling has not detected any significant contamination.

Groundwater sampling performed at Site C in FY 93 was done as a continued check on groundwater quality. Well 01U085 was sampled during March 1993 for halogenated VOCs (Category 1) to evaluate Unit 1 water quality. Analytical results showed no detection of any halogenated VOCs during the March sampling event. Historic data are shown in Table IV-2.

An upper Unit 3 monitoring well (03U083) was also sampled during March 1993 to monitor water quality for Category 1 and Category 7 parameters. No halogenated or aromatic VOCs were detected for this sampling event similar to March 1992 and March 1991. Low levels of aromatic VOCs, specifically benzene at 1.25  $\mu\text{g/l}$  and toluene at 5.26  $\mu\text{g/l}$ , were reported in 1990. Prior to 1990, sampling of 03U083 in August 1988 did not detect any aromatic or halogenated VOCs.

#### 4. Site D

Site D, located in the central portion of TCAAP, has contributed significant contamination to the Unit 3 and 4 aquifers due to past activities. Active remediation at Site D is being performed by an in-situ volatilization (ISV) system and a groundwater recovery system. The groundwater recovery system utilizes pumpout wells 03U316 and 03U317 located downgradient as shown on Figure VI-1 to capture contaminated groundwater for treatment and disposal within TCAAP.

Unit 1 and Unit 2 are not present at Site D, thereby allowing solvents disposed at Site D to migrate directly into Unit 3.

In general, upper Unit 3 remains the most contaminated aquifer near Site D. The trichloroethene concentration at 03U093 reflects a significant reduction over the past three years from 40,000  $\mu\text{g/l}$  in May 1990 to 8,600  $\mu\text{g/l}$  in March 1991 to 2,000  $\mu\text{g/l}$  in March 1992 to 340  $\mu\text{g/l}$  in March 1993. The concentration at 03U018 dropped from 2,500  $\mu\text{g/l}$  in May 1990 to 240  $\mu\text{g/l}$  in March 1991 and has since increased to 4,500  $\mu\text{g/l}$  in March 1992 and 4,700  $\mu\text{g/l}$  in March 1993. The reduction at 03U093 indicates that the ISV system is

effectively minimizing additional contamination of the groundwater at Site D. The increase at well 03U018 is likely the result of contaminant migration toward the Site D source recovery wells.

During 1993, contaminant concentrations in several Site D wells exceeded the groundwater action criteria specified in revised Table 3.7A of the FFA (Appendix A). Concentrations of trichloroethene exceeded the action criteria of 2.80  $\mu\text{g/l}$  at wells 03U017, 03U018, 03U093, 03U096, 03U316, 03U317, and 03M017. Also, 1,1,1-trichloroethane concentrations at wells 03U018, 03U093, 03U096, and 03M017 exceeded the groundwater action criteria of 22  $\mu\text{g/l}$ . Wells 03U017, 03U093, 03U096, 03U316, 03U317 and 03M017 exceeded the groundwater action criteria for 1,1-dichloroethene. In addition, well 03U316 exceeded the groundwater action criteria for chloroform. All of these wells are within the capture zone of the TGRS. A complete listing of groundwater action criteria exceedances is presented in Table IV-2.

Water quality trend figures have been prepared showing variations in trichloroethene concentrations across the site. These figures plot the concentrations of well 03U093 as a source strength well and wells 03U017, 03M017, and 03L017 as downgradient wells. The trend figures are shown as Figures VII-1 and VII-2. In general, the figures show that trichloroethene is decreasing both near the source area and also at the downgradient well nest composed of upper, middle, and lower Unit 3 wells which supports the finding that remediation efforts are successfully reducing contaminant concentrations near Site D.

## 5. Site E

Site E, located in the central portion of TCAAP, was used as a burning area and debris burial site (Argonne National Laboratory, 1990). The focus on groundwater sampling has been on Unit 3 since Units 1 and 2 are absent at the site.

Historically, low levels of trichloroethene and tetrachloroethene have been detected within Site E at wells 03U088 and 03U089. Trichloroethene has also been detected consistently at 03U704, along with 1,1,1-trichloroethane prior to April 1990. Aromatic VOCs have historically not been detected and have been eliminated from sampling in recent years.

During March 1993, wells 03U015, 03U089, and 03U704 were sampled and analyzed for halogenated VOCs (Category 1). Well 03U704 is also used to evaluate conditions near the gravel pit area, which is located upgradient of Site E.

Groundwater quality based on March 1993 analytical results indicates that there were detections of 0.94  $\mu\text{g}/\text{l}$  and 0.92  $\mu\text{g}/\text{l}$  of trichloroethene in wells 03U704 and 03U089, respectively. The only other VOC detection in Site E wells was tetrachloroethene detected at a concentration of 1.83  $\mu\text{g}/\text{l}$  in well 03U089 which is consistent with data prior to March 1992.

Water quality trend Figures VII-3 and VII-4 present trichloroethene concentrations for 03U088/03U089 and 03U704, respectively. The figures show a fairly stable, low range of detections.

Well 03U015, located downgradient of Site E, had detections of tetrachloroethene, trichloroethene, and 1,2-dichloroethene in August 1988, but these parameters were not detected prior to or after that event.

Well 03U704 is the only Site E well which has detected 1,1,1-trichloroethane in recent sampling with low levels reported during Quarters 23-25 (July 1989 - January 1990). However, no detection of 1,1,1-trichloroethane has occurred at 03U704 since January 1990.

The tetrachloroethene detection in well 03U089 was the only exceedance of the groundwater action criteria at Site E in 1993.



## 6. Site F

Site F, located along Snelling Avenue in the south-central portion of TCAAP between Sites D and G, is reported to have been used for the burning of explosives and the burial of mercury crack cases (Argonne National Laboratory, 1991).

Unit 3 represents the aquifer of primary concern for this location. Historically, wells in upper Unit 3 have shown significant levels of halogenated VOCs, primarily 1,1,1-trichloroethane and trichloroethene, and to a lesser extent 1,1-dichloroethene. Chloroform has also historically been detected in certain Site F wells along with sporadic detections of aromatic VOCs, specifically benzene and toluene. Cyanide has also been detected in upper Unit 3.

The VOC contamination present in Site F wells seems likely to be the result of disposal practices associated with nearby Sites D and G. Additional soil sampling and analysis was performed at Site F during December 1990 through February 1991. The results indicated that with the exception of methylene chloride, no halogenated VOCs were detected in any of the soil samples.

Methylene chloride was not detected at any of the wells during FY 93. This indicates that previous methylene chloride detections are likely the result of laboratory contamination.

Sampling proposed for Site F in the 1993 Annual Monitoring Plan consisted of annual sampling for both halogenated VOCs and inorganics at two upper Unit 3 wells, and for halogenated VOCs at six other upper Unit 3 wells and one lower Unit 3 well.

Concentrations of 1,1,1-trichloroethane and trichloroethene at Site F have remained fairly constant, as reaffirmed by FY 93 analytical results. Well 03L113 continued to have non-detectable levels of these two compounds; well 03U113 showed a trichloroethene concentration of 0.82  $\mu\text{g/l}$  in March 1991, but was not detected in 1992 or 1993. The

highest concentrations observed at Site F are 25.40  $\mu\text{g/l}$  for trichloroethene (well 03U112) and 47.30  $\mu\text{g/l}$  for 1,1,1-trichloroethane (well 03U114). Figure VII-5 shows trichloroethene water quality trends for wells 03U114 and 03U026. The trend figure indicates a decrease in trichloroethene concentration at well 03U114 and an increase in well 03U026.

Chloroform has been and continues to be consistently detected in wells 03U026, 03U090, 03U092, 03U112, and 03U114, with the concentrations remaining fairly constant. Chloroform values are included in Table IV-2.

Cyanide (Category 4) was not detected in either 03U112 or 03U121 during March 1993.

Wells 03U026, 03U090, 03U092, 03U112, and 03U114 exceeded the groundwater action criteria established in revised Table 3.7A in Appendix A of the FFA for trichloroethene and chloroform. Wells 03U090, 03U092, 03U112, and 03U114 also exceeded the action criteria for 1,1,1-trichloroethane and 1,1-dichloroethene. All of these wells are within the capture zone of the TGRS. A complete listing of groundwater exceedances, as well as the action criteria, is included in Table IV-2.

## 7. Site G

Site G, also located on Snelling Avenue just south of Site F in the south-central portion of TCAAP, has contributed significant contamination to Units 3 and 4. Until approximately 1978 (Argonne National Laboratory, 1991), Site G was reportedly used as a dumping area for waste products, including solvents. Corrective measures, including an in-situ volatilization (ISV) system and a groundwater recovery system, have been installed and are currently operating at this location.

Halogenated VOCs, particularly 1,1,1-trichloroethane, trichloroethene, and 1,1-dichloroethene, are the primary contaminants of concern at Site G.

The Site G sampling proposed in the 1993 Annual Monitoring Plan consisted of annual sampling of wells 03U014, 03U020, 03U094, 03U314, 03U315, 03M020, and 04U020. All wells were sampled for halogenated VOCs.

Trichloroethene concentrations were plotted as Figure VII-6 to evaluate trends at Site G. The figure shows that concentrations have had a generally decreasing trend at wells 03U014, and 04U020 since 1987. Well 03U094 has historically had the highest concentrations of all wells near Site G, but has decreased continuously from 18,000  $\mu\text{g/l}$  in December 1987 to 2,600  $\mu\text{g/l}$  in March 1992. During March 1993, the trichloroethene concentration at well 03U094 increased to 3,200  $\mu\text{g/l}$ . Well 03U014, near the Site G source control wells, has decreased also from 13,000  $\mu\text{g/l}$  in December 1987 to 8,200  $\mu\text{g/l}$  in March 1992 to 19.30  $\mu\text{g/l}$  in March 1993, indicating a reduction of the source area. Well 03M020 had shown an increasing trend in this same period; however, it has decreased in 1993. Well 03U020 had been decreasing steadily, but has increased in the past three years.

The decreases in concentrations at wells near Site G indicate that the Interim Remedial Actions are effectively reducing the source for groundwater contamination.

The 1993 groundwater quality data show contamination above the groundwater action criteria at all Site G wells. All of these wells are within the capture zone of the TGRS. A complete listing of the groundwater action criteria and the water quality data which exceeds the action criteria is included as Table IV-2.

## 8. Site H

Site H, located in the southeast portion of TCAAP just north of Sunfish Lake, was reportedly used as a burning area for combustibles and a dumping and burning area for waste that included solvents (Argonne National Laboratory, 1991).

Historic groundwater sampling at Site H has not detected any significant contamination.

Groundwater quality monitoring for 1993 consisted of sampling upper Unit 1 well 01U098 and upper Unit 3 well 03U099. Wells in the Site H area were sampled during March 1993 for halogenated VOCs.

No contaminant detections were observed at 01U098 in 1993. At well 03U099, trichloroethene and 1,1,1-trichloroethane were detected at 1.92 and 4.74  $\mu\text{g/l}$ , respectively, in March 1993. Historically, the only other VOC detections at this well were trichloroethene at 1.14  $\mu\text{g/l}$  in April 1990 and 1,1,1-trichloroethane at 1.82  $\mu\text{g/l}$  in March 1992.

## 9. Site I

Alliant Techsystems, Inc. has provided a discussion on groundwater quality at this site in Section XII. Figure VII-7 shows trichloroethene water quality trends for 03U029.

## 10. Site J

Site J is a buried underground sewer line located in the southwest portion of TCAAP which extends from the south side of Building 576 to a pumping station northwest of Building 105. The sewer line transported solvents, grease, and other materials that entered floor drains in Building 576 (Argonne National Laboratory, 1991).

Groundwater sampling in the Site J area has focused on Unit 1. Historic groundwater sampling at Site J has not detected any significant contamination. Of the ten Unit 1 wells used to monitor groundwater quality in the vicinity of Site J, only one well, 01U526, has ever detected contaminants.

During March 1993, a check of groundwater quality was performed by analyzing well 01U526 for halogenated VOCs (Category 1). Similar to last year, results show a low concentration of trichloroethene at 2.75  $\mu\text{g}/\text{l}$ , which is consistent with previous levels. Figure VII-8 shows that trichloroethene concentrations for 01U526 have remained stable.

#### 11. Site K

Alliant Techsystems, Inc. has provided a discussion on groundwater quality at this site in Section XI.

#### 12. Site 129-3

Site 129-3, located in the central portion of TCAAP between Sites D and E, was used from 1971 until approximately 1978 to dispose of wastewater generated from lead styphnate production facilities into leaching pits located at the site (Argonne National Laboratory, 1991).

Units 1 and 2 are not present at Site 129-3; thus, the primary unit of concern is Unit 3. Low levels of trichloroethene and 1,1,1-trichloroethane were detected in well 03U087 prior to 1991, while 03U521 had shown sporadic detections of trichloroethene prior to 1991.

Well 03U087 was sampled during March 1993 for halogenated VOCs (Category 1) and cyanide (Category 4) as a check on groundwater quality. The results did not show either VOCs or cyanide.

#### 13. Site 129-5

Site 129-5, located in the east-central portion of TCAAP, was used for the burning of explosive wastes which may have included solvents (Argonne National Laboratory, 1991).

It is thought that Units 1 and 2 may be discontinuous throughout the site; therefore, the primary unit of concern is Unit 3.

In general, historic groundwater sampling has shown that no significant groundwater contamination has resulted from activities at Site 129-5. In April 1988, no halogenated VOCs were detected at 01U072, the only Unit 1 well at the site. This well has not been sampled since that time. Trichloroethene and 1,1,1-trichloroethane had been detected in Quarter 16 at well 03U111, but only trichloroethene was detected in Quarter 18. In Quarters 19 and 20 no halogenated VOCs were detected. Sporadic detections of trichloroethene have been reported at 03U097 prior to 1991.

Monitoring in 1993 consisted of sampling well 03U097 for halogenated VOCs during March. Results revealed no detections of VOCs.

#### 14. Site 129-15

Site 129-15, located in the central portion of TCAAP north of Site F, appears to have been used as a general dump for building materials from approximately 1957 to 1978 (Argonne National Laboratory, 1991). Halogenated VOCs, particularly 1,1,1-trichloroethane and trichloroethene, are present in the four upper Unit 3 wells and the one lower Unit 3 well located in and around Site 129-15. Sporadic detections of aromatic VOCs, specifically benzene and toluene, have been observed in the wells.

During 1993, wells 03U016, 03U032, 03U090, 03U124, and 03L091 were sampled in March for halogenated VOCs.

Analytical results contained in Table IV-2 show that detections of 1,1,1-trichloroethane and trichloroethene have historically been recorded in well 03U032; however, in 1992 and 1993, only trichloroethene was detected. In 1992, the concentrations ranged from 1.51 to 2.13  $\mu\text{g}/\text{l}$  and in 1993 the concentration was 1.46  $\mu\text{g}/\text{l}$ . Analytical results showed continued detections

of trichloroethene; 1,1-dichloroethene; 1,2-dichloroethene; 1,1,1-trichloroethane; and chloroform in well 03U090 and 1,1,1-trichloroethane and trichloroethene in well 03U124. Well 03U016, located upgradient of Site 129-15, did not detect any halogenated VOCs in March 1992, but detected trichloroethene at 1.04  $\mu\text{g/l}$  in March 1993. Similarly, well 03L091 showed only trichloroethene at a concentration of 1.16  $\mu\text{g/l}$  during March 1993 sampling.

A complete listing of analytical results for the organic parameters is included in Table IV-2.

The groundwater concentrations observed at Site 129-15 during 1993 exceeded the groundwater action criteria for trichloroethene; 1,1-dichloroethene; 1,1,1-trichloroethane; and chloroform at 03U090. This well is within the capture zone of the TGRS. A complete listing of the groundwater action criteria and the water quality data which exceed the action criteria is included as Table IV-2.

Figure VII-9 displays water quality trends of both trichloroethene and 1,1,1-trichloroethane for 03U032 and 03U124, which show that both compounds are declining in concentration.

## 15. Gravel Pit

Because contamination levels of some concern were detected in wells upgradient of Site E during 1989, the gravel pit located in the north-central portion of TCAAP is discussed here as a potential source area.

Historically, wells 03U704, 03U705, and 03U707 have had low levels of 1,1,1-trichloroethane and trichloroethene. Data results from Quarter 24 (October 1989) showed a significant increase in the levels of these compounds in wells 03U704 and 03U705, located downgradient of the gravel pit, and 03U707, located northwest of the gravel pit.

Groundwater sampling conducted in 1993 consisted of March sampling of wells 03U704, 03U706, and 03U707, and March and September sampling of well 03U705. All samples were analyzed for halogenated VOCs (Category 1).

Well 03U704, located within Site E, but downgradient of the gravel pit, continued to show low levels of trichloroethene in October 1993 (0.94  $\mu\text{g/l}$ ), while 1,1,1-trichloroethane was not detected. Wells 03U705 and 03U706 showed low trichloroethene (6.31 and 4.70  $\mu\text{g/l}$ ) and 1,1,1-trichloroethane (3.21 and 1.73  $\mu\text{g/l}$ ) concentrations in March 1993.

Well 03U707, located northwest of the gravel pit, had shown relatively consistent levels between 2 and 13  $\mu\text{g/l}$  of trichloroethene through March 1991. In March 1992, this value had decreased to 0.75  $\mu\text{g/l}$  and in March 1993 trichloroethene was not detected in 03U707.

The 1993 groundwater quality data (Table IV-2) show that trichloroethene concentrations in wells 03U705 and 03U706 exceeded the groundwater action criteria.

## **B. BEDROCK VALLEY**

A channel or valley exists in the bedrock beneath TCAAP and was investigated as part of the Bedrock Valley/Monitor Well Installation Survey conducted by STS Consultants in 1986.

Specifically, a northwest-southeast trending valley exists which can be marked by an axis running through monitoring well nest 005 in the southeast, to monitoring well 03L138 located slightly east of Site G and continuing past monitoring well 03L137 located within Site F.



The bedrock valley is eroded through the Prairie du Chien Dolomite and the Jordan Sandstone, thereby encountering the St. Lawrence Dolomite. The bedrock valley has been filled with Unit 3 unconsolidated deposits, as shown on cross section A-A' (Figure VI-13 and Plan Sheet 26).

Wells installed into the bedrock valley include the 005 well nest (03U005, 03M005, and 03L005), well 03L081 located southeast of Site G off Federal Road, well 03L137 located on the western edge of Site F, and well 03L138 located east of Site G. All these wells, except 03L137, were sampled in March 1993 for halogenated VOCs.

Historically, the wells located in the bedrock valley have shown no detection of aromatic VOCs and only low levels of various halogenated VOCs. Well 03U005 has shown sporadic detections at low levels of trichloroethene and 1,2-dichloroethene. The values in March 1993 were 1.13  $\mu\text{g/l}$  and 1.36  $\mu\text{g/l}$ , respectively. There were no detections in well 03M005. Well 03L005 has continued to show no detections of any VOCs.

Well 03L138 showed trichloroethene at 1.72  $\mu\text{g/l}$  for the first time during September 1990 and March 1991 results showed 0.58  $\mu\text{g/l}$  trichloroethene. In March 1993, trichloroethene was not detected in 03L138.

Well 03L081, sampled for the first time in May 1990, showed trichloroethene at 7.7  $\mu\text{g/l}$ ; this value decreased to 1.97  $\mu\text{g/l}$  for March 1991, but increased in March 1992 to 12.30  $\mu\text{g/l}$ . In March 1993, trichloroethene was not detected in well 03L081.

In general, the uncontaminated water quality history of well 03L005 provides assurance that contamination from Sites D and G, which lie at least partially over the bedrock valley, has not migrated off-post through the bedrock valley. In addition, the groundwater flow analysis indicates that flow within the valley does not vary significantly from the general Unit 3/Unit 4 southwesterly direction. This is due to relatively similar hydraulic characteristics of the bedrock and valley fill sediments.

### C. MISCELLANEOUS ON-POST WELLS

Well 03U031 is located in the west-central portion of TCAAP, southeast of Site K; however, this well is not considered a Site K monitoring well since it is located hydraulically sidegradient to upgradient.

Well 03U031 has had low detections of trichloroethene since January 1988 and one detection of 1,1,1-trichloroethane in May 1988. In March 1993, the detections of these two compounds were 13.30 and 1.43  $\mu\text{g/l}$ , respectively. The trichloroethene concentration increased from 10.20  $\mu\text{g/l}$  in March 1992 and exceeded the action criteria for trichloroethene of 2.8  $\mu\text{g/l}$  as set forth in revised Table 3.7A in Appendix A of the FFA.

Figure VI-1 (Plan Sheet 14) shows a 10 and a 1- $\mu\text{g/l}$  contour for trichloroethene encircling only well 03U031, since no detections were reported at 03U015 to the east or 03U083 to the north. A 1  $\mu\text{g/l}$  contour is shown on Figure VI-2 (Plan Sheet 15) for 1,1,1-trichloroethane.

### D. OFF-POST

Groundwater trend figures were prepared using off-post wells to evaluate changes in water quality in Unit 3 and Unit 4 at select locations.

Figure VII-10 shows trichloroethene concentrations at wells starting just downgradient of TCAAP (04U847), travelling southwest to the 821 well nest, and continuing to the 846 well nest and 04U844 just north of Interstate 694. Except for the 846 well nest, cross section A-A' (Figure VI-13 and Plan Sheet 26) illustrates these wells and their relationship within the north plume. Concentrations of trichloroethene in well 04U847 and well 04U844 have shown increasing trends over the past few years, whereas the 821 well nest has shown decreasing trend. Cross section A-A' shows that the 821 nest is higher in elevation than 04U847 and 04U844 and that the contaminant concentration is greater at lower elevations.

Figure VII-11 shows trichloroethene concentrations at middle and lower Unit 3 wells of the 848 well nest located between Interstate 35W and Round Lake to the southwest of TCAAP. This well nest is in the southern portion of the south plume and is shown on cross-section B-B' (Figure VI-13 and Plan Sheet 26). Also shown on this figure are the lower Unit 3 well and upper Unit 4 well from the 832 well nest located slightly north of Interstate 694.

Trichloroethene concentrations in wells 03L848 and 04U848 have been decreasing since July-October 1989. Conversely, the concentration at 03M848 has increased from 190  $\mu\text{g/l}$  in April 1990 to 700  $\mu\text{g/l}$  in September 1991 and decreased slightly to 640  $\mu\text{g/l}$  in March 1992, but increased to 1,300  $\mu\text{g/l}$  in March 1993. The other wells shown on Figure VII-12 do not show any obvious trends.

Figure VII-13 shows trichloroethene concentrations at 409549 northwest of Pike Lake, continuing to well 04U877 directly south of Pike Lake, continuing further south to 200812 (Gross Golf Course), and ending further downgradient at well 233221. In general concentrations in wells 04U877, 233221, and 409549 show a slight declining trend; whereas, well 200812 has remained relatively steady. The other wells shown on Figure VII-14 do not show any obvious trends.

## E. SUMMARY

Monitoring data for FY 93 show that Sites D, G, and I continue to represent the primary source areas for groundwater contamination in Unit 3 and Unit 4. However, decreases of contaminant concentrations at Site D, Site G, and Site I indicate that corrective actions are diminishing the sources of groundwater contamination.

For Unit 1, the primary sources for groundwater contamination are Sites A, I, and K. Discussion of water quality for Unit 1 at these three sites is presented in Sections IX, XI, and XII of this report.

Relative to the primary source areas mentioned above, monitoring at Sites B, C, E, F, H, J, 129-3, 129-5, and 129-15 indicates that these sites do not represent significant sources for groundwater contamination. No exceedances of TCAAP groundwater action criteria were observed during FY 93 at Sites C, H, J, 129-3, or 129-5. No sampling was done at Site B in FY 93. Site E had one low level exceedance of tetrachloroethene. Exceedances observed at Site F and Site 129-15 wells appear to be related to the plumes at Sites G and D, respectively, and not the result of activities at Sites F and 129-15.

Contamination does not appear to be migrating off TCAAP via the bedrock valley as evidenced by no detections of VOCs in well 03L005 near the southern property boundary and by the valley's lack of effect on Unit 3 and Unit 4 groundwater flow patterns.

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## Section VIII

### Discussion of Surface Water Quality

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Surface water monitoring during FY 93 consisted of sampling required per the TCAAP National Pollutant Elimination Discharge System (NPDES) permit. This data have been, and continue to be reported to the MPCA Division of Water Quality as required by the NPDES permit. The data provided by FCC are included in Tables IV-4, IV-5, and IV-6. Figure VIII-1 is a map showing surface sample locations.

Points 20100, 20200, 20300, 20400, 20500, 20700, 20800, 20900, 21000, 21100, 21200, 21300, 21400, and 21600 were sampled in May 1993 for PCBs. No PCBs were detected in FY 93 as shown in Table IV-4.

These same locations were sampled for VOCs on a quarterly basis, with the exception of 21200, 21300, 21400, and 21600 which were sampled once. Table IV-5 shows that no VOCs exceeded surface water action criteria in FY 93. Trichloroethene was detected at 20200 at 5.72  $\mu\text{g/l}$  and 6.64  $\mu\text{g/l}$  in February 1993 and August 1993, respectively, and at 20500 at 1.29  $\mu\text{g/l}$  in August 1993. These detections are all below the surface water action criteria of 15  $\mu\text{g/l}$ .

Table IV-6 shows that cyanide, nickel, and mercury were not detected at concentrations greater than the surface water action criteria at any locations during FY 93.

The laboratory detection limits for 1,1-dichloroethene, mercury, and cyanide are above the surface water action criteria; therefore, these values are indicated on Tables IV-5 and IV-6 as exceedances although the action values may be below the surface water action criteria.

Chromium was detected above the action criteria of 11  $\mu\text{g/l}$  at 21000 (14.20  $\mu\text{g/l}$ ) on May 11, 1993. Subsequent sampling August 1993 resulted in a value of <2.18  $\mu\text{g/l}$ . Point 21000 is on Rice Creek southwest of TCAAP. Chromium concentrations at all other locations were less than 11  $\mu\text{g/l}$  on all occasions.

Zinc concentrations above the action criteria of 47  $\mu\text{g/l}$  were reported at 20100, 20200, 20500, 20900, 21000. The maximum concentration was 151  $\mu\text{g/l}$  at 20900 on February 4, 1993. At all locations with exceedances, at least one sampling event in FY 93 reported concentrations below the action criteria.

The surface water action criteria for chromium and zinc are "U.S. EPA water quality criteria for protection of aquatic life - chronic effects," as referenced in Table 3.7B of the FFA. The exceedances of these criteria were sporadic -- no additional action, beyond continued monitoring, is warranted at this time.

The remaining inorganic parameters shown in Table IV-6 do not have surface water action criteria and, although several of the parameters were detected at low concentrations at various locations in FY 93.

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## Section IX

### Evaluation of Site A Interim Remedial Action

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#### A. INTRODUCTION

##### 1. Location

Site A is located near the northern boundary of TCAAP as shown on Plan Sheet 3. Areas within Site A may have been used for the disposal of waste products, including sewer sludge, solvents, explosive-containing wastes, and mercury-contaminated cartridges (Argonne National Laboratory, 1991). Burning and/or disposal of these wastes may have begun as early as 1940 and continued until 1966 (Argonne National Laboratory, 1991).

##### 2. Geology

The geology of the site consists of Quaternary-aged deposits which include the following units:

Fridley Formation (Unit 1)

Twin Cities Formation (Unit 2)

Hillside Sand Formation (Unit 3)

The Fridley Formation or Unit 1 is comprised of lacustrine silts to medium-grained sands which act as a shallow unconfined aquifer. This unit varies in thickness from approximately 15-30 feet in the vicinity of Site A to 60 feet in the residential area of Shoreview north of Site A (Connell, June 1988). Unit 1 is the primary aquifer of concern in the Site A area,

with the underlying Twin Cities Formation or Unit 2, which consists of a glacial till, acting as an aquitard (Whitman, 1980).

The locations of the monitoring wells located in and around Site A are shown on Plan Sheet 3.

## **B. GROUNDWATER FLOW EVALUATION**

### **1. Summary of FY 93 Monitoring Activities**

The most extensive groundwater level monitoring conducted at TCAAP by FCC is performed at Site A. During FY 93, water level readings were measured at all Unit 1 wells in and around Site A on seven occasions. In addition, water levels were measured at 03U023 during Quarters 38 and 40. The groundwater elevation data obtained are presented in Table IV-1.

### **2. Flow Direction**

The Unit 1 groundwater flow direction at Site A is generally west/northwest as shown on Figure IX-1 and Plan Sheet 28, which depicts the specific conditions during March 1993. Upon the request of MPCA staff, the Unit 1 groundwater elevation map has been contoured without using the water level reading from the pumping well 01U350. The groundwater flow direction using 1993 data (Figure IX-1 and Plan Sheet 28) is consistent with the flow direction observed in previous Annual Monitoring Reports. Groundwater flow is to the northwest near the pumping well on the north side of Building 308. The groundwater flow interpretation in the southwest portion of Figure IX-1 (Plan Sheet 28) begins to suggest a slight change to a more westerly and west/southwesterly flow direction. This interpretation is based on a small number of data points and interpolation is performed over a large area; however, this interpretation is not unlikely as groundwater in Unit 1 appears to flow towards Rice Creek.



Rice Creek is a generally north-south trending water body which is partially shown on Figure IX-2 (Plan Sheet 28). The USGS topographic map (New Brighton Quadrangle, revised 1980) indicates that the elevation of Rice Creek is approximately 875 feet above Mean Sea Level just west of Site A. This elevation matches well with the groundwater elevations and gradient observed at Site A, which supports the interpretation that groundwater in Unit 1 discharges to Rice Creek.

Implementation of the Site A Interim Remedial Action (IRA) has affected the groundwater flow pattern in a relatively small area of Site A downgradient of pumping well 01U350. The water level contours at elevations 889, 890, and 891 feet have been affected by pumping at 01U350. Contouring the water level data from 1988-1992 without the water level data from the pumping well appears to show that the influence due to pumping has decreased over time. Water level contours from FY 93 near the pumping well are consistent to those shown in the FY 92 AMR and indicate relatively stable pumping influences from well 01U350.

Unit 1 groundwater elevations for FY 93 indicate a difference of approximately 5 feet across the Site A area. The horizontal hydraulic gradient has remained relatively steady at Site A and during FY 93 varied from 0.003 to 0.005 feet per foot. Using the results of a pumping test performed by International Technology Corporation on well 01U117 in July and August 1992, a hydraulic conductivity value of  $8.3 \times 10^{-3}$  cm/sec was calculated for Unit 1 (International Technology Corporation, 1992). Using this hydraulic conductivity, the maximum horizontal hydraulic gradient shown above, and an assumed porosity value of 0.35, the horizontal groundwater velocity is calculated to be approximately 0.20 to 0.34 feet/day or 74 to 123 feet/year.

### **3. Groundwater Level Trends**

The majority of Site A Unit 1 monitoring wells reported an average increase in groundwater levels of approximately 3.3 feet in FY 93. Groundwater hydrographs for 01U038, 01U039, 01U067, 01U108, 01U115 and 01U350 show water level fluctuations that have occurred over the Site A area. The hydrographs are included as Figure IX-2.

The Unit 1 wells in general had exhibited declining groundwater levels in FY 88, FY 89, and FY92 due to below-average precipitation in the Minneapolis-St. Paul metropolitan area. Groundwater levels increased in FY 90, FY 91, and FY 93 and are above FY 88 levels. Figure IX-2 illustrates the historical fluctuations in groundwater levels.

## **C. GROUNDWATER QUALITY EVALUATION**

### **1. Summary of FY 93 Monitoring Activities**

Groundwater sampling at Site A during FY 93 included an intensive sampling event conducted during March 1993. The intensive sampling event allows for the preparation of groundwater quality contour maps to delineate the extent of contamination.

In addition, monitoring wells 01U108 and 01U902, along with pumping well 01U350, were sampled monthly during FY 93 to evaluate water quality at critical locations and to observe operating conditions related to the Site A IRA.

All wells sampled at Site A in 1993 were analyzed for Category 1, while selected wells were analyzed for Category 7. These categories are the halogenated and aromatic VOCs, respectively. In addition to sampling for VOCs, metals analysis (Category 2) was performed monthly at pumping well 01U350.

In addition to Army sampling of wells, the MPCA collected samples for VOC analysis in October - November 1992 at seven residential wells which are shown on Figures IX-3 through IX-5. Six of these wells were also sampled in September 1993. The data from these sampling events is included in Table IV-2.

## 2. Contaminant Plume Definition

Contaminant plume contour maps were prepared for Site A using the Quarter 38 (March 1993) sampling results. Contour maps were developed for 1,2-dichloroethene, trichloroethene, and tetrachloroethene, which are present in the groundwater at Site A. The contour maps are presented on Figures IX-3, IX-4, and IX-5 (Plan Sheets 29 through 31), respectively. Groundwater quality data collected since Quarter 16 (Fall 1987) for organic and inorganic parameters are included as Tables IV-2 and IV-3, respectively.

### a. 1,2-Dichloroethene

1,2-Dichloroethene concentrations reported for the March 1993 sampling event were used to create an isoconcentration map which is included as Figure IX-3 (Plan Sheet 29). Water quality trends for 1,2-dichloroethene at selected Site A wells are presented as Figures IX-6 through IX-8.

1,2-Dichloroethene was detected in 11 of the 24 wells sampled during March 1993 with the highest concentration (590  $\mu\text{g/l}$ ) present at monitoring well 01U102, as shown on Figure IX-3 (Plan Sheet 29).

Monitoring well 01U102 appears to be the source strength well for contamination which may have originated from disposal pits 6 through 8. The 100  $\mu\text{g/l}$  contour extends from monitoring well 01U102 downgradient to incorporate the detections at 01U139, 01U140, and 01U902 as shown on Figure IX-3 (Plan Sheet 29). The 100  $\mu\text{g/l}$  contour encompasses a larger area than

depicted in the FY 92 AMR due to the increased concentrations observed at 01U139 and 01U140.

Monitoring well 01U108 appears to be the source strength well for disposal pits 2 and 5 as shown on Figure IX-3 (Plan Sheet 29). Contamination which may have originated from disposal pits 1 and 4 also may be contributing to the north plume. In general, concentrations observed in the area of pumping as reported in well 01U108 continues to decrease as shown on Figure IX-8.

The depiction of two plumes, each emanating from separate disposal pit areas, is supported by 01U125, which has historically never detected 1,2-dichloroethene.

In FY 93, concentrations of 1,2-dichloroethene at monitoring wells 01U102, 01U108, 01U117, 01U139, 01U140, and 01U902 exceeded the groundwater action criteria of 70  $\mu\text{g}/\text{l}$ , as set forth in revised Table 3.7A of the FFA. Wells 01U102 and 01U117 have been in exceedance of the groundwater action criteria since October 1989 and March 1991, respectively. Water quality trend figures for these wells are included as Figures IX-6 and IX-7, respectively. Groundwater action criteria exceedances for FY 93 are included in Table IV-2. The concentrations observed at 01U902 throughout FY 93 suggest that contamination above the groundwater action criteria has migrated off the TCAAP property.

The contours shown in the residential area north of TCAAP were drawn using results from an MPCA sampling event conducted on seven private residential wells in October - November 1992, as well as TCAAP sampling data. A September 1993 sampling event in six residential wells yielded similar results. The results of the sampling are included in Table IV-2. Detections at three

residential wells (Martin, Gamradt and Shanzer) helped shape the 1  $\mu\text{g}/\text{l}$  contour shown in Figures IX-3 (Plan Sheet 29).

**b. Trichloroethene**

Trichloroethene concentrations reported for the March 1993 sampling event have been used to create an isoconcentration map which is included as Figure IX-4 (Plan Sheet 30). Water quality trends for trichloroethene at selected Site A wells are included as Figures IX-6, IX-8, and IX-9.

In general, the initiation of pumping seems to be responsible for the decreased concentrations of trichloroethene in monitoring well 01U108, which appears to be the source strength well near disposal pits 2 and 5, as shown on Figure IX-4 (Plan Sheet 30). Trichloroethene concentrations at 01U108 appear to have peaked in August 1988 at 750  $\mu\text{g}/\text{l}$  and have generally decreased to 5.68  $\mu\text{g}/\text{l}$  in September 1993, as shown in Table IV-2.

Monitoring well 01U102 appears to be a source strength well downgradient of disposal pits 6 through 8, as shown on Figure IX-4 (Plan Sheet 30).

Trichloroethene concentrations at 01U102 also appear to be decreasing from 300  $\mu\text{g}/\text{l}$  in April 1990 to 39  $\mu\text{g}/\text{l}$  in September 1993 as shown on Figure IX-6.

Concentrations may be decreasing in well 01U117, located downgradient of monitoring well 01U108 and pumping well 01U350. After reaching a peak of 47.00  $\mu\text{g}/\text{l}$  in March 1993, concentrations have decreased to 13.70  $\mu\text{g}/\text{l}$  in September 1993, which may be due to better capture from the pumping well or may be a fluctuation in the strength of the source area.

Similar to 1,2-dichloroethene, trichloroethene has historically never been detected at 01U125 which supports the interpretation of two plumes originating from different source areas.

Trichloroethene concentrations continue to be detected in the off-site area to the northwest of Site A. Consistent levels of trichloroethene continue to be observed at 01U902 as shown on Figure IX-9. Further west of 01U902, detections at the Martin well in FY 91, October 1992, and September 1993 indicate that trichloroethene also extends past the Martin well as depicted in Figure IX-4 (Plan Sheet 30).

Trichloroethene contamination in Unit 1 at Site A was detected at eight of the 24 wells sampled during March 1993. A total of five wells in and around Site A exceeded the 2.8  $\mu\text{g/l}$  trichloroethene groundwater action criteria during FY 93. A listing of this data are included in Table IV-2.

c. Tetrachloroethene

Tetrachloroethene concentrations reported for the March 1993 sampling event were used to create an isoconcentration map which is included as Figure IX-5 (Plan Sheet 31). Water quality trends for tetrachloroethene at selected Site A wells are presented as Figures IX-6, IX-8, and IX-10.

As shown on Figure IV-8 and in Table IV-2, the tetrachloroethene concentrations at 01U108 fluctuated between <1.00 and 210.00  $\mu\text{g/l}$  during FY 93. The data suggest a fluctuating, but overall decreasing trend since July 1991. Figure IX-10 shows that the tetrachloroethene concentration at 01U350 has fluctuated between 20 - 60  $\mu\text{g/l}$  since October 1988.

Tetrachloroethene contamination in Unit 1 was detected at three of the 24 locations sampled during March 1993. This is a decrease in the number of locations with detections; however, it should be noted that analytical results from wells 01U117, 01U139, and 01U140 had elevated detection limits in FY 93. The highest tetrachloroethene concentration detected during March 1993 was reported at 01U102, which appears to be the source strength well from disposal sites 6 through 8, as shown on Figure IX-5 (Plan Sheet 31).

Monitoring well 01U125, which has historically not shown tetrachloroethene, also supports the interpretation that contaminants are migrating from Site A from two separate disposal areas.

Data from wells 01U115 and 01U902 located downgradient of the pumping well suggest that tetrachloroethene may have migrated from disposal pits 1 through 5. Tetrachloroethene was last observed at well 01U115 in November 1988 and at 01U902 in July 1991 which suggests tetrachloroethene may have migrated off-post in the past.

Tetrachloroethene concentrations in Site A Unit 1 wells have been above the 0.7  $\mu\text{g}/\text{l}$  groundwater action criteria set forth in revised Table 3.7A of the FFA. The typical method detection limit is 1.0  $\mu\text{g}/\text{l}$  for tetrachloroethene; hence, any detection of tetrachloroethene exceeds the action criteria. Tetrachloroethene exceedances were reported at three of the 24 wells sampled in March 1993. However, periodic elevated detection limits as illustrated by wells 01U117, 01U139, and 01U140 on Figure IX-5 (Plan Sheet 31) hamper the ability to accurately assess water quality conditions and determine groundwater exceedances. A listing of FY 93 groundwater action criteria exceedances is included in Table IV-2.

**d. Aromatic VOCs**

Analysis for aromatic VOCs was performed at five wells in and around Site A during FY 93. Of the five wells sampled, benzene was present in four wells. No other aromatic VOCs were detected.

Benzene was detected at well 01U102 in March 1993 at a concentration of 19.00  $\mu\text{g/l}$ , which exceeded the benzene groundwater action criteria of 0.70  $\mu\text{g/l}$ . Benzene was first detected in well 01U102 in April 1989 and has been consistently present since March 1991. A listing of FY 93 groundwater action criteria exceedances is included in Table IV-2.

Benzene concentrations have increased in wells 01U139 and 01U140 located downgradient of the pumping well since their last sampling in July 1991. Sporadic detections have been reported at well 01U902, located downgradient of the pumping well on the north side of County Road I.

The detections described above at 01U102, 01U139, 01U140, and 01U902 suggest that the disposal pits 6 through 8 may be contributing benzene to the groundwater, although, these two disposal pits may not be the only source of benzene at Site A.

**e. Metals**

As documented in the Groundwater Quality Monitoring Plan, metals analysis (Category 2) was performed at well 01U350 during FY 93. Well 01U350 exceeded the lead groundwater action criteria of 5.00  $\mu\text{g/l}$  with a detection of 9.10  $\mu\text{g/l}$  in July 1993. However, previous and subsequent sampling events reported lead concentrations below the groundwater action criteria. No other metals detections exceeded their respective groundwater action criteria in FY



93. Detection limits for arsenic and cadmium were above the TCAAP groundwater action criteria of 0.20  $\mu\text{g}/\text{l}$  and 4.00  $\mu\text{g}/\text{l}$ , respectively, in FY 93. This prevents an accurate characterization of groundwater action criteria for these two parameters. The lead groundwater action criteria exceedance and any detection limits above the groundwater action criteria in FY 93 are shaded in Table IV-3. Nitrate levels in 01U350 have and continue to be above 1,000  $\mu\text{g}/\text{l}$  since November 1991. The HRL for nitrate is 10,000  $\mu\text{g}/\text{L}$ .

Zinc was detected in July 1993 at a concentration of 433  $\mu\text{g}/\text{L}$ . The cause of the elevated concentration is suspected to be due to pump removal and screen jetting which took place in June 1993. Similar elevated concentrations were also observed following jetting on December 12, 1991 and July 24, 1992.

As part of the 0U2 Feasibility Study, Montgomery Watson identified antimony, manganese, and thallium as chemicals of concern in Site A groundwater (Montgomery Watson, December 1993). Historic water quality results show sporadic TCAAP groundwater exceedances for antimony greater than 1.00  $\mu\text{g}/\text{l}$  at 01U106, 01U116, 01U120, 01U127, and 01U133 and consistent exceedances at 01U103. Historic groundwater exceedances greater than 0.30  $\mu\text{g}/\text{l}$  were sporadically observed for thallium at 01U067, 01U103, 01U117, and 01U133. Historic manganese concentrations above the HRL of 100  $\mu\text{g}/\text{l}$  were observed during previous sample events at 01U108, 01U115, 01U116, 01U117, 01U119, 01U120, 01U126, 01U133, 01U350, and 01U902. These three parameters were not monitored at 01U350 during FY 93.

## **D. RECOVERY SYSTEM OPERATION EVALUATION**

Since September 13, 1988, FCC has operated an IRA groundwater recovery and treatment system at Site A. The Site A IRA is being evaluated in accordance with Attachment 2 of the FFA.

A Record of Decision prepared by the Department of the Army dated June 29, 1988, details the justification of a groundwater removal and treatment system at Site A (Walker, 1988).

### **1. System Description**

The groundwater recovery and treatment system consists of a pumping well, sediment filters, carbon filters, a heated building, and discharge to an outfall drainage ditch.

The pumping well (01U350) is 6 inches in diameter and is located just north of Building 308 as shown on Figure IX-1 (Plan Sheet 28). The well is set at the base of Unit 1 to a depth of approximately 29 feet and is screened across medium to coarse sands, clayey silts, and silty sands.

Recovered groundwater is transferred to a 10-foot by 10-foot heated treatment building adjacent to well 01U350 as shown on Figure IX-1 (Plan Sheet 28). The treatment building contains four sediment filters operating in two parallel paths. The first-stage sediment filters use 25- micron filters to remove fine-grained particulates. The second-stage filters use 5- micron filters which further remove fine-grained particulates prior to the water travelling into carbon vessels. The water is pumped through two 350-gallon Calgon Carbon Corporation Disposorb granular activated carbon vessels operated in series with each containing 1,000 pounds of granular activated carbon (Connell, April 1988). The carbon used in each vessel is Filtrasorb 300, with an effective size of 0.8-1.0 mm (Connell, April 1988).

The treated water is discharged to an east-to-west trending drainage ditch on the north side of Building 308, as shown on Figure IX-1 (Plan Sheet 28). The ditch is graded to allow water to travel west towards Mounds View Road, and then south to eventually cross under Mounds View Road via a culvert and west to Rice Creek. The discharge drainage path is also shown on Figure IX-1 (Plan Sheet 28). Since start-up of the system, water has infiltrated into the ground within a short distance from the discharge point. Presently the water flows approximately 100 feet west from the discharge point before being completely infiltrated.

## **2. System Maintenance**

A high amount of maintenance has been routinely performed on the system to ensure continuous operation. Iron bacteria buildup in the well results in clogging of the treatment system, including pump intake and sediment filters which results in restricted water flow. The 25-micron and 5-micron sediment filters are replaced weekly because of the iron bacteria clogging. Since April 1991, weekly shocking of the well has been performed by pouring 500 gallons of chlorinated water (100 ppm chlorine concentration) into the well. The pumping well (01U350) remains inactive for 2½-3 hours before pumping is resumed. Since initiating well shocking, fluctuations in the flow rate from the pumping well have been reduced, which allows the system to maintain a consistent 3 to 4 gallon per minute (gpm) flow rate.

Due to the well pump becoming fouled and malfunctioning in 1989, the pump is now periodically removed from the well for cleaning and inspection. During FY 93, pump inspection and cleaning and jetting of the well screen took place in June 1993.

## **3. Treatment Volumes and Efficiency**

During FY 93, the groundwater treatment system operating at Site A treated over 1,885,000 gallons of water, as shown in Table IX-1 (Fuller, 1993). Since implementation of the groundwater treatment system on September 13, 1988, more than 8.5 million gallons of water have been treated.

The required treatment level of the Site A IRA was established in the Site A Record of Decision (ROD) at 5.00  $\mu\text{g/l}$  for trichloroethene (Walker, 1988). This treatment level was documented in the ROD to meet all state and federal Applicable or Relevant and Appropriate Requirements (ARARs).

Verifying that the Site A IRA meets the required treatment level is achieved by performing monthly sampling of the influent and effluent of the treatment system. Influent of the system during FY 93 averaged approximately 15  $\mu\text{g/l}$  for trichloroethene, 30.00  $\mu\text{g/l}$  for tetrachloroethene, and 27.00  $\mu\text{g/l}$  for 1,2-dichloroethene. Effluent analysis in FY 93 reported low levels of 1,2-dichloroethene (0.519 - 2.89  $\mu\text{g/l}$ ) and a single detection of trichloroethene (0.853  $\mu\text{g/l}$ ) in September 1993 as shown in Table IX-1. No detections of tetrachloroethene were reported in the effluent during FY 93. The effluent detections occurred as the Site A removal action was being constructed. The effluent concentrations for 1,2-dichloroethene (0.519 to 2.89  $\mu\text{g/l}$ ) and trichloroethene (0.853  $\mu\text{g/l}$ ) are well below the RAL of 70.00  $\mu\text{g/l}$  and 2.80  $\mu\text{g/l}$ , respectively. The detection limits for the influent and effluent sampling during FY 93 were 0.5  $\mu\text{g/l}$  for trichloroethene, 1.0  $\mu\text{g/l}$  for tetrachloroethene, and 0.5  $\mu\text{g/l}$  for 1,2-dichloroethene.

#### **4. Contaminant Quantities Recovered**

Concentrations of VOCs have decreased sharply in well 01U350 since initiating pumping in 1988. From September 13, 1988, through September 14, 1993, tetrachloroethene concentrations have dropped from 620  $\mu\text{g/l}$  to 23  $\mu\text{g/l}$ ; trichloroethene has dropped from 380  $\mu\text{g/l}$  to 11  $\mu\text{g/l}$ ; and 1,2-dichloroethene has dropped from 540  $\mu\text{g/l}$  to 24  $\mu\text{g/l}$ . Data showing the monthly concentrations of the contaminants discussed above are shown for well 01U350 in Table IX-1.

Based on the measurements of the three VOCs shown in Table IX-1 the mass of contaminants removed from start-up through the end of FY 93 is 4.50 pounds. This mass removal rate is not surprising considering the low contaminant concentrations observed in the

pumpout well and the relatively low pumping rate. (Note: Table IX-1 represents raw data from the laboratory prior to any adjustments which are made while entering the data into the IRDMIS. Hence, minor discrepancies may exist between Table IV-2 and Table IX-1, since Table IV-2 data were retrieved from the IRDMIS.)

## 5. Capture Zone Evaluation

A system evaluation of Site A was first performed in detail for the Site A 90-Day Performance Report, which evaluated the system based on data obtained from September through December 1988 (Jacques and Schwarz, 1989). The conclusion of that report was that "... the pump is located in the plume but is not effective in attaining the goal of removing contaminants."

The effectiveness of the Site A IRA system is being evaluated in this FY 93 Annual Monitoring Report based on the following information:

1. Site A groundwater elevation map (Figure IX-2 and Plan Sheet 28);
2. Groundwater hydrographs for selected Site A wells (Figure IX-2);
3. Site A 1,2-dichloroethene, trichloroethene, and tetrachloroethene, plume definition maps (Figures IX-3 through IX-5 and Plan Sheets 29 through 31); and
4. Groundwater quality trends for tetrachloroethene, trichloroethene, and 1,2-dichloroethene at selected wells (Figures IX-6 through IX-10).

The groundwater elevation map shows a deflection in the 889, 890, and 891 feet contour lines as shown on Figure IX-1 (Plan Sheet 28), indicating capture zone influences near the pumping well (01U350). The capture zone in March 1993, as defined by the contour lines, appears to be consistent with the capture zone defined in FY 92.

Based on the groundwater elevation map and the groundwater hydrographs, it appears the amount of drawdown in the pumping well has increased slightly in FY 93. The pumping well during FY 93 had between 6.4 and 10.5 feet of head above the pump which was not being utilized to maximize drawdown. Up to 13 feet of head was present above the pump in FY 92. Overall system efficiency could be increased if pumping could utilize the 6.4 to 10.5 feet of head above the pump. A limiting factor to increasing pumping is pressure buildup in the carbon canisters, which appears to be the result of iron bacteria growth in the carbon.

The isoconcentration map of 1,2-dichloroethene (Figure IX-3) shows consistent capture effects relative to FY 92 in the vicinity of 01U117. The concentrations of 1,2-dichloroethene and trichloroethene in monitoring well 01U117, downgradient of the pumping well have decreased since in FY 93, which suggests that the capture zone is stable, and preventing or at least minimizing migration of contaminants from the source area.

The isoconcentration map for tetrachloroethene (Figure IX-5 and Plan Sheet 31) does not show noticeable effects from pumping.

In summary, the decreases in VOC concentrations at 01U117 suggest that the recovery well at Site A may be preventing or minimizing contamination from migrating from disposal pits 1 through 5 and 16. The present capture zone does not extend to the north TCAAP boundary or beyond. Hence, contamination already beyond the capture zone will continue to migrate away from TCAAP. Furthermore, the existing pumping is not affecting the migration of contaminants in the vicinity of well 01U102, which appears to represent a separate plume from disposal pits 6 through 8. The Army is presently constructing a removal system for Site A, which will begin operation in FY 94. The system will consist of eight recovery wells located to intercept groundwater contamination before it leaves TCAAP. Groundwater will be discharged to the Metropolitan Waste Control Commission sanitary sewer located on the north side of County Road I. For additional information, see the Final Engineering Evaluation/Cost Analysis Site A - Twin Cities Army Ammunition Plant (International Technology Corp., 1993).

## **E. SITE A REMOVAL ACTION**

Construction is presently underway on a groundwater treatment system (Site A removal action) which is proposed to begin operation in FY 94. The system will consist of eight recovery wells located to intercept groundwater contamination prior to migrating off TCAAP. The locations of the wells are shown on Figure IX-2 and Plan Sheet 28. The existing treatment system (recovery well 01U350) is intended to cease operation upon startup of the Site A removal action.

Groundwater quality and groundwater level monitoring plans have been prepared which will go into effect upon startup of the Site A removal action. See Table IX-2 and IX-3. The monitoring parameters and frequencies for the effluent from the Site A removal action differs from the existing system. Table XIV-2 shows the sampling currently being performed on the existing system effluent and note (2) on the table details the sampling which will go into effect upon startup of the Site A removal action. The sampling requirements for the effluent of the Site A removal action were established by the Metropolitan Waste Control Commission (MWCC) as effluent will be discharged to the sanitary sewer (MWCC, 1994).

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## Section X

# Evaluation of TGRS Interim Remedial Action

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In June 1986, the Groundwater Remediation Program Plan (GRPP) was developed for the Twin Cities Army Ammunition Plant (TCAAP). Figure II-1 presents the Site location map for TCAAP. The GRPP involved the development of a groundwater remediation system for Volatile Organic Compound (VOC) plumes at TCAAP and represents the first phase of the Honeywell/Army remediation efforts at TCAAP. The second phase of the Honeywell/Army remediation was the construction of the Boundary Groundwater Recovery System (BGRS) completed in April 1987. Subsequent phases involve expansion of the remediation system to complete groundwater remediation on and off TCAAP. The scope of the Phase III efforts was based on the operational performance of the BGRS during Phase II and is designated the TCAAP Groundwater Recovery System (TGRS).

On August 12, 1987, a Federal Facility Agreement (FFA) between the U.S. Army, USEPA and MPCA was signed which formalized the TCAAP remedial program (the FFA became effective on December 31, 1987).

In September 1987 a Record of Decision (ROD) was prepared by the USEPA in order to implement the Interim Response Action Plan (IRAP) for TCAAP. The ROD provides specific criteria for the BGRS and TGRS. Following extensive interagency negotiations on the FFA and the ROD, the BGRS was started on October 19, 1987.

In accordance with Section 3.7.2 of attachment 2 of the FFA and subsequent modifications, this section of the report serves as the Annual Monitoring Report and presents the monitoring results from the fifth year of operation of the TGRS which began operation as an expansion



of the BGRS on January 31, 1989. This report documents all performance and monitoring data collected from October 1992 through September 1993.

The Phase I BGRS consisted of six Unit 3 extraction wells (B1 through B6) which were connected by forcemain to an air stripping treatment facility. It was intended that the TGRS would be completed following an assessment of the performance of the initial six wells.

Following the initial 90 day operation of the BGRS, the IRA-BGRS Performance Assessment Report (PAR) was prepared. The PAR assessed the hydraulic and treatment performance of the BGRS. The PAR presented an extensive database collected during the initial 90 day period of BGRS operation and prior pertinent data. The PAR also included a summary of the geology, hydrogeology and remediation history for TCAAP. The PAR was subsequently approved by the MPCA and EPA. The conclusions of the PAR included:

1. The BGRS captured groundwater in the Unit 3 (Hillside Sand) aquifer across a continuous width of 3,400 feet at the southwest TCAAP boundary and this capture widened to 4,900 feet at Sites D and G and provided for complete capture between extraction wells at the TCAAP boundary. Since it was intended that the BGRS would be expanded, there were no capture criteria for Phase I contained in the ROD.
2. The BGRS captured a portion of the Unit 4 (Prairie du Chien/Jordan) Aquifer groundwater based on drawdowns observed in the Unit 4 in response to pumping. This portion was not quantified.
3. The BGRS captured a portion of the Unit 4 VOC plume.
4. The Unit 3 VOC plumes were substantially captured by the operation of the BGRS. However, to the north of the system, a portion of the Unit 3 plume was outside of the BGRS capture zone.

5. During the 90 day assessment period, the BGRS treatment system extracted between 17.0 lbs./day and 28.6 lbs./day of VOCs with an average of 23.2 lbs/day.
6. Treated effluent exhibited trichloroethene (TRCLE) concentrations consistently below 5  $\mu\text{g/l}$  and below the contaminant specific requirements of the ROD for all other VOCs.
7. Effluent concentrations for metals, cyanide, PCB, radon, radionuclides, base/neutral compounds and pesticides were all below contaminant specific requirements of the ROD.
8. Phosphorus and orthophosphate analytical data indicated that discharge to Rice Creek would not significantly change the phosphorus concentrations in Rice Creek. Phosphorus loading in Rice Creek would increase from 0.22 percent to 1.3 percent over ambient levels.
9. The source control well (SC-1) at Building 502 (Site I) provided substantial capture of VOCs from Site I and meets the objectives of the FFA.
10. Recharge at the Arsenal Sand and Gravel Pit performs as designed and is acceptable as a water management option for treated water discharge.
11. Air emissions from the BGRS treatment system met the contaminant specific requirements of the ROD. VOCs were not detected upwind or downwind of the BGRS.

The PAR made recommendations for expansion of the BGRS into the TGRS in order to meet the Phase II remediation criteria established in the ROD. These modifications were completed and the expanded system began operation on January 31, 1989. The expansions to the system consist of:

1. Four Unit 4 and two additional Unit 3 extraction wells for a total of 12 extraction wells located along the southwest boundary of TCAAP,
2. Two additional pairs of Unit 3 source control extraction wells located immediately downgradient of Sites D and G for a total of five source control extraction wells,
3. An expanded treatment facility designed to accommodate additional flow from the TGRS. This includes a fourth stripping tower and associated appurtenances, and
4. 4,400 feet of forcemain to connect the additional extraction wells.

The 1988 BGRS Annual Assessment Report and Monitoring Plan was completed in May 1989 and was approved by the MPCA on August 9, 1989. This report presented the monitoring and performance data from the first year of BGRS operation (October 1987 to October 1988). The Annual Assessment Report concluded the following:

1. The BGRS produced a continuous zone of hydraulic capture that is approximately 3,400 feet in width at the TCAAP boundary under operating conditions. The capture extends through the entire thickness of the Unit 3 aquifer and an undefined portion of the Unit 4 aquifer.

2. The Unit 3 VOC plume was substantially captured by the BGRS. There exists a portion of the VOC plume outside of capture to the North. This portion of the plume is being addressed by the TGRS.
3. An undefined portion of the Unit 4 VOC plume was captured. Capture in the Unit 4 is being addressed under the TGRS expansions to the system.
4. The VOC plumes at TCAAP showed little variation in configuration and relationship to capture from quarter to quarter during the 1988 operational year.
5. The VOC compounds Benzene, Toluene, 1,2-Dichloropropane, Xylenes, and 1,1,2 Trichlorotrifluoroethane were never detected in the influent above contaminant specific requirements. These compounds have typically not been considered Target compounds at TCAAP. However, this is no longer correct for Site A.
6. The Arsenal Sand and Gravel Pit was found suitable to accommodate the treated water discharge under the conditions of the operational year.
7. The operational problems that resulted in a number of system shut downs during the year were addressed through physical improvements to the system and through the reinstatement of an operation and maintenance contractor.
8. In general, the hydraulic and treatment performance conclusions presented in the PAR continued to be supported by the BGRS database.

In addition, the 1988 Annual Monitoring Report recommended modifications to the Monitoring Plan based on the experience gained during the first year of BGRS operation. Briefly, the Monitoring Plan recommendations were:

1. Reduce the frequency of the groundwater level monitoring to one comprehensive round per year and monitor key locations during the remaining three quarters.
2. Reduce the frequency of groundwater sampling to one comprehensive round per year and monitor key locations (including PD2U3 and 03M005) during the remaining three quarters.
3. Increase the scope of the monitoring activities to address the expanded TGRS system.
4. Eliminate the non-target VOCs, listed in conclusion No. 5 above, from the influent/effluent sampling program and monitor for the same VOC compounds as for the monitoring wells.
5. Conduct analysis for metals from all extraction wells and the treatment system effluent on a quarterly basis in an effort to determine the source of the anomalous metals concentrations identified in the BGRS effluent.
6. Monitor the system effluent for Priority Pollutant Compounds on an annual basis to address the potential for the presence of non-target compounds at TCAAP.
7. Continue to monitor water levels and discharge rates with respect to the Arsenal Sand and Gravel Pit to assess its long term suitability to accommodate TGRS discharge.

The 1989 Annual Monitoring Report presented the following conclusions based on detailed performance assessment of the expanded TGRS:

1. The TGRS develops a continuous zone of capture that is approximately 4,500 feet wide at the TCAAP boundary. The zone of capture widens to approximately 8,300 feet upgradient of the boundary. This zone of capture was demonstrated at average system pumping rates of 2,400 to 2,700 gpm.
2. Hydraulic capture in the Unit 3 extends beyond the 5  $\mu\text{g/l}$  TRCLE contour at the TCAAP boundary. This meets the VOC capture criteria in the EPA ROD.
3. Hydraulic capture in the Unit 4 extends beyond the 5  $\mu\text{g/l}$  TRCLE contour at the TCAAP boundary. This meets the VOC capture criteria in the EPA ROD.
4. The TGRS extracted and treated 19,510 pounds of VOCs in 1989.
5. The VOC plumes showed little variation in configuration since 1988. This is consistent with previous conclusions that significant plume variations occur slowly at TCAAP.
6. All effluent metals sampling results were below the contaminant specific requirements.
7. Effluent VOC concentrations were below Contaminant Specific Requirements for all but one sampling event. In this round the criteria was slightly exceeded with a TRCLE concentration of 6.1  $\mu\text{g/l}$ . However, the duplicate analysis yielded 2.7  $\mu\text{g/l}$ .
8. The effluent priority pollutant scan indicated no parameters above the contaminant specific requirements. Base/neutral extractable organics, pesticides, PCBs and VOCs were not detected in the effluent.

9. Phosphorus sampling data exhibited a more consistent pattern than previous data. In particular, the orthophosphate data exhibited a consistent average concentration within a narrow confidence interval.

The 1989 Annual Monitoring Report was wider in scope than this or future annual monitoring reports for the TGRS. The 1989 report was a performance assessment report and not just a monitoring report. The 1989 report represented the first year of operation of the expanded TGRS. Thus, a more detailed and exhaustive performance assessment was appropriate and possible as there were data available from non-pumping conditions for detailed comparison with pumping condition. Since 1990 the system has continued to operate at an essentially steady state condition, so, no new comparisons to ambient conditions are necessary or possible.

#### A. OBJECTIVES

This section of the report presents the October 1992 through September 1993 operation of the TGRS. The schedule for reporting corresponds to the federal fiscal year (FY) (October through September) to facilitate meeting reporting schedules in the FFA/ROD. The fiscal year corresponds to the operational year since the BGRS was started in October 1987. The focus of this document is to report the FY 1993 performance of the TGRS in comparison to the groundwater capture and treatment criteria contained in the EPA ROD. Table X-1 presents the capture and treatment criteria contained in the ROD. As discussed in the ROD, capture and treatment criteria may be changed by USEPA in the future. Future objectives will address the criteria established at that time.

The two specific objectives of this report are:

## **1. Chemical/Hydraulic Capture Delineation**

The first objective is the delineation of the hydraulic zone of capture induced by the TGRS. Hydraulic capture is compared to the Phase II chemical capture criteria presented in the EPA ROD. Capture is discussed in Section X.D, with equipotential maps of the aquifer drawn from field data. Confidence that equipotential maps accurately represent the aquifer performance of the TGRS was gained during the exhaustive performance assessment in the 1989 Annual Monitoring Report.

In Section X.E, the hydraulic zone of capture is compared to the VOC isoconcentration maps to determine if the criteria have been met. The observed performance data form the core of the capture delineation.

## **2. Treatment System Performance Assessment**

The second objective is to report the treatment performance of the TGRS with regard to the treatment criteria presented in the ROD. This objective is met through the presentation of extensive analytical data and operational data collected at the Site. These data allow calculations of the mass of VOCs removed and the removal efficiency.

System operational data are presented to demonstrate the mechanical performance of the system. This includes a quantification of down time and discussion of remedies implemented as a result of down time.



## **B. SYSTEM DESIGN APPROACH SUMMARY**

### **1. BGRS Pumping Tests**

The initial six BGRS extraction wells (B1 through B6) were installed and pumping tests conducted prior to start up of the BGRS. These pumping tests were documented in the BGRS Extraction Well Pumping Test Report. Both step drawdown tests and constant rate tests were performed. Table X-2 presents a summary of the transmissivities calculated from these pumping tests. Storativities were not calculated since the aquifer is unconfined or weakly confined along the TCAAP boundary and pumping did not extend a sufficient period of time to characterize the delayed yield response for the aquifer.

As Table X-2 shows, the transmissivities exhibit reasonable consistency along the entire TCAAP boundary. At the time of the BGRS Extraction Well Pumping Test Report, it was believed that these values reflected the Unit 3 alone and the interconnection of the Unit 3 and Unit 4 aquifers was largely ignored. What was unusual was that the Unit 3 thickness varied by a factor greater than 2 along the southwest TCAAP boundary. It would be expected that the transmissivities would vary more or less directly with the thickness of the unit. This thickness variation was not reflected in the pumping test results.

Subsequent to the BGRS Pumping Test Report it was recognized that the entire Unit 3 and Unit 4 aquifers respond as a single, layered aquifer with vertical variation in hydraulic conductivities. This is based on observations of drawdown across the entire Unit 3/Unit 4 thickness in response to pumping either Unit 3 or Unit 4. Thus, it is not surprising that the transmissivities remain constant along the entire boundary since, although the Unit 3 varies substantially in thickness, the combined Unit 3 and Unit 4 thickness remains relatively constant.

## 2. TGRS Design

The PAR recommended the installation of one additional Unit 3 extraction well and four Unit 4 extraction wells. The PAR proposed pumping rates for these new wells and also proposed to increase the pumping rate of B1 to 350 gpm. It was agreed, however, after submission of the PAR, that a second Unit 3 extraction well (B11) would be installed southeast of B1, rather than increasing the pumping rate at B1.

The PAR also recommended two pairs of extraction wells downgradient of Sites D and G to provide source control of these Sites and to enhance VOC mass removal.

In the PAR it was recommended to conduct a pumping test on Unit 4 extraction well B9 to refine the final design of the TGRS. The pumping test on well B9 was conducted in August 1988 and formed the basis of the final design of the TGRS. These pumping tests were utilized to determine the pumping rate required to achieve the necessary zone of capture for the TGRS. The overall rate needed for the seventeen extraction wells was determined to be 2,450 gpm. During the detailed design of the TGRS, the system was designed with the capacity to operate at a maximum theoretical rate of 2,900 gpm. The additional pumpage was included to provide a safety margin for the calculations and to allow for operational fluctuations in system performance.

In November 1989, the Aquifer Characterization Study was prepared as a supplement to the Honeywell Off TCAAP study, Phase III. This report presents a detailed evaluation of four pumping tests conducted on and off TCAAP and correlates these with TGRS performance. From these analyses, the groundwater flux in the Unit 3 and Unit 4 across the southwest TCAAP boundary was calculated. The Aquifer Characterization Report includes an analysis of the B9 pumping test. The results of the B9 pumping test are also included in the 1989 Annual Monitoring Report.

To summarize, the B9 test indicated the following aquifer parameters along the southwest TCAAP boundary:

<u>Unit</u>	<u>Transmissivity (ft<sup>2</sup>/day)</u>	<u>Thickness (ft)</u>	<u>Hydraulic Conductivity (ft/day)</u>
Hillside Sand (Unit 3)	21,424	156	137
Prairie du Chien (Unit 4)	3,160	37	85
Jordan Sandstone (Unit 4)	4,140	90	46
Bulk Transmissivity	28,724	283	-

The bulk transmissivity from the Unit 4 B9 test matches the typical results from the B1 through B6 Unit 3 tests. This match strongly supports the conclusion that the Unit 3 and Unit 4 respond as a single thick aquifer and that the consistent transmissivities along the boundary represent the entire aquifer thickness.

### C. TGRS ENGINEERING CONTROLS

The overall design of the TGRS was developed with respect to the following guidelines:

- maximum anticipated extraction rate from the various extraction wells;
- maximum anticipated flow rates through the various legs of the forcemain;
- maximum anticipated throughput in the treatment center;
- multiple discharge points;
- appropriate piping and equipment sizing to handle changes in flow rates;

- match equipment and structure sizes appropriately;
- flexibility to be able to operate the system with portions of the system shut down;
- long term operational life;
- automatic operation requiring a daily system check, emergency response as required and regularly scheduled maintenance.

The operation of the TGRS involves the following processes in series: groundwater extraction, transmission of extracted groundwater to the treatment plant, groundwater treatment, transmission of treated water to an end-use, and treated water discharge.

Each process is operated continuously (i.e. there is not batch movement of water from process to process). System oversight consists of a daily inspection of operations and key components with periodic maintenance and emergency response as needed. Operations, therefore, are extensively automated with continuous system monitoring and supervision provided by a programmable logic controller (PLC).

The following presents an overview of the entire TGRS mode of operation. A detailed explanation of system operation and design are contained in the Final Engineering Report and the TGRS Operation and Maintenance Manual. The Final Engineering Report and TGRS Operation and Maintenance Manual were issued in January 1991.

## 1. Summary of Operations

Groundwater is extracted from 12 wells along the southwest boundary of TCAAP (B1 through B12) and five wells downgradient of interior source areas on TCAAP (SC1 through SC5). Submersible pumps in the extraction wells discharge into a common pressurized forcemain which carries the water to the treatment system. The treatment system is located adjacent to Building 116. The TGRS layout is presented on Figure X-1.

Flow into the treatment plant from the forcemain is evenly split and directed to the top of two air stripping towers (Towers 1 and 2). The water is distributed over polypropylene packing and flows downward by gravity, through the tower packing. Air is forced upward through the packing by the tower blowers thereby volatilizing organic compounds from the towers. The air discharges through moisture eliminators and exhausts out the top of the towers.

The primary treated water drains into two concrete wet wells beneath Towers 1 and 2. The wet wells are connected by a sluice gate which provides combined or parallel operation of Towers 1 and 2. Wet Well Pumps 1 and 2 (WWP#1 and WWP#2) transfer the water from Wet Well 1 and Wet Well 2, respectively, to the top inlet of Tower 4 and Tower 3, respectively, for final treatment. The water is again distributed over packing with continuous counter current air flow and the water flows downward through the tower packing into the third wet well.

Wet Well Pumps 3 and 4 (WWP#3 and WWP#4) transfer the treated water from Wet Well 3 to a pressurized, 16" diameter discharge forcemain and on to one or more of the discharge outlets.

The TGRS is designed with three options for treated water discharge: recharge at the Arsenal Sand and Gravel Pit, discharge to Rice Creek and TCAAP plant use at the elevated water tower. Currently, the Arsenal Sand and Gravel Pit option is utilized for the majority of treated water. The TCAAP uses 142,000 to 232,000 gallons per work day depending on the time of year.

## **2. System Operation Specifications**

In general, the influent and effluent water flow rates at the treatment plant are designed to be equal, thereby providing continuous operation of all processes and equipment. The following is a summary of the system design parameters:

- The groundwater extraction system including the treatment center and 17 TGRS extraction wells has been designed to provide a theoretical hydraulic capacity of 2,900 gpm and a sustained daily average capacity of 2,730 gpm. The average rate of 2,730 gpm is the practical hydraulic capacity of the current system configuration and is not used in the determination of the required zone of capture. Refer to Table X-3 for individual design flow rates.
- The influent to the treatment plant is divided between Towers 1 and 2, each receiving up to a maximum of 1,450 gpm.
- Turbines 1 and 2 (located in Wet Wells 1 and 2) transfer water to Towers 4 and 3, respectively. Each pump and tower handles up to a maximum of 1,450 gpm.
- Turbines 3 and 4 (located in Wet Well 3) discharge treated water to an end use at a combined rate of up to a maximum of 2,900 gpm.
- Air blowers provide air to the towers. The blowers for Towers 1 and 2 provide 6,000 - 7,000 scfm each. The blowers for Towers 3 and 4 provide 9,000 - 14,000 scfm each.
- Level controls within the wet wells communicate with the PLC according to changing water levels. A complete and balanced operation should provide continuing water levels above the low level switches and below the high level indicator switches. However, given the probability of unbalanced flows for any number of reasons (i.e. changing hydraulic heads, maintenance, repairs, temporary malfunctions), the PLC has provisions within its program to cycle-off the extraction well pumps according to high levels occurring in the wet wells; and in turn, cycle-off the wet well turbine pumps according to low levels occurring within these wet wells. The system operates such that the wet wells cycle off rather than the extraction well field. The rationale behind this is that

there are a relatively small number of motors, starters and electrically controlled valves associated with the wet wells when compared with the well field. This also provides for more continuous and complete hydraulic capture within the aquifer units. The well field will cycle if necessary, however, starting with the least contaminated extraction well, B12, and followed by the other extraction wells in a predetermined sequence. The programmed shut down sequence is presented in Table X-4.

In summary, the priority of operation is as follows:

1. Maintain constant operation of all extraction wells and air stripping towers;
2. Maintain the desired flow rates at individual wells as presented in Table X-3;
3. Maintain treatment center WWP#1 and WWP#2 pumping rate equal to or slightly above the combined flow of the extraction well field;
4. Maintain treatment center WWP#3 and WWP#4 pumping rate equal to or slightly above WWP #1 and #2; and
5. Provide water to the elevated water storage tower.

### 3. 1993 Operational Performance

#### a. Overall System Performance

1993 was the fifth year of operation of the expanded TGRS system. During October 1992 to September 1993 the system treated 1,392,155,000 gallons of water (Meters #1 and #2). The monthly and annual volume of water pumped is presented in Tables X-5 and X-6. Table X-5 presents the pumphouse metered monthly flow volumes of each extraction well. Table X-6 presents the combined pumphouse metered flow volume (extraction wells) and the flow volumes metered at various stages in the treatment center.

#### b. Monthly Flow Reports

Each month a Monthly Flow Report is prepared. The report contains the month's meter totalizer readings and the calculated flow volumes. Flow volumes are presented on a daily basis and are totaled to provide a monthly flow volume. A compilation of 1993 Monthly Flow Reports is presented in Appendix H.1. During 1993, Meters #1 and #2 were used to measure total flow volumes used in monthly reports because they are considered to be the most accurate and representative of actual flow. Daily variation at individual wells is primarily due to differences in time of day when meter readings were taken.



c. **Extraction Well Down Time and System Down Time**

The down time for extraction wells is presented in Table X-7. In 1993, SC1 operated as a subsystem to the TGRS.

Treatment center and extraction well down time has resulted chiefly from the areas of TCAAP electrical service failures, trouble shooting and repairs, and preventive maintenance.

d. **Description of Down Time Areas**

System Modifications: System modifications caused virtually no down time.

Troubleshooting/Repairs: Repairs to treatment center valves and wet well pumps were responsible for approximately 79% of total system down time. Repairs to pumphouses typically involved repair or replacement of submersible pumps, motors and or cleaning iron or manganese sludge from the well and piping. Pumphouse repairs accounted to approximately 14.5% of total system down time.

Preventive Maintenance: Preventive maintenance, as described in Section X.C.3.e and the Operation and Maintenance manuals, accounted for approximately 1.6% of total system down time.

TCAAP Electrical System Failures: All electrical power to the TGRS is provided by the TCAAP electrical system. The TCAAP system suffered few failures. Down time from power outages accounted for approximately 4.9% of the total system down time or 3.9 days. This is an improvement over fiscal year 1992 in which TCAAP power system failures accounted for 67.7% (4.2 days) of total system down time. A significant amount of repair work and several modifications were performed on the TCAAP electrical system in the fiscal year 1992.

A detailed list of system events is presented in Appendix H.3. This list contains a more detailed explanation of down time, malfunctions, system events and the dates of occurrence. An abridged compilation of down time days and categories is presented in Table X-8.

e. **1993 Operating Performance**

The TGRS successfully captured and treated over 1,392,155,000 gallons of contaminated water from October 1992 through September 1993. The system pumped 111 percent of the quantity of water necessary to achieve capture based on demonstrated capture at 2,450 gpm in 1989. The TGRS was operational over 98 percent of the time, including all causes of downtime. This is comparable to the 1992 operating year in which the system operated over 98 percent of the time and pumped 112 percent of the quantity required for capture.

Preventive Maintenance - The extensive PM program allowed the operations staff to identify and repair or replace equipment to avoid a downtime failure. When required, further repair work was scheduled rather than waiting for the failure to occur. A broad range of system specific information was collected during this year's PMs. This information was used to refine the content and frequency of PM procedures.

Electrical Inspection and Temperature Survey - A system wide electrical inspection and infrared temperature survey was performed to identify loose connections and overheating components. Component overheating often precedes equipment failure.

Verification of Flow Meters - As part of the annual PM, flow meters in the pumphouses and the treatment center were interchanged. Flow volume measurements before and after interchanging the meters were compared to verify consistency of measurement. Meters which did not operate acceptably were repaired and recalibrated. Treatment center meters M5 and M6 were not interchanged as they have

a shorter service life and are repaired, replaced and calibrated more frequently. M5 and M6 are used for process measurement only.

Daily Tracking of Flow Rates - Pumphouse and treatment center meter readings were recorded in the course of the daily inspection. On a daily basis meter readings were entered into the computer, and flow rates were calculated and reviewed by the operations staff. Early detection of changes in flow rate have been critical in identifying failing equipment. By early detection of flow rate changes, the equipment repair was scheduled before a downtime failure occurred.

Pumphouse Flow Tests and Motor Amperage Readings -Pumphouse lift systems were tested to determine the present flow capacity and motor amperage draw. Test flow capacity was compared to the original flow capacity and amperage draw. Decreases in flow capacity and changes in current draw alerted the system operations staff to inspect suspect equipment and schedule repairs before a downtime failure occurred.

#### **D. HYDRAULIC PERFORMANCE**

The zone of hydraulic capture for the TGRS in FY 1993 was determined by contouring the March 1993 and September 1993 water level data. All monitoring wells at TCAAP were resurveyed by the Army during FY 1992 to assure accuracy in elevation for the many wells installed at various times by various parties involved at TCAAP. The contour maps presented here reflect the resurvey elevations. There was no significant overall change to the flow field interpretations due to this survey.

Contours were constructed manually. Past site experience and discussions with MPCA and EPA determined that manually constructed contours are appropriate at TCAAP due to the complexities of the flow field and the resulting need for hydrogeological expertise in interpreting the flow field. Confidence in the groundwater contours was gained during the

detailed analysis presented in the 1989 Annual Monitoring Report. This included pumping test analysis, drawdown analysis and vertical gradient analysis.

Appendix F.1 contains the water level database for the monitoring wells. Figures V-1, V-4, and V-7 present the groundwater contours for the upper Unit 3, the lower Unit 3 and the Unit 4 for March 1993. Figures V-2, V-5, and V-8 present the groundwater contours for early September 1993. These figures are also presented full size as Plans 5, 6, 8, 9, 11, and 12. These plans and figures present the potentiometric contours from three vertical portions of the aquifer. For each level, the horizontal extent of capture is nearly identical. This strong similarity between the upper Unit 3, the lower Unit 3 and the Unit 4 contour patterns illustrates that the capture is vertically continuous across the aquifer at TCAAP. This is as expected since the Unit 3 and Unit 4 are hydraulically continuous and act as a single, thick aquifer. This continuity was discussed thoroughly in the 1989 Annual Monitoring Report.

Inspection of these figures indicates a broad area of very low horizontal gradients immediately southwest of the TGRS, this area is indicative of a stagnation zone downgradient of the TGRS. In the southern portion of the TGRS there are insufficient wells to accurately contour the Unit 4 capture in this part of the Site. The flat gradients do indicate there is capture of bedrock groundwater by the Unit 3 extraction wells. Contaminants are not currently in the Unit 4 in this area, therefore the Unit 4 is not of concern for remediation in this area of the Site and further definition of Unit 4 capture is not needed.

The flow field is quite similar to that presented in the 1989 through 1992 Annual Monitoring Reports. This is as expected since the groundwater extraction system has been operating at an essentially steady rate throughout the year. Past investigation had not indicated significant changes in the ambient flow pattern during non pumping conditions at TCAAP. It follows that under constant pumping, capture would remain constant.

Appendix F.2 contains selected hydrographs from wells throughout TCAAP. Review of the hydrographs indicates that background increases in water levels occurred between the

October 1992 round and the September 1993 round. Average water level increases were approximately 2.2 feet across the Site. These increases are less than 1 percent of the overall aquifer thickness and therefore do not impact the overall transmissivity of the aquifers. Thus, the water level increases do not indicate any significant change in the groundwater flux beneath the site. The water level increases were consistent across the Site, indicating there was not significant change in the flow field generated by the TGRS.

1. **Vertical Gradients**

Table X-9 presents the historical vertical gradient summary. This table reveals that there was little significant change in vertical gradients over the last year.

The consistency in vertical gradients is as expected since the groundwater extraction system has operated at an essentially steady state condition during Fiscal Year 1993.

2. **Arsenal Sand and Gravel Pit Discharge Water Balance**

The water elevation in the Arsenal Sand and Gravel Pit is measured via three staff gauges (SG1, SG2, and SG3). The water elevations in the Arsenal Sand and Gravel Pit increased during FY 1993 slightly less than the background water level increases. These stable water levels in the Gravel Pit illustrate water is not accumulating in the Pit. The Gravel Pit is easily accommodating the TGRS discharge as designed. There was no measurable decrease in performance of the Gravel Pit in 1993.

## E. CHEMICAL PERFORMANCE ASSESSMENT

### 1. VOC Plumes

Plan 14, Plan 18 and Plan 22 present the trichloroethene (TRCLE) contours for the Upper Unit 3, Lower Unit 3, and Unit 4 aquifers based on the March 1993 sampling data. These plans are also included here as Figure VI-1, Figure VI-5 and Figure VI-9. Plan 16, Plan 20 and Plan 24 present the 1,1,1-trichloroethane (111TCE) contours for the Upper Unit 3, Lower Unit 3 and Upper Unit 4 respectively. These plans are also presented as Figure VI-3, Figure VI-7 and Figure VI-11. Figures VII-10 through Figure VII-14 present TRCLE vs Time plots for several selected monitoring wells.

As these plans indicate, the VOC plumes at TCAAP exhibit similar overall configurations to those identified in the 1988 through 1992 Annual Monitoring Reports. Well nest 001 defines the northern extent of the plumes and well nest PD2U3 defines the southern limit of the plumes at the Site boundary. Groundwater quality data (VOCs) for the monitoring wells is presented in Table IV-2. Well 04U001, defining the northern edge of the plume, fluctuated from 4.17  $\mu\text{g/L}$  to 3.47  $\mu\text{g/L}$  TRCLE in March and September 1993. Historically, this well has been approximately 5  $\mu\text{g/L}$  TRCLE. In 1993, this well was below the contaminant specific requirement of 5  $\mu\text{g/L}$  for TRCLE.

The highest concentration in the northern area has been in the lower Unit 3 aquifer, but the concentration in the upper Unit 3 aquifer, as illustrated by well 409550, appears to be rising compared to concentrations in lower Unit 3. The trichloroethene concentration at 409550 increased from 78  $\mu\text{g/l}$  in May 1989 to 3,200  $\mu\text{g/l}$  in September 1991 and decreased slightly to 2,400  $\mu\text{g/l}$  in March 1992. Cross section A-A' (Figure VI-13) shows that 409550 and 03L809 appear to straddle a zone of lower concentrations. The lower concentrations may reflect an area of lower hydraulic conductivity as evidenced by the "red till" on cross section A-A'.

Concentrations near the southern portion of the southwest boundary at 03L802 have decreased from 13,000  $\mu\text{g/L}$  in December 1987 to 42.2  $\mu\text{g/L}$  in September 1993. Well 03M802 shows a similar decrease, while the concentrations at 04U802 have remained around 1-3  $\mu\text{g/L}$ . Well 03U801 increased to 11,000  $\mu\text{g/L}$  in FY 1993. This indicates the plume is redistributing itself in response to the intense pumping along the boundary of the Site.

In 1993 three of the five wells in the 806 nest showed decreasing TRCLE concentrations and the remaining two wells were relatively constant between 1992 and 1993.

Cross section A-A' (Figure VI-13) shows the 806 wells and their position within the path of the downward migration of the north plume. It is expected that the concentrations of VOCs will continue to fluctuate in the 806 well nest due to the area of stagnation created by the TGRS and the redistribution of the plume due to changes in flow from TGRS pumping.

Well B11 was added to the TGRS design, at the request of EPA and MPCA, to assure sufficient capture at the south TCAAP boundary. Shortly after the start up of the TGRS the VOC concentration at 03U003 began to increase. This observation was part of the decision to reduce the pumping rate at B11 from 250 gpm to 100 gpm and move the excess pumpage to well B10. This decision was made because it appeared the high pumping rate at B11 was causing the plume to widen to the south resulting in the concentrations increase at 03U003. The 1989 AMR discusses this modification. The TRCLE concentration at well 03U003 has decreased from 1800  $\mu\text{g/L}$  TRCLE in 1990 to 320  $\mu\text{g/L}$  in September 1993. The apparent concentration decrease at well 03U003 since 1990 appears to be the result of the reduced pumping at B11.

The zone of capture created by the TGRS extends beyond the 5  $\mu\text{g/L}$  TRCLE contour along the entire southwest TCAAP boundary.

## 2. Extracted Groundwater Quality

As discussed in Section X.C.3.e, the TGRS extracted and treated 1.4 billion gallons of water from October 1992 through September 1993. Based on the monthly influent VOC concentration (see Section X.E.3.a) and the monthly flow totals measured at meters #1 and #2 (see Section X.C.3.a), the TGRS removed a total of 20,165 pounds of VOCs from October 1992 through September 1993.

Table X-10 summarizes the individual VOC mass contribution of each extraction well and the entire system. The total mass removed is based on the monthly TGRS influent sampling. The percent contributions for each well are based on the average flows from each well and the quarterly VOC results from each well. To calculate the number of pounds of VOCs for each well the flows and concentrations were normalized to the treatment center flows and concentrations to correct for variance between flow meters in the well houses and for consistency between quarterly VOC concentrations at the wells and monthly VOC concentrations in the influent. It was assumed that the monthly sampling of the treatment system provides a better estimate of overall mass removal than the quarterly individual extraction well sampling due to the larger number of samples and consistency in the month to month analytical results.

VOC samples were collected semiannually from the 17 extraction wells that comprise the TGRS. Table X-11 presents a summary of these sampling results. Variations in detection limits from round to round are the result of varying sample dilutions performed by the laboratory. Dilutions are required due to high concentrations of some analytes.

Historically, the predominant VOC in wells B1 and B2 was TRCLE, followed by 12DCE. This profile is consistent with the expected profile for wells located within the south plume, emanating from the Building 502 vicinity. In FY 1992, the relative concentration of 111TCE to 12DCE increased and the two were approximately equal in concentration. In FY 1993, 111TCE became the second highest concentration VOC at B1 and B2.



It appears that the 111TCE to TRCLE ratio has increased at well B3, with the 111TCE concentration exceeding the TRCLE concentration. This trend was first observed near the end of the 1990 operational year. By FY 1992, 111TCE became the highest concentration VOC at B3. The reason for this apparent heterogeneity in the plume is unknown, however, it is not unusual to have variations in plume composition over time or in different geographic areas.

The remaining boundary extraction wells (B4 through B10, B12) exhibit TRCLE as the primary VOC followed by 111TCE. This profile is consistent with wells located in the north plume which emanate from source areas D and G.

The source control wells (SC1 through SC5) exhibit similar relationships to their respective source areas. At SC1, located adjacent to Building 502, the secondary VOC is 12DCE. While at SC2 through SC5, the secondary VOC is 111TCE.

Appendix G.2 presents TRCLE versus time graphs for each extraction well. Well B1, B2, B6, B7, B8, B10, B11, B12, SC2 and SC3 exhibit declining TRCLE concentrations over time. Wells B4, B5, SC4 and SC5 exhibit rising TRCLE concentration with time. In the remaining wells, no trend is clearly evident.

These trends indicate a redistribution of the plumes due to the changes in flow due to pumping stresses. These trends may also be the result of a decline in overall plume strength. However, as discussed below, there has been no clear reduction in overall TGRS influent concentrations to date.

VOC mass removal rates are summarized for each extraction well in Table X-10. The mass removal rates are based on average pumping rates over each monitoring interval. As Table X-10 illustrates, the greatest degrees of mass removal are achieved by wells B1, B4, B5, B6, SC2 and SC5, which are located in the centers of the plumes. These six wells each recovered 500 pounds to over 6,000 pounds of VOCs and accounted for 95 percent of the

VOC mass removed. Well B5, located in the center of the north plume, removed 32 percent of the total VOC mass.

The source control wells, SC1 through SC5, together accounted for 36 percent of the VOC mass removed while accounting for only 12 percent of the water pumped by the system. SC5, in particular, removed 32 percent of the total VOC mass at a rate of only approximately 100 gpm. This illustrates the efficiency of extraction from near the source areas. Extraction well SC4 is removing significantly less VOC mass than the other extraction wells. It appears that SC4 draws relatively low concentration water from between Source Areas D and G. This suggests that the VOC plume near Source Area D is much narrower than indicated by the monitoring well network.

### 3. Groundwater Treatment

#### a. VOCs

Influent and effluent water were sampled on a monthly basis during FY 1993. Table X-12 presents a summary of the influent and effluent data. TGRS influent is labeled TGRSI and effluent is labeled TGRSE in Appendix G.2. Figure X-2 presents a graph of influent TRCLE versus time. This graph is cumulative and includes previously reported BGRS data. Influent concentration remained relatively stable in FY 1993. The average FY 1993 influent TRCLE concentration was 1,450  $\mu\text{g/L}$ .

Figure X-2 also includes a summary of the effluent TRCLE concentration versus time. As indicated, effluent has remained below 5  $\mu\text{g/L}$  for all sampling events in FY 1993. A review of the 1993 database indicates that the effluent has remained below the Contaminant Specific Requirements for all other VOC compounds in the ROD. Comparison of influent and effluent TRCLE indicates an average removal efficiency of 99.9 percent.

**b. Priority Pollutant Scan**

Appendix G.2 includes the results of the annual effluent priority pollutant scan conducted in March 1993. Semi-volatile compounds were not detected. Base/neutral extractable organics were not detected. Pesticides were not detected. PCB were not detected. These compounds are not expected to be present in TGRS effluent. The priority pollutant scan is conducted as a precautionary measure since some of these chemicals have been identified in TCAAP soils. These compounds potentially could be present in groundwater.

No metals were identified in the priority pollutant scan above the contaminant specific requirements in the ROD.

**c. Metals**

In addition to the priority pollutant scan, samples for metals analyses were collected monthly from the system effluent. Metals, specifically lead and cadmium, have been sporadically detected above contaminant specific requirements in the effluent and in few monitoring wells.

The 1993 effluent metals analyses did not exhibit any metals exceeding the contaminant specific requirements in the ROD. Table X-13 presents the effluent metals summary. In particular, lead and cadmium were not detected in the TGRS effluent during FY 1993.

**d. Total Phosphorus and Orthophosphate**

Table X-14 summarizes the extraction well and effluent phosphorus and orthophosphate analytical data. During 1992 the effluent was analyzed for total phosphorus and orthophosphate monthly in accordance with the Monitoring Plan. Total phosphorus and orthophosphate are monitored to address nutrient loading for surface water discharge. The TGRS design can accommodate surface water discharge via Rice Creek. Currently, however, this option is not under consideration.

These data indicate that the aquifers at TCAAP exhibit variable phosphorus concentrations. It is expected that varying flow rates will affect effluent concentrations but the long term mean will be relatively stable. In particular, the orthophosphate results have exhibited a reasonable consistency between 1987 and 1993.

Since the surface water discharge option is not used, and probably will not be used in the future, phosphorus sampling has been removed from the sampling plan for FY 1995.

**4. Air Emissions**

The air stripping towers remove VOCs with an efficiency of over 99.9 percent (see Section X.E.3.a). Thus, the air emissions are essentially equal to the VOC mass removal rates presented in Table X-10. Air emissions therefore averaged 55 lbs/day based on the VOC mass removal rates. The total emissions from October 1992 through September 1993 were 20,165 lbs.

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## Section XI

### Evaluation of Site K Interim Remedial Action

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#### A. BACKGROUND

Volatile Organic Compound (VOC) contamination was identified in the storm sewer at Building 103, which empties to Rice Creek, Twin Cities Army Ammunition Plant (TCAAP) in 1983. Following an initial assessment in 1983, a Remedial Investigation/Feasibility Study (RI/FS) was conducted in 1984. The RI/FS activities were designed to define the extent of VOC contamination in the vicinity of Building 103 and to determine whether or not there was a resultant impact on other areas at TCAAP or on the regional groundwater. The RI/FS showed that the VOC contamination was found in the Unit 1 or perched aquifer at Building 103. The Unit 1 was underlain by a low permeability clay till (Unit 2) which serves as an aquitard to restrict vertical groundwater flow from reaching the deeper Unit 3 regional aquifer. Based on the water levels in the vicinity of Building 103, the Unit 1 groundwater flows to the west towards Rice Creek.

The findings of the RI/FS and some supplementary investigations concluded that:

- 1) VOCs identified in the storm sewer are the result of infiltration of perched groundwater containing VOCs beneath Building 103,
- 2) The limits of the VOC plume in the perched groundwater have been defined to be beneath and immediately northwest of Building 103.

- 3) Unit 1 groundwater outside of the immediate Building 103 area and Unit 3 groundwater downgradient of Building 103 have not been impacted by Building 103 activities.

## **B. REMEDIAL PROGRAM**

Based on the findings of the investigatory activities, a remedial program was designed to prevent infiltration of contaminated Unit 1 groundwater into the storm sewer and to capture and treat the contaminated groundwater originating at Building 103.

The VOC remediation program at Building 103 consisted of grouting the joints in the storm sewer to prevent Unit 1 groundwater infiltration and installation of a groundwater collection and treatment system. The sewer joint grouting was completed in February 1985.

The groundwater extraction and treatment system at Building 103 began operation in August 1986. Groundwater is collected using 410 feet of drainage tile sloped to a central manhole. The collected groundwater is pumped to an air stripping system where it is treated to remove VOCs and is discharged under an NPDES permit to the storm sewer. The treatment system was designed to accommodate up to 30 gallons per minute of extracted groundwater and to treat the contaminated water at an air to water ratio of 50:1 based on 200 cubic feet per minute of air. The air stripping tower is approximately 22 feet tall with 19 feet of one inch Yaeger Tri-pack packing. During FY 1993 the system collected and treated 5,710,840 gallons of water and removed approximately 21.7 pounds of VOCs, based on the average influent VOC concentrations. Appendix H.4 summarizes operational data and events at the groundwater extraction and treatment system.

In addition to the groundwater collection and treatment system, an infiltration gallery is installed to prevent excessive groundwater drawdown. The collection system is based on maintaining adequate hydraulic head on the downgradient side of the collection tile in order

to maintain upward flow of groundwater into the tile. The gallery consists of 409 feet of perforated 2-inch PVC pipe laid in a trench approximately 4 feet below grade. The gallery is located northwest and parallel to the collection tile. The infiltration gallery is connected to a float control and metering manhole. The float controls are positioned to permit flow when groundwater falls below 874.9 feet AMSL and shuts off flow when the float senses groundwater has risen 1.1 feet. The source of the water is the TCAAP potable water system. The groundwater elevation did not fall below 874.9 feet AMSL and the infiltration gallery did not permit flow in 1993. To date, approximately 1,833,4090 gallons have flowed through the infiltration gallery. Specific dates were not recorded when water was added to the gallery.

### C. MONITORING

A monitoring program was established to:

- Meet NPDES permit monitoring requirements,
- Measure the effectiveness of VOC removal,
- Measure the mass of VOCs removed,
- Monitor the progress of remediation in the aquifer, and
- Determine the zone of capture for the collection system.

As is the case with most groundwater extraction and treatment systems, the most effective way to measure short term performance is to evaluate hydraulic capture. Groundwater monitoring is conducted to evaluate the long term trends to determine whether or not the aquifer quality is actually improving. Accordingly, the Building 103 monitoring program concentrates on hydraulic performance and NPDES compliance.

## **1. Treatment System**

The treatment system influent and effluent were sampled on a monthly basis for the target VOCs listed in Table XI-1. In addition, effluent is monitored for phosphate and total phosphorus on a monthly basis, for target metals on a quarterly basis and for HSL: VOCs, semi-VOCs, metals and pesticides/PCBs annually to meet NPDES requirements. Effluent monitoring parameters are summarized in Table XI-2.

## **2. Groundwater Monitoring**

Water levels are collected quarterly from the monitoring wells and bundle piezometers in the vicinity of the groundwater collection and treatment system. Groundwater samples have been collected quarterly from specific wells on a historic basis. In FY 1993, samples were collected in accordance with the Monitoring Plan. The comprehensive monitoring well sampling was conducted in March 1993. Figure XI-1 and Figure XI-2 present the sampling and water level monitoring locations. Figure XI-2 also includes the cross section alignment.

## **D. SITE HYDROGEOLOGY**

As determined in the RI/FS, the impacted groundwater is within the Unit 1. Unit 1 is a medium to fine-grained sand with clayey silt lenses. Underlying the Unit 1 is the Unit 2 (a low permeability aquitard) consisting of a gray till. There is no apparent impact of Unit 1 VOC concentrations on the Unit 3 groundwater at the Site. Unit 3 monitoring in the vicinity of Building 103 is conducted as part of the TCAAP annual monitoring program.

Perched groundwater flow in the Unit 1 at Building 103 is generally west toward Rice Creek.



## **E. PERFORMANCE**

The groundwater collection system continues to provide capture of the Unit 1 groundwater, upgradient of the trench and beneath Building 103, as designed. Water level data are presented in Table XI-3. Well 01U611 (OW111) monitors the suspected source area. The flow from 01U611 is directly toward the drain tile groundwater collection trench as indicated by the groundwater contours. Figures XI-3 through XI-6 present plan views of the groundwater contours from the four quarters of the groundwater level measurement. At nested wells, the lowest water level was used to create the plan view contours. Monitoring wells downgradient of the extraction trench show consistently higher water levels than those near and upgradient of the trench. This demonstrates that the horizontal hydraulic gradient has been reversed toward the extraction trench due to system operation. The monitoring network provides sufficient coverage for detailed capture monitoring.

Vertical capture was also effective as illustrated on Figures XI-7 through XI-10. As seen in the figures, groundwater from both up-gradient and down-gradient of the trench is captured and collected. Of particular note is the formation of an upward gradient at nest 01U626. 01U626 is the closest bundle piezometer to the collection trench. 01U626 monitors and illustrates the vertical effectiveness of the extraction system. The upward gradient beneath the trench indicates that groundwater does not migrate below the trench. 01U626 also exhibits water levels consistently lower than all four monitoring points at bundle piezometer 01U627. This demonstrates the complete reversal of the horizontal gradient toward the extraction trench. The monitoring coverage provided by the bundle piezometers demonstrates complete vertical and horizontal hydraulic capture.

Figure XI-11 presents the trichloroethene concentrations from the March 1993 annual sampling event. Comparison of Figure XI-11 to the groundwater contour maps indicates that the VOC plume is hydraulically contained by the treatment system. Table XI-4 presents the monitoring well sampling data. The plume was originally defined based on data from all the monitoring wells. The current monitoring well network is used to confirm the plume

contours and measure progress of remediation. Thus, Figure XI-11 was drawn with consideration of the extensive historical data.

Influent and effluent analytical results are presented in Table XI-5. Historically, the higher concentrations in the influent have corresponded to higher pumping rates. Table XI-6 presents the effluent priority pollutant scan results.

#### **F. CONCLUSIONS**

The Building 103 groundwater remediation system is effective in attaining the designed capture of VOC contaminated groundwater in the Unit 1 at Building 103.

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## Section XII

### Evaluation of Site I Interim Remedial Action

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Four Unit 1 monitoring wells were planned for sampling at Site I (Building 502) during 1993. These wells are 01U064, 01U636, 01U639 and 01U640. Figure XII-1 shows these well locations. However, three of these wells were dry at the time of sampling so no samples were possible. Samples from 01U636 and 01U640 were to be analyzed for EPA Method 608 PCBs and all four wells were to be analyzed for EPA Method 601 VOCs. Table XII-1 presents the results of the analyses on well 01U064.

The VOCs present at well 01U064 are consistent with past data which identified VOCs in the Unit 1 at Site I. The Unit 1 aquifer at Site I is discontinuous and does not flow off site. This is evidenced by dry Unit 1 monitoring wells along the south and west boundaries of Site I. To the east and north, the Unit 2 is absent.

No PCBs were detected in groundwater. PCB contaminated soils east of Building 502 were excavated in 1986. These soils are currently stored in a storage building built as part of the PCB IRA at Building 502.

PCBs are monitored in groundwater as part of the long term monitoring of the PCB removal activities. No analysis was possible this year, however the lack of PCBs over the previous six years suggests that any residual PCBs which remain in the excavated area are immobile and are not a threat to the Unit 1 groundwater. The relative immobility of PCBs in soil is well documented in the literature.

## Conclusions

The PCBs potentially present in the Site I soils have not impacted the Unit 1 groundwater as the portion of the aquifer beneath that portion of the Site was dry.

VOCs continue to be present in the Unit 1 aquifer beneath the western portion of Building 502.

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## Section XIII Conclusions

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Based upon the results of monitoring performed at TCAAP, the following conclusions are offered:

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1. Groundwater in upper Unit 3, lower Unit 3, and upper Unit 4 generally flows to the southwest both beneath TCAAP and off-post. Local variations are evident, particularly in areas affected by pumping wells. Off-post, both the New Brighton and St. Anthony municipal well fields appear to influence groundwater flow directions, especially in upper Unit 4.
2. Sites D, G, and I continue to represent the most significant sources of VOC contamination at TCAAP. The plumes from Sites D and G merge on-post and continue off-post as a single plume. On-post there is separation of this plume and the plume emanating from Site I, but the two plumes merge off-post. Concentrations for VOCs are generally lower in the Site I plume than in the plume from Sites D and G.
3. Monitoring at Sites B, C, E, F, H, 129-3, 129-5, and 129-15 indicates that these sites are minor or negligible sources for groundwater contamination.

4. Interim Remedial Actions at Sites D, G, and I are effectively reducing the source areas, thereby minimizing additional impacts to groundwater. The effectiveness is demonstrated by overall trends of decreasing concentrations in monitoring wells at and downgradient of Sites D, G, and I. However, certain downgradient wells have increasing trends due to contaminant migration toward the recovery wells.
  
5. While it is possible that VOC contamination has migrated from TCAAP beyond County Road C to the south, the data and cross section A-A' (Figure VI-13 and Plan Sheet 26) indicate the possibility that a separate source is contributing to the higher VOC concentrations reported at 200812 and 512761 (Gross Golf Course), 234546 (Honeywell), and 233221 (Reuben Meats). The off-post isoconcentration maps indicate that the 100- $\mu\text{g}/\text{l}$  contours for trichloroethene and 10- $\mu\text{g}/\text{l}$  contours for 1,1,1-trichloroethane are separated by approximately 2 miles. New wells installed in FY 93 between the St. Anthony municipal wells and Gross Golf Course further support the interpretation of two separate source areas. Data gathered from the new wells also indicates that contamination is present in the Prairie du Chien Formation at concentrations that are generally higher than those in the underlying Jordan Formation.
  
6. The detection of trichloroethene at well 03L858 appears to be the result of a separate source.
  
7. Surface water monitoring in FY 93 indicated that zinc was the only compound which consistently exceeded the surface water action criteria. Zinc exceedances occurred at several of the sampling locations. Chromium exceeded the surface water action criteria on one occasion in FY 93.

8. It appears that there are two source areas contributing to groundwater contamination at Site A. Two plumes are evident in the vicinity of wells 01U102 and 01U108, but the plumes merge together downgradient near the TCAAP property boundary.
9. The existing recovery well at Site A, 01U350, appears to be effectively capturing VOC contamination in the immediate vicinity of the well, but the capture zone does not extend to the TCAAP boundary or beyond. Hence, contamination which was already beyond the capture zone when the IRA was implemented will continue to move downgradient. VOC concentrations in the area of 01U102 do not appear to be decreasing; however, the Site A groundwater recovery action, scheduled to be in operation in FY 94, is expected to reduce concentrations at this well.

#### CRA

Based on the FY 1993 monitoring data for the TGRS, Site K and Site I the following conclusions are made:

1. The TGRS develops a continuous zone of capture that is approximately 5,000 feet wide at the TCAAP boundary. The zone of capture widens to over 6,000 feet upgradient of the boundary. Data from nested wells at three levels within the aquifer demonstrate that this extent of capture is also vertically continuous. This zone of capture was demonstrated at average system pumping rate of approximately 2,650 gpm.
2. Hydraulic capture in Unit 3 extends beyond the 5  $\mu\text{g/l}$  TRCLE contour at the TCAAP boundary. This meets the VOC capture criterion in the EPA ROD.

3. Hydraulic capture in Unit 4 extends beyond the 5  $\mu\text{g}/\text{l}$  TRCLE contour at the TCAAP boundary. This meets the VOC capture criterion in the EPA ROD.
4. The TGRS extracted and treated 20,165 pounds of VOCs from October 1992 to September 1993.
5. The VOC plumes showed little variation in overall extent since 1988. This is consistent with previous conclusions that significant plume variations occur slowly at TCAAP.
6. All effluent metals sampling results were below the contaminant specific requirements.
7. Effluent VOC concentrations were below Contaminant Specific Requirements for all sampling events.
8. The effluent priority pollutant scan indicated no parameters above the contaminant specific requirements.
9. The Site K groundwater extraction and treatment system removed 21.7 lbs. of VOCs in FY 1993 and continues to provide hydraulic capture of the VOC plume.
10. PCBs potentially present in Site I soils have not impacted the Unit 1 aquifer at the Site. VOCs continue to be present in Unit 1 groundwater at the Site.



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## Section XIV

### Fiscal Year 1995 Annual Monitoring Plan

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#### A. FISCAL YEAR 1995 GROUNDWATER QUALITY MONITORING PLAN

The Fiscal Year 1995 Groundwater Quality Monitoring Plan is included as Table XIV-1. The starting date for each monitoring event is shown in Table XIV-1 to serve as notification to the MPCA in place of separate letters. The sampling frequency will generally remain the same as it was in the Fiscal Year 1994 Groundwater Quality Monitoring Plan. One comprehensive round of sampling will be performed in March as in past years to enable preparation of comprehensive contour maps. To provide additional confidence at more critical locations, select wells will also be sampled in December, June, and September. Historical data for this project indicate that groundwater quality changes occur over years, not months, and therefore comprehensive sampling three or four times per year is not justified.

The Operable Unit 3 (OU3) groundwater recovery system and Site A removal action will begin operation in FY 94. The FY 94 monitoring plan included increased first-year monitoring near these systems. The frequency of monitoring in the vicinity of these systems has been decreased after the first year of operation as shown in Table XIV-1.

All monthly and quarterly influent and effluent monitoring for Site K and the TGRS will remain unchanged for FY 95, with the exception of the addition of quarterly monitoring for antimony, cobalt, and manganese, as shown in Table XIV-2.

The following table indicates changes which were made to the Annual Monitoring Plan (AMP) between FY94 and FY95. The complete FY95 AMP is presented in Table XIV-1.

Site	Well I.D.	Quarter(s)	Sampling Change	Rationale for Change
<b><u>On-Post</u></b>				
A	01U102, 01U115, 01U117, 010138, 01U139, 01U140, 01U901, 01U902	Q45,Q47 Change from bi-annually to quarterly	Add Category 1	Site A removal action evaluation
	01U103	Q46	Delete Sb, Th and Co	Confirmation sampling in FY 94
	01U105, 01U136, 01U141	Q46	Delete Category 1	Changed for FY 95 only
	01U109, 01U110, 01U118	Q46	Add Category 1, 7	Changed for FY 95 only
	01U117	Q46	Delete Category 7	Confirmation sampling FY 94
	01U116, 01U125	Q45,Q47,Q48 Change from annually to quarterly	Add Category 1	Site A removal action evaluation
	01U133	Q46	Delete As, Th, Co	Confirmation sampling in FY 94
	01U350	Q45,Q47,Q48 Change from monthly to quarterly	Delete Category 1, 2	Shutdown of pumping well
	01U351-01U358	Q45,Q46, Q47,Q48	Add Category 1, 2, 3, 9	Recovery wells installed in FY 94 as part of Site A removal action
	01U903, 01U904	Q45,Q46, Q47,Q48	Add Category 1	Off-Post monitoring wells installed in FY 94 as part of Site A removal action
			Q46,Q48	Add Category 7 Changed for FY95 only
	01U157, 01U158	Q45, Q46, Q47, Q48	Add Category 1	On-Post monitoring wells installed in FY 94 as part of Site A removal action

Site	Well I.D.	Quarter(s)	Sampling Change	Rationale for Change
G	03L020	46	Add Category 1	Add definition of plume in Lower Hillside Formation
K	482084	46	Delete Category 1	-
	482085	46	Delete Category 1	-
I	482089	46	Delete Category 1	-
	482090	46	Delete Category 1	-
Southwest Boundary	03U706	48	Add Category 1	Evaluation of Gravel Pit Plume, add for FY 95 only
	03L833	46	Add Category 1	New well
	04U833	46	Add Category 1	New well
Off-Post (Lower Hillside Formation)	03L832	47,48	Added Category 1	OU3 Performance
	03L848	47,48	Deleted Category 1	OU3 Performance
	03L860	47,48	Deleted Category 1	OU3 Performance
	03L861	47,48	Deleted Category 1	OU3 Performance
(Prairie du Chien Formation)	04U832	47,48	Deleted Category 1	OU3 Performance
	04U834	46	Added Category 1	New Well
	04U845	47,48	Deleted Category 1	OU3 Performance
	04U848	47,48	Deleted Category 1	OU3 Performance
	04U851	47,48	Deleted Category 1	OU3 Performance
	04U854	47,48	Deleted Category 1	OU3 Performance
	04U860	47,48	Deleted Category 1	OU3 Performance
	04U861	47,48	Deleted Category 1	OU3 Performance
	508115	46,47,48	Deleted Category 1	Well Abandoned
Off-Post (Jordan Formation)	04J834	46	Added Category 1	New well
	04J835	46	Added Category 1	New well
	04J882	46	Added Category 1	New well

## B. FISCAL YEAR 1995 GROUNDWATER LEVEL MONITORING PLAN

The Fiscal Year 1995 Groundwater Level Monitoring Plan is included in Table XIV-1. The starting date for each monitoring event is shown in Table XIV-1 to serve as notification to the MPCA in place of separate letters. The frequency of the monitoring will generally remain the same as in the Fiscal Year 1994 Groundwater Level Monitoring Plan. The only exceptions are the increased monitoring of the newly constructed Site A removal action and monitoring at the six OU3 wells installed in FY 93. Following initial performance

monitoring of the OU3 groundwater recovery system, wells in that area will return to annual monitoring as indicated in Table XIV-1.

### **C. FISCAL YEAR 1995 SURFACE WATER MONITORING PLAN**

The National Pollutant Discharge Elimination System (NPDES) Monitoring Plan has been adopted as the surface water monitoring plan. The surface water sampling locations are shown on Figure VIII-1 and the NPDES Monitoring Plan is included as Table XIV-3. The NPDES Monitoring Plan has been modified for FY95 in response to changing data requirements and new information obtained through the OU2 Feasibility Study. The specific changes to the plan are outlined below.

1. Monitoring at the Rice Creek inflow to TCAAP (20700) was increased from quarterly to monthly to be consistent with the monitoring for the building outfalls to Rice Creek and the Rice Creek outflow. The parameters affected were volume, pH, TSS, dissolved oxygen, oil, chloride, total phosphorus, and ortho-phosphorus.
2. Monitoring for silver was increased from annually to quarterly in all Rice Creek locations due to detections of silver in samples collected during the OU2 FS.
3. Monitoring of copper and lead at Marsden Lake locations (21200, 21300, 21400) were increased from annually to quarterly due to detections of these parameters during the OU2 FS. Monitoring of lead was also increased to quarterly at the Marsden Lake outfall (20100).
4. Monitoring of lead and silver at the Round Lake outfall (20500) were increased from annually to quarterly due to detections of metals in Round Lake sediment samples during the OU2 FS.

5. Monitoring of chromium, copper, lead, silver, and zinc at the Sunfish Lake outfall (21600) were increased from annually to quarterly due to detections in surface water and sediment samples during the OU2 FS.
6. Monitoring of VOCs was decreased from quarterly to annually for the Marsden Lake and Round Lake outfalls since there are typically no detections of these compounds at these locations and annual sampling will be adequate for long term monitoring.
7. Monitoring of PCBs was decreased to annually for all samples since the few detections which are observed are relatively consistent and quarterly monitoring is not justified.

**D. FISCAL YEAR 1995 REPORTING**

**1. Quarterly Reports**

After completion of each monitoring event, a quarterly report will be prepared for submittal to the MPCA and USEPA. The quarterly reports will be submitted to the Project Managers at least 15 days prior to the next quarterly sampling event. The quarterly reports will consist of the following:

- Laboratory analytical reports;
- Laboratory cover letters to data sets;
- Bi-monthly USAEC QC reports;
- Army evaluation (completeness check):
- Chain of custodies;
- Field notes; and
- Groundwater level table.

## 2. Annual Monitoring Report

By February 15, 1996, an Annual Monitoring Report will be submitted to the MPCA and USEPA Project Managers which documents the results of monitoring during FY 95. The format for the Fiscal Year 1995 Monitoring Report will be the same as this report in regard to discussion topics, tables, figures, appendices, and plan sheets unless otherwise agreed to by the Army, MPCA, and EPA project managers. When final remedies are implemented for OU1, OU2, and OU3, the format will likely change as monitoring shifts exclusively to "performance" monitoring and away from "characterization" monitoring."

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## **TABLES**

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## Tables

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## Table IV-1

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### TCAAP Groundwater Elevation Data

Notes:

- (1) TOS = Top of Surface which represents the ground surface elevation in feet above mean sea level (MSL). The TOS elevations were retrieved from the USAEC IRDMIS. All data are referenced to new TOS elevations surveyed by Kemper and Associates, Inc. during July through September 1992.
- (2) Qtr = Quarter. Under this heading, F = FCC and A = Alliant Techsystems, Inc.

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01L811	908.4	14-Dec-87	16 F	895.2	01U004	951.1	14-Dec-87	16 F	940.8
01L811	908.4	27-Jan-88	17 F	894.6	01U004	951.1	27-Jan-88	17 F	939.3
01L811	908.4	30-Aug-88	19 F	893.9	01U004	951.1	14-Apr-88	18 F	941.9
01L811	908.4	22-Nov-88	20 F	893.5	01U004	951.1	30-Aug-88	19 F	940.2
01L811	908.4	06-Aug-89	23 F	894.1	01U004	951.1	22-Nov-88	20 F	940.8
01L811	908.4	03-Nov-89	24 F	893.6	01U004	951.1	27-Apr-89	22 F	938.0
01L811	908.4	05-May-90	26 F	894.1	01U004	951.1	05-Aug-89	23 F	942.3
01L811	908.4	01-Apr-91	30 F	894.0	01U004	951.1	03-Nov-89	24 F	938.8
01L811	908.4	17-Mar-92	34 F	896.9					
01L811	908.4	03-Mar-93	38 F	895.6	01U011	900.0	14-Dec-87	16 F	892.1
					01U011	900.0	26-Jan-88	17 F	891.2
01L813	870.7	14-Dec-87	16 F	868.4	01U011	900.0	13-Apr-88	18 F	892.1
01L813	870.7	27-Jan-88	17 F	868.1	01U011	900.0	30-Aug-88	19 F	890.3
01L813	870.7	13-Apr-88	18 F	868.7	01U011	900.0	22-Nov-88	20 F	890.2
01L813	870.7	30-Aug-88	19 F	866.6	01U011	900.0	05-Aug-89	23 F	890.6
01L813	870.7	22-Nov-88	20 F	867.5	01U011	900.0	04-Nov-89	24 F	889.8
01L813	870.7	06-Aug-89	23 F	864.9	01U011	900.0	27-Apr-90	26 F	889.5
01L813	870.7	03-Nov-89	24 F	867.3	01U011	900.0	01-Apr-91	30 F	892.8
01L813	870.7	03-May-90	26 F	867.4	01U011	900.0	09-Mar-92	34 F	896.3
01L813	870.7	01-Apr-91	30 F	869.1	01U011	900.0	01-Mar-93	38 F	893.1
01L813	870.7	20-Mar-92	34 F	869.7					
01L813	870.7	03-Mar-93	38 F	869.3	01U012	880.1	14-Dec-87	16 F	875.0
					01U012	880.1	27-Jan-88	17 F	874.8
01L816	900.9	14-Dec-87	16 F	869.8	01U012	880.1	13-Apr-88	18 F	875.2
01L816	900.9	27-Jan-88	17 F	869.8	01U012	880.1	30-Aug-88	19 F	874.3
01L816	900.9	13-Apr-88	18 F	870.0	01U012	880.1	22-Nov-88	20 F	874.6
01L816	900.9	30-Aug-88	19 F	869.0	01U012	880.1	05-Aug-89	23 F	874.8
01L816	900.9	03-Nov-89	24 F	867.2	01U012	880.1	02-Nov-89	24 F	874.4
01L816	900.9	03-May-90	26 F	869.2	01U012	880.1	27-Apr-90	26 F	875.4
01L816	900.9	01-Apr-91	30 F	867.6	01U012	880.1	01-Apr-91	30 F	876.5
01L816	Well Abandoned				01U012	880.1	16-Mar-92	34 F	877.9
					01U012	880.1	01-Mar-93	38 F	875.6
01L821	877.5	14-Dec-87	16 F	871.8					
01L821	877.5	26-Jan-88	17 F	871.5	01U022	897.7	14-Dec-87	16 F	894.3
01L821	877.5	13-Apr-88	18 F	872.1	01U022	897.7	27-Jan-88	17 F	893.2
01L821	877.5	30-Aug-88	19 F	870.4	01U022	897.7	13-Apr-88	18 F	895.2
01L821	877.5	22-Nov-88	20 F	868.5	01U022	897.7	05-Aug-89	23 F	890.8
01L821	877.5	03-Nov-89	24 F	870.8	01U022	897.7	02-Nov-89	24 F	891.0
01L821	877.5	03-May-90	26 F	870.5	01U022	897.7	23-Jan-90	25 F	891.1
01L821	877.5	01-Apr-91	30 F	872.5	01U022	897.7	20-Feb-90	25 F	891.0
01L821	877.5	16-Mar-92	34 F	873.4	01U022	897.7	20-Mar-90	25 F	893.6
01L821	877.5	03-Mar-93	38 F	872.1	01U022	897.7	16-Apr-90	26 F	893.9
					01U022	897.7	22-May-90	26 F	895.3
01L822	876.1	14-Dec-87	16 F	868.1	01U022	897.7	19-Jun-90	26 F	896.1
01L822	876.1	26-Jan-88	17 F	867.7	01U022	897.7	17-Jul-90	27 F	893.5
01L822	876.1	13-Apr-88	18 F	868.4	01U022	897.7	21-Aug-90	27 F	893.6
01L822	876.1	30-Aug-88	19 F	866.7	01U022	897.7	18-Sep-90	28 F	895.1
01L822	876.1	22-Nov-88	20 F	867.9	01U022	897.7	02-Nov-90	29 F	893.7
01L822	876.1	03-Nov-89	24 F	867.2	01U022	897.7	18-Dec-90	29 F	893.7
01L822	876.1	03-May-90	26 F	865.9	01U022	897.7	19-Feb-91	30 F	890.9
01L822	876.1	01-Apr-91	30 F	869.1	01U022	897.7	19-Mar-91	30 F	895.2
01L822	876.1	19-Mar-92	34 F	870.0	01U022	897.7	16-Apr-91	31 F	896.1
01L822	876.1	04-Mar-93	38 F	868.0	01U022	897.7	18-Jun-91	31 F	893.7
					01U022	897.7	18-Jun-91	31 F	893.7
01L823	880.4	14-Dec-87	16 F	872.4	01U022	897.7	19-Aug-91	32 F	893.3
01L823	880.4	26-Jan-88	17 F	871.9	01U022	897.7	22-Oct-91	33 F	893.8
01L823	880.4	13-Apr-88	18 F	872.3	01U022	897.7	21-Dec-91	33 F	895.0
01L823	880.4	30-Aug-88	19 F	871.4	01U022	897.7	18-Feb-92	34 F	894.8
01L823	880.4	22-Nov-88	20 F	871.4	01U022	897.7	09-Mar-92	34 F	895.9
01L823	880.4	03-Nov-89	24 F	871.1	01U022	897.7	13-Apr-92	35 F	895.0
01L823	880.4	03-May-90	26 F	869.9	01U022	897.7	16-Jun-92	35 F	892.6
01L823	880.4	01-Apr-91	30 F	872.4	01U022	897.7	21-Aug-92	36 F	891.7
01L823	880.4	20-Mar-92	34 F	874.1	01U022	897.7	20-Oct-92	37 F	894.8
01L823	880.4	10-Mar-93	38 F	872.4	01U022	897.7	01-Dec-92	37 F	895.0
					01U022	897.7	01-Feb-93	38 F	894.5
01U003	943.4	14-Dec-87	16 F	934.2	01U022	897.7	01-Mar-93	38 F	894.7
01U003	943.4	26-Jan-88	17 F	934.1					
01U003	943.4	14-Apr-88	18 F	936.3	01U033	887.4	14-Dec-87	16 F	885.2
01U003	943.4	27-Apr-89	22 F	930.6	01U033	887.4	26-Jan-88	17 F	885.6
01U003	943.4	05-Aug-89	23 F	931.2	01U033	887.4	13-Apr-88	18 F	885.3
01U003	943.4	01-Apr-91	30 F	936.5	01U033	887.4	30-Aug-88	19 F	883.3
01U003	943.4	17-Mar-92	34 F	938.6	01U033	887.4	22-Nov-88	20 F	884.7
01U003	943.4	03-Mar-93	38 F	935.2	01U033	887.4	05-Aug-89	23 F	884.1
					01U033	887.4	02-Nov-89	24 F	884.0

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U033	887.4	27-Apr-90	26 F	885.8	01U037	898.7	20-Mar-90	25 F	889.0
01U033	887.4	01-Apr-91	30 F	886.4	01U037	898.7	16-Apr-90	26 F	889.1
01U033	887.4	24-Mar-92	34 F	886.3	01U037	898.7	22-May-90	26 F	889.9
01U033	887.4	02-Mar-93	38 F	886.9	01U037	898.7	19-Jun-90	26 F	895.0
01U034	901.2	14-Dec-87	16 F	896.9	01U037	898.7	17-Jul-90	27 F	892.1
01U034	901.2	26-Jan-88	17 F	895.4	01U037	898.7	21-Aug-90	27 F	892.1
01U034	901.2	30-Aug-88	19 F	895.0	01U037	898.7	18-Sep-90	28 F	892.9
01U034	901.2	22-Nov-88	20 F	894.9	01U037	898.7	02-Nov-90	29 F	892.0
01U034	901.2	05-Aug-89	23 F	894.9	01U037	898.7	18-Dec-90	29 F	891.6
01U034	901.2	02-Nov-89	24 F	893.7	01U037	898.7	19-Feb-91	30 F	890.9
01U034	901.2	27-Apr-90	26 F	894.1	01U037	898.7	19-Mar-91	30 F	890.9
01U034	901.2	01-Apr-91	30 F	897.2	01U037	898.7	16-Apr-91	31 F	893.2
01U034	901.2	09-Mar-92	34 F	899.4	01U037	898.7	18-Jun-91	31 F	895.2
01U034	901.2	01-Mar-93	38 F	895.7	01U037	898.7	18-Jun-91	31 F	895.2
01U035	899.4	14-Dec-87	16 F	895.2	01U037	898.7	30-Jul-91	32 F	895.0
01U035	899.4	26-Jan-88	17 F	894.0	01U037	898.7	19-Aug-91	32 F	894.1
01U035	899.4	13-Apr-88	18 F	894.4	01U037	898.7	22-Oct-91	33 F	895.0
01U035	899.4	30-Aug-88	19 F	893.2	01U037	898.7	21-Dec-91	33 F	895.8
01U035	899.4	22-Nov-88	20 F	892.7	01U037	898.7	18-Feb-92	34 F	894.7
01U035	899.4	05-Aug-89	23 F	893.0	01U037	898.7	09-Mar-92	34 F	896.2
01U035	899.4	02-Nov-89	24 F	892.0	01U037	898.7	13-Apr-92	35 F	895.9
01U035	899.4	27-Apr-90	26 F	892.4	01U037	898.7	16-Jun-92	35 F	894.5
01U035	899.4	01-Apr-91	30 F	894.9	01U037	898.7	21-Aug-92	36 F	893.4
01U035	899.4	09-Mar-92	34 F	898.3	01U037	898.7	20-Oct-92	37 F	894.3
01U035	899.4	01-Mar-93	38 F	895.0	01U037	898.7	01-Dec-92	37 F	894.6
01U036	901.0	14-Dec-87	16 F	895.0	01U037	898.7	01-Feb-93	38 F	893.2
01U036	901.0	26-Jan-88	17 F	893.9	01U037	898.7	01-Mar-93	38 F	892.9
01U036	901.0	13-Apr-88	18 F	894.0	01U038	900.3	14-Dec-87	16 F	891.7
01U036	901.0	30-Aug-88	19 F	892.8	01U038	900.3	26-Jan-88	17 F	891.3
01U036	901.0	22-Nov-88	20 F	892.3	01U038	900.3	13-Apr-88	18 F	891.6
01U036	901.0	24-Apr-89	22 F	891.3	01U038	900.3	30-Aug-88	19 F	890.0
01U036	901.0	05-Aug-89	23 F	892.7	01U038	900.3	22-Nov-88	20 F	889.3
01U036	901.0	02-Nov-89	24 F	891.6	01U038	900.3	24-Apr-89	22 F	888.2
01U036	901.0	23-Jan-90	25 F	890.8	01U038	900.3	05-Aug-89	23 F	889.7
01U036	901.0	20-Feb-90	25 F	890.5	01U038	900.3	02-Nov-89	24 F	888.8
01U036	901.0	20-Mar-90	25 F	891.0	01U038	900.3	23-Jan-90	25 F	888.2
01U036	901.0	16-Apr-90	26 F	891.2	01U038	900.3	20-Feb-90	25 F	887.9
01U036	901.0	22-May-90	26 F	892.9	01U038	900.3	20-Mar-90	25 F	888.5
01U036	901.0	19-Jun-90	26 F	895.2	01U038	900.3	16-Apr-90	26 F	888.4
01U036	901.0	17-Jul-90	27 F	894.8	01U038	900.3	22-May-90	26 F	889.0
01U036	901.0	21-Aug-90	27 F	894.8	01U038	900.3	19-Jun-90	26 F	890.3
01U036	901.0	18-Sep-90	28 F	895.5	01U038	900.3	17-Jul-90	27 F	891.0
01U036	901.0	02-Nov-90	29 F	894.1	01U038	900.3	21-Aug-90	27 F	891.1
01U036	901.0	18-Dec-90	29 F	894.6	01U038	900.3	18-Sep-90	28 F	891.9
01U036	901.0	19-Feb-91	30 F	893.9	01U038	900.3	02-Nov-90	29 F	891.3
01U036	901.0	01-Apr-91	30 F	892.9	01U038	900.3	18-Dec-90	29 F	891.0
01U036	901.0	16-Apr-91	31 F	895.5	01U038	900.3	19-Feb-91	30 F	890.2
01U036	901.0	18-Jun-91	31 F	897.3	01U038	900.3	19-Mar-91	30 F	890.6
01U036	901.0	18-Jun-91	31 F	897.1	01U038	900.3	16-Apr-91	31 F	892.2
01U036	901.0	19-Aug-91	32 F	896.5	01U038	900.3	18-Jun-91	31 F	894.3
01U036	901.0	22-Oct-91	33 F	897.1	01U038	900.3	18-Jun-91	31 F	894.3
01U036	901.0	21-Dec-91	33 F	897.8	01U038	900.3	30-Jul-91	32 F	894.4
01U036	901.0	18-Feb-92	34 F	896.9	01U038	900.3	19-Aug-91	32 F	893.0
01U036	901.0	09-Mar-92	34 F	898.3	01U038	900.3	22-Oct-91	33 F	894.3
01U036	901.0	13-Apr-92	35 F	898.0	01U038	900.3	21-Dec-91	33 F	895.1
01U036	901.0	16-Jun-92	35 F	896.8	01U038	900.3	18-Feb-92	34 F	893.9
01U036	901.0	21-Aug-92	36 F	895.6	01U038	900.3	04-Mar-92	34 F	895.1
01U036	901.0	20-Oct-92	37 F	896.5	01U038	900.3	13-Apr-92	35 F	895.2
01U036	901.0	01-Dec-92	37 F	896.7	01U038	900.3	16-Jun-92	35 F	893.6
01U036	901.0	01-Feb-93	38 F	895.3	01U038	900.3	21-Aug-92	36 F	892.5
01U036	901.0	08-Mar-93	38 F	895.2	01U038	900.3	20-Oct-92	37 F	893.5
01U037	898.7	14-Dec-87	16 F	892.3	01U038	900.3	01-Dec-92	37 F	893.9
01U037	898.7	26-Jan-88	17 F	891.8	01U038	900.3	01-Feb-93	38 F	892.6
01U037	898.7	30-Aug-88	19 F	890.6	01U038	900.3	01-Mar-93	38 F	892.3
01U037	898.7	22-Nov-88	20 F	890.0	01U038	900.3	20-Apr-93	39 F	894.3
01U037	898.7	24-Apr-89	22 F	888.7	01U038	900.3	15-Jun-93	39 F	894.4
01U037	898.7	05-Aug-89	23 F	890.4	01U038	900.3	16-Aug-93	40 F	896.2
01U037	898.7	02-Nov-89	24 F	889.5	01U039	897.5	14-Dec-87	16 F	884.0
01U037	898.7	23-Jan-90	25 F	888.7	01U039	897.5	30-Aug-88	19 F	882.4
01U037	898.7	20-Feb-90	25 F	888.5	01U039	897.5	22-Nov-88	20 F	881.9
					01U039	897.5	24-Apr-89	22 F	879.6
					01U039	897.5	05-Aug-89	23 F	882.8

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U039	897.5	02-Nov-89	24 F	882.0	01U041	898.3	27-Jan-88	17 F	890.5
01U039	897.5	23-Jan-90	25 F	881.4	01U041	898.3	13-Apr-88	18 F	891.8
01U039	897.5	20-Feb-90	25 F	881.2	01U041	898.3	30-Aug-88	19 F	888.8
01U039	897.5	20-Mar-90	25 F	881.1	01U041	898.3	22-Nov-88	20 F	888.7
01U039	897.5	16-Apr-90	26 F	881.1	01U041	898.3	24-Apr-89	22 F	889.5
01U039	897.5	22-May-90	26 F	881.4	01U041	898.3	05-Aug-89	23 F	889.7
01U039	897.5	19-Jun-90	26 F	882.2	01U041	898.3	02-Nov-89	24 F	889.0
01U039	897.5	17-Jul-90	27 F	883.2	01U041	898.3	23-Jan-90	25 F	Dry
01U039	897.5	21-Aug-90	27 F	883.2	01U041	898.3	20-Feb-90	25 F	Dry
01U039	897.5	18-Sep-90	28 F	884.4	01U041	898.3	20-Mar-90	25 F	891.9
01U039	897.5	02-Nov-90	29 F	884.0	01U041	898.3	16-Apr-90	26 F	890.6
01U039	897.5	18-Dec-90	29 F	883.6	01U041	898.3	22-May-90	26 F	892.2
01U039	897.5	19-Feb-91	30 F	882.9	01U041	898.3	19-Jun-90	26 F	892.4
01U039	897.5	19-Mar-91	30 F	882.7	01U041	898.3	17-Jul-90	27 F	891.6
01U039	897.5	16-Apr-91	31 F	882.9	01U041	898.3	21-Aug-90	27 F	891.6
01U039	897.5	18-Jun-91	31 F	885.9	01U041	898.3	18-Sep-90	28 F	892.1
01U039	897.5	18-Jun-91	31 F	885.8	01U041	898.3	02-Nov-90	29 F	891.1
01U039	897.5	30-Jul-91	32 F	886.1	01U041	898.3	18-Dec-90	29 F	888.1
01U039	897.5	19-Aug-91	32 F	886.1	01U041	898.3	19-Feb-91	30 F	890.4
01U039	897.5	22-Oct-91	33 F	886.9	01U041	898.3	19-Mar-91	30 F	895.0
01U039	897.5	21-Dec-91	33 F	886.8	01U041	898.3	16-Apr-91	31 F	893.2
01U039	897.5	18-Feb-92	34 F	886.2	01U041	898.3	18-Jun-91	31 F	893.4
01U039	897.5	05-Mar-92	34 F	876.7	01U041	898.3	18-Jun-91	31 F	893.4
01U039	897.5	13-Apr-92	35 F	886.6	01U041	898.3	30-Jul-91	32 F	894.5
01U039	897.5	16-Jun-92	35 F	887.1	01U041	898.3	19-Aug-91	32 F	890.8
01U039	897.5	21-Aug-92	36 F	886.1	01U041	898.3	22-Oct-91	33 F	893.2
01U039	897.5	20-Oct-92	37 F	885.8	01U041	898.3	21-Dec-91	33 F	893.7
01U039	897.5	01-Dec-92	37 F	885.7	01U041	898.3	18-Feb-92	34 F	893.4
01U039	897.5	01-Feb-93	38 F	885.2	01U041	898.3	04-Mar-92	34 F	893.6
01U039	897.5	01-Mar-93	38 F	884.9	01U041	898.3	13-Apr-92	35 F	893.5
01U039	897.5	20-Apr-93	39 F	884.8	01U041	898.3	16-Jun-92	35 F	892.1
01U039	897.5	15-Jun-93	39 F	886.5	01U041	898.3	21-Aug-92	36 F	891.6
01U039	897.5	16-Aug-93	40 F	889.8	01U041	898.3	20-Oct-92	37 F	893.2
01U040	892.5	14-Dec-87	16 F	882.5	01U041	898.3	01-Dec-92	37 F	893.6
01U040	892.5	27-Jan-88	17 F	881.7	01U041	898.3	01-Feb-93	38 F	892.4
01U040	892.5	30-Aug-88	19 F	880.8	01U041	898.3	01-Mar-93	38 F	892.1
01U040	892.5	22-Nov-88	20 F	880.1	01U041	898.3	20-Apr-93	39 F	893.5
01U040	892.5	24-Apr-89	22 F	878.7	01U041	898.3	15-Jun-93	39 F	893.4
01U040	892.5	05-Aug-89	23 F	881.3	01U041	898.3	16-Aug-93	40 F	893.5
01U040	892.5	02-Nov-89	24 F	880.3	01U043	891.0	14-Dec-87	16 F	883.0
01U040	892.5	23-Jan-90	25 F	879.5	01U043	891.0	27-Jan-88	17 F	882.4
01U040	892.5	20-Feb-90	25 F	879.3	01U043	891.0	14-Apr-88	18 F	884.3
01U040	892.5	20-Mar-90	25 F	879.6	01U043	891.0	30-Aug-88	19 F	881.2
01U040	892.5	16-Apr-90	26 F	879.6	01U043	891.0	22-Nov-88	20 F	881.8
01U040	892.5	22-May-90	26 F	880.9	01U043	891.0	05-Aug-89	23 F	882.5
01U040	892.5	19-Jun-90	26 F	882.5	01U043	891.0	02-Nov-89	24 F	881.5
01U040	892.5	17-Jul-90	27 F	883.1	01U043	891.0	27-Apr-90	26 F	883.2
01U040	892.5	21-Aug-90	27 F	883.2	01U043	891.0	01-Apr-91	30 F	886.3
01U040	892.5	18-Sep-90	28 F	883.7	01U043	891.0	16-Mar-92	34 F	886.6
01U040	892.5	02-Nov-90	29 F	882.8	01U043	891.0	02-Mar-93	38 F	886.5
01U040	892.5	18-Dec-90	29 F	865.2	01U044	892.3	14-Dec-87	16 F	878.3
01U040	892.5	19-Feb-91	30 F	881.2	01U044	892.3	27-Jan-88	17 F	877.9
01U040	892.5	19-Mar-91	30 F	881.5	01U044	892.3	13-Apr-88	18 F	878.1
01U040	892.5	16-Apr-91	31 F	882.7	01U044	892.3	30-Aug-88	19 F	880.6
01U040	892.5	18-Jun-91	31 F	885.7	01U044	892.3	22-Nov-88	20 F	877.2
01U040	892.5	18-Jun-91	31 F	885.7	01U044	892.3	05-Aug-89	23 F	877.4
01U040	892.5	30-Jul-91	32 F	884.9	01U044	892.3	02-Nov-89	24 F	877.5
01U040	892.5	19-Aug-91	32 F	886.5	01U044	892.3	27-Apr-90	26 F	877.0
01U040	892.5	22-Oct-91	33 F	885.5	01U044	892.3	01-Apr-91	30 F	878.3
01U040	892.5	21-Dec-91	33 F	885.6	01U044	892.3	16-Mar-92	34 F	881.1
01U040	892.5	18-Feb-92	34 F	884.9	01U044	892.3	02-Mar-93	38 F	879.0
01U040	892.5	13-Apr-92	35 F	885.5	01U045	886.4	14-Dec-87	16 F	880.2
01U040	892.5	16-Jun-92	35 F	885.3	01U045	886.4	26-Jan-88	17 F	880.2
01U040	892.5	21-Aug-92	36 F	884.4	01U045	886.4	13-Apr-88	18 F	881.2
01U040	892.5	20-Oct-92	37 F	884.9	01U045	886.4	30-Aug-88	19 F	879.3
01U040	892.5	01-Dec-92	37 F	885.0	01U045	886.4	22-Nov-88	20 F	879.9
01U040	892.5	01-Feb-93	38 F	883.7	01U045	886.4	05-Aug-89	23 F	879.4
01U040	892.5	01-Mar-93	38 F	883.5	01U045	886.4	02-Nov-89	24 F	879.3
01U040	892.5	20-Apr-93	39 F	884.4	01U045	886.4	27-Apr-90	26 F	881.7
01U040	892.5	15-Jun-93	39 F	885.8	01U045	886.4	13-Mar-91	30 F	881.8
01U040	892.5	16-Aug-93	40 F	888.5	01U045	886.4	16-Mar-92	34 F	882.2
01U041	898.3	14-Dec-87	16 F	891.0					

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U045	886.4	08-Mar-93	38 F	883.8	01U051	901.2	02-Mar-93	38 F	889.6
01U046	881.8	14-Dec-87	16 F	879.5	01U052	884.3	14-Dec-87	16 F	873.5
01U046	881.8	26-Jan-88	17 F	879.5	01U052	884.3	27-Jan-88	17 F	873.3
01U046	881.8	13-Apr-88	18 F	879.6	01U052	884.3	13-Apr-88	18 F	874.4
01U046	881.8	30-Aug-88	19 F	878.8	01U052	884.3	30-Aug-88	19 F	873.0
01U046	881.8	22-Nov-88	20 F	879.4	01U052	884.3	22-Nov-88	20 F	873.3
01U046	881.8	05-Aug-89	23 F	878.8	01U052	884.3	27-Apr-89	22 F	871.9
01U046	881.8	02-Nov-89	24 F	879.1	01U052	884.3	03-Aug-89	23 F	874.1
01U046	881.8	27-Apr-90	26 F	879.7	01U052	884.3	02-Nov-89	24 F	873.1
01U046	881.8	01-Apr-91	30 F	880.1	01U052	884.3	06-Mar-91	30 A	873.3
01U046	881.8	16-Mar-92	34 F	880.0	01U052	884.3	04-Jun-91	31 A	876.2
01U046	881.8	02-Mar-93	38 F	881.3	01U052	884.3	03-Sep-91	32 A	875.1
01U047	887.9	14-Dec-87	16 F	883.2	01U052	884.3	02-Mar-92	34 A	875.1
01U047	887.9	27-Jan-88	17 F	882.9	01U052	884.3	01-Jun-92	35 A	874.8
01U047	887.9	13-Apr-88	18 F	883.8	01U052	884.3	09-Sep-92	36 A	873.8
01U047	887.9	30-Aug-88	19 F	882.2	01U052	884.3	01-Dec-92	37 A	874.5
01U047	887.9	22-Nov-88	20 F	882.7	01U052	884.3	02-Mar-93	38 A	873.6
01U047	887.9	27-Apr-89	22 F	877.9	01U052	884.3	01-Jun-93	39 A	875.5
01U047	887.9	05-Aug-89	23 F	882.6	01U052	884.3	08-Sep-93	40 A	875.5
01U047	887.9	02-Nov-89	24 F	882.3	01U053	913.2	14-Dec-87	16 F	905.1
01U047	887.9	06-Mar-91	30 A	883.2	01U053	913.2	27-Jan-88	17 F	904.0
01U047	887.9	04-Jun-91	31 A	885.6	01U053	913.2	13-Apr-88	18 F	905.2
01U047	887.9	03-Sep-91	32 A	884.1	01U053	913.2	30-Aug-88	19 F	904.8
01U047	887.9	02-Mar-92	34 A	884.3	01U053	913.2	22-Nov-88	20 F	905.1
01U047	887.9	01-Jun-92	35 A	883.9	01U053	913.2	04-Aug-89	23 F	905.1
01U047	887.9	09-Sep-92	36 A	883.1	01U053	913.2	02-Nov-89	24 F	904.6
01U047	887.9	01-Dec-92	37 A	873.7	01U053	913.2	27-Apr-90	26 F	905.7
01U047	887.9	02-Mar-93	38 A	873.5	01U053	913.2	01-Apr-91	30 F	908.0
01U047	887.9	01-Jun-93	39 A	874.6	01U053	913.2	17-Mar-92	34 F	907.3
01U047	887.9	08-Sep-93	40 A	874.9	01U053	913.2	03-Mar-93	38 F	906.4
01U048	883.2	14-Dec-87	16 F	873.4	01U054	940.9	14-Dec-87	16 F	932.1
01U048	883.2	27-Jan-88	17 F	873.1	01U054	940.9	27-Jan-88	17 F	930.0
01U048	883.2	13-Apr-88	18 F	875.7	01U054	940.9	13-Apr-88	18 F	933.1
01U048	883.2	30-Aug-88	19 F	872.9	01U054	940.9	30-Aug-88	19 F	930.5
01U048	883.2	22-Nov-88	20 F	873.1	01U054	940.9	22-Nov-88	20 F	932.5
01U048	883.2	27-Apr-89	22 F	871.5	01U054	940.9	27-Apr-89	22 F	930.0
01U048	883.2	05-Aug-89	23 F	873.5	01U054	940.9	06-Aug-89	23 F	932.3
01U048	883.2	02-Nov-89	24 F	873.0	01U054	940.9	02-Nov-89	24 F	929.2
01U048	883.2	06-Mar-91	30 A	873.2	01U054	940.9	27-Apr-90	26 F	933.5
01U048	883.2	04-Jun-91	31 A	876.0	01U054	940.9	01-Apr-91	30 F	934.5
01U048	883.2	03-Sep-91	32 A	874.5	01U054	940.9	17-Mar-92	34 F	933.4
01U048	883.2	02-Mar-92	34 A	874.6	01U054	940.9	03-Mar-93	38 F	930.1
01U048	883.2	01-Jun-92	35 A	874.4	01U060	949.1	14-Dec-87	16 F	935.4
01U048	883.2	09-Sep-92	36 A	873.6	01U060	949.1	27-Jan-88	17 F	935.3
01U048	883.2	01-Dec-92	37 A	874.1	01U060	949.1	13-Apr-88	18 F	935.7
01U048	883.2	02-Mar-93	38 A	873.5	01U060	949.1	30-Aug-88	19 F	934.6
01U048	883.2	01-Jun-93	39 A	875.0	01U060	949.1	22-Nov-88	20 F	934.6
01U048	883.2	08-Sep-93	40 A	875.3	01U060	949.1	06-Aug-89	23 F	935.5
01U050	892.9	14-Dec-87	16 F	885.5	01U060	949.1	02-Nov-89	24 F	934.7
01U050	892.9	27-Jan-88	17 F	885.2	01U060	949.1	26-Apr-90	26 F	935.5
01U050	892.9	13-Apr-88	18 F	887.0	01U060	949.1	25-Mar-91	30 F	935.3
01U050	892.9	30-Aug-88	19 F	885.7	01U060	949.1	11-Mar-92	34 F	937.7
01U050	892.9	22-Nov-88	20 F	886.9	01U060	949.1	02-Mar-93	38 F	935.7
01U050	892.9	05-Aug-89	23 F	888.8	01U062	909.8	14-Dec-87	16 F	904.1
01U050	892.9	02-Nov-89	24 F	886.4	01U062	909.8	27-Jan-88	17 F	903.1
01U050	892.9	27-Apr-90	26 F	886.1	01U062	909.8	13-Apr-88	18 F	904.3
01U050	892.9	01-Apr-91	30 F	888.9	01U062	909.8	30-Aug-88	19 F	902.7
01U050	892.9	16-Mar-92	34 F	890.0	01U062	909.8	22-Nov-88	20 F	903.8
01U050	892.9	02-Mar-93	38 F	886.6	01U062	909.8	09-May-89	22 F	902.5
01U051	901.2	14-Dec-87	16 F	889.0	01U062	909.8	06-Aug-89	23 F	904.6
01U051	901.2	27-Jan-88	17 F	888.6	01U062	909.8	02-Nov-89	24 F	902.9
01U051	901.2	13-Apr-88	18 F	888.8	01U062	909.8	27-Apr-90	26 F	904.3
01U051	901.2	30-Aug-88	19 F	888.7	01U062	909.8	01-Apr-91	30 F	904.7
01U051	901.2	22-Nov-88	20 F	889.0	01U062	909.8	16-Mar-92	34 F	905.1
01U051	901.2	05-Aug-89	23 F	889.4	01U062	909.8	03-Mar-93	38 F	904.3
01U051	901.2	02-Nov-89	24 F	888.5	01U063	892.6	14-Dec-87	16 F	881.7
01U051	901.2	27-Apr-90	26 F	887.8	01U063	892.6	27-Jan-88	17 F	880.5
01U051	901.2	01-Apr-91	30 F	889.2	01U063	892.6	13-Apr-88	18 F	882.3
01U051	901.2	16-Mar-92	34 F	891.7					



**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U063	892.6	30-Aug-88	19 F	879.7	01U067	897.4	19-Aug-91	32 F	893.1
01U063	892.6	22-Nov-88	20 F	879.1	01U067	897.4	22-Oct-91	33 F	893.7
01U063	892.6	06-Aug-89	23 F	880.5	01U067	897.4	21-Dec-91	33 F	895.3
01U063	892.6	02-Nov-89	24 F	879.4	01U067	897.4	18-Feb-92	34 F	894.7
01U063	892.6	27-Apr-90	26 F	879.8	01U067	897.4	04-Mar-92	34 F	896.6
01U063	892.6	01-Apr-91	30 F	882.4	01U067	897.4	13-Apr-92	35 F	895.6
01U063	892.6	04-Mar-92	34 F	885.0	01U067	897.4	16-Jun-92	35 F	893.0
01U063	892.6	09-Nov-92	37 F	884.3	01U067	897.4	21-Aug-92	36 F	892.1
01U063	892.6	01-Dec-92	37 F	884.4	01U067	897.4	20-Oct-92	37 F	894.1
01U063	892.6	01-Feb-93	38 F	882.5	01U067	897.4	01-Dec-92	37 F	894.7
01U063	892.6	01-Mar-93	38 F	882.1	01U067	897.4	01-Feb-93	38 F	893.4
01U063	892.6	20-Apr-93	39 F	884.0	01U067	897.4	01-Mar-93	38 F	893.3
01U063	892.6	15-Jun-93	39 F	885.2	01U067	897.4	20-Apr-93	39 F	896.4
01U063	892.6	16-Aug-93	40 F	886.7	01U067	897.4	15-Jun-93	39 F	894.8
					01U067	897.4	16-Aug-93	40 F	895.8
01U064	958.3	14-Dec-87	16 F	944.1	01U072	908.6	14-Dec-87	16 F	902.2
01U064	958.3	27-Jan-88	17 F	943.9	01U072	908.6	27-Jan-88	17 F	900.6
01U064	958.3	14-Apr-88	18 F	943.9	01U072	908.6	13-Apr-88	18 F	904.1
01U064	958.3	30-Aug-88	19 F	943.7	01U072	908.6	30-Aug-88	19 F	897.4
01U064	958.3	22-Nov-88	20 F	943.4	01U072	908.6	22-Nov-88	20 F	897.7
01U064	958.3	12-May-89	22 F	941.2	01U072	908.6	05-Aug-89	23 F	899.0
01U064	958.3	06-Aug-89	23 F	943.2	01U072	908.6	02-Nov-89	24 F	895.9
01U064	958.3	02-Nov-89	24 F	942.5	01U072	908.6	03-May-90	26 F	896.4
01U064	958.3	22-Mar-90	30 A	940.5	01U072	908.6	01-Apr-91	30 F	901.4
01U064	958.3	11-Sep-90	32 A	941.4	01U072	908.6	13-Mar-92	34 F	903.3
01U064	958.3	16-Mar-92	34 A	941.8	01U072	908.6	02-Mar-93	38 F	901.8
01U064	958.3	08-Oct-92	36 A	939.1					
01U064	958.3	02-Mar-93	38 A	943.8	01U085	889.6	14-Dec-87	16 F	883.3
01U064	958.3	10-Sep-93	40 A	944.7	01U085	889.6	26-Jan-88	17 F	883.8
01U065	882.1	14-Dec-87	16 F	873.0	01U085	889.6	13-Apr-88	18 F	884.3
01U065	882.1	27-Jan-88	17 F	872.7	01U085	889.6	30-Aug-88	19 F	881.1
01U065	882.1	14-Apr-88	18 F	873.3	01U085	889.6	22-Nov-88	20 F	881.5
01U065	882.1	30-Aug-88	19 F	872.5	01U085	889.6	05-Aug-89	23 F	881.6
01U065	882.1	22-Nov-88	20 F	872.5	01U085	889.6	02-Nov-89	24 F	880.6
01U065	882.1	28-Apr-89	22 F	871.5	01U085	889.6	18-Apr-90	26 F	882.5
01U065	882.1	06-Aug-89	23 F	873.3	01U085	889.6	13-Mar-91	30 F	883.7
01U065	882.1	02-Nov-89	24 F	872.5	01U085	889.6	16-Mar-92	34 F	886.0
01U065	882.1	06-Mar-91	30 A	873.0	01U085	889.6	05-Mar-93	38 F	884.2
01U065	882.1	04-Jun-91	31 A	874.8					
01U065	882.1	03-Sep-91	32 A	874.0	01U098	954.7	14-Dec-87	16 F	936.8
01U065	882.1	02-Mar-92	34 A	873.8	01U098	954.7	26-Jan-88	17 F	935.9
01U065	882.1	01-Jun-92	35 A	873.7	01U098	954.7	13-Apr-88	18 F	941.4
01U065	882.1	09-Sep-92	36 A	873.2	01U098	954.7	30-Aug-88	19 F	935.2
01U065	882.1	01-Dec-92	37 A	873.8	01U098	954.7	22-Nov-88	20 F	933.2
01U065	882.1	02-Mar-93	38 A	873.2	01U098	954.7	05-Aug-89	23 F	938.6
01U065	882.1	01-Jun-93	39 A	874.3	01U098	954.7	02-Nov-89	24 F	934.2
01U065	882.1	08-Sep-93	40 A	874.4	01U098	954.7	26-Apr-90	26 F	941.4
					01U098	954.7	25-Mar-91	30 F	941.7
01U067	897.4	14-Dec-87	16 F	892.9	01U098	954.7	11-Mar-92	34 F	943.0
01U067	897.4	28-Jan-88	17 F	892.0	01U098	954.7	03-Mar-93	38 F	938.0
01U067	897.4	13-Apr-88	18 F	893.7					
01U067	897.4	30-Aug-88	19 F	890.3	01U100	905.3	14-Dec-87	16 F	898.7
01U067	897.4	22-Nov-88	20 F	889.6	01U100	905.3	27-Jan-88	17 F	897.7
01U067	897.4	24-Apr-89	22 F	889.5	01U100	905.3	13-Apr-88	18 F	900.7
01U067	897.4	05-Aug-89	23 F	890.6	01U100	905.3	27-Apr-90	26 F	899.0
01U067	897.4	02-Nov-89	24 F	889.6	01U100	905.3	01-Apr-91	30 F	902.7
01U067	897.4	23-Jan-90	25 F	889.0	01U100	905.3	09-Mar-92	34 F	903.6
01U067	897.4	20-Feb-90	25 F	888.8	01U100	905.3	01-Mar-93	38 F	901.0
01U067	897.4	20-Mar-90	25 F	891.2					
01U067	897.4	16-Apr-90	26 F	890.9	01U101	906.8	14-Dec-87	16 F	897.6
01U067	897.4	22-May-90	26 F	891.9	01U101	906.8	27-Jan-88	17 F	897.0
01U067	897.4	19-Jun-90	26 F	892.5	01U101	906.8	13-Apr-88	18 F	898.7
01U067	897.4	17-Jul-90	27 F	891.7	01U101	906.8	30-Aug-88	19 F	893.3
01U067	897.4	21-Aug-90	27 F	891.8	01U101	906.8	22-Nov-88	20 F	893.1
01U067	897.4	18-Sep-90	28 F	892.2	01U101	906.8	24-Apr-89	22 F	894.6
01U067	897.4	02-Nov-90	29 F	891.6	01U101	906.8	05-Aug-89	23 F	893.8
01U067	897.4	18-Dec-90	29 F	891.5	01U101	906.8	02-Nov-89	24 F	892.1
01U067	897.4	19-Feb-91	30 F	890.9	01U101	906.8	23-Jan-90	25 F	891.4
01U067	897.4	19-Mar-91	30 F	892.2	01U101	906.8	20-Feb-90	25 F	891.0
01U067	897.4	16-Apr-91	31 F	895.9	01U101	906.8	20-Mar-90	25 F	891.2
01U067	897.4	18-Jun-91	31 F	893.8	01U101	906.8	16-Apr-90	26 F	892.1
01U067	897.4	18-Jun-91	31 F	893.8	01U101	906.8	26-Apr-90	26 F	893.3
01U067	897.4	30-Jul-91	32 F	896.2	01U101	906.8	22-May-90	26 F	896.1

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U101	906.8	19-Jun-90	26 F	900.0	01U103	904.1	30-Aug-88	19 F	888.7
01U101	906.8	17-Jul-90	27 F	897.7	01U103	904.1	22-Nov-88	20 F	887.2
01U101	906.8	21-Aug-90	26 F	897.8	01U103	904.1	24-Apr-89	22 F	885.2
01U101	906.8	18-Sep-90	28 F	899.6	01U103	904.1	05-Aug-89	23 F	887.8
01U101	906.8	02-Nov-90	29 F	897.1	01U103	904.1	02-Nov-89	24 F	887.0
01U101	906.8	18-Dec-90	29 F	896.9	01U103	904.1	23-Jan-90	25 F	886.5
01U101	906.8	19-Feb-91	30 F	896.5	01U103	904.1	20-Feb-90	25 F	886.3
01U101	906.8	19-Mar-91	30 F	897.8	01U103	904.1	20-Mar-90	25 F	886.7
01U101	906.8	16-Apr-91	31 F	901.1	01U103	904.1	16-Apr-90	26 F	886.5
01U101	906.8	18-Jun-91	31 F	899.4	01U103	904.1	22-May-90	26 F	886.8
01U101	906.8	18-Jun-91	31 F	899.4	01U103	904.1	19-Jun-90	26 F	888.1
01U101	906.8	19-Aug-91	32 F	895.6	01U103	904.1	17-Jul-90	27 F	889.3
01U101	906.8	22-Oct-91	33 F	898.4	01U103	904.1	21-Aug-90	27 F	889.3
01U101	906.8	21-Dec-91	33 F	899.5	01U103	904.1	18-Sep-90	28 F	890.4
01U101	906.8	18-Feb-92	34 F	899.1	01U103	904.1	02-Nov-90	29 F	889.7
01U101	906.8	09-Mar-92	34 F	900.9	01U103	904.1	18-Dec-90	29 F	889.2
01U101	906.8	13-Apr-92	35 F	899.7	01U103	904.1	19-Feb-91	30 F	888.5
01U101	906.8	16-Jun-92	35 F	898.7	01U103	904.1	19-Mar-91	30 F	888.6
01U101	906.8	21-Aug-92	36 F	897.1	01U103	904.1	16-Apr-91	31 F	889.7
01U101	906.8	20-Oct-92	37 F	898.1	01U103	904.1	18-Jun-91	31 F	893.1
01U101	906.8	01-Dec-92	37 F	898.9	01U103	904.1	18-Jun-91	31 F	893.2
01U101	906.8	01-Feb-93	38 F	898.4	01U103	904.1	30-Jul-91	32 F	892.2
01U101	906.8	01-Mar-93	38 F	898.2	01U103	904.1	19-Aug-91	32 F	892.1
					01U103	904.1	22-Oct-91	33 F	893.2
01U102	905.2	14-Dec-87	16 F	890.0	01U103	904.1	21-Dec-91	33 F	893.4
01U102	905.2	26-Jan-88	17 F	889.5	01U103	904.1	18-Feb-92	34 F	892.5
01U102	905.2	13-Apr-88	18 F	888.6	01U103	904.1	05-Mar-92	34 F	893.0
01U102	905.2	30-Aug-88	19 F	888.2	01U103	904.1	13-Apr-92	35 F	893.5
01U102	905.2	22-Nov-88	20 F	887.4	01U103	904.1	16-Jun-92	35 F	892.7
01U102	905.2	24-Apr-89	22 F	884.9	01U103	904.1	21-Aug-92	36 F	891.8
01U102	905.2	05-Aug-89	23 F	887.9	01U103	904.1	20-Oct-92	37 F	892.1
01U102	905.2	02-Nov-89	24 F	887.1	01U103	904.1	01-Dec-92	37 F	892.5
01U102	905.2	23-Jan-90	25 F	886.4	01U103	904.1	01-Feb-93	38 F	891.2
01U102	905.2	20-Feb-90	25 F	886.2	01U103	904.1	01-Mar-93	38 F	890.8
01U102	905.2	20-Mar-90	25 F	886.3	01U103	904.1	20-Apr-93	39 F	891.7
01U102	905.2	16-Apr-90	26 F	886.2	01U103	904.1	15-Jun-93	39 F	893.0
01U102	905.2	22-May-90	26 F	886.3	01U103	904.1	16-Aug-93	40 F	895.6
01U102	905.2	19-Jun-90	26 F	887.4	01U103	904.1	08-Sep-93	40 F	895.8
01U102	905.2	17-Jul-90	27 F	888.6					
01U102	905.2	21-Aug-90	27 F	888.7	01U104	899.1	14-Dec-87	16 F	892.3
01U102	905.2	18-Sep-90	28 F	890.3	01U104	899.1	26-Jan-88	17 F	891.7
01U102	905.2	02-Nov-90	29 F	889.5	01U104	899.1	13-Apr-88	18 F	892.4
01U102	905.2	18-Dec-90	29 F	889.1	01U104	899.1	30-Aug-88	19 F	890.0
01U102	905.2	19-Feb-91	30 F	888.3	01U104	899.1	22-Nov-88	20 F	889.5
01U102	905.2	19-Mar-91	30 F	888.3	01U104	899.1	24-Apr-89	22 F	888.0
01U102	905.2	16-Apr-91	31 F	888.8	01U104	899.1	05-Aug-89	23 F	889.7
01U102	905.2	05-Jun-91	31 F	892.6	01U104	899.1	02-Nov-89	24 F	889.0
01U102	905.2	18-Jun-91	31 F	892.9	01U104	899.1	23-Jan-90	25 F	888.5
01U102	905.2	18-Jun-91	31 F	893.0	01U104	899.1	20-Feb-90	25 F	886.9
01U102	905.2	30-Jul-91	32 F	892.2	01U104	899.1	20-Mar-90	25 F	888.9
01U102	905.2	19-Aug-91	32 F	892.1	01U104	899.1	16-Apr-90	26 F	890.9
01U102	905.2	03-Sep-91	32 F	891.8	01U104	899.1	22-May-90	26 F	889.5
01U102	905.2	22-Oct-91	33 F	893.3	01U104	899.1	19-Jun-90	26 F	890.8
01U102	905.2	21-Dec-91	33 F	893.4	01U104	899.1	17-Jul-90	27 F	891.2
01U102	905.2	18-Feb-92	34 F	892.4	01U104	899.1	21-Aug-90	27 F	891.3
01U102	905.2	09-Mar-92	34 F	892.9	01U104	899.1	18-Sep-90	28 F	892.1
01U102	905.2	13-Apr-92	35 F	893.4	01U104	899.1	02-Nov-90	29 F	891.5
01U102	905.2	01-Jun-92	35 F	893.6	01U104	899.1	18-Dec-90	29 F	891.1
01U102	905.2	16-Jun-92	35 F	893.2	01U104	899.1	19-Feb-91	30 F	890.4
01U102	905.2	21-Aug-92	36 F	892.0	01U104	899.1	19-Mar-91	30 F	891.0
01U102	905.2	01-Sep-92	36 F	891.8	01U104	899.1	16-Apr-91	31 F	893.2
01U102	905.2	20-Oct-92	37 F	892.1	01U104	899.1	18-Jun-91	31 F	894.5
01U102	905.2	01-Dec-92	37 F	892.3	01U104	899.1	18-Jun-91	31 F	894.6
01U102	905.2	01-Feb-93	38 F	891.3	01U104	899.1	30-Jul-91	32 F	895.3
01U102	905.2	02-Mar-93	38 F	890.7	01U104	899.1	19-Aug-91	32 F	893.1
01U102	905.2	20-Apr-93	39 F	891.0	01U104	899.1	22-Oct-91	33 F	894.7
01U102	905.2	02-Jun-93	39 F	892.8	01U104	899.1	21-Dec-91	33 F	895.6
01U102	905.2	16-Aug-93	40 F	897.3	01U104	899.1	18-Feb-92	34 F	894.6
01U102	905.2	16-Aug-93	40 F	897.3	01U104	899.1	06-Mar-92	34 F	896.6
01U102	905.2	08-Sep-93	40 F	895.8	01U104	899.1	13-Apr-92	35 F	895.8
					01U104	899.1	16-Jun-92	35 F	893.8
01U103	904.1	14-Dec-87	16 F	890.4	01U104	899.1	21-Aug-92	36 F	892.6
01U103	904.1	26-Jan-88	17 F	889.8	01U104	899.1	20-Oct-92	37 F	894.1
01U103	904.1	13-Apr-88	18 F	889.7	01U104	899.1	01-Dec-92	37 F	894.6

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U104	899.1	01-Feb-93	38 F	891.9	01U106	896.8	21-Dec-91	33 F	893.8
01U104	899.1	01-Mar-93	38 F	892.8	01U106	896.8	18-Feb-92	34 F	892.7
01U104	899.1	20-Apr-93	39 F	894.9	01U106	896.8	05-Mar-92	34 F	893.9
01U104	899.1	15-Jun-93	39 F	895.4	01U106	896.8	13-Apr-92	35 F	893.8
01U104	899.1	16-Aug-93	40 F	896.8	01U106	896.8	16-Jun-92	35 F	892.9
					01U106	896.8	21-Aug-92	36 F	891.9
01U105	901.4	14-Dec-87	16 F	893.8	01U106	896.8	20-Oct-92	37 F	892.4
01U105	901.4	26-Jan-88	17 F	893.2	01U106	896.8	01-Dec-92	37 F	892.7
01U105	901.4	13-Apr-88	18 F	893.2	01U106	896.8	01-Feb-93	38 F	891.3
01U105	901.4	30-Aug-88	19 F	891.6	01U106	896.8	01-Mar-93	38 F	891.2
01U105	901.4	22-Nov-88	20 F	891.1	01U106	896.8	20-Apr-93	39 F	894.2
01U105	901.4	24-Apr-89	22 F	889.2	01U106	896.8	15-Jun-93	39 F	893.6
01U105	901.4	05-Aug-89	23 F	891.5	01U106	896.8	16-Aug-93	40 F	899.7
01U105	901.4	02-Nov-89	24 F	890.6					
01U105	901.4	23-Jan-90	25 F	890.0	01U107	899.2	14-Dec-87	16 F	890.7
01U105	901.4	20-Feb-90	25 F	891.1	01U107	899.2	26-Jan-88	17 F	890.1
01U105	901.4	20-Mar-90	25 F	890.3	01U107	899.2	13-Apr-88	18 F	890.3
01U105	901.4	16-Apr-90	26 F	890.4	01U107	899.2	30-Aug-88	19 F	889.0
01U105	901.4	22-May-90	26 F	891.2	01U107	899.2	22-Nov-88	20 F	888.1
01U105	901.4	19-Jun-90	26 F	893.2	01U107	899.2	24-Apr-89	22 F	886.9
01U105	901.4	17-Jul-90	27 F	893.3	01U107	899.2	05-Aug-89	23 F	888.9
01U105	901.4	21-Aug-90	27 F	893.3	01U107	899.2	02-Nov-89	24 F	887.7
01U105	901.4	18-Sep-90	28 F	894.1	01U107	899.2	23-Jan-90	25 F	887.0
01U105	901.4	02-Nov-90	29 F	892.6	01U107	899.2	20-Feb-90	25 F	887.1
01U105	901.4	18-Dec-90	29 F	891.2	01U107	899.2	20-Mar-90	25 F	887.3
01U105	901.4	19-Feb-91	30 F	890.5	01U107	899.2	16-Apr-90	26 F	887.1
01U105	901.4	19-Mar-91	30 F	892.4	01U107	899.2	26-Apr-90	26 F	887.0
01U105	901.4	16-Apr-91	31 F	894.5	01U107	899.2	22-May-90	26 F	887.3
01U105	901.4	18-Jun-91	31 F	896.4	01U107	899.2	19-Jun-90	26 F	888.5
01U105	901.4	18-Jun-91	31 F	895.7	01U107	899.2	17-Jul-90	27 F	889.7
01U105	901.4	30-Jul-91	32 F	896.4	01U107	899.2	21-Aug-90	27 F	889.8
01U105	901.4	19-Aug-91	32 F	894.4	01U107	899.2	18-Sep-90	28 F	891.5
01U105	901.4	22-Oct-91	33 F	896.3	01U107	899.2	02-Nov-90	29 F	890.3
01U105	901.4	21-Dec-91	33 F	897.2	01U107	899.2	18-Dec-90	29 F	889.8
01U105	901.4	18-Feb-92	34 F	896.1	01U107	899.2	19-Feb-91	30 F	889.3
01U105	901.4	06-Mar-92	34 F	898.0	01U107	899.2	19-Mar-91	30 F	889.3
01U105	901.4	13-Apr-92	35 F	897.3	01U107	899.2	16-Apr-91	31 F	891.1
01U105	901.4	16-Jun-92	35 F	895.5	01U107	899.2	18-Jun-91	31 F	894.1
01U105	901.4	21-Aug-92	36 F	894.3	01U107	899.2	18-Jun-91	31 F	894.0
01U105	901.4	20-Oct-92	37 F	895.6	01U107	899.2	30-Jul-91	32 F	893.2
01U105	901.4	01-Dec-92	37 F	896.2	01U107	899.2	19-Aug-91	32 F	892.7
01U105	901.4	01-Feb-93	38 F	896.0	01U107	899.2	22-Oct-91	33 F	893.8
01U105	901.4	01-Mar-93	38 F	893.7	01U107	899.2	21-Dec-91	33 F	894.5
01U105	901.4	20-Apr-93	39 F	896.0	01U107	899.2	18-Feb-92	34 F	893.3
01U105	901.4	15-Jun-93	39 F	896.0	01U107	899.2	04-Mar-92	34 F	894.5
01U105	901.4	16-Aug-93	40 F	894.0	01U107	899.2	13-Apr-92	35 F	894.5
					01U107	899.2	16-Jun-92	35 F	893.4
01U106	896.8	14-Dec-87	16 F	890.4	01U107	899.2	21-Aug-92	36 F	892.3
01U106	896.8	26-Jan-88	17 F	889.6	01U107	899.2	20-Oct-92	37 F	893.0
01U106	896.8	13-Apr-88	18 F	889.1	01U107	899.2	01-Dec-92	37 F	893.5
01U106	896.8	30-Aug-88	19 F	888.6	01U107	899.2	01-Feb-93	38 F	892.1
01U106	896.8	22-Nov-88	20 F	887.6	01U107	899.2	01-Mar-93	38 F	891.9
01U106	896.8	24-Apr-89	22 F	885.6	01U107	899.2	20-Apr-93	39 F	894.7
01U106	896.8	05-Aug-89	23 F	888.1	01U107	899.2	15-Jun-93	39 F	894.2
01U106	896.8	02-Nov-89	24 F	887.3	01U107	899.2	16-Aug-93	40 F	897.0
01U106	896.8	23-Jan-90	25 F	886.6					
01U106	896.8	20-Feb-90	25 F	886.3	01U108	904.3	14-Dec-87	16 F	890.4
01U106	896.8	20-Mar-90	25 F	887.9	01U108	904.3	26-Jan-88	17 F	890.0
01U106	896.8	16-Apr-90	26 F	886.8	01U108	904.3	13-Apr-88	18 F	889.7
01U106	896.8	22-May-90	26 F	886.9	01U108	904.3	30-Aug-88	19 F	888.8
01U106	896.8	19-Jun-90	26 F	888.1	01U108	904.3	22-Nov-88	20 F	885.9
01U106	896.8	17-Jul-90	27 F	889.2	01U108	904.3	24-Apr-89	22 F	885.4
01U106	896.8	21-Aug-90	27 F	889.2	01U108	904.3	05-Aug-89	23 F	886.7
01U106	896.8	18-Sep-90	28 F	890.2	01U108	904.3	02-Nov-89	24 F	886.0
01U106	896.8	02-Nov-90	29 F	889.9	01U108	904.3	23-Jan-90	25 F	885.9
01U106	896.8	18-Dec-90	29 F	889.5	01U108	904.3	20-Feb-90	25 F	885.7
01U106	896.8	19-Feb-91	30 F	889.0	01U108	904.3	20-Mar-90	25 F	885.8
01U106	896.8	19-Mar-91	30 F	889.2	01U108	904.3	16-Apr-90	26 F	885.8
01U106	896.8	16-Apr-91	31 F	890.4	01U108	904.3	22-May-90	26 F	886.3
01U106	896.8	18-Jun-91	31 F	893.5	01U108	904.3	19-Jun-90	26 F	887.5
01U106	896.8	18-Jun-91	31 F	893.3	01U108	904.3	17-Jul-90	27 F	888.9
01U106	896.8	30-Jul-91	32 F	892.5	01U108	904.3	21-Aug-90	27 F	889.0
01U106	896.8	19-Aug-91	32 F	892.3	01U108	904.3	18-Sep-90	28 F	889.8
01U106	896.8	22-Oct-91	33 F	893.3	01U108	904.3	02-Nov-90	29 F	890.7

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U108	904.3	18-Dec-90	29 F	896.4	01U110	897.2	02-Nov-89	24 F	890.0
01U108	904.3	19-Feb-91	30 F	887.8	01U110	897.2	23-Jan-90	25 F	889.6
01U108	904.3	19-Mar-91	30 F	888.3	01U110	897.2	20-Feb-90	25 F	889.4
01U108	904.3	16-Apr-91	31 F	888.8	01U110	897.2	20-Mar-90	25 F	890.6
01U108	904.3	04-Jun-91	31 F	889.9	01U110	897.2	16-Apr-90	26 F	890.4
01U108	904.3	18-Jun-91	31 F	892.2	01U110	897.2	22-May-90	26 F	891.9
01U108	904.3	18-Jun-91	31 F	892.3	01U110	897.2	19-Jun-90	26 F	887.4
01U108	904.3	30-Jul-91	32 F	891.0	01U110	897.2	17-Jul-90	27 F	893.0
01U108	904.3	19-Aug-91	32 F	891.2	01U110	897.2	21-Aug-90	27 F	893.0
01U108	904.3	03-Sep-91	32 F	890.8	01U110	897.2	18-Sep-90	28 F	893.4
01U108	904.3	22-Oct-91	33 F	892.5	01U110	897.2	02-Nov-90	29 F	886.6
01U108	904.3	21-Dec-91	33 F	892.2	01U110	897.2	18-Dec-90	29 F	892.7
01U108	904.3	18-Feb-92	34 F	891.8	01U110	897.2	19-Feb-91	30 F	891.8
01U108	904.3	05-Mar-92	34 F	891.8	01U110	897.2	19-Mar-91	30 F	892.8
01U108	904.3	13-Apr-92	35 F	892.7	01U110	897.2	16-Apr-91	31 F	895.8
01U108	904.3	01-Jun-92	35 F	892.6	01U110	897.2	18-Jun-91	31 F	895.7
01U108	904.3	16-Jun-92	35 F	891.6	01U110	897.2	18-Jun-91	31 F	895.6
01U108	904.3	21-Aug-92	36 F	890.9	01U110	897.2	30-Jul-91	32 F	896.8
01U108	904.3	01-Sep-92	36 F	890.7	01U110	897.2	19-Aug-91	32 F	894.5
01U108	904.3	20-Oct-92	37 F	891.9	01U110	897.2	22-Oct-91	33 F	895.4
01U108	904.3	01-Dec-92	37 F	891.7	01U110	897.2	21-Dec-91	33 F	896.2
01U108	904.3	01-Feb-93	38 F	890.4	01U110	897.2	18-Feb-92	34 F	895.9
01U108	904.3	01-Mar-93	38 F	890.1	01U110	897.2	04-Mar-92	34 F	896.4
01U108	904.3	20-Apr-93	39 F	890.6	01U110	897.2	13-Apr-92	35 F	896.0
01U108	904.3	01-Jun-93	39 F	892.2	01U110	897.2	16-Jun-92	35 F	895.1
01U108	904.3	16-Aug-93	40 F	895.8	01U110	897.2	21-Aug-92	36 F	893.2
01U108	904.3	29-Oct-93	40 F	892.7	01U110	897.2	20-Oct-92	37 F	895.3
01U109	903.0	14-Dec-87	16 F	893.8	01U110	897.2	01-Dec-92	37 F	889.3
01U109	903.0	26-Jan-88	17 F	892.8	01U110	897.2	01-Feb-93	38 F	894.4
01U109	903.0	13-Apr-88	18 F	895.0	01U110	897.2	01-Mar-93	38 F	894.1
01U109	903.0	30-Aug-88	19 F	890.7	01U110	897.2	20-Apr-93	39 F	896.2
01U109	903.0	22-Nov-88	20 F	890.8	01U110	897.2	15-Jun-93	39 F	895.9
01U109	903.0	05-Aug-89	23 F	891.0	01U110	897.2	16-Aug-93	40 F	899.8
01U109	903.0	23-Jan-90	25 F	Dry	01U115	900.3	14-Dec-87	16 F	887.8
01U109	903.0	20-Feb-90	25 F	Dry	01U115	900.3	26-Jan-88	17 F	887.3
01U109	903.0	20-Mar-90	25 F	890.9	01U115	900.3	13-Apr-88	18 F	886.6
01U109	903.0	16-Apr-90	26 F	890.7	01U115	900.3	30-Aug-88	19 F	886.1
01U109	903.0	22-May-90	26 F	891.9	01U115	900.3	22-Nov-88	20 F	885.4
01U109	903.0	19-Jun-90	26 F	900.1	01U115	900.3	24-Apr-89	22 F	883.3
01U109	903.0	17-Jul-90	27 F	892.6	01U115	900.3	05-Aug-89	23 F	886.3
01U109	903.0	21-Aug-90	27 F	892.6	01U115	900.3	02-Nov-89	24 F	885.4
01U109	903.0	18-Sep-90	28 F	895.1	01U115	900.3	23-Jan-90	25 F	884.6
01U109	903.0	02-Nov-90	29 F	898.9	01U115	900.3	20-Feb-90	25 F	884.3
01U109	903.0	18-Dec-90	29 F	892.3	01U115	900.3	20-Mar-90	25 F	884.2
01U109	903.0	19-Feb-91	30 F	891.5	01U115	900.3	16-Apr-90	26 F	884.2
01U109	903.0	19-Mar-91	30 F	892.9	01U115	900.3	22-May-90	26 F	884.4
01U109	903.0	16-Apr-91	31 F	895.5	01U115	900.3	19-Jun-90	26 F	885.4
01U109	903.0	18-Jun-91	31 F	895.0	01U115	900.3	17-Jul-90	27 F	886.4
01U109	903.0	18-Jun-91	31 F	895.2	01U115	900.3	21-Aug-90	27 F	886.5
01U109	903.0	30-Jul-91	32 F	896.7	01U115	900.3	18-Sep-90	28 F	887.9
01U109	903.0	19-Aug-91	32 F	893.9	01U115	900.3	02-Nov-90	29 F	887.6
01U109	903.0	22-Oct-91	33 F	895.1	01U115	900.3	18-Dec-90	29 F	887.2
01U109	903.0	21-Dec-91	33 F	896.0	01U115	900.3	19-Feb-91	30 F	886.6
01U109	903.0	18-Feb-92	34 F	895.7	01U115	900.3	19-Mar-91	30 F	886.2
01U109	903.0	04-Mar-92	34 F	896.4	01U115	900.3	16-Apr-91	31 F	886.4
01U109	903.0	13-Apr-92	35 F	895.8	01U115	900.3	05-Jun-91	31 F	889.2
01U109	903.0	16-Jun-92	35 F	894.6	01U115	900.3	18-Jun-91	31 F	889.8
01U109	903.0	21-Aug-92	36 F	892.8	01U115	900.3	18-Jun-91	31 F	889.8
01U109	903.0	20-Oct-92	37 F	895.2	01U115	900.3	30-Jul-91	32 F	890.0
01U109	903.0	01-Dec-92	37 F	901.9	01U115	900.3	19-Aug-91	32 F	889.9
01U109	903.0	01-Feb-93	38 F	894.5	01U115	900.3	03-Sep-91	32 F	889.5
01U109	903.0	01-Mar-93	38 F	893.8	01U115	900.3	22-Oct-91	33 F	890.9
01U109	903.0	20-Apr-93	39 F	895.9	01U115	900.3	21-Dec-91	33 F	890.8
01U109	903.0	15-Jun-93	39 F	895.4	01U115	900.3	18-Feb-92	34 F	890.1
01U109	903.0	16-Aug-93	40 F	896.0	01U115	900.3	09-Mar-92	34 F	890.2
01U110	897.2	14-Dec-87	16 F	893.8	01U115	900.3	13-Apr-92	35 F	890.7
01U110	897.2	26-Jan-88	17 F	892.8	01U115	900.3	01-Jun-92	35 F	891.2
01U110	897.2	13-Apr-88	18 F	892.0	01U115	900.3	16-Jun-92	35 F	890.9
01U110	897.2	30-Aug-88	19 F	890.8	01U115	900.3	21-Aug-92	36 F	890.0
01U110	897.2	22-Nov-88	20 F	891.0	01U115	900.3	01-Sep-92	36 F	889.8
01U110	897.2	24-Apr-89	22 F	889.8	01U115	900.3	20-Oct-92	37 F	889.7
01U110	897.2	06-Aug-89	23 F	891.1	01U115	900.3	01-Dec-92	37 F	889.7
					01U115	900.3	01-Feb-93	38 F	889.0

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U115	900.3	01-Mar-93	38 F	888.4	01U117	902.7	22-Oct-91	33 F	891.4
01U115	900.3	20-Apr-93	39 F	888.3	01U117	902.7	21-Dec-91	33 F	891.5
01U115	900.3	01-Jun-93	39 F	889.7	01U117	902.7	18-Feb-92	34 F	890.7
01U115	900.3	16-Aug-93	40 F	893.8	01U117	902.7	09-Mar-92	34 F	890.9
01U115	900.3	07-Sep-93	40 F	893.2	01U117	902.7	13-Apr-92	35 F	891.4
					01U117	902.7	16-Jun-92	35 F	891.4
01U116	902.7	14-Dec-87	16 F	888.1	01U117	902.7	21-Aug-92	36 F	890.4
01U116	902.7	26-Jan-88	17 F	887.5	01U117	902.7	20-Oct-92	37 F	890.3
01U116	902.7	14-Apr-88	18 F	886.9	01U117	902.7	01-Dec-92	37 F	890.4
01U116	902.7	30-Aug-88	19 F	886.4	01U117	902.7	01-Feb-93	38 F	889.6
01U116	902.7	22-Nov-88	20 F	885.8	01U117	902.7	02-Mar-93	38 F	889.3
01U116	902.7	24-Apr-89	22 F	885.7	01U117	902.7	20-Apr-93	39 F	889.4
01U116	902.7	05-Aug-89	23 F	886.5	01U117	902.7	01-Jun-93	39 F	890.9
01U116	902.7	02-Nov-89	24 F	885.5	01U117	902.7	16-Aug-93	40 F	894.7
01U116	902.7	23-Jan-90	25 F	884.9	01U117	902.7	07-Sep-93	40 F	894.0
01U116	902.7	20-Feb-90	25 F	884.6					
01U116	902.7	20-Mar-90	25 F	884.5	01U118	901.8	14-Dec-87	16 F	889.2
01U116	902.7	16-Apr-90	26 F	884.5	01U118	901.8	27-Jan-88	17 F	888.6
01U116	902.7	22-May-90	26 F	884.7	01U118	901.8	13-Apr-88	18 F	886.9
01U116	902.7	19-Jun-90	26 F	885.7	01U118	901.8	30-Aug-88	19 F	886.9
01U116	902.7	17-Jul-90	27 F	886.7	01U118	901.8	22-Nov-88	20 F	886.7
01U116	902.7	21-Aug-90	27 F	886.8	01U118	901.8	24-Apr-89	22 F	884.2
01U116	902.7	18-Sep-90	28 F	888.2	01U118	901.8	05-Aug-89	23 F	887.4
01U116	902.7	02-Nov-90	29 F	887.8	01U118	901.8	02-Nov-89	24 F	886.5
01U116	902.7	18-Dec-90	29 F	887.4	01U118	901.8	23-Jan-90	25 F	885.7
01U116	902.7	19-Feb-91	30 F	886.8	01U118	901.8	20-Feb-90	25 F	885.5
01U116	902.7	19-Mar-91	30 F	886.4	01U118	901.8	20-Mar-90	25 F	885.3
01U116	902.7	16-Apr-91	31 F	886.8	01U118	901.8	16-Apr-90	26 F	885.2
01U116	902.7	18-Jun-91	31 F	890.1	01U118	901.8	27-Apr-90	26 F	885.2
01U116	902.7	18-Jun-91	31 F	890.1	01U118	901.8	22-May-90	26 F	885.2
01U116	902.7	30-Jul-91	32 F	890.2	01U118	901.8	19-Jun-90	26 F	886.2
01U116	902.7	19-Aug-91	32 F	890.1	01U118	901.8	17-Jul-90	27 F	887.6
01U116	902.7	22-Oct-91	33 F	891.1	01U118	901.8	21-Aug-90	27 F	887.6
01U116	902.7	21-Dec-91	33 F	891.1	01U118	901.8	18-Sep-90	28 F	888.7
01U116	902.7	18-Feb-92	34 F	890.3	01U118	901.8	02-Nov-90	29 F	889.0
01U116	902.7	06-Mar-92	34 F	890.3	01U118	901.8	18-Dec-90	29 F	888.5
01U116	902.7	13-Apr-92	35 F	890.9	01U118	901.8	19-Feb-91	30 F	887.8
01U116	902.7	16-Jun-92	35 F	891.1	01U118	901.8	19-Mar-91	30 F	887.5
01U116	902.7	21-Aug-92	36 F	890.1	01U118	901.8	16-Apr-91	31 F	888.0
01U116	902.7	20-Oct-92	37 F	890.0	01U118	901.8	18-Jun-91	31 F	892.6
01U116	902.7	01-Dec-92	37 F	890.0	01U118	901.8	18-Jun-91	31 F	892.6
01U116	902.7	01-Feb-93	38 F	889.2	01U118	901.8	30-Jul-91	32 F	890.8
01U116	902.7	01-Mar-93	38 F	888.8	01U118	901.8	19-Aug-91	32 F	891.4
01U116	902.7	20-Apr-93	39 F	888.7	01U118	901.8	22-Oct-91	33 F	892.8
01U116	902.7	15-Jun-93	39 F	890.4	01U118	901.8	21-Dec-91	33 F	893.0
01U116	902.7	16-Aug-93	40 F	894.0	01U118	901.8	18-Feb-92	34 F	891.9
					01U118	901.8	04-Mar-92	34 F	891.8
01U117	902.7	14-Dec-87	16 F	888.4	01U118	901.8	13-Apr-92	35 F	893.0
01U117	902.7	26-Jan-88	17 F	888.3	01U118	901.8	16-Jun-92	35 F	891.6
01U117	902.7	13-Apr-88	18 F	887.2	01U118	901.8	21-Aug-92	36 F	891.2
01U117	902.7	30-Aug-88	19 F	886.8	01U118	901.8	20-Oct-92	37 F	891.4
01U117	902.7	22-Nov-88	20 F	886.2	01U118	901.8	01-Dec-92	37 F	891.8
01U117	902.7	24-Apr-89	22 F	884.2	01U118	901.8	01-Feb-93	38 F	890.7
01U117	902.7	05-Aug-89	23 F	886.8	01U118	901.8	01-Mar-93	38 F	890.3
01U117	902.7	02-Nov-89	24 F	886.0	01U118	901.8	20-Apr-93	39 F	890.6
01U117	902.7	23-Jan-90	25 F	885.1	01U118	901.8	15-Jun-93	39 F	893.5
01U117	902.7	20-Feb-90	25 F	884.9	01U118	901.8	16-Aug-93	40 F	896.1
01U117	902.7	20-Mar-90	25 F	884.8					
01U117	902.7	16-Apr-90	26 F	884.8	01U119	898.1	14-Dec-87	16 F	891.9
01U117	902.7	27-Apr-90	26 F	884.8	01U119	898.1	27-Jan-88	17 F	891.3
01U117	902.7	22-May-90	26 F	885.1	01U119	898.1	13-Apr-88	18 F	891.9
01U117	902.7	19-Jun-90	26 F	886.1	01U119	898.1	30-Aug-88	19 F	889.7
01U117	902.7	17-Jul-90	27 F	887.1	01U119	898.1	22-Nov-88	20 F	889.0
01U117	902.7	21-Aug-90	27 F	887.2	01U119	898.1	24-Apr-89	22 F	887.9
01U117	902.7	18-Sep-90	28 F	888.6	01U119	898.1	05-Aug-89	23 F	889.4
01U117	902.7	02-Nov-90	29 F	888.1	01U119	898.1	02-Nov-89	24 F	888.5
01U117	902.7	18-Dec-90	29 F	887.7	01U119	898.1	23-Jan-90	25 F	888.0
01U117	902.7	19-Feb-91	30 F	886.9	01U119	898.1	20-Feb-90	25 F	887.8
01U117	902.7	19-Mar-91	30 F	886.7	01U119	898.1	20-Mar-90	25 F	888.4
01U117	902.7	16-Apr-91	31 F	887.2	01U119	898.1	16-Apr-90	26 F	888.3
01U117	902.7	18-Jun-91	31 F	890.6	01U119	898.1	27-Apr-90	26 F	888.3
01U117	902.7	18-Jun-91	31 F	890.6	01U119	898.1	22-May-90	26 F	888.9
01U117	902.7	30-Jul-91	32 F	890.5	01U119	898.1	19-Jun-90	26 F	890.4
01U117	902.7	19-Aug-91	32 F	890.4	01U119	898.1	17-Jul-90	27 F	890.8

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U119	898.1	21-Aug-90	27 F	890.9	01U122	901.0	02-Nov-89	24 F	893.7
01U119	898.1	18-Sep-90	28 F	891.8	01U122	901.0	27-Apr-90	26 F	898.0
01U119	898.1	02-Nov-90	29 F	891.1	01U122	901.0	01-Apr-91	30 F	899.7
01U119	898.1	18-Dec-90	29 F	890.7	01U122	901.0	09-Mar-92	34 F	900.1
01U119	898.1	19-Feb-91	30 F	890.0	01U122	901.0	01-Mar-93	38 F	896.6
01U119	898.1	19-Mar-91	30 F	890.5					
01U119	898.1	16-Apr-91	31 F	892.7	01U125	901.1	14-Dec-87	16 F	888.5
01U119	898.1	18-Jun-91	31 F	894.4	01U125	901.1	26-Jan-88	17 F	887.9
01U119	898.1	18-Jun-91	31 F	894.4	01U125	901.1	13-Apr-88	18 F	887.2
01U119	898.1	30-Jul-91	32 F	894.9	01U125	901.1	30-Aug-88	19 F	886.8
01U119	898.1	19-Aug-91	32 F	893.1	01U125	901.1	22-Nov-88	20 F	886.2
01U119	898.1	22-Oct-91	33 F	894.3	01U125	901.1	24-Apr-89	22 F	884.1
01U119	898.1	21-Dec-91	33 F	895.2	01U125	901.1	05-Aug-89	23 F	887.3
01U119	898.1	18-Feb-92	34 F	894.1	01U125	901.1	02-Nov-89	24 F	886.3
01U119	898.1	06-Mar-92	34 F	895.9	01U125	901.1	23-Jan-90	25 F	885.3
01U119	898.1	13-Apr-92	35 F	895.3	01U125	901.1	20-Feb-90	25 F	885.0
01U119	898.1	16-Jun-92	35 F	893.7	01U125	901.1	20-Mar-90	25 F	884.8
01U119	898.1	21-Aug-92	36 F	892.6	01U125	901.1	16-Apr-90	26 F	884.7
01U119	898.1	20-Oct-92	37 F	893.7	01U125	901.1	01-May-90	26 F	884.6
01U119	898.1	01-Dec-92	37 F	894.1	01U125	901.1	22-May-90	26 F	884.8
01U119	898.1	01-Feb-93	38 F	892.7	01U125	901.1	19-Jun-90	26 F	885.9
01U119	898.1	01-Mar-93	38 F	892.4	01U125	901.1	17-Jul-90	27 F	885.0
01U119	898.1	20-Apr-93	39 F	894.3	01U125	901.1	21-Aug-90	27 F	885.0
01U119	898.1	15-Jun-93	39 F	894.6	01U125	901.1	18-Sep-90	28 F	888.6
01U119	898.1	16-Aug-93	40 F	896.7	01U125	901.1	02-Nov-90	29 F	888.2
					01U125	901.1	18-Dec-90	29 F	887.8
01U120	902.2	14-Dec-87	16 F	890.0	01U125	901.1	19-Feb-91	30 F	888.2
01U120	902.2	26-Jan-88	17 F	889.3	01U125	901.1	19-Mar-91	30 F	886.8
01U120	902.2	13-Apr-88	18 F	888.5	01U125	901.1	16-Apr-91	31 F	886.8
01U120	902.2	30-Aug-88	19 F	888.3	01U125	901.1	18-Jun-91	31 F	891.2
01U120	902.2	22-Nov-88	20 F	887.5	01U125	901.1	18-Jun-91	31 F	890.6
01U120	902.2	24-Apr-89	22 F	885.6	01U125	901.1	30-Jul-91	32 F	890.6
01U120	902.2	05-Aug-89	23 F	888.0	01U125	901.1	19-Aug-91	32 F	890.7
01U120	902.2	02-Nov-89	24 F	887.2	01U125	901.1	22-Oct-91	33 F	891.8
01U120	902.2	23-Jan-90	25 F	886.5	01U125	901.1	21-Dec-91	33 F	891.7
01U120	902.2	20-Feb-90	25 F	886.2	01U125	901.1	18-Feb-92	34 F	890.9
01U120	902.2	20-Mar-90	25 F	886.3	01U125	901.1	05-Mar-92	34 F	890.7
01U120	902.2	16-Apr-90	26 F	886.4	01U125	901.1	13-Apr-92	35 F	891.5
01U120	902.2	27-Apr-90	26 F	886.4	01U125	901.1	16-Jun-92	35 F	891.8
01U120	902.2	22-May-90	26 F	886.8	01U125	901.1	21-Aug-92	36 F	890.8
01U120	902.2	19-Jun-90	26 F	888.0	01U125	901.1	20-Oct-92	37 F	890.5
01U120	902.2	17-Jul-90	27 F	889.0	01U125	901.1	01-Dec-92	37 F	890.5
01U120	902.2	21-Aug-90	27 F	889.0	01U125	901.1	01-Feb-93	38 F	889.8
01U120	902.2	18-Sep-90	28 F	890.2	01U125	901.1	02-Mar-93	38 F	889.2
01U120	902.2	02-Nov-90	29 F	889.4	01U125	901.1	20-Apr-93	39 F	889.0
01U120	902.2	18-Dec-90	29 F	889.1	01U125	901.1	15-Jun-93	39 F	894.4
01U120	902.2	19-Feb-91	30 F	889.4	01U125	901.1	16-Aug-93	40 F	894.4
01U120	902.2	19-Mar-91	30 F	888.3					
01U120	902.2	16-Apr-91	31 F	889.1	01U126	903.3	14-Dec-87	16 F	889.2
01U120	902.2	18-Jun-91	31 F	892.3	01U126	903.3	26-Jan-88	17 F	888.6
01U120	902.2	18-Jun-91	31 F	892.4	01U126	903.3	13-Apr-88	18 F	887.6
01U120	902.2	30-Jul-91	32 F	891.8	01U126	903.3	30-Aug-88	19 F	887.5
01U120	902.2	19-Aug-91	32 F	891.6	01U126	903.3	22-Nov-88	20 F	887.0
01U120	902.2	22-Oct-91	33 F	892.5	01U126	903.3	24-Apr-89	22 F	884.5
01U120	902.2	21-Dec-91	33 F	892.8	01U126	903.3	05-Aug-89	23 F	887.5
01U120	902.2	18-Feb-92	34 F	892.0	01U126	903.3	02-Nov-89	24 F	886.6
01U120	902.2	06-Mar-92	34 F	892.4	01U126	903.3	23-Jan-90	25 F	886.0
01U120	902.2	13-Apr-92	35 F	892.8	01U126	903.3	20-Feb-90	25 F	885.9
01U120	902.2	16-Jun-92	35 F	892.4	01U126	903.3	20-Mar-90	25 F	885.9
01U120	902.2	21-Aug-92	36 F	891.5	01U126	903.3	16-Apr-90	26 F	885.8
01U120	902.2	20-Oct-92	37 F	891.7	01U126	903.3	01-May-90	26 F	885.8
01U120	902.2	01-Dec-92	37 F	891.8	01U126	903.3	22-May-90	26 F	886.1
01U120	902.2	01-Feb-93	38 F	890.8	01U126	903.3	19-Jun-90	26 F	887.1
01U120	902.2	01-Mar-93	38 F	890.3	01U126	903.3	17-Jul-90	27 F	888.3
01U120	902.2	20-Apr-93	39 F	890.8	01U126	903.3	21-Aug-90	27 F	888.3
01U120	902.2	15-Jun-93	39 F	892.2	01U126	903.3	18-Sep-90	28 F	889.7
01U120	902.2	16-Aug-93	40 F	894.8	01U126	903.3	02-Nov-90	29 F	888.9
					01U126	903.3	18-Dec-90	29 F	888.6
01U122	901.0	14-Dec-87	16 F	897.5	01U126	903.3	19-Feb-91	30 F	888.0
01U122	901.0	26-Jan-88	17 F	895.9	01U126	903.3	19-Mar-91	30 F	887.7
01U122	901.0	13-Apr-88	18 F	898.3	01U126	903.3	16-Apr-91	31 F	888.3
01U122	901.0	30-Aug-88	19 F	893.8	01U126	903.3	18-Jun-91	31 F	891.9
01U122	901.0	22-Nov-88	20 F	894.9	01U126	903.3	18-Jun-91	31 F	891.9
01U122	901.0	05-Aug-89	23 F	894.6	01U126	903.3	30-Jul-91	32 F	891.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U126	903.3	19-Aug-91	32 F	891.5	01U128	881.3	08-Sep-93	40 A	875.2
01U126	903.3	22-Oct-91	33 F	892.5					
01U126	903.3	21-Dec-91	33 F	892.5	01U130	888.7	14-Dec-87	16 F	880.3
01U126	903.3	18-Feb-92	34 F	891.7	01U130	888.7	27-Jan-88	17 F	880.0
01U126	903.3	09-Mar-92	34 F	892.1	01U130	888.7	13-Apr-88	18 F	880.5
01U126	903.3	13-Apr-92	35 F	892.6	01U130	888.7	30-Aug-88	19 F	880.4
01U126	903.3	16-Jun-92	35 F	892.5	01U130	888.7	22-Nov-88	20 F	880.5
01U126	903.3	21-Aug-92	36 F	891.3	01U130	888.7	06-Aug-89	23 F	881.1
01U126	903.3	20-Oct-92	37 F	891.4	01U130	888.7	02-Nov-89	24 F	880.2
01U126	903.3	01-Dec-92	37 F	891.5	01U130	888.7	01-Apr-91	30 F	881.3
01U126	903.3	01-Feb-93	38 F	890.7	01U130	888.7	16-Mar-92	34 F	881.6
01U126	903.3	02-Mar-93	38 F	890.1	01U130	888.7	02-Mar-93	38 F	880.7
01U126	903.3	20-Apr-93	39 F	890.5					
01U126	903.3	15-Jun-93	39 F	892.2	01U133	900.7	14-Dec-87	16 F	891.1
01U126	903.3	16-Aug-93	40 F	896.1	01U133	900.7	26-Jan-88	17 F	890.7
					01U133	900.7	13-Apr-88	18 F	890.9
01U127	902.9	14-Dec-87	16 F	890.0	01U133	900.7	30-Aug-88	19 F	889.4
01U127	902.9	26-Jan-88	17 F	889.5	01U133	900.7	22-Nov-88	20 F	887.6
01U127	902.9	13-Apr-88	18 F	888.8	01U133	900.7	24-Apr-89	22 F	886.6
01U127	902.9	30-Aug-88	19 F	888.5	01U133	900.7	02-Nov-89	24 F	888.3
01U127	902.9	22-Nov-88	20 F	887.4	01U133	900.7	23-Jan-90	25 F	887.6
01U127	902.9	24-Apr-89	22 F	885.2	01U133	900.7	20-Feb-90	25 F	887.4
01U127	902.9	05-Aug-89	23 F	887.9	01U133	900.7	20-Mar-90	25 F	887.7
01U127	902.9	02-Nov-89	24 F	887.2	01U133	900.7	16-Apr-90	26 F	887.7
01U127	902.9	23-Jan-90	25 F	886.6	01U133	900.7	26-Apr-90	26 F	887.8
01U127	902.9	20-Feb-90	25 F	886.3	01U133	900.7	22-May-90	26 F	888.2
01U127	902.9	20-Mar-90	25 F	886.4	01U133	900.7	19-Jun-90	26 F	889.5
01U127	902.9	16-Apr-90	26 F	886.4	01U133	900.7	17-Jul-90	27 F	890.4
01U127	902.9	01-May-90	26 F	886.4	01U133	900.7	21-Aug-90	27 F	890.4
01U127	902.9	22-May-90	26 F	886.8	01U133	900.7	18-Sep-90	28 F	891.3
01U127	902.9	19-Jun-90	26 F	887.9	01U133	900.7	02-Nov-90	29 F	890.7
01U127	902.9	17-Jul-90	27 F	889.2	01U133	900.7	18-Dec-90	29 F	884.8
01U127	902.9	21-Aug-90	27 F	889.3	01U133	900.7	19-Feb-91	30 F	884.2
01U127	902.9	18-Sep-90	28 F	890.3	01U133	900.7	19-Mar-91	30 F	889.7
01U127	902.9	02-Nov-90	29 F	889.5	01U133	900.7	16-Apr-91	31 F	891.0
01U127	902.9	18-Dec-90	29 F	887.0	01U133	900.7	18-Jun-91	31 F	894.0
01U127	902.9	19-Feb-91	30 F	886.5	01U133	900.7	18-Jun-91	31 F	894.0
01U127	902.9	19-Mar-91	30 F	888.4	01U133	900.7	30-Jul-91	32 F	893.7
01U127	902.9	16-Apr-91	31 F	889.1	01U133	900.7	19-Aug-91	32 F	892.6
01U127	902.9	18-Jun-91	31 F	892.8	01U133	900.7	22-Oct-91	33 F	893.9
01U127	902.9	18-Jun-91	31 F	892.9	01U133	900.7	21-Dec-91	33 F	894.5
01U127	902.9	30-Jul-91	32 F	891.9	01U133	900.7	18-Feb-92	34 F	893.4
01U127	902.9	19-Aug-91	32 F	891.8	01U133	900.7	04-Mar-92	34 F	894.1
01U127	902.9	22-Oct-91	33 F	892.9	01U133	900.7	13-Apr-92	35 F	894.6
01U127	902.9	21-Dec-91	33 F	893.1	01U133	900.7	16-Jun-92	35 F	893.3
01U127	902.9	18-Feb-92	34 F	892.2	01U133	900.7	21-Aug-92	36 F	892.3
01U127	902.9	05-Mar-92	34 F	892.4	01U133	900.7	20-Oct-92	37 F	893.0
01U127	902.9	13-Apr-92	35 F	893.2	01U133	900.7	01-Dec-92	37 F	893.3
01U127	902.9	16-Jun-92	35 F	892.7	01U133	900.7	01-Feb-93	38 F	892.2
01U127	902.9	21-Aug-92	36 F	891.8	01U133	900.7	01-Mar-93	38 F	891.8
01U127	902.9	20-Oct-92	37 F	892.0	01U133	900.7	20-Apr-93	39 F	893.2
01U127	902.9	01-Dec-92	37 F	892.2	01U133	900.7	15-Jun-93	39 F	894.0
01U127	902.9	01-Feb-93	38 F	891.0	01U133	900.7	16-Aug-93	40 F	896.9
01U127	902.9	01-Mar-93	38 F	890.7					
01U127	902.9	20-Apr-93	39 F	891.3	01U135	900.0	22-Nov-88	20 F	881.2
01U127	902.9	15-Jun-93	39 F	892.8	01U135	900.0	25-Apr-89	22 F	877.4
01U127	902.9	16-Aug-93	40 F	896.9	01U135	900.0	05-Aug-89	23 F	882.1
					01U135	900.0	02-Nov-89	24 F	881.3
01U128	881.3	14-Dec-87	16 F	873.6	01U135	900.0	20-Apr-90	26 F	880.5
01U128	881.3	27-Jan-88	17 F	873.1	01U135	900.0	13-Mar-91	30 F	882.0
01U128	881.3	13-Apr-88	18 F	874.4	01U135	900.0	05-Mar-92	34 F	885.2
01U128	881.3	30-Aug-88	19 F	872.7	01U135	900.0	13-Apr-92	35 F	885.8
01U128	881.3	22-Nov-88	20 F	873.4	01U135	900.0	16-Jun-92	35 F	886.3
01U128	881.3	03-Aug-89	23 F	873.5	01U135	900.0	21-Aug-92	36 F	885.3
01U128	881.3	02-Nov-89	24 F	872.9	01U135	900.0	20-Oct-92	37 F	884.9
01U128	881.3	06-Mar-91	30 F	870.4	01U135	900.0	01-Dec-92	37 F	884.9
01U128	881.3	04-Jun-91	31 F	874.0	01U135	900.0	01-Feb-93	38 F	884.3
01U128	881.3	03-Sep-91	32 F	871.8	01U135	900.0	01-Mar-93	38 F	884.1
01U128	881.3	02-Mar-92	34 A	874.9	01U135	900.0	20-Apr-93	39 F	884.0
01U128	881.3	01-Jun-92	35 A	874.5	01U135	900.0	15-Jun-93	39 F	885.5
01U128	881.3	09-Sep-92	36 A	873.4	01U135	900.0	16-Aug-93	40 F	888.5
01U128	881.3	01-Dec-92	37 A	873.9					
01U128	881.3	02-Mar-93	38 A	873.1	01U136	898.8	22-Nov-88	20 F	877.7
01U128	881.3	01-Jun-93	39 A	875.4	01U136	898.8	25-Apr-89	22 F	875.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U136	898.8	05-Aug-89	23 F	878.3	01U141	898.0	01-Feb-93	38 F	888.6
01U136	898.8	02-Nov-89	24 F	877.8	01U141	898.0	01-Mar-93	38 F	888.1
01U136	898.8	20-Apr-90	26 F	877.7	01U141	898.0	20-Apr-93	39 F	888.0
01U136	898.8	13-Mar-91	30 F	878.4	01U141	898.0	15-Jun-93	39 F	889.8
01U136	898.8	05-Mar-92	34 F	881.0	01U141	898.0	16-Aug-93	40 F	893.9
01U136	898.8	09-Nov-92	37 F	880.2					
01U136	898.8	01-Dec-92	37 F	880.2	01U350	903.9	22-Nov-88	20 F	879.5
01U136	898.8	01-Feb-93	38 F	879.8	01U350	903.9	24-Apr-89	22 F	878.7
01U136	898.8	02-Mar-93	38 F	879.7	01U350	903.9	05-Aug-89	23 F	881.0
01U136	898.8	20-Apr-93	39 F	879.5	01U350	903.9	02-Nov-89	24 F	878.4
01U136	898.8	15-Jun-93	39 F	880.9	01U350	903.9	23-Jan-90	25 F	877.9
01U136	898.8	16-Aug-93	40 F	883.1	01U350	903.9	20-Feb-90	25 F	879.3
					01U350	903.9	20-Mar-90	25 F	877.0
01U137	900.9	29-Jul-91	32 F	891.7	01U350	903.9	16-Apr-90	26 F	877.8
01U137	900.9	06-Mar-92	34 F	892.0	01U350	903.9	03-May-90	26 F	877.8
01U137	900.9	13-Apr-92	35 F	892.7	01U350	903.9	22-May-90	26 F	880.7
01U137	900.9	16-Jun-92	35 F	892.7	01U350	903.9	19-Jun-90	26 F	882.8
01U137	900.9	21-Aug-92	36 F	891.6	01U350	903.9	17-Jul-90	27 F	886.2
01U137	900.9	20-Oct-92	37 F	891.6	01U350	903.9	21-Aug-90	27 F	886.3
01U137	900.9	01-Dec-92	37 F	891.8	01U350	903.9	18-Sep-90	28 F	886.3
01U137	900.9	01-Feb-93	38 F	890.7	01U350	903.9	02-Nov-90	29 F	886.3
01U137	900.9	01-Mar-93	38 F	890.3	01U350	903.9	18-Dec-90	29 F	886.1
01U137	900.9	20-Apr-93	39 F	890.4	01U350	903.9	19-Feb-91	30 F	885.7
01U137	900.9	15-Jun-93	39 F	892.3	01U350	903.9	19-Mar-91	30 F	887.1
01U137	900.9	16-Aug-93	40 F	896.1	01U350	903.9	16-Apr-91	31 F	886.4
					01U350	903.9	04-Jun-91	31 F	891.2
01U138	904.6	29-Jul-91	32 F	890.2	01U350	903.9	18-Jun-91	31 F	890.2
01U138	904.6	06-Mar-92	34 F	890.2	01U350	903.9	18-Jun-91	31 F	890.1
01U138	904.6	13-Apr-92	35 F	890.8	01U350	903.9	30-Jul-91	32 F	885.0
01U138	904.6	16-Jun-92	35 F	891.1	01U350	903.9	19-Aug-91	32 F	888.7
01U138	904.6	21-Aug-92	36 F	890.1	01U350	903.9	03-Sep-91	32 F	889.9
01U138	904.6	20-Oct-92	37 F	889.9	01U350	903.9	22-Oct-91	33 F	889.8
01U138	904.6	01-Dec-92	37 F	889.9	01U350	903.9	21-Dec-91	33 F	888.9
01U138	904.6	01-Feb-93	38 F	889.1	01U350	903.9	18-Feb-92	34 F	886.5
01U138	904.6	02-Mar-93	38 F	888.5	01U350	903.9	13-Apr-92	35 F	889.5
01U138	904.6	20-Apr-93	39 F	888.6	01U350	903.9	16-Jun-92	35 F	887.3
01U138	904.6	15-Jun-93	39 F	890.3	01U350	903.9	21-Aug-92	36 F	887.5
01U138	904.6	16-Aug-93	40 F	894.1	01U350	903.9	01-Sep-92	36 F	891.7
					01U350	903.9	20-Oct-92	37 F	888.5
01U139	901.5	29-Jul-91	32 F	889.6	01U350	903.9	01-Dec-92	37 F	887.7
01U139	901.5	06-Mar-92	34 F	889.5	01U350	903.9	01-Feb-93	38 F	886.1
01U139	901.5	13-Apr-92	35 F	890.2	01U350	903.9	01-Mar-93	38 F	885.3
01U139	901.5	16-Jun-92	35 F	890.5	01U350	903.9	20-Apr-93	39 F	885.1
01U139	901.5	21-Aug-92	36 F	889.6	01U350	903.9	01-Jun-93	39 F	886.7
01U139	901.5	20-Oct-92	37 F	889.3	01U350	903.9	16-Aug-93	40 F	889.2
01U139	901.5	01-Dec-92	37 F	889.2	01U350	903.9	29-Oct-93	40 F	893.1
01U139	901.5	01-Feb-93	38 F	888.6					
01U139	901.5	02-Mar-93	38 F	888.0	01U524	909.7	14-Dec-87	16 F	906.7
01U139	901.5	20-Apr-93	39 F	887.8	01U524	909.7	27-Jan-88	17 F	904.8
01U139	901.5	15-Jun-93	39 F	889.6	01U524	909.7	13-Apr-88	18 F	906.7
01U139	901.5	16-Aug-93	40 F	893.4	01U524	909.7	30-Aug-88	19 F	904.7
01U139	901.5	07-Sep-93	40 F	893.0	01U524	909.7	22-Nov-88	20 F	905.9
					01U524	909.7	05-Aug-89	23 F	904.6
01U140	899.0	29-Jul-91	32 F	887.9	01U524	909.7	02-Nov-89	24 F	905.0
01U140	899.0	06-Mar-92	34 F	887.8	01U524	909.7	30-Apr-90	26 F	907.6
01U140	899.0	13-Apr-92	35 F	888.4	01U524	909.7	01-Apr-91	30 F	907.2
01U140	899.0	16-Jun-92	35 F	888.9	01U524	909.7	16-Mar-92	34 F	907.3
01U140	899.0	21-Aug-92	36 F	887.9	01U524	909.7	02-Mar-93	38 F	904.9
01U140	899.0	20-Oct-92	37 F	887.6					
01U140	899.0	01-Dec-92	37 F	887.5	01U525	942.2	14-Dec-87	16 F	933.6
01U140	899.0	01-Feb-93	38 F	886.9	01U525	942.2	13-Apr-88	18 F	936.6
01U140	899.0	02-Mar-93	38 F	886.3	01U525	942.2	30-Aug-88	19 F	933.9
01U140	899.0	20-Apr-93	39 F	886.0	01U525	942.2	23-Nov-88	20 F	934.2
01U140	899.0	15-Jun-93	39 F	888.7	01U525	942.2	27-Apr-89	22 F	932.4
01U140	899.0	16-Aug-93	40 F	891.4	01U525	942.2	30-Apr-90	26 F	937.6
01U140	899.0	07-Sep-93	40 F	891.0	01U525	942.2	01-Apr-91	30 F	937.5
					01U525	942.2	16-Mar-92	34 F	937.0
01U141	898.0	29-Jul-91	32 F	889.8	01U525	942.2	03-Mar-93	38 F	933.6
01U141	898.0	06-Mar-92	34 F	889.7					
01U141	898.0	13-Apr-92	35 F	890.3	01U526	938.8	15-Dec-87	16 F	929.6
01U141	898.0	16-Jun-92	35 F	890.5	01U526	938.8	27-Jan-88	17 F	928.7
01U141	898.0	21-Aug-92	36 F	889.6	01U526	938.8	13-Apr-88	18 F	930.0
01U141	898.0	20-Oct-92	37 F	889.4	01U526	938.8	30-Aug-88	19 F	928.9
01U141	898.0	01-Dec-92	37 F	889.4	01U526	938.8	23-Nov-88	20 F	929.2



TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U526	938.8	09-May-89	22 F	928.5	01U603	884.8	02-Mar-92	34 A	876.7
01U526	938.8	05-Aug-89	23 F	929.6	01U603	884.8	01-Jun-92	35 A	876.7
01U526	938.8	02-Nov-89	24 F	928.8	01U603	884.8	09-Sep-92	36 A	877.2
01U526	938.8	20-Apr-90	26 F	929.8	01U603	884.8	01-Dec-92	37 A	877.1
01U526	938.8	13-Mar-91	30 F	929.2	01U603	884.8	02-Mar-93	38 A	876.4
01U526	938.8	17-Mar-92	34 F	931.1	01U603	884.8	01-Jun-93	39 A	878.2
01U526	938.8	05-Mar-93	38 F	929.0	01U603	884.8	08-Sep-93	40 A	879.2
01U527	912.2	14-Dec-87	16 F	909.0	01U604	885.5	15-Dec-87	16 F	877.5
01U527	912.2	27-Jan-88	17 F	905.9	01U604	885.5	27-Jan-88	17 F	875.7
01U527	912.2	13-Apr-88	18 F	908.3	01U604	885.5	14-Apr-88	18 F	875.0
01U527	912.2	30-Aug-88	19 F	908.0	01U604	885.5	30-Aug-88	19 F	875.3
01U527	912.2	23-Nov-88	20 F	909.0	01U604	885.5	06-Dec-88	20 A	875.1
01U527	912.2	05-Aug-89	23 F	908.4	01U604	885.5	29-Mar-89	21 A	874.4
01U527	912.2	02-Nov-89	24 F	908.3	01U604	885.5	07-Jun-89	22 A	876.0
01U527	912.2	03-May-90	26 F	909.6	01U604	885.5	04-Aug-89	23 F	876.7
01U527	912.2	01-Apr-91	30 F	909.1	01U604	885.5	08-Sep-89	23 A	877.0
01U527	912.2	16-Mar-92	34 F	909.3	01U604	885.5	03-Nov-89	24 F	877.2
01U527	912.2	02-Mar-93	38 F	906.0	01U604	885.5	03-Jan-90	25 A	876.1
01U601	889.2	15-Dec-87	16 F	883.8	01U604	885.5	07-May-90	26 A	876.3
01U601	889.2	27-Jan-88	17 F	883.4	01U604	885.5	03-Jul-90	27 A	877.2
01U601	889.2	14-Apr-88	18 F	884.0	01U604	885.5	02-Oct-90	29 A	876.9
01U601	889.2	30-Aug-88	19 F	883.7	01U604	885.5	06-Mar-91	30 A	876.2
01U601	889.2	06-Dec-88	20 A	883.8	01U604	885.5	04-Jun-91	31 A	877.9
01U601	889.2	29-Mar-89	21 A	884.1	01U604	885.5	03-Sep-91	32 A	876.4
01U601	889.2	07-Jun-89	22 A	883.9	01U604	885.5	02-Mar-92	34 A	876.8
01U601	889.2	04-Aug-89	23 F	883.9	01U604	885.5	01-Jun-92	35 A	877.0
01U601	889.2	08-Sep-89	23 A	883.9	01U604	885.5	09-Sep-92	36 A	876.8
01U601	889.2	03-Nov-89	24 F	883.5	01U604	885.5	01-Dec-92	37 A	876.4
01U601	889.2	03-Jan-90	25 A	882.9	01U604	885.5	02-Mar-93	38 A	876.1
01U601	889.2	07-May-90	26 A	883.7	01U604	885.5	01-Jun-93	39 A	877.0
01U601	889.2	03-Jul-90	27 A	884.2	01U604	885.5	08-Sep-93	40 A	878.7
01U601	889.2	02-Oct-90	29 A	883.9	01U605	884.7	15-Dec-87	16 F	875.9
01U601	889.2	06-Mar-91	30 A	883.3	01U605	884.7	14-Apr-88	18 F	876.4
01U601	889.2	04-Jun-91	31 A	885.1	01U605	884.7	30-Aug-88	19 F	876.0
01U601	889.2	03-Sep-91	32 A	884.0	01U605	884.7	06-Dec-88	20 A	875.7
01U601	889.2	02-Mar-92	34 A	884.8	01U605	884.7	29-Mar-89	21 A	Dry
01U601	889.2	01-Jun-92	35 A	886.8	01U605	884.7	07-Jun-89	22 A	877.2
01U601	889.2	09-Sep-92	36 A	884.3	01U605	884.7	04-Aug-89	23 F	877.0
01U601	889.2	01-Dec-92	37 A	883.9	01U605	884.7	08-Sep-89	23 A	876.7
01U601	889.2	02-Mar-93	38 A	883.3	01U605	884.7	03-Nov-89	24 F	875.7
01U601	889.2	01-Jun-93	39 A	884.3	01U605	884.7	03-Jan-90	25 A	Dry
01U601	889.2	08-Sep-93	40 A	884.4	01U605	884.7	07-May-90	26 A	876.2
01U602	889.7	04-Aug-89	23 F	879.5	01U605	884.7	03-Jul-90	27 A	878.3
01U602	889.7	06-Mar-91	30 A	883.2	01U605	884.7	02-Oct-90	29 A	877.4
01U602	889.7	04-Jun-91	31 A	883.8	01U605	884.7	06-Mar-91	30 A	Dry
01U602	889.7	03-Sep-91	32 A	883.3	01U605	884.7	04-Jun-91	31 A	878.8
01U602	889.7	02-Mar-92	34 A	884.0	01U605	884.7	03-Sep-91	32 A	877.5
01U602	889.7	01-Jun-92	35 A	883.8	01U605	884.7	02-Mar-92	34 A	877.7
01U602	889.7	09-Sep-92	36 A	883.8	01U605	884.7	01-Jun-92	35 A	877.9
01U602	889.7	01-Dec-92	37 A	883.3	01U605	884.7	09-Sep-92	36 A	877.5
01U602	889.7	02-Mar-93	38 A	882.7	01U605	884.7	01-Dec-92	37 A	877.3
01U602	889.7	01-Jun-93	39 A	883.2	01U605	884.7	02-Mar-93	38 A	875.6
01U602	889.7	08-Sep-93	40 A	883.9	01U605	884.7	01-Jun-93	39 A	878.4
01U603	884.8	15-Dec-87	16 F	876.6	01U605	884.7	08-Sep-93	40 A	878.4
01U603	884.8	27-Jan-88	17 F	875.7	01U607	888.5	15-Dec-87	16 F	884.2
01U603	884.8	14-Apr-88	18 F	874.9	01U607	888.5	14-Apr-88	18 F	885.1
01U603	884.8	30-Aug-88	19 F	875.1	01U607	888.5	30-Aug-88	19 F	884.5
01U603	884.8	06-Dec-88	20 A	875.9	01U607	888.5	22-Nov-88	20 F	885.4
01U603	884.8	29-Mar-89	21 A	875.7	01U607	888.5	06-Dec-88	20 A	885.1
01U603	884.8	07-Jun-89	22 A	877.2	01U607	888.5	29-Mar-89	21 A	886.9
01U603	884.8	04-Aug-89	23 F	876.7	01U607	888.5	07-Jun-89	22 A	884.6
01U603	884.8	08-Sep-89	23 A	878.0	01U607	888.5	04-Aug-89	23 F	885.7
01U603	884.8	03-Nov-89	24 F	875.7	01U607	888.5	08-Sep-89	23 A	885.8
01U603	884.8	03-Jan-90	25 A	876.2	01U607	888.5	03-Nov-89	24 F	883.4
01U603	884.8	07-May-90	26 A	877.4	01U607	888.5	03-Jan-90	25 A	882.2
01U603	884.8	03-Jul-90	27 A	878.4	01U607	888.5	07-May-90	26 A	885.2
01U603	884.8	02-Oct-90	29 A	877.7	01U607	888.5	03-Jul-90	27 A	885.2
01U603	884.8	06-Mar-91	30 A	876.2	01U607	888.5	02-Oct-90	29 A	884.0
01U603	884.8	04-Jun-91	31 A	878.9	01U607	888.5	06-Mar-91	30 A	883.5
01U603	884.8	03-Sep-91	32 A	877.3	01U607	888.5	04-Jun-91	31 A	886.2
					01U607	888.5	03-Sep-91	32 A	884.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U607	888.5	02-Mar-92	34 A	886.2	01U612	885.9	03-Jan-90	25 A	Dry
01U607	888.5	01-Jun-92	35 A	884.2	01U612	885.9	07-May-90	26 A	877.3
01U607	888.5	09-Sep-92	36 A	883.6	01U612	885.9	03-Jul-90	27 A	877.7
01U607	888.5	01-Dec-92	37 A	884.9	01U612	885.9	02-Oct-90	29 A	Dry
01U607	888.5	02-Mar-93	38 A	882.8	01U612	885.9	06-Mar-91	30 A	877.2
01U607	888.5	01-Jun-93	39 A	885.9	01U612	885.9	04-Jun-91	31 A	878.3
01U607	888.5	08-Sep-93	40 A	884.8	01U612	885.9	03-Sep-91	32 A	877.3
					01U612	885.9	02-Mar-92	34 A	876.6
01U608	889.7	06-Mar-91	30 A	883.2	01U612	885.9	01-Jun-92	35 A	877.3
01U608	889.7	04-Jun-91	31 A	884.1	01U612	885.9	09-Sep-92	36 A	877.1
01U608	889.7	03-Sep-91	32 A	883.4	01U612	885.9	01-Dec-92	37 A	877.2
01U608	889.7	02-Mar-92	34 A	883.9	01U612	885.9	02-Mar-93	38 A	Dry
01U608	889.7	01-Jun-92	35 A	883.7	01U612	885.9	01-Jun-93	39 A	878.2
01U608	889.7	09-Sep-92	36 A	883.6	01U612	885.9	08-Sep-93	40 A	878.7
01U608	889.7	01-Dec-92	37 A	883.5					
01U608	889.7	02-Mar-93	38 A	882.6	01U613	888.8	15-Dec-87	16 F	883.5
01U608	889.7	01-Jun-93	39 A	883.5	01U613	888.8	27-Jan-88	17 F	883.7
01U608	889.7	08-Sep-93	40 A	884.2	01U613	888.8	14-Apr-88	18 F	883.8
					01U613	888.8	30-Aug-88	19 F	884.0
01U609	889.7	15-Dec-87	16 F	882.7	01U613	888.8	22-Nov-88	20 F	884.3
01U609	889.7	27-Jan-88	17 F	882.5	01U613	888.8	29-Mar-89	21 A	885.3
01U609	889.7	14-Apr-88	18 F	882.9	01U613	888.8	04-Aug-89	23 F	884.6
01U609	889.7	30-Aug-88	19 F	882.8	01U613	888.8	08-Sep-89	23 A	884.5
01U609	889.7	22-Nov-88	20 F	882.8	01U613	888.8	03-Nov-89	24 F	882.8
01U609	889.7	06-Dec-88	20 A	882.8	01U613	888.8	03-Jan-90	25 A	881.8
01U609	889.7	29-Mar-89	21 A	882.5	01U613	888.8	07-May-90	26 A	883.7
01U609	889.7	07-Jun-89	22 A	883.0	01U613	888.8	03-Jul-90	27 A	884.2
01U609	889.7	04-Aug-89	23 F	879.4	01U613	888.8	02-Oct-90	29 A	883.2
01U609	889.7	08-Sep-89	23 A	883.0	01U613	888.8	06-Mar-91	30 A	882.5
01U609	889.7	03-Nov-89	24 F	878.4	01U613	888.8	04-Jun-91	31 A	884.7
01U609	889.7	03-Jan-90	25 A	882.2	01U613	888.8	03-Sep-91	32 A	884.5
01U609	889.7	03-Jul-90	27 A	883.2	01U613	888.8	02-Mar-92	34 A	882.4
01U609	889.7	02-Oct-90	29 A	883.2	01U613	888.8	01-Jun-92	35 A	881.0
01U609	889.7	06-Mar-91	30 A	882.3	01U613	888.8	09-Sep-92	36 A	881.9
01U609	889.7	04-Jun-91	31 A	883.7	01U613	888.8	01-Dec-92	37 A	883.6
01U609	889.7	03-Sep-91	32 A	883.4	01U613	888.8	02-Mar-93	38 A	882.8
01U609	889.7	02-Mar-92	34 A	883.7	01U613	888.8	01-Jun-93	39 A	884.7
01U609	889.7	01-Jun-92	35 A	883.6	01U613	888.8	08-Sep-93	40 A	884.1
01U609	889.7	09-Sep-92	36 A	883.5					
01U609	889.7	01-Dec-92	37 A	883.4	01U615	885.9	15-Dec-87	16 F	877.8
01U609	889.7	02-Mar-93	38 A	882.7	01U615	885.9	27-Jan-88	17 F	874.7
01U609	889.7	01-Jun-93	39 A	883.4	01U615	885.9	14-Apr-88	18 F	874.4
01U609	889.7	08-Sep-93	40 A	883.9	01U615	885.9	30-Aug-88	19 F	874.7
					01U615	885.9	22-Nov-88	20 F	874.6
01U611	889.7	14-Apr-88	18 F	883.4	01U615	885.9	06-Dec-88	20 A	870.9
01U611	889.7	30-Aug-88	19 F	883.3	01U615	885.9	29-Mar-89	21 A	870.7
01U611	889.7	22-Nov-88	20 F	883.4	01U615	885.9	07-Jun-89	22 A	871.4
01U611	889.7	06-Dec-88	20 A	883.4	01U615	885.9	04-Aug-89	23 F	875.9
01U611	889.7	29-Mar-89	21 A	882.5	01U615	885.9	08-Sep-89	23 A	873.0
01U611	889.7	04-Aug-89	23 F	879.3	01U615	885.9	03-Nov-89	24 F	875.5
01U611	889.7	03-Nov-89	24 F	878.8	01U615	885.9	03-Jan-90	25 A	871.0
01U611	889.7	03-Jan-90	25 A	889.4	01U615	885.9	07-May-90	26 A	871.2
01U611	889.7	07-May-90	26 A	883.3	01U615	885.9	03-Jul-90	27 A	872.6
01U611	889.7	03-Jul-90	27 A	883.9	01U615	885.9	02-Oct-90	29 A	873.0
01U611	889.7	02-Oct-90	29 A	883.5	01U615	885.9	06-Mar-91	30 A	871.1
01U611	889.7	06-Mar-91	30 A	883.0	01U615	885.9	04-Jun-91	31 A	873.9
01U611	889.7	04-Jun-91	31 A	884.5	01U615	885.9	03-Sep-91	32 A	872.4
01U611	889.7	03-Sep-91	32 A	883.7	01U615	885.9	02-Mar-92	34 A	876.3
01U611	889.7	02-Mar-92	34 A	884.3	01U615	885.9	01-Jun-92	35 A	876.5
01U611	889.7	01-Jun-92	35 A	883.9	01U615	885.9	09-Sep-92	36 A	875.9
01U611	889.7	09-Sep-92	36 A	884.0	01U615	885.9	01-Dec-92	37 A	876.2
01U611	889.7	02-Mar-93	38 A	883.1	01U615	885.9	02-Mar-93	38 A	875.7
01U611	889.7	01-Jun-93	39 A	883.9	01U615	885.9	01-Jun-93	39 A	876.3
01U611	889.7	08-Sep-93	40 A	884.2	01U615	885.9	08-Sep-93	40 A	878.7
01U612	885.9	15-Dec-87	16 F	878.0	01U616	888.8	15-Dec-87	16 F	880.5
01U612	885.9	27-Jan-88	17 F	877.0	01U616	888.8	27-Jan-88	17 F	879.6
01U612	885.9	14-Apr-88	18 F	876.8	01U616	888.8	14-Apr-88	18 F	878.8
01U612	885.9	30-Aug-88	19 F	876.5	01U616	888.8	30-Aug-88	19 F	879.5
01U612	885.9	22-Nov-88	20 F	876.5	01U616	888.8	22-Nov-88	20 F	878.9
01U612	885.9	06-Dec-88	20 A	877.0	01U616	888.8	06-Dec-88	20 A	879.0
01U612	885.9	29-Mar-89	21 A	Dry	01U616	888.8	29-Mar-89	21 A	877.0
01U612	885.9	04-Aug-89	23 F	877.1	01U616	888.8	07-Jun-89	22 A	878.5
01U612	885.9	08-Sep-89	23 A	877.3	01U616	888.8	04-Aug-89	23 F	880.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U616	888.8	08-Sep-89	23 A	879.5	01U619	889.1	06-Dec-88	20 A	882.4
01U616	888.8	03-Nov-89	24 F	879.6	01U619	889.1	29-Mar-89	21 A	882.4
01U616	888.8	03-Jan-90	25 A	878.9	01U619	889.1	07-Jun-89	22 A	883.1
01U616	888.8	07-May-90	26 A	879.1	01U619	889.1	04-Aug-89	23 F	882.7
01U616	888.8	03-Jul-90	27 A	880.8	01U619	889.1	08-Sep-89	23 A	883.0
01U616	888.8	02-Oct-90	29 A	881.4	01U619	889.1	03-Nov-89	24 F	882.0
01U616	888.8	06-Mar-91	30 A	878.8	01U619	889.1	03-Jan-90	25 A	881.3
01U616	888.8	04-Jun-91	31 A	881.9	01U619	889.1	07-May-90	26 A	882.0
01U616	888.8	03-Sep-91	32 A	880.7	01U619	889.1	03-Jul-90	27 A	883.2
01U616	888.8	02-Mar-92	34 A	880.8	01U619	889.1	02-Oct-90	29 A	883.0
01U616	888.8	01-Jun-92	35 A	881.1	01U619	889.1	06-Mar-91	30 A	881.4
01U616	888.8	09-Sep-92	36 A	880.6	01U619	889.1	04-Jun-91	31 A	884.5
01U616	888.8	01-Dec-92	37 A	878.6	01U619	889.1	03-Sep-91	32 A	882.9
01U616	888.8	02-Mar-93	38 A	877.3	01U619	889.1	02-Mar-92	34 A	883.3
01U616	888.8	01-Jun-93	39 A	878.8	01U619	889.1	01-Jun-92	35 A	882.9
01U616	888.8	08-Sep-93	40 A	880.8	01U619	889.1	09-Sep-92	36 A	882.8
					01U619	889.1	01-Dec-92	37 A	883.1
01U617	885.2	15-Dec-87	16 F	877.5	01U619	889.1	02-Mar-93	38 A	881.6
01U617	885.2	27-Jan-88	17 F	875.2	01U619	889.1	01-Jun-93	39 A	883.4
01U617	885.2	14-Apr-88	18 F	875.0	01U619	889.1	08-Sep-93	40 A	884.0
01U617	885.2	30-Aug-88	19 F	875.3					
01U617	885.2	22-Nov-88	20 F	875.2	01U620	888.8	15-Dec-87	16 F	879.8
01U617	885.2	06-Dec-88	20 A	875.2	01U620	888.8	27-Jan-88	17 F	877.9
01U617	885.2	29-Mar-89	21 A	874.7	01U620	888.8	14-Apr-88	18 F	877.5
01U617	885.2	07-Jun-89	22 A	876.0	01U620	888.8	30-Aug-88	19 F	878.1
01U617	885.2	04-Aug-89	23 F	876.5	01U620	888.8	06-Dec-88	20 A	877.7
01U617	885.2	08-Sep-89	23 A	877.1	01U620	888.8	29-Mar-89	21 A	877.3
01U617	885.2	03-Nov-89	24 F	875.9	01U620	888.8	07-Jun-89	22 A	878.8
01U617	885.2	03-Jan-90	25 A	875.2	01U620	888.8	04-Aug-89	23 F	879.5
01U617	885.2	07-May-90	26 A	875.6	01U620	888.8	08-Sep-89	23 A	880.1
01U617	885.2	03-Jul-90	27 A	877.2	01U620	888.8	03-Nov-89	24 F	878.5
01U617	885.2	02-Oct-90	29 A	877.2	01U620	888.8	03-Jan-90	25 A	877.6
01U617	885.2	06-Mar-91	30 A	875.4	01U620	888.8	07-May-90	26 A	877.8
01U617	885.2	04-Jun-91	31 A	878.2	01U620	888.8	03-Jul-90	27 A	879.7
01U617	885.2	03-Sep-91	32 A	876.8	01U620	888.8	02-Oct-90	29 A	880.1
01U617	885.2	02-Mar-92	34 A	876.7	01U620	888.8	06-Mar-91	30 A	877.5
01U617	885.2	01-Jun-92	35 A	877.1	01U620	888.8	04-Jun-91	31 A	881.1
01U617	885.2	09-Sep-92	36 A	876.6	01U620	888.8	03-Sep-91	32 A	877.6
01U617	885.2	01-Dec-92	37 A	876.7	01U620	888.8	02-Mar-92	34 A	877.5
01U617	885.2	02-Mar-93	38 A	875.9	01U620	888.8	01-Jun-92	35 A	877.8
01U617	885.2	01-Jun-93	39 A	877.1	01U620	888.8	09-Sep-92	36 A	877.3
01U617	885.2	08-Sep-93	40 A	879.0	01U620	888.8	01-Dec-92	37 A	878.0
					01U620	888.8	02-Mar-93	38 A	876.8
01U618	887.1	15-Dec-87	16 F	877.1	01U620	888.8	01-Jun-93	39 A	878.2
01U618	887.1	27-Jan-88	17 F	875.9	01U620	888.8	08-Sep-93	40 A	880.3
01U618	887.1	14-Apr-88	18 F	875.5					
01U618	887.1	30-Aug-88	19 F	876.2	01U621	884.5	15-Dec-87	16 F	877.8
01U618	887.1	22-Nov-88	20 F	875.6	01U621	884.5	27-Jan-88	17 F	876.0
01U618	887.1	06-Dec-88	20 A	875.6	01U621	884.5	14-Apr-88	18 F	875.8
01U618	887.1	29-Mar-89	21 A	875.4	01U621	884.5	30-Aug-88	19 F	876.1
01U618	887.1	07-Jun-89	22 A	876.9	01U621	884.5	23-Nov-88	20 F	875.9
01U618	887.1	04-Aug-89	23 F	877.5	01U621	884.5	06-Dec-88	20 A	875.9
01U618	887.1	08-Sep-89	23 A	878.0	01U621	884.5	29-Mar-89	21 A	875.3
01U618	887.1	03-Nov-89	24 F	876.2	01U621	884.5	07-Jun-89	22 A	876.9
01U618	887.1	03-Jan-90	25 A	875.4	01U621	884.5	04-Aug-89	23 F	877.4
01U618	887.1	07-May-90	26 A	875.7	01U621	884.5	08-Sep-89	23 A	876.9
01U618	887.1	03-Jul-90	27 A	877.7	01U621	884.5	03-Nov-89	24 F	876.6
01U618	887.1	02-Oct-90	29 A	878.0	01U621	884.5	03-Jan-90	25 A	875.7
01U618	887.1	06-Mar-91	30 A	875.3	01U621	884.5	07-May-90	26 A	846.3
01U618	887.1	04-Jun-91	31 A	879.1	01U621	884.5	03-Jul-90	27 A	878.1
01U618	887.1	03-Sep-91	32 A	879.2	01U621	884.5	02-Oct-90	29 A	878.1
01U618	887.1	02-Mar-92	34 A	879.1	01U621	884.5	06-Mar-91	30 A	875.9
01U618	887.1	01-Jun-92	35 A	879.4	01U621	884.5	04-Jun-91	31 A	879.2
01U618	887.1	09-Sep-92	36 A	878.9	01U621	884.5	03-Sep-91	32 A	877.7
01U618	887.1	01-Dec-92	37 A	879.0	01U621	884.5	02-Mar-92	34 A	877.4
01U618	887.1	02-Mar-93	38 A	877.5	01U621	884.5	01-Jun-92	35 A	877.8
01U618	887.1	01-Jun-93	39 A	879.3	01U621	884.5	09-Sep-92	36 A	877.3
01U618	887.1	08-Sep-93	40 A	881.1	01U621	884.5	01-Dec-92	37 A	877.6
					01U621	884.5	02-Mar-93	38 A	876.5
01U619	889.1	15-Dec-87	16 F	882.0	01U621	884.5	01-Jun-93	39 A	878.1
01U619	889.1	27-Jan-88	17 F	881.7	01U621	884.5	08-Sep-93	40 A	879.8
01U619	889.1	14-Apr-88	18 F	882.3					
01U619	889.1	30-Aug-88	19 F	882.6	01U622	889.7	06-Mar-91	30 A	Dry
01U619	889.1	23-Nov-88	20 F	882.4	01U622	889.7	04-Jun-91	31 A	882.5

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U622	889.7	03-Sep-91	32 A	882.5	01U624B	886.6	01-Dec-92	37 A	877.6
01U622	889.7	02-Mar-92	34 A	880.5	01U624B	886.6	02-Mar-93	38 A	876.5
01U622	889.7	01-Jun-92	35 A	Dry	01U624B	886.6	01-Jun-93	39 A	877.8
01U622	889.7	09-Sep-92	36 A	Dry	01U624B	886.6	08-Sep-93	40 A	880.0
01U622	889.7	01-Dec-92	37 A	Dry					
01U622	889.7	02-Mar-93	38 A	Dry	01U624C	886.6	28-Jan-88	17 F	876.0
01U622	889.7	01-Jun-93	39 A	Dry	01U624C	886.6	14-Apr-88	18 F	875.6
					01U624C	886.6	30-Aug-88	19 F	876.2
01U623	889.7	15-Dec-87	16 F	877.6	01U624C	886.6	23-Nov-88	20 F	877.2
01U623	889.7	27-Jan-88	17 F	877.5	01U624C	886.6	06-Dec-88	20 A	884.2
01U623	889.7	14-Apr-88	18 F	876.0	01U624C	886.6	29-Mar-89	21 A	883.8
01U623	889.7	30-Aug-88	19 F	876.2	01U624C	886.6	07-Jun-89	22 A	885.1
01U623	889.7	23-Nov-88	20 F	876.2	01U624C	886.6	04-Aug-89	23 F	877.5
01U623	889.7	06-Dec-88	20 A	875.7	01U624C	886.6	08-Sep-89	23 A	886.5
01U623	889.7	29-Mar-89	21 A	875.5	01U624C	886.6	03-Nov-89	24 F	876.6
01U623	889.7	07-Jun-89	22 A	876.2	01U624C	886.6	21-Nov-89	24 A	884.8
01U623	889.7	08-Sep-89	23 A	876.9	01U624C	886.6	03-Jan-90	25 A	884.1
01U623	889.7	03-Nov-89	24 F	879.6	01U624C	886.6	07-May-90	26 A	884.3
01U623	889.7	03-Jan-90	25 A	875.9	01U624C	886.6	03-Jul-90	27 A	886.1
01U623	889.7	07-May-90	26 A	875.8	01U624C	886.6	02-Oct-90	29 A	877.5
01U623	889.7	03-Jul-90	27 A	876.6	01U624C	886.6	06-Mar-91	30 A	884.1
01U623	889.7	02-Oct-90	29 A	877.5	01U624C	886.6	04-Jun-91	31 A	887.3
01U623	889.7	06-Mar-91	30 A	875.8	01U624C	886.6	03-Sep-91	32 A	885.9
01U623	889.7	04-Jun-91	31 A	876.8	01U624C	886.6	02-Mar-92	34 A	877.2
01U623	889.7	03-Sep-91	32 A	877.1	01U624C	886.6	01-Jun-92	35 A	877.5
01U623	889.7	02-Mar-92	34 A	878.3	01U624C	886.6	09-Sep-92	36 A	876.9
01U623	889.7	01-Jun-92	35 A	878.5	01U624C	886.6	01-Dec-92	37 A	877.6
01U623	889.7	09-Sep-92	36 A	877.9	01U624C	886.6	02-Mar-93	38 A	876.6
01U623	889.7	01-Dec-92	37 A	877.0	01U624C	886.6	01-Jun-93	39 A	877.8
01U623	889.7	02-Mar-93	38 A	876.3	01U624C	886.6	08-Sep-93	40 A	880.0
01U623	889.7	01-Jun-93	39 A	877.0					
01U623	889.7	08-Sep-93	40 A	879.1	01U624D	886.6	28-Jan-88	17 F	876.1
					01U624D	886.6	14-Apr-88	18 F	875.6
01U624A	886.6	06-Dec-88	20 A	Dry	01U624D	886.6	30-Aug-88	19 F	876.2
01U624A	886.6	29-Mar-89	21 A	Dry	01U624D	886.6	23-Nov-88	20 F	877.6
01U624A	886.6	07-Jun-89	22 A	Dry	01U624D	886.6	06-Dec-88	20 A	884.2
01U624A	886.6	08-Sep-89	23 A	886.6	01U624D	886.6	29-Mar-89	21 A	883.8
01U624A	886.6	21-Nov-89	24 A	Dry	01U624D	886.6	07-Jun-89	22 A	885.2
01U624A	886.6	03-Jan-90	25 A	Dry	01U624D	886.6	04-Aug-89	23 F	877.5
01U624A	886.6	07-May-90	26 A	Dry	01U624D	886.6	08-Sep-89	23 A	886.5
01U624A	886.6	03-Jul-90	27 A	886.1	01U624D	886.6	03-Nov-89	24 F	876.6
01U624A	886.6	02-Oct-90	29 A	886.6	01U624D	886.6	21-Nov-89	24 A	884.8
01U624A	886.6	06-Mar-91	30 A	Dry	01U624D	886.6	03-Jan-90	25 A	884.1
01U624A	886.6	04-Jun-91	31 A	887.4	01U624D	886.6	07-May-90	26 A	884.4
01U624A	886.6	03-Sep-91	32 A	885.9	01U624D	886.6	03-Jul-90	27 A	886.1
01U624A	886.6	02-Mar-92	34 A	877.2	01U624D	886.6	02-Oct-90	29 A	886.5
01U624A	886.6	01-Jun-92	35 A	877.5	01U624D	886.6	06-Mar-91	30 A	884.1
01U624A	886.6	09-Sep-92	36 A	876.9	01U624D	886.6	04-Jun-91	31 A	887.3
01U624A	886.6	01-Dec-92	37 A	877.6	01U624D	886.6	03-Sep-91	32 A	885.9
01U624A	886.6	02-Mar-93	38 A	Dry	01U624D	886.6	02-Mar-92	34 A	877.2
01U624A	886.6	01-Jun-93	39 A	877.8	01U624D	886.6	01-Jun-92	35 A	877.5
01U624A	886.6	08-Sep-93	40 A	880.0	01U624D	886.6	09-Sep-92	36 A	876.9
					01U624D	886.6	01-Dec-92	37 A	877.6
01U624B	886.6	28-Jan-88	17 F	876.1	01U624D	886.6	02-Mar-93	38 A	876.6
01U624B	886.6	14-Apr-88	18 F	875.6	01U624D	886.6	01-Jun-93	39 A	877.8
01U624B	886.6	30-Aug-88	19 F	876.2	01U624D	886.6	08-Sep-93	40 A	880.0
01U624B	886.6	23-Nov-88	20 F	877.7					
01U624B	886.6	06-Dec-88	20 A	884.2	01U625A	885.5	28-Jan-88	17 F	875.0
01U624B	886.6	29-Mar-89	21 A	883.8	01U625A	885.5	14-Apr-88	18 F	874.8
01U624B	886.6	07-Jun-89	22 A	885.1	01U625A	885.5	30-Aug-88	19 F	875.1
01U624B	886.6	04-Aug-89	23 F	877.5	01U625A	885.5	23-Nov-88	20 F	876.5
01U624B	886.6	08-Sep-89	23 A	886.5	01U625A	885.5	06-Dec-88	20 A	884.1
01U624B	886.6	03-Nov-89	24 F	876.6	01U625A	885.5	29-Mar-89	21 A	883.0
01U624B	886.6	21-Nov-89	24 A	884.8	01U625A	885.5	07-Jun-89	22 A	884.0
01U624B	886.6	03-Jan-90	25 A	884.1	01U625A	885.5	04-Aug-89	23 F	876.4
01U624B	886.6	07-May-90	26 A	884.3	01U625A	885.5	08-Sep-89	23 A	885.5
01U624B	886.6	03-Jul-90	27 A	886.1	01U625A	885.5	03-Nov-89	24 F	875.9
01U624B	886.6	02-Oct-90	29 A	886.5	01U625A	885.5	21-Nov-89	24 A	884.8
01U624B	886.6	06-Mar-91	30 A	884.1	01U625A	885.5	03-Jan-90	25 A	884.2
01U624B	886.6	04-Jun-91	31 A	887.4	01U625A	885.5	07-May-90	26 A	884.4
01U624B	886.6	03-Sep-91	32 A	885.9	01U625A	885.5	03-Jul-90	27 A	885.9
01U624B	886.6	02-Mar-92	34 A	877.2	01U625A	885.5	02-Oct-90	29 A	886.3
01U624B	886.6	01-Jun-92	35 A	877.5	01U625A	885.5	06-Mar-91	30 A	884.2
01U624B	886.6	09-Sep-92	36 A	876.9	01U625A	885.5	04-Jun-91	31 A	887.2

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U625A	885.5	03-Sep-91	32 A	885.7	01U625D	885.5	03-Jul-90	27 A	885.9
01U625A	885.5	02-Mar-92	34 A	878.1	01U625D	885.5	02-Oct-90	29 A	886.3
01U625A	885.5	01-Jun-92	35 A	878.4	01U625D	885.5	06-Mar-91	30 A	884.2
01U625A	885.5	09-Sep-92	36 A	877.8	01U625D	885.5	04-Jun-91	31 A	887.2
01U625A	885.5	01-Dec-92	37 A	876.9	01U625D	885.5	03-Sep-91	32 A	885.7
01U625A	885.5	02-Mar-93	38 A	876.2	01U625D	885.5	02-Mar-92	34 A	878.2
01U625A	885.5	01-Jun-93	39 A	877.0	01U625D	885.5	01-Jun-92	35 A	878.4
01U625A	885.5	08-Sep-93	40 A	879.3	01U625D	885.5	09-Sep-92	36 A	877.7
					01U625D	885.5	01-Dec-92	37 A	876.9
01U625B	885.5	28-Jan-88	17 F	874.9	01U625D	885.5	02-Mar-93	38 A	876.2
01U625B	885.5	14-Apr-88	18 F	874.7	01U625D	885.5	01-Jun-93	39 A	877.0
01U625B	885.5	30-Aug-88	19 F	875.1	01U625D	885.5	08-Sep-93	40 A	879.3
01U625B	885.5	23-Nov-88	20 F	876.1					
01U625B	885.5	06-Dec-88	20 A	884.1	01U626A	885.3	27-Jan-88	17 F	874.6
01U625B	885.5	29-Mar-89	21 A	882.3	01U626A	885.3	14-Apr-88	18 F	874.1
01U625B	885.5	07-Jun-89	22 A	883.2	01U626A	885.3	30-Aug-88	19 F	874.4
01U625B	885.5	04-Aug-89	23 F	876.4	01U626A	885.3	23-Nov-88	20 F	875.7
01U625B	885.5	08-Sep-89	23 A	884.8	01U626A	885.3	06-Dec-88	20 A	883.8
01U625B	885.5	03-Nov-89	24 F	875.9	01U626A	885.3	29-Mar-89	21 A	882.4
01U625B	885.5	21-Nov-89	24 A	884.8	01U626A	885.3	07-Jun-89	22 A	883.8
01U625B	885.5	03-Jan-90	25 A	884.1	01U626A	885.3	04-Aug-89	23 F	876.3
01U625B	885.5	07-May-90	26 A	884.3	01U626A	885.3	08-Sep-89	23 A	885.2
01U625B	885.5	03-Jul-90	27 A	885.9	01U626A	885.3	03-Nov-89	24 F	875.9
01U625B	885.5	02-Oct-90	29 A	886.3	01U626A	885.3	21-Nov-89	24 A	885.2
01U625B	885.5	06-Mar-91	30 A	884.2	01U626A	885.3	03-Jan-90	25 A	885.0
01U625B	885.5	04-Jun-91	31 A	887.2	01U626A	885.3	07-May-90	26 A	885.4
01U625B	885.5	03-Sep-91	32 A	885.7	01U626A	885.3	03-Jul-90	27 A	886.2
01U625B	885.5	02-Mar-92	34 A	878.2	01U626A	885.3	02-Oct-90	29 A	886.3
01U625B	885.5	01-Jun-92	35 A	878.4	01U626A	885.3	06-Mar-91	30 A	885.3
01U625B	885.5	09-Sep-92	36 A	877.7	01U626A	885.3	04-Jun-91	31 A	887.2
01U625B	885.5	01-Dec-92	37 A	876.8	01U626A	885.3	03-Sep-91	32 A	885.8
01U625B	885.5	02-Mar-93	38 A	876.2	01U626A	885.3	02-Mar-92	34 A	877.6
01U625B	885.5	01-Jun-93	39 A	877.0	01U626A	885.3	01-Jun-92	35 A	877.7
01U625B	885.5	08-Sep-93	40 A	879.3	01U626A	885.3	09-Sep-92	36 A	877.2
					01U626A	885.3	01-Dec-92	37 A	876.6
01U625C	885.5	28-Jan-88	17 F	874.9	01U626A	885.3	02-Mar-93	38 A	876.6
01U625C	885.5	14-Apr-88	18 F	874.8	01U626A	885.3	01-Jun-93	39 A	876.9
01U625C	885.5	30-Aug-88	19 F	875.1	01U626A	885.3	08-Sep-93	40 A	878.9
01U625C	885.5	23-Nov-88	20 F	876.1					
01U625C	885.5	06-Dec-88	20 A	884.1	01U626B	885.3	27-Jan-88	17 F	874.2
01U625C	885.5	29-Mar-89	21 A	882.2	01U626B	885.3	14-Apr-88	18 F	874.1
01U625C	885.5	07-Jun-89	22 A	883.2	01U626B	885.3	30-Aug-88	19 F	874.4
01U625C	885.5	04-Aug-89	23 F	876.4	01U626B	885.3	23-Nov-88	20 F	875.0
01U625C	885.5	08-Sep-89	23 A	885.5	01U626B	885.3	06-Dec-88	20 A	883.9
01U625C	885.5	03-Nov-89	24 F	875.9	01U626B	885.3	29-Mar-89	21 A	882.6
01U625C	885.5	21-Nov-89	24 A	884.8	01U626B	885.3	07-Jun-89	22 A	883.5
01U625C	885.5	03-Jan-90	25 A	884.1	01U626B	885.3	04-Aug-89	23 F	875.8
01U625C	885.5	07-May-90	26 A	884.3	01U626B	885.3	08-Sep-89	23 A	885.1
01U625C	885.5	03-Jul-90	27 A	885.9	01U626B	885.3	03-Nov-89	24 F	875.4
01U625C	885.5	02-Oct-90	29 A	886.3	01U626B	885.3	21-Nov-89	24 A	884.8
01U625C	885.5	06-Mar-91	30 A	884.2	01U626B	885.3	03-Jan-90	25 A	884.1
01U625C	885.5	04-Jun-91	31 A	887.2	01U626B	885.3	07-May-90	26 A	884.3
01U625C	885.5	03-Sep-91	32 A	885.7	01U626B	885.3	03-Jul-90	27 A	885.9
01U625C	885.5	02-Mar-92	34 A	878.2	01U626B	885.3	02-Oct-90	29 A	886.1
01U625C	885.5	01-Jun-92	35 A	878.4	01U626B	885.3	06-Mar-91	30 A	884.3
01U625C	885.5	09-Sep-92	36 A	877.7	01U626B	885.3	04-Jun-91	31 A	887.2
01U625C	885.5	01-Dec-92	37 A	876.8	01U626B	885.3	03-Sep-91	32 A	885.6
01U625C	885.5	02-Mar-93	38 A	876.2	01U626B	885.3	02-Mar-92	34 A	877.4
01U625C	885.5	01-Jun-93	39 A	877.0	01U626B	885.3	01-Jun-92	35 A	877.5
01U625C	885.5	08-Sep-93	40 A	879.3	01U626B	885.3	09-Sep-92	36 A	876.9
					01U626B	885.3	01-Dec-92	37 A	876.5
01U625D	885.5	28-Jan-88	17 F	874.9	01U626B	885.3	02-Mar-93	38 A	876.0
01U625D	885.5	14-Apr-88	18 F	874.7	01U626B	885.3	01-Jun-93	39 A	876.6
01U625D	885.5	30-Aug-88	19 F	875.1	01U626B	885.3	08-Sep-93	40 A	878.9
01U625D	885.5	23-Nov-88	20 F	876.1					
01U625D	885.5	06-Dec-88	20 A	884.1	01U626C	885.3	27-Jan-88	17 F	874.3
01U625D	885.5	29-Mar-89	21 A	882.3	01U626C	885.3	14-Apr-88	18 F	874.2
01U625D	885.5	07-Jun-89	22 A	883.2	01U626C	885.3	30-Aug-88	19 F	874.5
01U625D	885.5	04-Aug-89	23 F	876.4	01U626C	885.3	23-Nov-88	20 F	875.0
01U625D	885.5	08-Sep-89	23 A	884.8	01U626C	885.3	06-Dec-88	20 A	884.0
01U625D	885.5	03-Nov-89	24 F	875.9	01U626C	885.3	29-Mar-89	21 A	882.7
01U625D	885.5	21-Nov-89	24 A	884.8	01U626C	885.3	07-Jun-89	22 A	883.6
01U625D	885.5	03-Jan-90	25 A	884.1	01U626C	885.3	04-Aug-89	23 F	875.9
01U625D	885.5	07-May-90	26 A	884.3	01U626C	885.3	08-Sep-89	23 A	885.2

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U626C	885.3	03-Nov-89	24 F	875.4	01U627B	884.9	29-Mar-89	21 A	882.5
01U626C	885.3	21-Nov-89	24 A	884.9	01U627B	884.9	07-Jun-89	22 A	883.5
01U626C	885.3	03-Jan-90	25 A	884.1	01U627B	884.9	04-Aug-89	23 F	876.3
01U626C	885.3	07-May-90	26 A	884.3	01U627B	884.9	08-Sep-89	23 A	885.0
01U626C	885.3	03-Jul-90	27 A	885.9	01U627B	884.9	03-Nov-89	24 F	875.7
01U626C	885.3	02-Oct-90	29 A	886.2	01U627B	884.9	21-Nov-89	24 A	884.8
01U626C	885.3	06-Mar-91	30 A	884.3	01U627B	884.9	03-Jan-90	25 A	884.0
01U626C	885.3	04-Jun-91	31 A	887.2	01U627B	884.9	07-May-90	26 A	884.3
01U626C	885.3	03-Sep-91	32 A	885.7	01U627B	884.9	03-Jul-90	27 A	885.9
01U626C	885.3	02-Mar-92	34 A	877.4	01U627B	884.9	02-Oct-90	29 A	886.1
01U626C	885.3	01-Jun-92	35 A	877.6	01U627B	884.9	06-Mar-91	30 A	884.2
01U626C	885.3	09-Sep-92	36 A	876.9	01U627B	884.9	04-Jun-91	31 A	887.1
01U626C	885.3	01-Dec-92	37 A	876.6	01U627B	884.9	03-Sep-91	32 A	885.6
01U626C	885.3	02-Mar-93	38 A	876.0	01U627B	884.9	02-Mar-92	34 A	877.6
01U626C	885.3	01-Jun-93	39 A	876.7	01U627B	884.9	01-Jun-92	35 A	877.8
01U626C	885.3	08-Sep-93	40 A	879.0	01U627B	884.9	09-Sep-92	36 A	877.2
					01U627B	884.9	01-Dec-92	37 A	876.8
01U626D	885.3	27-Jan-88	17 F	874.4	01U627B	884.9	02-Mar-93	38 A	876.1
01U626D	885.3	14-Apr-88	18 F	874.3	01U627B	884.9	01-Jun-93	39 A	877.0
01U626D	885.3	30-Aug-88	19 F	874.5	01U627B	884.9	08-Sep-93	40 A	879.1
01U626D	885.3	23-Nov-88	20 F	875.6					
01U626D	885.3	06-Dec-88	20 A	884.1	01U627C	884.9	27-Jan-88	17 F	874.8
01U626D	885.3	29-Mar-89	21 A	882.7	01U627C	884.9	14-Apr-88	18 F	874.6
01U626D	885.3	07-Jun-89	22 A	883.6	01U627C	884.9	30-Aug-88	19 F	874.9
01U626D	885.3	04-Aug-89	23 F	875.9	01U627C	884.9	23-Nov-88	20 F	876.3
01U626D	885.3	08-Sep-89	23 A	885.2	01U627C	884.9	06-Dec-88	20 A	883.8
01U626D	885.3	03-Nov-89	24 F	875.5	01U627C	884.9	29-Mar-89	21 A	882.5
01U626D	885.3	21-Nov-89	24 A	884.9	01U627C	884.9	07-Jun-89	22 A	883.4
01U626D	885.3	03-Jan-90	25 A	884.2	01U627C	884.9	04-Aug-89	23 F	876.2
01U626D	885.3	07-May-90	26 A	884.4	01U627C	884.9	08-Sep-89	23 A	884.9
01U626D	885.3	03-Jul-90	27 A	886.0	01U627C	884.9	03-Nov-89	24 F	875.7
01U626D	885.3	02-Oct-90	29 A	886.3	01U627C	884.9	21-Nov-89	24 A	884.7
01U626D	885.3	06-Mar-91	30 A	884.3	01U627C	884.9	03-Jan-90	25 A	883.9
01U626D	885.3	04-Jun-91	31 A	887.3	01U627C	884.9	07-May-90	26 A	884.2
01U626D	885.3	03-Sep-91	32 A	885.7	01U627C	884.9	03-Jul-90	27 A	885.8
01U626D	885.3	02-Mar-92	34 A	877.5	01U627C	884.9	02-Oct-90	29 A	886.0
01U626D	885.3	01-Jun-92	35 A	877.6	01U627C	884.9	06-Mar-91	30 A	884.1
01U626D	885.3	09-Sep-92	36 A	876.9	01U627C	884.9	04-Jun-91	31 A	887.0
01U626D	885.3	01-Dec-92	37 A	876.6	01U627C	884.9	03-Sep-91	32 A	885.5
01U626D	885.3	02-Mar-93	38 A	876.0	01U627C	884.9	02-Mar-92	34 A	877.5
01U626D	885.3	01-Jun-93	39 A	876.7	01U627C	884.9	01-Jun-92	35 A	877.8
01U626D	885.3	08-Sep-93	40 A	879.0	01U627C	884.9	09-Sep-92	36 A	877.1
					01U627C	884.9	01-Dec-92	37 A	876.7
01U627A	884.9	27-Jan-88	17 F	875.8	01U627C	884.9	02-Mar-93	38 A	876.1
01U627A	884.9	14-Apr-88	18 F	875.4	01U627C	884.9	01-Jun-93	39 A	876.9
01U627A	884.9	30-Aug-88	19 F	875.6	01U627C	884.9	08-Sep-93	40 A	879.1
01U627A	884.9	23-Nov-88	20 F	876.5					
01U627A	884.9	06-Dec-88	20 A	884.4	01U627D	884.9	27-Jan-88	17 F	874.8
01U627A	884.9	29-Mar-89	21 A	882.5	01U627D	884.9	14-Apr-88	18 F	874.6
01U627A	884.9	07-Jun-89	22 A	884.6	01U627D	884.9	30-Aug-88	19 F	874.9
01U627A	884.9	04-Aug-89	23 F	877.6	01U627D	884.9	23-Nov-88	20 F	875.2
01U627A	884.9	08-Sep-89	23 A	885.6	01U627D	884.9	06-Dec-88	20 A	883.9
01U627A	884.9	03-Nov-89	24 F	877.0	01U627D	884.9	29-Mar-89	21 A	882.4
01U627A	884.9	21-Nov-89	24 A	885.9	01U627D	884.9	07-Jun-89	22 A	883.5
01U627A	884.9	03-Jan-90	25 A	886.2	01U627D	884.9	04-Aug-89	23 F	876.2
01U627A	884.9	07-May-90	26 A	886.5	01U627D	884.9	08-Sep-89	23 A	884.9
01U627A	884.9	03-Jul-90	27 A	886.8	01U627D	884.9	03-Nov-89	24 F	875.7
01U627A	884.9	02-Oct-90	29 A	886.7	01U627D	884.9	21-Nov-89	24 A	884.6
01U627A	884.9	06-Mar-91	30 A	886.6	01U627D	884.9	03-Jan-90	25 A	884.0
01U627A	884.9	04-Jun-91	31 A	887.5	01U627D	884.9	07-May-90	26 A	884.2
01U627A	884.9	03-Sep-91	32 A	886.4	01U627D	884.9	03-Jul-90	27 A	885.8
01U627A	884.9	02-Mar-92	34 A	878.2	01U627D	884.9	02-Oct-90	29 A	886.0
01U627A	884.9	01-Jun-92	35 A	878.6	01U627D	884.9	06-Mar-91	30 A	884.1
01U627A	884.9	09-Sep-92	36 A	878.2	01U627D	884.9	04-Jun-91	31 A	887.0
01U627A	884.9	01-Dec-92	37 A	877.3	01U627D	884.9	03-Sep-91	32 A	885.5
01U627A	884.9	02-Mar-93	38 A	877.3	01U627D	884.9	02-Mar-92	34 A	877.5
01U627A	884.9	01-Jun-93	39 A	877.9	01U627D	884.9	01-Jun-92	35 A	877.8
01U627A	884.9	08-Sep-93	40 A	879.3	01U627D	884.9	09-Sep-92	36 A	877.1
					01U627D	884.9	01-Dec-92	37 A	876.7
01U627B	884.9	27-Jan-88	17 F	874.8	01U627D	884.9	02-Mar-93	38 A	876.1
01U627B	884.9	14-Apr-88	18 F	874.7	01U627D	884.9	01-Jun-93	39 A	876.9
01U627B	884.9	30-Aug-88	19 F	874.9	01U627D	884.9	08-Sep-93	40 A	879.1
01U627B	884.9	23-Nov-88	20 F	876.5					
01U627B	884.9	06-Dec-88	20 A	883.9	01U628A	877.8	27-Jan-88	17 F	868.1

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U628A	877.8	14-Apr-88	18 F	868.0	01U628D	877.8	27-Jan-88	17 F	867.6
01U628A	877.8	30-Aug-88	19 F	868.2	01U628D	877.8	14-Apr-88	18 F	867.4
01U628A	877.8	23-Nov-88	20 F	869.2	01U628D	877.8	30-Aug-88	19 F	867.6
01U628A	877.8	06-Dec-88	20 A	875.9	01U628D	877.8	23-Nov-88	20 F	868.8
01U628A	877.8	29-Mar-89	21 A	875.1	01U628D	877.8	06-Dec-88	20 A	875.7
01U628A	877.8	07-Jun-89	22 A	877.0	01U628D	877.8	29-Mar-89	21 A	875.2
01U628A	877.8	04-Aug-89	23 F	868.5	01U628D	877.8	07-Jun-89	22 A	876.6
01U628A	877.8	08-Sep-89	23 A	877.7	01U628D	877.8	04-Aug-89	23 F	868.9
01U628A	877.8	03-Nov-89	24 F	868.6	01U628D	877.8	08-Sep-89	23 A	877.7
01U628A	877.8	21-Nov-89	24 A	876.1	01U628D	877.8	03-Nov-89	24 F	868.2
01U628A	877.8	03-Jan-90	25 A	875.7	01U628D	877.8	21-Nov-89	24 A	876.2
01U628A	877.8	07-May-90	26 A	876.5	01U628D	877.8	03-Jan-90	25 A	875.7
01U628A	877.8	03-Jul-90	27 A	878.2	01U628D	877.8	07-May-90	26 A	876.1
01U628A	877.8	06-Mar-91	30 A	875.8	01U628D	877.8	03-Jul-90	27 A	877.8
01U628A	877.8	04-Jun-91	31 A	878.9	01U628D	877.8	06-Mar-91	30 A	875.9
01U628A	877.8	03-Sep-91	32 A	877.6	01U628D	877.8	04-Jun-91	31 A	878.8
01U628A	877.8	02-Mar-92	34 A	869.5	01U628D	877.8	03-Sep-91	32 A	877.3
01U628A	877.8	01-Jun-92	35 A	870.0	01U628D	877.8	02-Mar-92	34 A	869.1
01U628A	877.8	09-Sep-92	36 A	869.5	01U628D	877.8	01-Jun-92	35 A	869.5
01U628A	877.8	01-Dec-92	37 A	877.4	01U628D	877.8	09-Sep-92	36 A	868.9
01U628A	877.8	02-Mar-93	38 A	876.2	01U628D	877.8	01-Dec-92	37 A	877.0
01U628A	877.8	01-Jun-93	39 A	877.9	01U628D	877.8	02-Mar-93	38 A	876.1
01U628A	877.8	08-Sep-93	40 A	879.4	01U628D	877.8	01-Jun-93	39 A	877.3
01U628B	877.8	27-Jan-88	17 F	867.9	01U628D	877.8	08-Sep-93	40 A	879.2
01U628B	877.8	14-Apr-88	18 F	867.7	01U634	655.9	15-Dec-87	16 F	649.1
01U628B	877.8	30-Aug-88	19 F	867.9	01U634	655.9	14-Apr-88	18 F	649.2
01U628B	877.8	23-Nov-88	20 F	868.3	01U634	655.9	23-Nov-88	20 F	651.2
01U628B	877.8	06-Dec-88	20 A	876.0	01U634	655.9	12-May-89	22 F	648.1
01U628B	877.8	29-Mar-89	21 A	875.3	01U634	655.9	04-Aug-89	23 F	649.8
01U628B	877.8	07-Jun-89	22 A	877.0	01U636	953.8	14-Dec-87	16 F	940.4
01U628B	877.8	04-Aug-89	23 F	869.2	01U636	953.8	14-Apr-88	18 F	940.8
01U628B	877.8	08-Sep-89	23 A	877.9	01U636	953.8	30-Aug-88	19 F	940.4
01U628B	877.8	03-Nov-89	24 F	868.4	01U636	953.8	23-Nov-88	20 F	940.4
01U628B	877.8	21-Nov-89	24 A	876.4	01U636	953.8	12-May-89	22 F	941.9
01U628B	877.8	03-Jan-90	25 A	875.9	01U636	953.8	04-Aug-89	23 F	941.2
01U628B	877.8	07-May-90	26 A	876.6	01U636	953.8	22-Mar-90	30 A	945.3
01U628B	877.8	03-Jul-90	27 A	878.2	01U636	953.8	11-Sep-90	32 A	945.0
01U628B	877.8	06-Mar-91	30 A	876.0	01U636	953.8	16-Mar-92	34 A	941.4
01U628B	877.8	04-Jun-91	31 A	879.0	01U636	953.8	08-Oct-92	36 A	938.6
01U628B	877.8	03-Sep-91	32 A	877.7	01U636	953.8	02-Mar-93	38 A	Dry
01U628B	877.8	02-Mar-92	34 A	869.3	01U636	953.8	10-Sep-93	40 A	943.1
01U628B	877.8	01-Jun-92	35 A	869.8	01U639	955.9	14-Dec-87	16 F	946.4
01U628B	877.8	09-Sep-92	36 A	869.3	01U639	955.9	14-Apr-88	18 F	948.7
01U628B	877.8	01-Dec-92	37 A	877.2	01U639	955.9	23-Nov-88	20 F	950.8
01U628B	877.8	02-Mar-93	38 A	876.1	01U639	955.9	12-May-89	22 F	948.0
01U628B	877.8	01-Jun-93	39 A	877.6	01U639	955.9	22-Mar-90	30 A	950.5
01U628B	877.8	08-Sep-93	40 A	879.3	01U639	955.9	11-Sep-90	32 A	950.9
01U628C	877.8	27-Jan-88	17 F	867.6	01U639	955.9	16-Mar-92	34 A	948.2
01U628C	877.8	14-Apr-88	18 F	867.4	01U639	955.9	08-Oct-92	36 A	944.6
01U628C	877.8	30-Aug-88	19 F	867.6	01U639	955.9	02-Mar-93	38 A	Dry
01U628C	877.8	23-Nov-88	20 F	868.5	01U639	955.9	10-Sep-93	40 A	Dry
01U628C	877.8	06-Dec-88	20 A	875.7	01U640	958.0	30-Aug-88	19 F	950.3
01U628C	877.8	29-Mar-89	21 A	875.2	01U640	958.0	23-Nov-88	20 F	950.3
01U628C	877.8	07-Jun-89	22 A	876.6	01U640	958.0	12-May-89	22 F	947.0
01U628C	877.8	04-Aug-89	23 F	868.9	01U640	958.0	04-Aug-89	23 F	950.8
01U628C	877.8	08-Sep-89	23 A	877.7	01U640	958.0	22-Mar-90	30 A	949.5
01U628C	877.8	03-Nov-89	24 F	868.2	01U640	958.0	11-Sep-90	32 A	950.0
01U628C	877.8	21-Nov-89	24 A	876.3	01U640	958.0	16-Mar-92	34 A	948.4
01U628C	877.8	03-Jan-90	25 A	875.7	01U640	958.0	08-Oct-92	36 A	945.3
01U628C	877.8	07-May-90	26 A	876.1	01U640	958.0	02-Mar-93	38 A	Dry
01U628C	877.8	03-Jul-90	27 A	877.8	01U640	958.0	10-Sep-93	40 A	948.8
01U628C	877.8	06-Mar-91	30 A	875.9	01U642	958.8	15-Dec-87	16 F	954.6
01U628C	877.8	04-Jun-91	31 A	878.8	01U642	958.8	27-Jan-88	17 F	952.2
01U628C	877.8	03-Sep-91	32 A	877.3	01U642	958.8	14-Apr-88	18 F	954.2
01U628C	877.8	02-Mar-92	34 A	869.1	01U642	958.8	30-Aug-88	19 F	954.0
01U628C	877.8	02-Mar-92	34 A	869.5	01U642	958.8	23-Nov-88	20 F	955.2
01U628C	877.8	01-Jun-92	35 A	869.5	01U642	958.8	04-Aug-89	23 F	951.4
01U628C	877.8	09-Sep-92	36 A	868.9					
01U628C	877.8	01-Dec-92	37 A	876.9					
01U628C	877.8	02-Mar-93	38 A	876.1					
01U628C	877.8	01-Jun-93	39 A	877.3					
01U628C	877.8	08-Sep-93	40 A	879.2					

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
01U652	957.5	15-Dec-87	16 F	948.4	01U901	901.5	19-Feb-91	30 F	881.8
01U652	957.5	27-Jan-88	17 F	947.8	01U901	901.5	19-Mar-91	30 F	881.7
01U652	957.5	14-Apr-88	18 F	946.7	01U901	901.5	16-Apr-91	31 F	882.0
01U652	957.5	30-Aug-88	19 F	947.9	01U901	901.5	18-Jun-91	31 F	884.3
01U652	957.5	23-Nov-88	20 F	948.1	01U901	901.5	18-Jun-91	31 F	884.3
01U652	957.5	12-May-89	22 F	943.6	01U901	901.5	30-Jul-91	32 F	884.8
01U652	957.5	04-Aug-89	23 F	947.7	01U901	901.5	19-Aug-91	32 F	884.7
01U652	957.5	03-Nov-89	24 F	948.1	01U901	901.5	22-Oct-91	33 F	885.3
01U666	956.5	12-May-89	22 F	946.4	01U901	901.5	21-Dec-91	33 F	885.3
01U667	959.6	15-Dec-87	16 F	946.5	01U901	901.5	18-Feb-92	34 F	884.8
01U667	959.6	27-Jan-88	17 F	946.1	01U901	901.5	05-Mar-92	34 F	884.7
01U667	959.6	14-Apr-88	18 F	949.2	01U901	901.5	13-Apr-92	35 F	885.3
01U667	959.6	30-Aug-88	19 F	946.7	01U901	901.5	16-Jun-92	35 F	885.7
01U667	959.6	23-Nov-88	20 F	946.3	01U901	901.5	21-Aug-92	36 F	884.7
01U668	959.4	04-Aug-89	23 F	949.2	01U901	901.5	01-Sep-92	36 F	884.6
01U668	959.4	03-Nov-89	24 F	949.9	01U901	901.5	20-Oct-92	37 F	884.4
01U803	898.2	14-Dec-87	16 F	893.0	01U901	901.5	01-Dec-92	37 F	884.3
01U803	898.2	26-Jan-88	17 F	891.8	01U901	901.5	01-Feb-93	38 F	883.8
01U803	898.2	30-Aug-88	19 F	892.1	01U901	901.5	02-Mar-93	38 F	883.6
01U803	898.2	23-Nov-88	20 F	893.0	01U901	901.5	20-Apr-93	39 F	883.5
01U803	898.2	03-Aug-89	23 F	893.0	01U901	901.5	15-Jun-93	39 F	884.9
01U803	898.2	03-Nov-89	24 F	891.4	01U901	901.5	16-Aug-93	40 F	889.5
01U803	898.2	05-Sep-91	32 F	893.0	01U901	901.5	08-Sep-93	40 F	887.8
01U805	905.4	14-Dec-87	16 F	901.1	01U902	901.3	06-Aug-89	23 F	884.7
01U805	905.4	26-Jan-88	17 F	899.6	01U902	901.3	02-Nov-89	24 F	883.9
01U805	905.4	13-Apr-88	18 F	901.4	01U902	901.3	20-Feb-90	25 F	883.0
01U805	905.4	30-Aug-88	19 F	899.4	01U902	901.3	20-Mar-90	25 F	882.8
01U805	905.4	23-Nov-88	20 F	899.5	01U902	901.3	16-Apr-90	26 F	882.8
01U805	905.4	03-Aug-89	23 F	900.5	01U902	901.3	22-May-90	26 F	883.0
01U805	905.4	03-Nov-89	24 F	897.2	01U902	901.3	19-Jun-90	26 F	883.8
01U805	905.4	05-Sep-91	32 F	899.9	01U902	901.3	17-Jul-90	27 F	884.8
01U806	909.7	14-Dec-87	16 F	902.8	01U902	901.3	21-Aug-90	27 F	885.7
01U806	909.7	27-Jan-88	17 F	901.5	01U902	901.3	18-Sep-90	28 F	886.2
01U806	909.7	13-Apr-88	18 F	901.5	01U902	901.3	02-Nov-90	29 F	885.8
01U806	909.7	30-Aug-88	19 F	901.5	01U902	901.3	18-Dec-90	29 F	885.6
01U806	909.7	03-Aug-89	23 F	902.1	01U902	901.3	19-Feb-91	30 F	884.9
01U806	909.7	03-Nov-89	24 F	900.9	01U902	901.3	19-Mar-91	30 F	884.6
01U806	909.7	05-Sep-91	32 F	903.2	01U902	901.3	16-Apr-91	31 F	884.8
01U808	908.4	14-Dec-87	16 F	891.5	01U902	901.3	05-Jun-91	31 F	887.0
01U808	908.4	26-Jan-88	17 F	891.9	01U902	901.3	18-Jun-91	31 F	887.7
01U808	908.4	13-Apr-88	18 F	891.2	01U902	901.3	18-Jun-91	31 F	887.8
01U808	908.4	30-Aug-88	19 F	890.9	01U902	901.3	30-Jul-91	32 F	888.3
01U808	908.4	23-Nov-88	20 F	891.0	01U902	901.3	19-Aug-91	32 F	888.1
01U808	908.4	03-Aug-89	23 F	891.3	01U902	901.3	03-Sep-91	32 F	887.8
01U808	908.4	03-Nov-89	24 F	891.0	01U902	901.3	22-Oct-91	33 F	889.0
01U808	908.4	05-Sep-91	32 F	891.6	01U902	901.3	21-Dec-91	33 F	888.9
01U813	870.2	14-Dec-87	16 F	868.5	01U902	901.3	18-Feb-92	34 F	888.3
01U813	870.2	13-Apr-88	18 F	868.6	01U902	901.3	09-Mar-92	34 F	888.2
01U813	870.2	30-Aug-88	19 F	865.9	01U902	901.3	13-Apr-92	35 F	888.8
01U813	870.2	23-Nov-88	20 F	867.0	01U902	901.3	02-Jun-92	35 F	889.5
01U813	870.2	06-Aug-89	23 F	868.0	01U902	901.3	16-Jun-92	35 F	889.2
01U813	870.2	03-Nov-89	24 F	867.4	01U902	901.3	21-Aug-92	36 F	888.3
01U901	901.5	06-Aug-89	23 F	881.7	01U902	901.3	01-Sep-92	36 F	888.1
01U901	901.5	02-Nov-89	24 F	881.0	01U902	901.3	20-Oct-92	37 F	887.9
01U901	901.5	20-Feb-90	25 F	880.4	01U902	901.3	01-Dec-92	37 F	887.8
01U901	901.5	20-Mar-90	25 F	880.3	01U902	901.3	01-Feb-93	38 F	887.2
01U901	901.5	16-Apr-90	26 F	880.0	01U902	901.3	02-Mar-93	38 F	886.7
01U901	901.5	30-Apr-90	26 F	880.4	01U902	901.3	20-Apr-93	39 F	886.5
01U901	901.5	22-May-90	26 F	880.7	01U902	901.3	01-Jun-93	39 F	887.7
01U901	901.5	19-Jun-90	26 F	881.2	01U902	901.3	16-Aug-93	40 F	891.8
01U901	901.5	17-Jul-90	27 F	882.0	01U902	901.3	29-Oct-93	40 F	889.7
01U901	901.5	21-Aug-90	27 F	883.8	03F302	927.2	24-Nov-87	16 A	850.6
01U901	901.5	18-Sep-90	28 F	883.1	03F302	927.2	30-Nov-87	16 A	844.8
01U901	901.5	02-Nov-90	29 F	882.9	03F302	927.2	14-Dec-87	16 A	844.4
01U901	901.5	18-Dec-90	29 F	882.5	03F302	927.2	15-Dec-87	16 F	844.4
					03F302	927.2	11-Jan-88	17 A	844.6
					03F302	927.2	28-Jan-88	17 F	837.3
					03F302	927.2	14-Apr-88	18 F	865.6
					03F302	927.2	02-May-88	18 A	844.8
					03F302	927.2	20-May-88	18 A	844.3
					03F302	927.2	23-Jun-88	18 A	843.7
					03F302	927.2	27-Jul-88	19 A	842.5



**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03F302	927.2	30-Aug-88	19 F	860.5	03F304	917.1	27-Jul-88	19 A	846.5
03F302	927.2	01-Sep-88	19 A	840.1	03F304	917.1	30-Aug-88	19 F	851.9
03F302	927.2	21-Sep-88	19 A	847.8	03F304	917.1	01-Sep-88	19 A	847.6
03F302	927.2	14-Oct-88	20 A	840.7	03F304	917.1	21-Sep-88	19 A	847.5
03F302	927.2	25-Nov-88	20 F	863.4	03F304	917.1	14-Oct-88	20 A	846.7
03F302	927.2	02-Dec-88	20 A	849.2	03F304	917.1	25-Nov-88	20 F	851.6
03F302	927.2	13-Jan-89	21 A	839.9	03F304	917.1	02-Dec-88	20 A	848.5
03F302	927.2	31-Mar-89	21 A	848.7	03F304	917.1	13-Jan-89	21 A	847.7
03F302	927.2	07-Jul-89	23 A	837.9	03F304	917.1	31-Mar-89	21 A	842.6
03F302	927.2	04-Aug-89	23 F	837.2	03F304	917.1	07-Jul-89	23 A	841.0
03F302	927.2	05-Oct-89	24 A	837.1	03F304	917.1	04-Aug-89	23 F	841.1
03F302	927.2	02-Nov-89	24 F	836.3	03F304	917.1	05-Oct-89	24 A	840.5
03F302	927.2	11-Jan-90	25 A	855.3	03F304	917.1	02-Nov-89	24 F	840.6
03F302	927.2	16-May-90	26 A	836.7	03F304	917.1	21-Dec-89	24 A	840.1
03F302	927.2	16-Jul-90	27 A	835.9	03F304	917.1	11-Jan-90	25 A	840.0
03F302	927.2	28-Feb-91	30 A	836.5	03F304	917.1	16-May-90	26 A	840.2
03F302	927.2	03-Jun-91	31 A	835.0	03F304	917.1	16-Jul-90	27 A	839.7
03F302	927.2	03-Sep-91	32 A	835.3	03F304	917.1	28-Feb-91	30 A	840.5
03F302	927.2	27-Sep-91	32 A	835.3	03F304	917.1	03-Jun-91	31 A	840.0
03F302	927.2	06-Dec-91	33 A	835.8	03F304	917.1	03-Sep-91	32 A	839.7
03F302	927.2	24-Mar-92	34 A	836.4	03F304	917.1	27-Sep-91	32 A	840.1
03F302	927.2	01-Jun-92	35 A	836.9	03F304	917.1	06-Dec-91	33 A	841.5
03F302	927.2	01-Sep-92	36 A	837.4	03F304	917.1	24-Mar-92	34 A	842.1
03F302	927.2	08-Oct-92	37 A	866.9	03F304	917.1	01-Jun-92	35 A	842.4
03F302	927.2	02-Mar-93	38 A	838.4	03F304	917.1	01-Sep-92	36 A	841.9
03F302	927.2	10-Sep-93	40 A	840.5	03F304	917.1	08-Oct-92	37 A	843.1
					03F304	917.1	02-Mar-93	38 A	843.1
03F303	922.1	24-Nov-87	16 A	829.8	03F304	917.1	10-Sep-93	40 A	844.4
03F303	922.1	30-Nov-87	16 A	829.8	03F305	912.7	24-Nov-87	16 A	844.5
03F303	922.1	14-Dec-87	16 A	830.8	03F305	912.7	30-Nov-87	16 A	844.8
03F303	922.1	15-Dec-87	16 F	830.8	03F305	912.7	14-Dec-87	16 A	844.7
03F303	922.1	28-Jan-88	17 F	847.4	03F305	912.7	15-Dec-87	16 F	844.7
03F303	922.1	14-Apr-88	18 F	857.8	03F305	912.7	11-Jan-88	17 A	844.9
03F303	922.1	02-May-88	18 A	831.3	03F305	912.7	28-Jan-88	17 F	844.2
03F303	922.1	20-May-88	18 A	829.7	03F305	912.7	14-Apr-88	18 F	848.3
03F303	922.1	23-Jun-88	18 A	836.4	03F305	912.7	02-May-88	18 A	844.7
03F303	922.1	27-Jul-88	19 A	825.6	03F305	912.7	23-Jun-88	18 A	848.8
03F303	922.1	30-Aug-88	19 F	852.9	03F305	912.7	27-Jul-88	19 A	847.8
03F303	922.1	01-Sep-88	19 A	847.7	03F305	912.7	30-Aug-88	19 F	843.4
03F303	922.1	21-Sep-88	19 A	847.2	03F305	912.7	01-Sep-88	19 A	847.3
03F303	922.1	14-Oct-88	20 A	828.0	03F305	912.7	21-Sep-88	19 A	847.1
03F303	922.1	02-Dec-88	20 A	849.0	03F305	912.7	14-Oct-88	20 A	841.0
03F303	922.1	13-Jan-89	21 A	828.3	03F305	912.7	02-Dec-88	20 A	848.2
03F303	922.1	31-Mar-89	21 A	827.6	03F305	912.7	13-Jan-89	21 A	841.7
03F303	922.1	07-Jul-89	23 A	829.6	03F305	912.7	31-Mar-89	21 A	837.5
03F303	922.1	04-Aug-89	23 F	828.6	03F305	912.7	07-Jul-89	23 A	836.3
03F303	922.1	05-Oct-89	24 A	828.4	03F305	912.7	04-Aug-89	23 F	836.5
03F303	922.1	02-Nov-89	24 F	828.9	03F305	912.7	05-Oct-89	24 A	836.2
03F303	922.1	21-Dec-89	24 A	830.5	03F305	912.7	02-Nov-89	24 F	836.9
03F303	922.1	11-Jan-90	25 A	828.7	03F305	912.7	21-Dec-89	24 A	834.5
03F303	922.1	16-May-90	26 A	821.3	03F305	912.7	11-Jan-90	25 A	834.3
03F303	922.1	16-Jul-90	27 A	821.0	03F305	912.7	16-May-90	26 A	835.4
03F303	922.1	28-Feb-91	30 A	820.5	03F305	912.7	16-Jul-90	27 A	835.1
03F303	922.1	03-Jun-91	31 A	817.7	03F305	912.7	28-Feb-91	30 A	835.7
03F303	922.1	03-Sep-91	32 A	810.8	03F305	912.7	03-Jun-91	31 A	836.0
03F303	922.1	27-Sep-91	32 A	806.5	03F305	912.7	03-Sep-91	32 A	835.4
03F303	922.1	06-Dec-91	33 A	806.6	03F305	912.7	27-Sep-91	32 A	835.5
03F303	922.1	24-Mar-92	34 A	806.2	03F305	912.7	06-Dec-91	33 A	836.5
03F303	922.1	01-Jun-92	35 A	806.6	03F305	912.7	24-Mar-92	34 A	837.3
03F303	922.1	01-Sep-92	36 A	821.2	03F305	912.7	01-Jun-92	35 A	837.8
03F303	922.1	08-Oct-92	37 A	821.0	03F305	912.7	01-Sep-92	36 A	837.4
03F303	922.1	02-Mar-93	38 A	821.5	03F305	912.7	08-Oct-92	37 A	836.8
03F303	922.1	10-Sep-93	40 A	821.2	03F305	912.7	02-Mar-93	38 A	839.2
					03F305	912.7	10-Sep-93	40 A	841.0
03F304	917.1	24-Nov-87	16 A	848.5	03F306	916.2	15-Dec-87	16 F	841.7
03F304	917.1	30-Nov-87	16 A	849.8	03F306	916.2	28-Jan-88	17 F	824.9
03F304	917.1	14-Dec-87	16 A	848.6	03F306	916.2	14-Apr-88	18 F	847.7
03F304	917.1	15-Dec-87	16 F	848.6	03F306	916.2	02-May-88	18 A	841.9
03F304	917.1	11-Jan-88	17 A	848.8	03F306	916.2	20-May-88	18 A	841.2
03F304	917.1	28-Jan-88	17 F	849.2	03F306	916.2	23-Jun-88	18 A	839.3
03F304	917.1	14-Apr-88	18 F	856.8	03F306	916.2	27-Jul-88	19 A	847.6
03F304	917.1	02-May-88	18 A	849.1	03F306	916.2	30-Aug-88	19 F	842.1
03F304	917.1	20-May-88	18 A	848.5					
03F304	917.1	23-Jun-88	18 A	847.7					

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03F306	916.2	01-Sep-88	19 A	848.5	03F308	900.6	02-Mar-93	38 A	821.5
03F306	916.2	21-Sep-88	19 A	838.2	03F308	900.6	10-Sep-93	40 A	815.7
03F306	916.2	25-Nov-88	20 F	858.7					
03F306	916.2	07-Jul-89	23 A	834.5	03F312	942.1	02-Dec-88	20 A	851.6
03F306	916.2	04-Aug-89	23 F	834.4	03F312	942.1	13-Jan-89	21 A	850.9
03F306	916.2	05-Oct-89	24 A	833.1	03F312	942.1	31-Mar-89	21 A	838.0
03F306	916.2	02-Nov-89	24 F	833.5	03F312	942.1	07-Jul-89	23 A	835.3
03F306	916.2	21-Dec-89	24 A	832.5	03F312	942.1	05-Oct-89	24 A	835.1
03F306	916.2	11-Jan-90	25 A	832.8	03F312	942.1	21-Dec-89	24 A	828.7
03F306	916.2	16-May-90	26 A	832.8	03F312	942.1	11-Jan-90	25 A	838.6
03F306	916.2	16-Jul-90	27 A	832.3	03F312	942.1	16-May-90	26 A	839.4
03F306	916.2	28-Feb-91	30 A	833.6	03F312	942.1	16-Jul-90	27 A	838.8
03F306	916.2	03-Jun-91	31 A	832.2	03F312	942.1	28-Feb-91	30 A	839.0
03F306	916.2	03-Sep-91	32 A	831.9	03F312	942.1	03-Jun-91	31 A	839.4
03F306	916.2	27-Sep-91	32 A	832.1	03F312	942.1	03-Sep-91	32 A	838.9
03F306	916.2	06-Dec-91	33 A	832.9	03F312	942.1	27-Sep-91	32 A	839.0
03F306	916.2	24-Mar-92	34 A	839.0	03F312	942.1	06-Dec-91	33 A	840.2
03F306	916.2	01-Jun-92	35 A	834.2	03F312	942.1	24-Mar-92	34 A	840.8
03F306	916.2	01-Sep-92	36 A	833.7	03F312	942.1	01-Jun-92	35 A	841.7
03F306	916.2	08-Oct-92	37 A	834.1	03F312	942.1	01-Sep-92	36 A	841.6
03F306	916.2	02-Mar-93	38 A	834.5	03F312	942.1	08-Oct-92	37 A	841.2
03F306	916.2	10-Sep-93	40 A	836.5	03F312	942.1	02-Mar-93	38 A	842.4
					03F312	942.1	10-Sep-93	40 A	842.0
03F307	912.6	24-Nov-87	16 A	823.7	03L001	888.5	17-Nov-87	16 A	849.9
03F307	912.6	30-Nov-87	16 A	824.1	03L001	888.5	24-Nov-87	16 A	849.5
03F307	912.6	14-Dec-87	16 A	823.3	03L001	888.5	30-Nov-87	16 A	849.9
03F307	912.6	15-Dec-87	16 F	823.3	03L001	888.5	14-Dec-87	16 A	849.6
03F307	912.6	11-Jan-88	17 A	823.5	03L001	888.5	14-Dec-87	16 F	849.7
03F307	912.6	28-Jan-88	17 F	830.2	03L001	888.5	11-Jan-88	17 A	849.9
03F307	912.6	14-Apr-88	18 F	839.4	03L001	888.5	27-Jan-88	17 F	849.6
03F307	912.6	02-May-88	18 A	824.4	03L001	888.5	13-Apr-88	18 F	850.6
03F307	912.6	20-May-88	18 A	823.2	03L001	888.5	02-May-88	18 A	849.7
03F307	912.6	23-Jun-88	18 A	824.6	03L001	888.5	20-May-88	18 A	849.1
03F307	912.6	27-Jul-88	19 A	847.0	03L001	888.5	23-Jun-88	18 A	846.6
03F307	912.6	30-Aug-88	19 F	833.9	03L001	888.5	27-Jul-88	19 A	845.4
03F307	912.6	21-Sep-88	19 A	822.2	03L001	888.5	30-Aug-88	19 F	845.5
03F307	912.6	25-Nov-88	20 F	860.6	03L001	888.5	01-Sep-88	19 A	845.1
03F307	912.6	31-Mar-89	21 A	830.8	03L001	888.5	21-Sep-88	19 A	845.2
03F307	912.6	07-Jul-89	23 A	829.3	03L001	888.5	14-Oct-88	20 A	845.7
03F307	912.6	04-Aug-89	23 F	829.5	03L001	888.5	23-Nov-88	20 F	846.7
03F307	912.6	05-Oct-89	24 A	828.9	03L001	888.5	02-Dec-88	20 A	846.7
03F307	912.6	02-Nov-89	24 F	829.3	03L001	888.5	13-Jan-89	21 A	846.8
03F307	912.6	21-Dec-89	24 A	828.5	03L001	888.5	31-Mar-89	21 A	843.9
03F307	912.6	11-Jan-90	25 A	828.5	03L001	888.5	07-Jul-89	23 A	841.6
03F307	912.6	16-May-90	26 A	827.9	03L001	888.5	05-Aug-89	23 F	841.5
03F307	912.6	16-Jul-90	27 A	828.4	03L001	888.5	05-Oct-89	24 A	841.4
03F307	912.6	28-Feb-91	30 A	828.5	03L001	888.5	02-Nov-89	24 F	841.5
03F307	912.6	03-Jun-91	31 A	828.6	03L001	888.5	21-Dec-89	24 A	841.3
03F307	912.6	27-Sep-91	32 A	828.1	03L001	888.5	11-Jan-90	25 A	841.3
03F307	912.6	06-Dec-91	33 A	829.3	03L001	888.5	16-May-90	26 A	841.5
03F307	912.6	24-Mar-92	34 A	832.5	03L001	888.5	16-Jul-90	27 A	841.2
03F307	912.6	01-Jun-92	35 A	828.8	03L001	888.5	28-Feb-91	30 A	842.1
03F307	912.6	01-Sep-92	36 A	828.9	03L001	888.5	03-Jun-91	31 A	841.9
03F307	912.6	08-Oct-92	37 A	858.5	03L001	888.5	03-Sep-91	32 A	840.9
03F307	912.6	02-Mar-93	38 A	826.6	03L001	888.5	27-Sep-91	32 A	841.5
03F307	912.6	10-Sep-93	40 A	827.3	03L001	888.5	06-Dec-91	33 A	842.8
					03L001	888.5	24-Mar-92	34 A	843.3
03F308	900.6	02-Dec-88	20 A	846.1	03L001	888.5	01-Jun-92	35 A	843.1
03F308	900.6	13-Jan-89	21 A	847.1	03L001	888.5	01-Sep-92	36 A	842.7
03F308	900.6	31-Mar-89	21 A	836.1	03L001	888.5	08-Oct-92	37 A	843.3
03F308	900.6	07-Jul-89	23 A	834.4	03L001	888.5	02-Mar-93	38 A	844.4
03F308	900.6	05-Oct-89	24 A	834.0	03L001	888.5	10-Sep-93	40 A	845.8
03F308	900.6	21-Dec-89	24 A	833.7					
03F308	900.6	11-Jan-90	25 A	833.5					
03F308	900.6	16-May-90	26 A	832.9	03L002	919.5	17-Nov-87	16 A	850.7
03F308	900.6	16-Jul-90	27 A	831.5	03L002	919.5	24-Nov-87	16 A	850.3
03F308	900.6	28-Feb-91	30 A	832.2	03L002	919.5	30-Nov-87	16 A	850.7
03F308	900.6	03-Jun-91	31 A	827.5	03L002	919.5	14-Dec-87	16 A	850.4
03F308	900.6	27-Sep-91	32 A	824.5	03L002	919.5	11-Jan-88	17 A	850.7
03F308	900.6	06-Dec-91	33 A	825.4	03L002	919.5	13-Apr-88	18 F	853.1
03F308	900.6	24-Mar-92	34 A	824.8	03L002	919.5	02-May-88	18 A	851.0
03F308	900.6	01-Jun-92	35 A	823.3	03L002	919.5	20-May-88	18 A	850.4
03F308	900.6	01-Sep-92	36 A	823.0	03L002	919.5	23-Jun-88	18 A	849.4
03F308	900.6	08-Oct-92	37 A	820.8	03L002	919.5	27-Jul-88	19 A	848.4

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L002	919.5	30-Aug-88	19 F	847.9	03L004	950.4	14-Apr-88	18 F	856.0
03L002	919.5	01-Sep-88	19 A	847.9	03L004	950.4	02-May-88	18 A	855.6
03L002	919.5	21-Sep-88	19 A	847.6	03L004	950.4	20-May-88	18 A	855.2
03L002	919.5	14-Oct-88	20 A	847.0	03L004	950.4	23-Jun-88	18 A	854.2
03L002	919.5	23-Nov-88	20 F	848.5	03L004	950.4	27-Jul-88	19 A	852.8
03L002	919.5	02-Dec-88	20 A	848.7	03L004	950.4	30-Aug-88	19 F	851.9
03L002	919.5	13-Jan-89	21 A	848.1	03L004	950.4	01-Sep-88	19 A	851.6
03L002	919.5	31-Mar-89	21 A	844.5	03L004	950.4	21-Sep-88	19 A	851.3
03L002	919.5	07-Jul-89	23 A	843.0	03L004	950.4	14-Oct-88	20 A	851.2
03L002	919.5	05-Aug-89	23 F	842.9	03L004	950.4	23-Nov-88	20 F	851.4
03L002	919.5	05-Oct-89	24 A	842.5	03L004	950.4	02-Dec-88	20 A	851.5
03L002	919.5	02-Nov-89	24 F	842.9	03L004	950.4	13-Jan-89	21 A	851.8
03L002	919.5	21-Dec-89	24 A	841.9	03L004	950.4	31-Mar-89	21 A	850.4
03L002	919.5	11-Jan-90	25 A	841.8	03L004	950.4	05-Aug-89	23 F	849.3
03L002	919.5	16-May-90	26 A	841.9	03L004	950.4	05-Oct-89	24 A	848.1
03L002	919.5	16-Jul-90	27 A	841.7	03L004	950.4	04-Nov-89	24 F	848.1
03L002	919.5	28-Feb-91	30 A	842.3	03L004	950.4	21-Dec-89	24 A	847.8
03L002	919.5	03-Jun-91	31 A	842.2	03L004	950.4	11-Jan-90	25 A	847.6
03L002	919.5	03-Sep-91	32 A	841.6	03L004	950.4	16-May-90	26 A	847.5
03L002	919.5	27-Sep-91	32 A	841.9	03L004	950.4	28-Feb-91	30 A	848.1
03L002	919.5	06-Dec-91	33 A	843.2	03L004	950.4	27-Sep-91	32 A	847.6
03L002	919.5	24-Mar-92	34 A	843.8	03L004	950.4	24-Mar-92	34 A	849.5
03L002	919.5	01-Jun-92	35 A	844.2	03L004	950.4	08-Oct-92	37 A	849.5
03L002	919.5	01-Sep-92	36 A	843.8	03L004	950.4	02-Mar-93	38 A	850.2
03L002	919.5	08-Oct-92	37 A	844.1	03L004	950.4	10-Sep-93	40 A	851.3
03L002	919.5	02-Mar-93	38 A	845.0					
03L002	919.5	10-Sep-93	40 A	846.3					
					03L005	971.6	30-Nov-87	16 A	854.7
03L003	943.4	17-Nov-87	16 A	852.5	03L005	971.6	14-Dec-87	16 A	854.5
03L003	943.4	24-Nov-87	16 A	852.4	03L005	971.6	14-Dec-87	16 F	857.3
03L003	943.4	30-Nov-87	16 A	852.4	03L005	971.6	26-Jan-88	17 F	857.4
03L003	943.4	14-Dec-87	16 A	852.2	03L005	971.6	14-Apr-88	18 F	857.7
03L003	943.4	14-Dec-87	16 F	852.3	03L005	971.6	02-May-88	18 A	854.9
03L003	943.4	11-Jan-88	17 A	852.4	03L005	971.6	20-May-88	18 A	854.5
03L003	943.4	26-Jan-88	17 F	852.4	03L005	971.6	23-Jun-88	18 A	852.8
03L003	943.4	14-Apr-88	18 F	854.1	03L005	971.6	27-Jul-88	19 A	851.8
03L003	943.4	02-May-88	18 A	853.0	03L005	971.6	30-Aug-88	19 F	853.7
03L003	943.4	20-May-88	18 A	852.4	03L005	971.6	01-Sep-88	19 A	850.8
03L003	943.4	23-Jun-88	18 A	851.7	03L005	971.6	21-Sep-88	19 A	850.5
03L003	943.4	27-Jul-88	19 A	850.3	03L005	971.6	14-Oct-88	20 A	850.1
03L003	943.4	30-Aug-88	19 F	849.3	03L005	971.6	23-Nov-88	20 F	853.2
03L003	943.4	01-Sep-88	19 A	849.0	03L005	971.6	02-Dec-88	20 A	850.2
03L003	943.4	21-Sep-88	19 A	848.8	03L005	971.6	13-Jan-89	21 A	850.7
03L003	943.4	14-Oct-88	20 A	848.5	03L005	971.6	31-Mar-89	21 A	849.5
03L003	943.4	02-Dec-88	20 A	849.7	03L005	971.6	05-Aug-89	23 F	851.1
03L003	943.4	13-Jan-89	21 A	849.2	03L005	971.6	05-Oct-89	24 A	847.6
03L003	943.4	31-Mar-89	21 A	845.4	03L005	971.6	03-Nov-89	24 F	850.5
03L003	943.4	07-Jul-89	23 A	843.9	03L005	971.6	21-Dec-89	24 A	847.0
03L003	943.4	05-Aug-89	23 F	844.1	03L005	971.6	11-Jan-90	25 A	847.0
03L003	943.4	05-Oct-89	24 A	843.2	03L005	971.6	24-Apr-90	26 F	850.0
03L003	943.4	02-Nov-89	24 F	844.1	03L005	971.6	16-May-90	26 A	846.8
03L003	943.4	21-Dec-89	24 A	843.9	03L005	971.6	28-Feb-91	30 A	847.8
03L003	943.4	11-Jan-90	25 A	843.3	03L005	971.6	29-Mar-91	30 F	850.0
03L003	943.4	16-May-90	26 A	843.4	03L005	971.6	27-Sep-91	32 A	847.3
03L003	943.4	16-Jul-90	27 A	843.1	03L005	971.6	17-Mar-92	34 F	852.2
03L003	943.4	28-Feb-91	30 A	843.8	03L005	971.6	24-Mar-92	34 A	849.3
03L003	943.4	03-Jun-91	31 A	843.5	03L005	971.6	08-Oct-92	37 A	852.8
03L003	943.4	03-Sep-91	32 A	843.1	03L005	971.6	02-Mar-93	38 A	853.3
03L003	943.4	27-Sep-91	32 A	843.3	03L005	971.6	09-Mar-93	38 F	853.1
03L003	943.4	06-Dec-91	33 A	844.5	03L005	971.6	10-Sep-93	40 A	854.1
03L003	943.4	24-Mar-92	34 A	845.0					
03L003	943.4	01-Jun-92	35 A	845.8	03L007	901.5	24-Nov-87	16 A	858.9
03L003	943.4	01-Sep-92	36 A	845.5	03L007	901.5	14-Dec-87	16 A	859.2
03L003	943.4	08-Oct-92	37 A	846.1	03L007	901.5	14-Dec-87	16 F	859.1
03L003	943.4	02-Mar-93	38 A	846.8	03L007	901.5	11-Jan-88	17 A	859.6
03L003	943.4	10-Sep-93	40 A	847.7	03L007	901.5	26-Jan-88	17 F	859.3
					03L007	901.5	13-Apr-88	18 F	859.7
03L004	950.4	17-Nov-87	16 A	855.4	03L007	901.5	02-May-88	18 A	859.1
03L004	950.4	24-Nov-87	16 A	855.1	03L007	901.5	20-May-88	18 A	858.8
03L004	950.4	30-Nov-87	16 A	855.3	03L007	901.5	23-Jun-88	18 A	856.4
03L004	950.4	14-Dec-87	16 A	855.0	03L007	901.5	27-Jul-88	19 A	855.0
03L004	950.4	14-Dec-87	16 F	855.1	03L007	901.5	30-Aug-88	19 F	854.7
03L004	950.4	11-Jan-88	17 A	855.4	03L007	901.5	01-Sep-88	19 A	854.8
03L004	950.4	26-Jan-88	17 F	855.3	03L007	901.5	21-Sep-88	19 A	854.3
					03L007	901.5	14-Oct-88	20 A	854.7

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L007	901.5	23-Nov-88	20 F	855.2	03L012	879.9	14-Oct-88	20 A	855.3
03L007	901.5	02-Dec-88	20 A	855.3	03L012	879.9	23-Nov-88	20 F	855.8
03L007	901.5	13-Jan-89	21 A	855.5	03L012	879.9	02-Dec-88	20 A	855.7
03L007	901.5	31-Mar-89	21 A	854.9	03L012	879.9	13-Jan-89	21 A	856.3
03L007	901.5	05-Aug-89	23 F	852.3	03L012	879.9	31-Mar-89	21 A	856.5
03L007	901.5	05-Oct-89	24 A	852.3	03L012	879.9	05-Aug-89	23 F	852.7
03L007	901.5	02-Nov-89	24 F	852.4	03L012	879.9	05-Oct-89	24 A	853.2
03L007	901.5	21-Dec-89	24 A	852.4	03L012	879.9	02-Nov-89	24 F	853.5
03L007	901.5	11-Jan-90	25 A	852.3	03L012	879.9	21-Dec-89	24 A	853.9
03L007	901.5	23-Apr-90	26 F	851.8	03L012	879.9	11-Jan-90	25 A	854.1
03L007	901.5	16-May-90	26 A	851.9	03L012	879.9	16-May-90	26 A	853.7
03L007	901.5	16-Jul-90	27 A	851.7	03L012	879.9	16-Jul-90	27 A	853.7
03L007	901.5	19-Jul-90	27 F	851.8	03L012	879.9	28-Feb-91	30 A	854.9
03L007	901.5	28-Feb-91	30 A	853.0	03L012	879.9	03-Jun-91	31 A	855.2
03L007	901.5	28-Mar-91	30 F	852.5	03L012	879.9	03-Sep-91	32 A	853.9
03L007	901.5	03-Jun-91	31 A	852.6	03L012	879.9	27-Sep-91	32 A	855.0
03L007	901.5	03-Sep-91	32 A	852.1	03L012	879.9	06-Dec-91	33 A	856.3
03L007	901.5	27-Sep-91	32 A	852.2	03L012	879.9	24-Mar-92	34 A	856.9
03L007	901.5	06-Dec-91	33 A	854.1	03L012	879.9	01-Jun-92	35 A	856.3
03L007	901.5	10-Mar-92	34 F	854.6	03L012	879.9	01-Sep-92	36 A	855.3
03L007	901.5	24-Mar-92	34 A	854.6	03L012	879.9	08-Oct-92	37 A	856.2
03L007	901.5	01-Jun-92	35 A	854.6	03L012	879.9	02-Mar-93	38 A	857.4
03L007	901.5	01-Sep-92	36 A	854.2	03L012	879.9	10-Sep-93	40 A	858.9
03L007	901.5	08-Oct-92	37 A	855.1					
03L007	901.5	02-Mar-93	38 A	855.8	03L013	889.7	17-Nov-87	16 A	852.6
03L007	901.5	02-Mar-93	38 F	855.6	03L013	889.7	24-Nov-87	16 A	852.3
03L007	901.5	10-Sep-93	40 A	856.8	03L013	889.7	14-Dec-87	16 A	852.5
					03L013	889.7	14-Dec-87	16 F	852.4
03L010	889.1	24-Nov-87	16 A	865.6	03L013	889.7	11-Jan-88	17 A	852.0
03L010	889.1	14-Dec-87	16 A	865.8	03L013	889.7	27-Jan-88	17 F	852.4
03L010	889.1	11-Jan-88	17 A	866.2	03L013	889.7	13-Apr-88	18 F	853.0
03L010	889.1	26-Jan-88	17 F	866.0	03L013	889.7	02-May-88	18 A	852.3
03L010	889.1	13-Apr-88	18 F	865.8	03L013	889.7	20-May-88	18 A	851.8
03L010	889.1	02-May-88	18 A	864.9	03L013	889.7	23-Jun-88	18 A	848.9
03L010	889.1	20-May-88	18 A	864.4	03L013	889.7	27-Jul-88	19 A	847.7
03L010	889.1	23-Jun-88	18 A	859.1	03L013	889.7	30-Aug-88	19 F	848.0
03L010	889.1	27-Jul-88	19 A	857.6	03L013	889.7	01-Sep-88	19 A	847.8
03L010	889.1	30-Aug-88	19 F	859.4	03L013	889.7	21-Sep-88	19 A	847.7
03L010	889.1	01-Sep-88	19 A	859.5	03L013	889.7	14-Oct-88	20 A	848.2
03L010	889.1	21-Sep-88	19 A	859.9	03L013	889.7	23-Nov-88	20 F	848.9
03L010	889.1	14-Oct-88	20 A	860.9	03L013	889.7	02-Dec-88	20 A	848.9
03L010	889.1	23-Nov-88	20 F	861.6	03L013	889.7	13-Jan-89	21 A	849.5
03L010	889.1	02-Dec-88	20 A	861.7	03L013	889.7	31-Mar-89	21 A	847.9
03L010	889.1	13-Jan-89	21 A	861.8	03L013	889.7	05-Aug-89	23 F	845.0
03L010	889.1	31-Mar-89	21 A	862.9	03L013	889.7	05-Oct-89	24 A	845.1
03L010	889.1	05-Aug-89	23 F	858.1	03L013	889.7	02-Nov-89	24 F	845.2
03L010	889.1	05-Oct-89	24 A	859.3	03L013	889.7	21-Dec-89	24 A	845.3
03L010	889.1	02-Nov-89	24 F	859.7	03L013	889.7	11-Jan-90	25 A	845.6
03L010	889.1	21-Dec-89	24 A	860.3	03L013	889.7	27-Apr-90	26 F	766.4
03L010	889.1	11-Jan-90	25 A	860.4	03L013	889.7	16-May-90	26 A	845.4
03L010	889.1	27-Apr-90	26 F	860.0	03L013	889.7	28-Feb-91	30 A	846.2
03L010	889.1	01-Apr-91	30 F	861.6	03L013	889.7	27-Sep-91	32 A	845.8
03L010	889.1	27-Sep-91	32 A	862.1	03L013	889.7	24-Mar-92	34 A	847.8
03L010	889.1	10-Mar-92	34 F	863.8	03L013	889.7	08-Oct-92	37 A	847.5
03L010	889.1	24-Mar-92	34 A	863.7	03L013	889.7	02-Mar-93	38 A	848.6
03L010	889.1	08-Oct-92	37 A	863.2	03L013	889.7	10-Sep-93	40 A	849.9
03L010	889.1	02-Mar-93	38 A	864.0					
03L010	889.1	02-Mar-93	38 F	864.1	03L014	989.5	17-Nov-87	16 A	856.9
03L010	889.1	10-Sep-93	40 A	865.9	03L014	989.5	24-Nov-87	16 A	856.7
					03L014	989.5	14-Dec-87	16 A	857.0
03L012	879.9	17-Nov-87	16 A	859.7	03L014	989.5	15-Dec-87	16 F	857.0
03L012	879.9	24-Nov-87	16 A	859.6	03L014	989.5	11-Jan-88	17 A	857.1
03L012	879.9	14-Dec-87	16 A	859.9	03L014	989.5	26-Jan-88	17 F	857.1
03L012	879.9	14-Dec-87	16 F	859.8	03L014	989.5	14-Apr-88	18 F	857.3
03L012	879.9	11-Jan-88	17 A	860.1	03L014	989.5	02-May-88	18 A	857.2
03L012	879.9	27-Jan-88	17 F	860.2	03L014	989.5	20-May-88	18 A	858.0
03L012	879.9	13-Apr-88	18 F	859.8	03L014	989.5	23-Jun-88	18 A	855.5
03L012	879.9	02-May-88	18 A	859.3	03L014	989.5	27-Jul-88	19 A	854.0
03L012	879.9	20-May-88	18 A	858.8	03L014	989.5	30-Aug-88	19 F	853.0
03L012	879.9	23-Jun-88	18 A	854.7	03L014	989.5	01-Sep-88	19 A	853.0
03L012	879.9	27-Jul-88	19 A	853.5	03L014	989.5	21-Sep-88	19 A	852.8
03L012	879.9	30-Aug-88	19 F	854.4	03L014	989.5	14-Oct-88	20 A	852.6
03L012	879.9	01-Sep-88	19 A	854.4	03L014	989.5	23-Nov-88	20 F	853.8
03L012	879.9	21-Sep-88	19 A	854.6	03L014	989.5	02-Dec-88	20 A	852.9

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L014	989.5	13-Jan-89	21 A	853.0	03L018	989.3	27-Sep-91	32 A	849.6
03L014	989.5	31-Mar-89	21 A	852.3	03L018	989.3	24-Mar-92	34 A	851.7
03L014	989.5	05-Aug-89	23 F	850.7	03L018	989.3	08-Oct-92	37 A	851.8
03L014	989.5	05-Oct-89	24 A	850.0	03L018	989.3	02-Mar-93	38 A	852.7
03L014	989.5	02-Nov-89	24 F	849.8	03L018	989.3	10-Sep-93	40 A	854.0
03L014	989.5	21-Dec-89	24 A	849.8					
03L014	989.5	11-Jan-90	25 A	849.6	03L020	954.5	17-Nov-87	16 A	854.7
03L014	989.5	16-May-90	26 A	849.5	03L020	954.5	24-Nov-87	16 A	854.6
03L014	989.5	28-Feb-91	30 A	850.3	03L020	954.5	30-Nov-87	16 A	854.6
03L014	989.5	03-Jun-91	31 A	850.2	03L020	954.5	14-Dec-87	16 A	854.5
03L014	989.5	03-Sep-91	32 A	849.6	03L020	954.5	11-Jan-88	17 A	854.7
03L014	989.5	27-Sep-91	32 A	849.9	03L020	954.5	27-Jan-88	17 F	854.8
03L014	989.5	06-Dec-91	33 A	851.1	03L020	954.5	14-Apr-88	18 F	855.6
03L014	989.5	24-Mar-92	34 A	851.9	03L020	954.5	02-May-88	18 A	855.1
03L014	989.5	01-Jun-92	35 A	852.5	03L020	954.5	20-May-88	18 A	854.6
03L014	989.5	01-Sep-92	36 A	851.9	03L020	954.5	23-Jun-88	18 A	853.6
03L014	989.5	08-Oct-92	37 A	852.3	03L020	954.5	27-Jul-88	19 A	852.1
03L014	989.5	02-Mar-93	38 A	853.1	03L020	954.5	30-Aug-88	19 F	851.0
03L014	989.5	10-Sep-93	40 A	854.4	03L020	954.5	01-Sep-88	19 A	850.9
					03L020	954.5	21-Sep-88	19 A	850.8
03L017	939.1	17-Nov-87	16 A	854.2	03L020	954.5	14-Oct-88	20 A	850.5
03L017	939.1	24-Nov-87	16 A	853.9	03L020	954.5	23-Nov-88	20 F	851.0
03L017	939.1	14-Dec-87	16 A	854.3	03L020	954.5	02-Dec-88	20 A	851.2
03L017	939.1	27-Jan-88	17 F	854.2	03L020	954.5	13-Jan-89	21 A	851.3
03L017	939.1	13-Apr-88	18 F	855.0	03L020	954.5	31-Mar-89	21 A	849.5
03L017	939.1	02-May-88	18 A	854.4	03L020	954.5	07-Jul-89	23 A	848.3
03L017	939.1	20-May-88	18 A	853.9	03L020	954.5	05-Aug-89	23 F	848.0
03L017	939.1	23-Jun-88	18 A	852.7	03L020	954.5	05-Oct-89	24 A	847.3
03L017	939.1	27-Jul-88	19 A	851.1	03L020	954.5	04-Nov-89	24 F	848.4
03L017	939.1	30-Aug-88	19 F	850.4	03L020	954.5	21-Dec-89	24 A	846.8
03L017	939.1	01-Sep-88	19 A	850.1	03L020	954.5	11-Jan-90	25 A	846.8
03L017	939.1	21-Sep-88	19 A	850.1	03L020	954.5	16-May-90	26 A	846.8
03L017	939.1	14-Oct-88	20 A	849.9	03L020	954.5	16-Jul-90	27 A	846.6
03L017	939.1	23-Nov-88	20 F	850.5	03L020	954.5	28-Feb-91	30 A	847.4
03L017	939.1	02-Dec-88	20 A	850.6	03L020	954.5	03-Jun-91	31 A	847.3
03L017	939.1	13-Jan-89	21 A	850.9	03L020	954.5	03-Sep-91	32 A	846.8
03L017	939.1	31-Mar-89	21 A	849.1	03L020	954.5	27-Sep-91	32 A	847.0
03L017	939.1	05-Oct-89	24 A	847.0	03L020	954.5	06-Dec-91	33 A	848.2
03L017	939.1	04-Nov-89	24 F	846.7	03L020	954.5	24-Mar-92	34 A	849.0
03L017	939.1	21-Dec-89	24 A	846.2	03L020	954.5	01-Jun-92	35 A	849.5
03L017	939.1	11-Jan-90	25 A	846.2	03L020	954.5	01-Sep-92	36 A	849.0
03L017	939.1	16-May-90	26 A	846.3	03L020	954.5	08-Oct-92	37 A	849.1
03L017	939.1	28-Feb-91	30 A	847.0	03L020	954.5	02-Mar-93	38 A	850.0
03L017	939.1	27-Sep-91	32 A	846.7	03L020	954.5	10-Sep-93	40 A	851.2
03L017	939.1	24-Mar-92	34 A	848.5					
03L017	939.1	08-Oct-92	37 A	848.8	03L021	944.1	24-Nov-87	16 A	852.7
03L017	939.1	02-Mar-93	38 A	849.8	03L021	944.1	14-Dec-87	16 A	852.6
03L017	939.1	10-Sep-93	40 A	851.1	03L021	944.1	15-Dec-87	16 F	852.5
					03L021	944.1	11-Jan-88	17 A	852.8
03L018	989.3	24-Nov-87	16 A	856.6	03L021	944.1	28-Jan-88	17 F	852.7
03L018	989.3	30-Nov-87	16 A	856.6	03L021	944.1	14-Apr-88	18 F	854.4
03L018	989.3	14-Dec-87	16 A	856.7	03L021	944.1	02-May-88	18 A	853.1
03L018	989.3	11-Jan-88	17 A	856.9	03L021	944.1	20-May-88	18 A	852.5
03L018	989.3	27-Jan-88	17 F	856.9	03L021	944.1	23-Jun-88	18 A	851.6
03L018	989.3	14-Apr-88	18 F	857.1	03L021	944.1	27-Jul-88	19 A	850.2
03L018	989.3	02-May-88	18 A	857.0	03L021	944.1	30-Aug-88	19 F	849.3
03L018	989.3	20-May-88	18 A	856.6	03L021	944.1	01-Sep-88	19 A	849.3
03L018	989.3	23-Jun-88	18 A	855.3	03L021	944.1	21-Sep-88	19 A	849.1
03L018	989.3	27-Jul-88	19 A	853.8	03L021	944.1	14-Oct-88	20 A	848.7
03L018	989.3	30-Aug-88	19 F	852.8	03L021	944.1	23-Nov-88	20 F	849.7
03L018	989.3	01-Sep-88	19 A	852.8	03L021	944.1	02-Dec-88	20 A	849.9
03L018	989.3	21-Sep-88	19 A	852.6	03L021	944.1	13-Jan-89	21 A	849.7
03L018	989.3	14-Oct-88	20 A	852.4	03L021	944.1	31-Mar-89	21 A	847.1
03L018	989.3	23-Nov-88	20 F	852.6	03L021	944.1	05-Aug-89	23 F	845.4
03L018	989.3	02-Dec-88	20 A	852.7	03L021	944.1	05-Oct-89	24 A	845.1
03L018	989.3	13-Jan-89	21 A	852.9	03L021	944.1	04-Nov-89	24 F	844.9
03L018	989.3	31-Mar-89	21 A	852.0	03L021	944.1	21-Dec-89	24 A	844.5
03L018	989.3	05-Aug-89	23 F	850.3	03L021	944.1	11-Jan-90	25 A	844.4
03L018	989.3	05-Oct-89	24 A	849.8	03L021	944.1	16-May-90	26 A	844.4
03L018	989.3	04-Nov-89	24 F	849.6	03L021	944.1	28-Feb-91	30 A	844.9
03L018	989.3	21-Dec-89	24 A	849.3	03L021	944.1	27-Sep-91	32 A	844.3
03L018	989.3	11-Jan-90	25 A	849.3	03L021	944.1	24-Mar-92	34 A	846.4
03L018	989.3	16-May-90	26 A	849.2	03L021	944.1	08-Oct-92	37 A	846.5
03L018	989.3	28-Feb-91	30 A	850.0	03L021	944.1	02-Mar-93	38 A	847.4

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev. (ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev. (ft)
03L021	944.1	10-Sep-93	40 A	848.7	03L029	956.8	23-Jun-88	18 A	855.2
03L027	966.9	17-Nov-87	16 A	855.2	03L029	956.8	27-Jul-88	19 A	853.6
03L027	966.9	24-Nov-87	16 A	855.0	03L029	956.8	30-Aug-88	19 F	852.7
03L027	966.9	30-Nov-87	16 A	855.1	03L029	956.8	01-Sep-88	19 A	852.4
03L027	966.9	14-Dec-87	16 A	855.0	03L029	956.8	21-Sep-88	19 A	852.3
03L027	966.9	11-Jan-88	17 A	855.2	03L029	956.8	14-Oct-88	20 A	852.0
03L027	966.9	27-Jan-88	17 F	855.1	03L029	956.8	23-Nov-88	20 F	852.7
03L027	966.9	14-Apr-88	18 F	856.0	03L029	956.8	02-Dec-88	20 A	852.6
03L027	966.9	02-May-88	18 A	855.5	03L029	956.8	13-Jan-89	21 A	852.7
03L027	966.9	20-May-88	18 A	855.0	03L029	956.8	31-Mar-89	21 A	850.2
03L027	966.9	23-Jun-88	18 A	854.1	03L029	956.8	05-Oct-89	24 A	848.2
03L027	966.9	27-Jul-88	19 A	852.6	03L029	956.8	21-Dec-89	24 A	848.0
03L027	966.9	30-Aug-88	19 F	851.5	03L029	956.8	11-Jan-90	25 A	959.5
03L027	966.9	01-Sep-88	19 A	851.5	03L029	956.8	16-May-90	26 A	847.7
03L027	966.9	21-Sep-88	19 A	851.2	03L029	956.8	28-Feb-91	30 A	848.2
03L027	966.9	14-Oct-88	20 A	850.9	03L029	956.8	27-Sep-91	32 A	847.7
03L027	966.9	23-Nov-88	20 F	851.3	03L029	956.8	24-Mar-92	34 A	849.6
03L027	966.9	02-Dec-88	20 A	851.6	03L029	956.8	08-Oct-92	37 A	847.6
03L027	966.9	13-Jan-89	21 A	851.9	03L029	956.8	02-Mar-93	38 A	848.4
03L027	966.9	31-Mar-89	21 A	850.0	03L029	956.8	10-Sep-93	40 A	849.4
03L027	966.9	05-Aug-89	23 F	842.5	03L077	912.1	17-Nov-87	16 A	849.1
03L027	966.9	05-Oct-89	24 A	847.8	03L077	912.1	24-Nov-87	16 A	848.9
03L027	966.9	04-Nov-89	24 F	847.7	03L077	912.1	30-Nov-87	16 A	850.1
03L027	966.9	21-Dec-89	24 A	847.5	03L077	912.1	14-Dec-87	16 A	848.9
03L027	966.9	11-Jan-90	25 A	847.3	03L077	912.1	14-Dec-87	16 F	848.7
03L027	966.9	16-May-90	26 A	847.3	03L077	912.1	11-Jan-88	17 A	849.1
03L027	966.9	28-Feb-91	30 A	847.8	03L077	912.1	27-Jan-88	17 F	848.9
03L027	966.9	27-Sep-91	32 A	847.4	03L077	912.1	13-Apr-88	18 F	852.9
03L027	966.9	24-Mar-92	34 A	849.4	03L077	912.1	02-May-88	18 A	849.3
03L027	966.9	08-Oct-92	37 A	849.4	03L077	912.1	20-May-88	18 A	848.7
03L027	966.9	02-Mar-93	38 A	850.3	03L077	912.1	23-Jun-88	18 A	847.3
03L027	966.9	10-Sep-93	40 A	851.5	03L077	912.1	27-Jul-88	19 A	847.6
03L028	956.6	17-Nov-87	16 A	854.5	03L077	912.1	30-Aug-88	19 F	845.4
03L028	956.6	30-Nov-87	16 A	854.4	03L077	912.1	01-Sep-88	19 A	846.7
03L028	956.6	14-Dec-87	16 A	854.4	03L077	912.1	21-Sep-88	19 A	846.4
03L028	956.6	14-Dec-87	16 F	854.6	03L077	912.1	14-Oct-88	20 A	845.8
03L028	956.6	11-Jan-88	17 A	854.6	03L077	912.1	23-Nov-88	20 F	847.6
03L028	956.6	27-Jan-88	17 F	854.7	03L077	912.1	02-Dec-88	20 A	847.8
03L028	956.6	14-Apr-88	18 F	855.8	03L077	912.1	13-Jan-89	21 A	847.6
03L028	956.6	02-May-88	18 A	854.9	03L077	912.1	31-Mar-89	21 A	844.1
03L028	956.6	20-May-88	18 A	854.4	03L077	912.1	05-Aug-89	23 F	840.9
03L028	956.6	23-Jun-88	18 A	853.5	03L077	912.1	05-Oct-89	24 A	840.5
03L028	956.6	27-Jul-88	19 A	851.5	03L077	912.1	02-Nov-89	24 F	840.3
03L028	956.6	30-Aug-88	19 F	851.3	03L077	912.1	21-Dec-89	24 A	839.9
03L028	956.6	01-Sep-88	19 A	850.9	03L077	912.1	11-Jan-90	25 A	839.9
03L028	956.6	21-Sep-88	19 A	850.6	03L077	912.1	16-May-90	26 A	840.0
03L028	956.6	14-Oct-88	20 A	850.4	03L077	912.1	28-Feb-91	30 A	840.5
03L028	956.6	23-Nov-88	20 F	851.3	03L077	912.1	27-Sep-91	32 A	840.0
03L028	956.6	02-Dec-88	20 A	850.9	03L077	912.1	24-Mar-92	34 A	842.0
03L028	956.6	13-Jan-89	21 A	851.1	03L077	912.1	08-Oct-92	37 A	841.8
03L028	956.6	31-Mar-89	21 A	849.2	03L077	912.1	02-Mar-93	38 A	842.8
03L028	956.6	05-Aug-89	23 F	848.1	03L077	912.1	10-Sep-93	40 A	844.1
03L028	956.6	05-Oct-89	24 A	847.1	03L078	927.7	17-Nov-87	16 A	850.8
03L028	956.6	02-Nov-89	24 F	847.2	03L078	927.7	24-Nov-87	16 A	850.6
03L028	956.6	21-Dec-89	24 A	846.8	03L078	927.7	30-Nov-87	16 A	850.7
03L028	956.6	11-Jan-90	25 A	846.6	03L078	927.7	14-Dec-87	16 A	850.5
03L028	956.6	16-May-90	26 A	846.5	03L078	927.7	14-Dec-87	16 F	850.6
03L028	956.6	28-Feb-91	30 A	847.0	03L078	927.7	11-Jan-88	17 A	851.0
03L028	956.6	27-Sep-91	32 A	846.6	03L078	927.7	27-Jan-88	17 F	850.9
03L028	956.6	24-Mar-92	34 A	848.5	03L078	927.7	13-Apr-88	18 F	853.8
03L028	956.6	08-Oct-92	37 A	848.7	03L078	927.7	02-May-88	18 A	851.2
03L028	956.6	02-Mar-93	38 A	849.5	03L078	927.7	20-May-88	18 A	850.6
03L028	956.6	10-Sep-93	40 A	850.7	03L078	927.7	23-Jun-88	18 A	849.9
03L029	956.8	30-Nov-87	16 A	855.9	03L078	927.7	27-Jul-88	19 A	848.5
03L029	956.8	14-Dec-87	16 A	855.9	03L078	927.7	30-Aug-88	19 F	847.7
03L029	956.8	15-Dec-87	16 F	855.9	03L078	927.7	01-Sep-88	19 A	848.4
03L029	956.8	11-Jan-88	17 A	856.2	03L078	927.7	21-Sep-88	19 A	848.2
03L029	956.8	27-Jan-88	17 F	855.9	03L078	927.7	14-Oct-88	20 A	847.3
03L029	956.8	14-Apr-88	18 F	857.4	03L078	927.7	23-Nov-88	20 F	849.2
03L029	956.8	02-May-88	18 A	856.4	03L078	927.7	02-Dec-88	20 A	849.2
03L029	956.8	20-May-88	18 A	855.9	03L078	927.7	13-Jan-89	21 A	848.3
					03L078	927.7	31-Mar-89	21 A	844.9

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L078	927.7	05-Aug-89	23 F	843.4	03L080	960.8	02-Mar-93	38 A	851.3
03L078	927.7	05-Oct-89	24 A	843.1	03L080	960.8	10-Sep-93	40 A	852.5
03L078	927.7	02-Nov-89	24 F	842.8					
03L078	927.7	21-Dec-89	24 A	842.5	03L081	946.5	14-Dec-87	16 A	857.4
03L078	927.7	11-Jan-90	25 A	842.2	03L081	946.5	14-Dec-87	16 F	857.5
03L078	927.7	16-May-90	26 A	842.1	03L081	946.5	11-Jan-88	17 A	857.7
03L078	927.7	28-Feb-91	30 A	842.6	03L081	946.5	27-Jan-88	17 F	857.7
03L078	927.7	27-Sep-91	32 A	842.2	03L081	946.5	14-Apr-88	18 F	857.9
03L078	927.7	24-Mar-92	34 A	844.1	03L081	946.5	02-May-88	18 A	857.6
03L078	927.7	08-Oct-92	37 A	844.3	03L081	946.5	20-May-88	18 A	857.3
03L078	927.7	02-Mar-93	38 A	845.1	03L081	946.5	23-Jun-88	18 A	855.9
03L078	927.7	10-Sep-93	40 A	846.4	03L081	946.5	27-Jul-88	19 A	854.4
					03L081	946.5	30-Aug-88	19 F	854.7
03L079	923.5	17-Nov-87	16 A	850.8	03L081	946.5	01-Sep-88	19 A	853.5
03L079	923.5	24-Nov-87	16 A	851.5	03L081	946.5	21-Sep-88	19 A	853.2
03L079	923.5	30-Nov-87	16 A	850.8	03L081	946.5	14-Oct-88	20 A	853.1
03L079	923.5	14-Dec-87	16 A	850.6	03L081	946.5	23-Nov-88	20 F	853.3
03L079	923.5	14-Dec-87	16 F	850.2	03L081	946.5	02-Dec-88	20 A	853.4
03L079	923.5	11-Jan-88	17 A	850.9	03L081	946.5	13-Jan-89	21 A	853.7
03L079	923.5	27-Jan-88	17 F	850.3	03L081	946.5	31-Mar-89	21 A	853.0
03L079	923.5	14-Apr-88	18 F	853.4	03L081	946.5	05-Aug-89	23 F	851.4
03L079	923.5	02-May-88	18 A	851.2	03L081	946.5	05-Oct-89	24 A	850.6
03L079	923.5	20-May-88	18 A	850.7	03L081	946.5	04-Nov-89	24 F	850.8
03L079	923.5	23-Jun-88	18 A	850.0	03L081	946.5	21-Dec-89	24 A	850.5
03L079	923.5	27-Jul-88	19 A	848.5	03L081	946.5	11-Jan-90	25 A	850.3
03L079	923.5	30-Aug-88	19 F	847.1	03L081	946.5	16-May-90	26 A	850.2
03L079	923.5	01-Sep-88	19 A	847.5	03L081	946.5	28-Feb-91	30 A	851.0
03L079	923.5	21-Sep-88	19 A	848.3	03L081	946.5	29-Mar-91	30 F	850.7
03L079	923.5	14-Oct-88	20 A	846.9	03L081	946.5	27-Sep-91	32 A	850.5
03L079	923.5	23-Nov-88	20 F	848.7	03L081	946.5	11-Mar-92	34 F	852.7
03L079	923.5	02-Dec-88	20 A	849.4	03L081	946.5	24-Mar-92	34 A	852.6
03L079	923.5	13-Jan-89	21 A	847.6	03L081	946.5	08-Oct-92	37 A	853.0
03L079	923.5	31-Mar-89	21 A	844.6	03L081	946.5	02-Mar-93	38 A	853.8
03L079	923.5	05-Aug-89	23 F	842.8	03L081	946.5	09-Mar-93	38 F	853.8
03L079	923.5	05-Oct-89	24 A	842.8	03L081	946.5	10-Sep-93	40 A	854.9
03L079	923.5	02-Nov-89	24 F	841.9					
03L079	923.5	21-Dec-89	24 A	843.3	03L084	898.5	14-Dec-87	16 F	850.5
03L079	923.5	11-Jan-90	25 A	842.0	03L084	898.5	26-Jan-88	17 F	850.4
03L079	923.5	16-May-90	26 A	842.0	03L084	898.5	14-Apr-88	18 F	851.9
03L079	923.5	28-Feb-91	30 A	842.4	03L084	898.5	02-May-88	18 A	850.9
03L079	923.5	27-Sep-91	32 A	842.0	03L084	898.5	20-May-88	18 A	850.3
03L079	923.5	24-Mar-92	34 A	843.7	03L084	898.5	23-Jun-88	18 A	848.6
03L079	923.5	08-Oct-92	37 A	844.2	03L084	898.5	27-Jul-88	19 A	847.2
03L079	923.5	02-Mar-93	38 A	844.9	03L084	898.5	30-Aug-88	19 F	847.8
03L079	923.5	10-Sep-93	40 A	846.2	03L084	898.5	01-Sep-88	19 A	846.8
					03L084	898.5	21-Sep-88	19 A	846.7
03L080	960.8	30-Nov-87	16 A	855.5	03L084	898.5	14-Oct-88	20 A	846.8
03L080	960.8	14-Dec-87	16 A	854.7	03L084	898.5	23-Nov-88	20 F	847.4
03L080	960.8	14-Dec-87	16 F	854.6	03L084	898.5	02-Dec-88	20 A	847.9
03L080	960.8	11-Jan-88	17 A	855.7	03L084	898.5	31-Mar-89	21 A	844.4
03L080	960.8	27-Jan-88	17 F	855.6	03L084	898.5	05-Aug-89	23 F	842.3
03L080	960.8	14-Apr-88	18 F	856.3	03L084	898.5	05-Oct-89	24 A	842.4
03L080	960.8	02-May-88	18 A	855.9	03L084	898.5	02-Nov-89	24 F	842.3
03L080	960.8	20-May-88	18 A	855.5	03L084	898.5	21-Dec-89	24 A	841.9
03L080	960.8	23-Jun-88	18 A	854.5	03L084	898.5	11-Jan-90	25 A	842.0
03L080	960.8	27-Jul-88	19 A	853.0	03L084	898.5	16-May-90	26 A	842.1
03L080	960.8	30-Aug-88	19 F	851.9	03L084	898.5	28-Feb-91	30 A	842.7
03L080	960.8	01-Sep-88	19 A	851.9	03L084	898.5	27-Sep-91	32 A	842.1
03L080	960.8	21-Sep-88	19 A	851.6	03L084	898.5	24-Mar-92	34 A	844.0
03L080	960.8	14-Oct-88	20 A	851.4	03L084	898.5	08-Oct-92	37 A	843.9
03L080	960.8	23-Nov-88	20 F	851.5	03L084	898.5	02-Mar-93	38 A	844.9
03L080	960.8	02-Dec-88	20 A	851.9	03L084	898.5	10-Sep-93	40 A	846.2
03L080	960.8	13-Jan-89	21 A	852.1					
03L080	960.8	31-Mar-89	21 A	850.6	03L086	960.8	14-Dec-87	16 F	857.5
03L080	960.8	05-Aug-89	23 F	849.1	03L086	960.8	26-Jan-88	17 F	857.6
03L080	960.8	05-Oct-89	24 A	848.4	03L086	960.8	14-Apr-88	18 F	857.9
03L080	960.8	04-Nov-89	24 F	848.2	03L086	960.8	30-Aug-88	19 F	853.7
03L080	960.8	21-Dec-89	24 A	848.1	03L086	960.8	23-Nov-88	20 F	853.4
03L080	960.8	11-Jan-90	25 A	847.9	03L086	960.8	05-Aug-89	23 F	851.3
03L080	960.8	16-May-90	26 A	847.9	03L086	960.8	04-Nov-89	24 F	850.7
03L080	960.8	28-Feb-91	30 A	848.4	03L086	960.8	03-May-90	26 F	851.3
03L080	960.8	27-Sep-91	32 A	848.0	03L086	960.8	19-Jul-90	27 F	851.3
03L080	960.8	24-Mar-92	34 A	850.0	03L086	960.8	01-Apr-91	30 F	850.5
03L080	960.8	08-Oct-92	37 A	850.4	03L086	960.8	11-Mar-92	34 F	852.7

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L086	960.8	02-Mar-93	38 F	853.9	03L673	897.7	17-Nov-87	16 A	863.9
03L091	1008.5	14-Dec-87	16 F	859.3	03L673	897.7	24-Nov-87	16 A	863.6
03L091	1008.5	26-Jan-88	17 F	859.5	03L673	897.7	30-Nov-87	16 A	863.9
03L091	1008.5	14-Apr-88	18 F	859.4	03L673	897.7	14-Dec-87	16 A	863.4
03L091	1008.5	30-Aug-88	19 F	855.1	03L673	897.7	14-Dec-87	16 F	845.4
03L091	1008.5	23-Nov-88	20 F	854.9	03L673	897.7	11-Jan-88	17 A	863.6
03L091	1008.5	05-Aug-89	23 F	853.3	03L673	897.7	27-Jan-88	17 F	845.6
03L091	1008.5	02-Nov-89	24 F	852.5	03L673	897.7	13-Apr-88	18 F	847.0
03L091	1008.5	01-May-90	26 F	852.4	03L673	897.7	02-May-88	18 A	863.9
03L091	1008.5	26-Mar-91	30 F	853.1	03L673	897.7	20-May-88	18 A	863.5
03L091	1008.5	12-Mar-92	34 F	855.0	03L673	897.7	23-Jun-88	18 A	862.0
03L091	1008.5	05-Mar-93	38 F	854.6	03L673	897.7	27-Jul-88	19 A	861.1
					03L673	897.7	30-Aug-88	19 F	842.3
03L113	974.9	14-Dec-87	16 F	858.3	03L673	897.7	01-Sep-88	19 A	860.2
03L113	974.9	27-Jan-88	17 F	858.5	03L673	897.7	21-Sep-88	19 A	859.9
03L113	974.9	14-Apr-88	18 F	858.4	03L673	897.7	14-Oct-88	20 A	860.2
03L113	974.9	02-May-88	18 A	861.1	03L673	897.7	23-Nov-88	20 F	842.9
03L113	974.9	20-May-88	18 A	860.7	03L673	897.7	02-Dec-88	20 A	860.6
03L113	974.9	30-Aug-88	19 F	855.1	03L673	897.7	13-Jan-89	21 A	860.9
03L113	974.9	01-Sep-88	19 A	856.8	03L673	897.7	31-Mar-89	21 A	859.0
03L113	974.9	21-Sep-88	19 A	856.6	03L673	897.7	07-Jul-89	23 A	857.2
03L113	974.9	23-Nov-88	20 F	853.9	03L673	897.7	03-Aug-89	23 F	839.3
03L113	974.9	13-Jan-89	21 A	856.8	03L673	897.7	05-Oct-89	24 A	856.9
03L113	974.9	31-Mar-89	21 A	856.8	03L673	897.7	03-Nov-89	24 F	838.6
03L113	974.9	05-Aug-89	23 F	852.8	03L673	897.7	21-Dec-89	24 A	856.3
03L113	974.9	05-Oct-89	24 A	854.3	03L673	897.7	11-Jan-90	25 A	856.5
03L113	974.9	02-Nov-89	24 F	851.5	03L673	897.7	16-May-90	26 A	856.5
03L113	974.9	21-Dec-89	24 A	854.2	03L673	897.7	16-Jul-90	27 A	856.1
03L113	974.9	11-Jan-90	25 A	854.1	03L673	897.7	28-Feb-91	30 A	856.5
03L113	974.9	26-Apr-90	26 F	851.1	03L673	897.7	03-Jun-91	31 A	856.3
03L113	974.9	16-May-90	26 A	854.0	03L673	897.7	03-Sep-91	32 A	855.6
03L113	974.9	19-Jul-90	27 F	851.3	03L673	897.7	27-Sep-91	32 A	855.9
03L113	974.9	28-Feb-91	30 A	854.8	03L673	897.7	06-Dec-91	33 A	857.1
03L113	974.9	28-Mar-91	30 F	852.0	03L673	897.7	24-Mar-92	34 A	857.2
03L113	974.9	27-Sep-91	32 A	854.6	03L673	897.7	01-Jun-92	35 A	858.1
03L113	974.9	13-Mar-92	34 F	854.1	03L673	897.7	01-Sep-92	36 A	857.5
03L113	974.9	24-Mar-92	34 A	856.6	03L673	897.7	08-Oct-92	37 A	839.7
03L113	974.9	08-Oct-92	37 A	853.7	03L673	897.7	02-Mar-93	38 A	840.5
03L113	974.9	02-Mar-93	38 A	854.8	03L673	897.7	10-Sep-93	40 A	841.7
03L113	974.9	03-Mar-93	38 F	854.8					
03L113	974.9	10-Sep-93	40 A	856.1	03L802	907.6	17-Nov-87	16 A	852.8
					03L802	907.6	24-Nov-87	16 A	853.3
03L137	972.5	02-Nov-89	24 F	850.8	03L802	907.6	30-Nov-87	16 A	852.8
03L137	972.5	24-Apr-90	26 F	850.7	03L802	907.6	14-Dec-87	16 A	852.0
03L137	972.5	18-Jul-90	27 F	850.6	03L802	907.6	14-Dec-87	16 F	855.3
03L137	972.5	19-Sep-90	28 F	850.5	03L802	907.6	11-Jan-88	17 A	853.2
03L137	972.5	27-Mar-91	30 F	851.3	03L802	907.6	26-Jan-88	17 F	853.5
03L137	972.5	04-Jun-91	31 F	851.3	03L802	907.6	13-Apr-88	18 F	855.8
03L137	972.5	04-Sep-91	32 F	850.9	03L802	907.6	02-May-88	18 A	852.6
03L137	972.5	12-Mar-92	34 F	853.2	03L802	907.6	20-May-88	18 A	852.0
03L137	972.5	03-Jun-92	35 F	853.8	03L802	907.6	23-Jun-88	18 A	851.2
03L137	972.5	03-Sep-92	36 F	853.1	03L802	907.6	27-Jul-88	19 A	850.5
03L137	972.5	02-Mar-93	38 F	854.4	03L802	907.6	30-Aug-88	19 F	850.4
03L137	972.5	08-Sep-93	40 F	855.8	03L802	907.6	01-Sep-88	19 A	848.8
					03L802	907.6	21-Sep-88	19 A	848.4
03L138	965.6	02-Nov-89	24 F	850.5	03L802	907.6	14-Oct-88	20 A	848.9
03L138	965.6	24-Apr-90	26 F	850.4	03L802	907.6	23-Nov-88	20 F	850.1
03L138	965.6	18-Jul-90	27 F	850.3	03L802	907.6	02-Dec-88	20 A	849.9
03L138	965.6	19-Sep-90	28 F	850.1	03L802	907.6	13-Jan-89	21 A	849.0
03L138	965.6	29-Mar-91	30 F	850.8	03L802	907.6	31-Mar-89	21 A	846.7
03L138	965.6	04-Jun-91	31 F	850.8	03L802	907.6	07-Jul-89	23 A	844.7
03L138	965.6	04-Sep-91	32 F	850.6	03L802	907.6	03-Aug-89	23 F	844.9
03L138	965.6	12-Mar-92	34 F	852.7	03L802	907.6	05-Oct-89	24 A	844.0
03L138	965.6	03-Jun-92	35 F	853.3	03L802	907.6	03-Nov-89	24 F	843.8
03L138	965.6	04-Sep-92	36 F	852.6	03L802	907.6	21-Dec-89	24 A	844.1
03L138	965.6	05-Mar-93	38 F	853.9	03L802	907.6	11-Jan-90	25 A	843.7
03L138	965.6	08-Sep-93	40 F	855.2	03L802	907.6	16-May-90	26 A	843.5
					03L802	907.6	16-Jul-90	27 A	843.1
03L523	995.8	02-Nov-89	24 F	866.4	03L802	907.6	28-Feb-91	30 A	843.8
03L523	995.8	27-Apr-90	26 F	866.8	03L802	907.6	03-Jun-91	31 A	843.5
03L523	995.8	26-Mar-91	30 F	868.1	03L802	907.6	03-Sep-91	32 A	843.1
03L523	995.8	04-Sep-91	32 F	868.2	03L802	907.6	27-Sep-91	32 A	843.2
03L523		05-Aug-92	Well Abandoned		03L802	907.6	06-Dec-91	33 A	844.5



**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L802	907.6	24-Mar-92	34 A	845.1	03L809	911.9	20-Jul-90	27 F	840.2
03L802	907.6	01-Jun-92	35 A	845.7	03L809	911.9	17-Sep-90	28 F	839.7
03L802	907.6	01-Sep-92	36 A	845.4	03L809	911.9	28-Feb-91	30 A	840.8
03L802	907.6	08-Oct-92	37 A	844.3	03L809	911.9	21-Mar-91	30 F	840.8
03L802	907.6	02-Mar-93	38 A	845.0	03L809	911.9	03-Sep-91	32 A	840.8
03L802	907.6	10-Sep-93	40 A	846.3	03L809	911.9	27-Sep-91	32 A	840.2
					03L809	911.9	19-Mar-92	34 F	842.2
03L806	909.6	17-Nov-87	16 A	848.4	03L809	911.9	24-Mar-92	34 A	842.1
03L806	909.6	24-Nov-87	16 A	848.9	03L809	911.9	08-Oct-92	37 A	843.0
03L806	909.6	30-Nov-87	16 A	848.3	03L809	911.9	02-Mar-93	38 A	844.0
03L806	909.6	14-Dec-87	16 A	848.3	03L809	911.9	10-Mar-93	38 F	843.9
03L806	909.6	14-Dec-87	16 F	848.1	03L809	911.9	10-Sep-93	40 A	845.3
03L806	909.6	11-Jan-88	17 A	849.1					
03L806	909.6	27-Jan-88	17 F	848.0	03L811	908.4	14-Dec-87	16 F	846.4
03L806	909.6	13-Apr-88	18 F	850.5	03L811	908.4	27-Jan-88	17 F	846.4
03L806	909.6	02-May-88	18 A	848.4	03L811	908.4	13-Apr-88	18 F	847.7
03L806	909.6	20-May-88	18 A	847.8	03L811	908.4	30-Aug-88	19 F	842.6
03L806	909.6	23-Jun-88	18 A	846.3	03L811	908.4	23-Nov-88	20 F	844.0
03L806	909.6	27-Jul-88	19 A	846.0	03L811	908.4	04-May-89	22 F	839.1
03L806	909.6	30-Aug-88	19 F	844.7	03L811	908.4	04-Aug-89	23 F	839.3
03L806	909.6	01-Sep-88	19 A	845.2	03L811	908.4	03-Nov-89	24 F	838.9
03L806	909.6	21-Sep-88	19 A	844.4	03L811	908.4	26-Apr-90	26 F	839.1
03L806	909.6	14-Oct-88	20 A	845.0	03L811	908.4	20-Mar-91	30 F	839.4
03L806	909.6	23-Nov-88	20 F	846.3	03L811	908.4	20-Mar-92	34 F	840.6
03L806	909.6	02-Dec-88	20 A	846.1	03L811	908.4	03-Mar-93	38 F	840.7
03L806	909.6	13-Jan-89	21 A	846.0					
03L806	909.6	31-Mar-89	21 A	842.1	03L813	870.4	14-Dec-87	16 F	844.1
03L806	909.6	07-Jul-89	23 A	840.3	03L813	870.4	27-Jan-88	17 F	844.2
03L806	909.6	03-Aug-89	23 F	840.5	03L813	870.4	13-Apr-88	18 F	845.1
03L806	909.6	05-Oct-89	24 A	839.9	03L813	870.4	30-Aug-88	19 F	840.1
03L806	909.6	03-Nov-89	24 F	840.1	03L813	870.4	23-Nov-88	20 F	841.6
03L806	909.6	21-Dec-89	24 A	839.4	03L813	870.4	05-May-89	22 F	835.5
03L806	909.6	11-Jan-90	25 A	839.6	03L813	870.4	04-Aug-89	23 F	837.5
03L806	909.6	16-May-90	26 A	839.7	03L813	870.4	03-Nov-89	24 F	837.3
03L806	909.6	16-Jul-90	27 A	839.3	03L813	870.4	03-May-90	26 F	837.9
03L806	909.6	28-Feb-91	30 A	840.0	03L813	870.4	01-Apr-91	30 F	837.3
03L806	909.6	03-Jun-91	31 A	839.8	03L813	870.4	25-Mar-92	34 F	839.4
03L806	909.6	03-Sep-91	32 A	839.0	03L813	870.4	03-Mar-93	38 F	839.7
03L806	909.6	27-Sep-91	32 A	839.4					
03L806	909.6	06-Dec-91	33 A	840.7	03L822	876.6	14-Dec-87	16 F	837.3
03L806	909.6	24-Mar-92	34 A	841.4	03L822	876.6	26-Jan-88	17 F	837.4
03L806	909.6	01-Jun-92	35 A	841.4	03L822	876.6	13-Apr-88	18 F	838.0
03L806	909.6	01-Sep-92	36 A	841.0	03L822	876.6	30-Aug-88	19 F	833.4
03L806	909.6	08-Oct-92	37 A	841.6	03L822	876.6	23-Nov-88	20 F	834.7
03L806	909.6	02-Mar-93	38 A	842.6	03L822	876.6	05-May-89	22 F	831.5
03L806	909.6	10-Sep-93	40 A	843.9	03L822	876.6	04-Aug-89	23 F	830.7
					03L822	876.6	03-Nov-89	24 F	831.1
03L809	911.9	17-Nov-87	16 A	848.8	03L822	876.6	25-Apr-90	26 F	831.4
03L809	911.9	24-Nov-87	16 A	848.7	03L822	876.6	21-Mar-91	30 F	831.0
03L809	911.9	30-Nov-87	16 A	848.7	03L822	876.6	23-Mar-92	34 F	832.7
03L809	911.9	14-Dec-87	16 A	848.4	03L822	876.6	04-Mar-93	38 F	832.8
03L809	911.9	11-Jan-88	17 A	849.4					
03L809	911.9	26-Jan-88	17 F	848.5	03L832	884.6	14-Dec-87	16 F	836.5
03L809	911.9	13-Apr-88	18 F	850.2	03L832	884.6	26-Jan-88	17 F	836.7
03L809	911.9	02-May-88	18 A	848.7	03L832	884.6	13-Apr-88	18 F	837.0
03L809	911.9	20-May-88	18 A	848.1	03L832	884.6	30-Aug-88	19 F	832.2
03L809	911.9	23-Jun-88	18 A	846.4	03L832	884.6	23-Nov-88	20 F	833.7
03L809	911.9	27-Jul-88	19 A	845.7	03L832	884.6	09-May-89	22 F	830.7
03L809	911.9	30-Aug-88	19 F	844.8	03L832	884.6	04-Aug-89	23 F	829.7
03L809	911.9	01-Sep-88	19 A	845.2	03L832	884.6	03-Nov-89	24 F	830.3
03L809	911.9	21-Sep-88	19 A	844.6	03L832	884.6	25-Apr-90	26 F	830.6
03L809	911.9	14-Oct-88	20 A	845.1	03L832	884.6	20-Mar-91	30 F	830.0
03L809	911.9	23-Nov-88	20 F	846.2	03L832	884.6	24-Mar-92	34 F	832.5
03L809	911.9	02-Dec-88	20 A	845.9	03L832	884.6	04-Mar-93	38 F	831.8
03L809	911.9	13-Jan-89	21 A	845.9					
03L809	911.9	31-Mar-89	21 A	842.9	03L841	911.3	14-Dec-87	16 F	844.7
03L809	911.9	10-May-89	22 F	840.9	03L841	911.3	26-Jan-88	17 F	844.8
03L809	911.9	04-Aug-89	23 F	841.1	03L841	911.3	13-Apr-88	18 F	847.7
03L809	911.9	05-Oct-89	24 A	840.5	03L841	911.3	30-Aug-88	19 F	841.4
03L809	911.9	03-Nov-89	24 F	840.6	03L841	911.3	23-Nov-88	20 F	842.2
03L809	911.9	21-Dec-89	24 A	840.3	03L841	911.3	07-Aug-89	23 F	837.9
03L809	911.9	11-Jan-90	25 A	840.5	03L841	911.3	03-Nov-89	24 F	837.7
03L809	911.9	24-Apr-90	26 F	839.5	03L841	911.3	16-May-90	26 A	837.8
03L809	911.9	16-May-90	26 A	840.6	03L841	911.3	28-Feb-91	30 A	837.8

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03L841	911.3	20-Mar-91	30 F	837.7	03L858	994.1	14-Dec-87	16 F	896.6
03L841	911.3	03-Sep-91	32 A	837.8	03L858	994.1	26-Jan-88	17 F	896.6
03L841	911.3	27-Sep-91	32 A	837.1	03L858	994.1	13-Apr-88	18 F	896.6
03L841	911.3	19-Mar-92	34 F	839.5	03L858	994.1	30-Aug-88	19 F	896.2
03L841	911.3	24-Mar-92	34 A	839.0	03L858	994.1	05-May-89	22 F	893.8
03L841	911.3	08-Oct-92	37 A	839.0	03L858	994.1	06-Aug-89	23 F	893.7
03L841	911.3	02-Mar-93	38 A	839.9	03L858	994.1	03-Nov-89	24 F	893.7
03L841	911.3	10-Mar-93	38 F	839.7	03L858	994.1	17-Apr-90	26 F	894.1
03L841	911.3	10-Sep-93	40 A	841.1	03L858	994.1	25-Mar-91	30 F	893.7
					03L858	994.1	25-Mar-92	34 F	893.7
					03L858	994.1	05-Mar-93	38 F	895.0
03L846	887.6	30-Aug-88	19 F	829.9	03L859	900.9	14-Dec-87	16 F	840.7
03L846	887.6	23-Nov-88	20 F	832.9	03L859	900.9	26-Jan-88	17 F	841.0
03L846	887.6	03-May-89	22 F	829.8	03L859	900.9	13-Apr-88	18 F	841.9
03L846	887.6	07-Aug-89	23 F	828.0	03L859	900.9	30-Aug-88	19 F	837.5
03L846	887.6	02-Nov-89	24 F	828.0	03L859	900.9	23-Nov-88	20 F	838.2
03L846	887.6	19-Apr-90	26 F	828.1	03L859	900.9	06-Aug-89	23 F	836.7
03L846	887.6	18-Mar-91	30 F	827.7	03L859	900.9	03-Nov-89	24 F	834.5
03L846	887.6	25-Mar-92	34 F	829.6	03L859	900.9	30-Apr-90	26 F	834.2
03L846	887.6	04-Mar-93	38 F	829.3	03L859	900.9	20-Mar-91	30 F	814.3
					03L859	900.9	20-Mar-92	34 F	836.2
					03L859	900.9	03-Mar-93	38 F	836.5
03L848	902.3	14-Dec-87	16 F	844.0	03L860	894.3	14-Dec-87	16 F	840.7
03L848	902.3	26-Jan-88	17 F	844.2	03L860	894.3	26-Jan-88	17 F	840.6
03L848	902.3	13-Apr-88	18 F	845.3	03L860	894.3	13-Apr-88	18 F	841.6
03L848	902.3	30-Aug-88	19 F	840.9	03L860	894.3	30-Aug-88	19 F	837.3
03L848	902.3	23-Nov-88	20 F	841.4	03L860	894.3	23-Nov-88	20 F	838.2
03L848	902.3	03-May-89	22 F	837.6	03L860	894.3	06-Aug-89	23 F	835.9
03L848	902.3	06-Aug-89	23 F	828.9	03L860	894.3	03-Nov-89	24 F	834.5
03L848	902.3	03-Nov-89	24 F	837.4	03L860	894.3	19-Apr-90	26 F	834.5
03L848	902.3	19-Apr-90	26 F	837.3	03L860	894.3	20-Mar-91	30 F	834.5
03L848	902.3	19-Jul-90	27 F	837.0	03L860	894.3	16-Mar-92	34 F	836.2
03L848	902.3	17-Sep-90	28 F	836.9	03L860	894.3	10-Mar-93	38 F	836.2
03L848	902.3	18-Mar-91	30 F	837.1	03L861	889.1	14-Dec-87	16 F	839.1
03L848	902.3	18-Mar-92	34 F	839.2	03L861	889.1	26-Jan-88	17 F	839.4
03L848	902.3	09-Mar-93	38 F	838.8	03L861	889.1	13-Apr-88	18 F	840.1
					03L861	889.1	30-Aug-88	19 F	835.5
					03L861	889.1	23-Nov-88	20 F	835.8
					03L861	889.1	06-Aug-89	23 F	833.6
					03L861	889.1	30-Apr-90	26 F	832.8
					03L861	889.1	25-Mar-91	30 F	832.7
					03L861	889.1	23-Mar-92	34 F	834.8
					03L861	889.1	04-Mar-93	38 F	834.3
03L853	888.8	14-Dec-87	16 F	837.9	03M001	888.4	17-Nov-87	16 A	849.9
03L853	888.8	26-Jan-88	17 F	838.1	03M001	888.4	24-Nov-87	16 A	849.4
03L853	888.8	13-Apr-88	18 F	838.7	03M001	888.4	30-Nov-87	16 A	849.8
03L853	888.8	30-Aug-88	19 F	834.1	03M001	888.4	14-Dec-87	16 A	849.6
03L853	888.8	23-Nov-88	20 F	835.4	03M001	888.4	14-Dec-87	16 F	849.5
03L853	888.8	05-May-89	22 F	830.9	03M001	888.4	11-Jan-88	17 A	850.0
03L853	888.8	06-Aug-89	23 F	831.3	03M001	888.4	27-Jan-88	17 F	849.5
03L853	888.8	03-Nov-89	24 F	831.6	03M001	888.4	13-Apr-88	18 F	850.5
03L853	888.8	19-Apr-90	26 F	832.0	03M001	888.4	02-May-88	18 A	849.6
03L853	888.8	20-Jul-90	27 F	830.9	03M001	888.4	20-May-88	18 A	849.0
03L853	888.8	21-Mar-91	30 F	831.5	03M001	888.4	23-Jun-88	18 A	846.5
03L853	888.8	20-Mar-92	34 F	833.6	03M001	888.4	27-Jul-88	19 A	845.6
03L853	888.8	03-Mar-93	38 F	833.7	03M001	888.4	30-Aug-88	19 F	845.3
					03M001	888.4	01-Sep-88	19 A	845.1
					03M001	888.4	21-Sep-88	19 A	845.1
					03M001	888.4	14-Oct-88	20 A	845.6
					03M001	888.4	23-Nov-88	20 F	846.6
					03M001	888.4	02-Dec-88	20 A	846.6
					03M001	888.4	13-Jan-89	21 A	846.7
					03M001	888.4	31-Mar-89	21 A	844.1
					03M001	888.4	05-Aug-89	23 F	841.5
					03M001	888.4	05-Oct-89	24 A	841.4
					03M001	888.4	02-Nov-89	24 F	841.6
					03M001	888.4	21-Dec-89	24 A	841.3
					03M001	888.4	11-Jan-90	25 A	841.3
					03M001	888.4	16-May-90	26 A	841.6
					03M001	888.4	16-Jul-90	27 A	841.4

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03M001	888.4	28-Feb-91	30 A	842.2	03M003	942.7	11-Jan-90	25 A	844.0
03M001	888.4	03-Jun-91	31 A	841.9	03M003	942.7	16-May-90	26 A	844.1
03M001	888.4	03-Sep-91	32 A	841.0	03M003	942.7	16-Jul-90	27 A	843.7
03M001	888.4	27-Sep-91	32 A	841.6	03M003	942.7	28-Feb-91	30 A	844.5
03M001	888.4	06-Dec-91	33 A	842.9	03M003	942.7	03-Jun-91	31 A	844.2
03M001	888.4	24-Mar-92	34 A	843.4	03M003	942.7	03-Sep-91	32 A	843.7
03M001	888.4	01-Jun-92	35 A	843.2	03M003	942.7	27-Sep-91	32 A	843.9
03M001	888.4	01-Sep-92	36 A	842.7	03M003	942.7	06-Dec-91	33 A	845.1
03M001	888.4	08-Oct-92	37 A	843.5	03M003	942.7	24-Mar-92	34 A	845.7
03M001	888.4	02-Mar-93	38 A	844.6	03M003	942.7	01-Jun-92	35 A	846.6
03M001	888.4	10-Sep-93	40 A	846.1	03M003	942.7	01-Sep-92	36 A	846.3
					03M003	942.7	08-Oct-92	37 A	846.4
					03M003	942.7	02-Mar-93	38 A	847.1
					03M003	942.7	10-Sep-93	40 A	848.2
03M002	919.4	17-Nov-87	16 A	850.8	03M004	950.7	17-Nov-87	16 A	855.6
03M002	919.4	24-Nov-87	16 A	850.5	03M004	950.7	24-Nov-87	16 A	855.3
03M002	919.4	14-Dec-87	16 A	850.5	03M004	950.7	30-Nov-87	16 A	855.5
03M002	919.4	14-Dec-87	16 F	850.4	03M004	950.7	14-Dec-87	16 F	855.3
03M002	919.4	11-Jan-88	17 A	850.8	03M004	950.7	11-Jan-88	17 A	855.7
03M002	919.4	27-Jan-88	17 F	850.6	03M004	950.7	27-Jan-88	17 F	855.5
03M002	919.4	13-Apr-88	18 F	853.2	03M004	950.7	14-Apr-88	18 F	856.2
03M002	919.4	02-May-88	18 A	851.1	03M004	950.7	02-May-88	18 A	855.9
03M002	919.4	20-May-88	18 A	850.6	03M004	950.7	20-May-88	18 A	855.4
03M002	919.4	23-Jun-88	18 A	849.6	03M004	950.7	23-Jun-88	18 A	854.4
03M002	919.4	27-Jul-88	19 A	848.5	03M004	950.7	27-Jul-88	19 A	853.0
03M002	919.4	30-Aug-88	19 F	848.0	03M004	950.7	30-Aug-88	19 F	852.1
03M002	919.4	01-Sep-88	19 A	848.0	03M004	950.7	01-Sep-88	19 A	851.9
03M002	919.4	21-Sep-88	19 A	847.7	03M004	950.7	21-Sep-88	19 A	851.6
03M002	919.4	14-Oct-88	20 A	847.2	03M004	950.7	14-Oct-88	20 A	851.5
03M002	919.4	23-Nov-88	20 F	848.6	03M004	950.7	23-Nov-88	20 F	851.6
03M002	919.4	02-Dec-88	20 A	848.8	03M004	950.7	02-Dec-88	20 A	851.8
03M002	919.4	13-Jan-89	21 A	848.3	03M004	950.7	13-Jan-89	21 A	852.1
03M002	919.4	31-Mar-89	21 A	844.7	03M004	950.7	31-Mar-89	21 A	850.6
03M002	919.4	07-Jul-89	23 A	843.2	03M004	950.7	05-Aug-89	23 F	850.1
03M002	919.4	05-Aug-89	23 F	843.0	03M004	950.7	05-Oct-89	24 A	848.4
03M002	919.4	05-Oct-89	24 A	842.8	03M004	950.7	04-Nov-89	24 F	848.3
03M002	919.4	02-Nov-89	24 F	842.5	03M004	950.7	21-Dec-89	24 A	848.1
03M002	919.4	21-Dec-89	24 A	842.1	03M004	950.7	11-Jan-90	25 A	847.9
03M002	919.4	11-Jan-90	25 A	842.0	03M004	950.7	16-May-90	26 A	847.8
03M002	919.4	16-May-90	26 A	842.1	03M004	950.7	28-Feb-91	30 A	848.3
03M002	919.4	16-Jul-90	27 A	841.9	03M004	950.7	27-Sep-91	32 A	847.8
03M002	919.4	28-Feb-91	30 A	842.5	03M004	950.7	24-Mar-92	34 A	849.8
03M002	919.4	03-Jun-91	31 A	842.4	03M004	950.7	08-Oct-92	37 A	850.5
03M002	919.4	03-Sep-91	32 A	841.9	03M004	950.7	02-Mar-93	38 A	851.2
03M002	919.4	27-Sep-91	32 A	842.1	03M004	950.7	10-Sep-93	40 A	852.3
03M002	919.4	06-Dec-91	33 A	843.3	03M005	972.3	14-Dec-87	16 F	857.4
03M002	919.4	24-Mar-92	34 A	844.0	03M005	972.3	26-Jan-88	17 F	857.5
03M002	919.4	01-Jun-92	35 A	844.4	03M005	972.3	14-Apr-88	18 F	857.8
03M002	919.4	01-Sep-92	36 A	843.9	03M005	972.3	02-May-88	18 A	858.4
03M002	919.4	08-Oct-92	37 A	844.2	03M005	972.3	20-May-88	18 A	858.0
03M002	919.4	02-Mar-93	38 A	845.1	03M005	972.3	23-Jun-88	18 A	857.2
03M002	919.4	10-Sep-93	40 A	846.4	03M005	972.3	27-Jul-88	19 A	855.2
					03M005	972.3	30-Aug-88	19 F	853.9
03M003	942.7	17-Nov-87	16 A	852.9	03M005	972.3	01-Sep-88	19 A	854.3
03M003	942.7	14-Dec-87	16 A	852.6	03M005	972.3	21-Sep-88	19 A	854.0
03M003	942.7	14-Dec-87	16 F	852.5	03M005	972.3	14-Oct-88	20 A	854.5
03M003	942.7	11-Jan-88	17 A	852.5	03M005	972.3	23-Nov-88	20 F	853.3
03M003	942.7	26-Jan-88	17 F	852.6	03M005	972.3	02-Dec-88	20 A	853.7
03M003	942.7	14-Apr-88	18 F	854.4	03M005	972.3	13-Jan-89	21 A	854.2
03M003	942.7	02-May-88	18 A	853.5	03M005	972.3	31-Mar-89	21 A	853.9
03M003	942.7	20-May-88	18 A	852.9	03M005	972.3	05-Aug-89	23 F	851.2
03M003	942.7	23-Jun-88	18 A	852.3	03M005	972.3	05-Oct-89	24 A	852.0
03M003	942.7	27-Jul-88	19 A	850.9	03M005	972.3	02-Nov-89	24 F	850.6
03M003	942.7	30-Aug-88	19 F	849.8	03M005	972.3	21-Dec-89	24 A	851.5
03M003	942.7	01-Sep-88	19 A	849.5	03M005	972.3	11-Jan-90	25 A	851.4
03M003	942.7	21-Sep-88	19 A	849.3	03M005	972.3	24-Apr-90	26 F	851.1
03M003	942.7	14-Oct-88	20 A	848.9	03M005	972.3	16-May-90	26 A	851.2
03M003	942.7	23-Nov-88	20 F	849.6	03M005	972.3	28-Feb-91	30 A	851.3
03M003	942.7	02-Dec-88	20 A	850.0	03M005	972.3	29-Mar-91	30 F	850.0
03M003	942.7	13-Jan-89	21 A	849.7	03M005	972.3	27-Sep-91	32 A	850.7
03M003	942.7	31-Mar-89	21 A	846.5	03M005	972.3	17-Mar-92	34 F	852.3
03M003	942.7	07-Jul-89	23 A	845.1	03M005	972.3	24-Mar-92	34 A	852.7
03M003	942.7	05-Aug-89	23 F	845.3					
03M003	942.7	05-Oct-89	24 A	844.5					
03M003	942.7	02-Nov-89	24 F	843.8					
03M003	942.7	21-Dec-89	24 A	844.5					

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03M005	972.3	08-Oct-92	37 A	852.7	03M010	888.9	02-Mar-93	38 A	864.0
03M005	972.3	02-Mar-93	38 A	853.2	03M010	888.9	02-Mar-93	38 F	864.1
03M005	972.3	05-Mar-93	38 F	853.2	03M010	888.9	10-Sep-93	40 A	866.0
03M005	972.3	10-Sep-93	40 A	854.1					
03M007	900.7	24-Nov-87	16 A	859.3	03M012	880.2	17-Nov-87	16 A	859.9
03M007	900.7	14-Dec-87	16 A	859.5	03M012	880.2	24-Nov-87	16 A	859.7
03M007	900.7	14-Dec-87	16 F	859.6	03M012	880.2	14-Dec-87	16 A	860.0
03M007	900.7	11-Jan-88	17 A	860.0	03M012	880.2	11-Jan-88	17 A	860.3
03M007	900.7	13-Apr-88	18 F	860.2	03M012	880.2	27-Jan-88	17 F	860.1
03M007	900.7	02-May-88	18 A	859.6	03M012	880.2	13-Apr-88	18 F	859.9
03M007	900.7	20-May-88	18 A	859.3	03M012	880.2	02-May-88	18 A	859.5
03M007	900.7	23-Jun-88	18 A	856.9	03M012	880.2	20-May-88	18 A	859.0
03M007	900.7	27-Jul-88	19 A	855.4	03M012	880.2	23-Jun-88	18 A	854.8
03M007	900.7	30-Aug-88	19 F	855.1	03M012	880.2	27-Jul-88	19 A	853.7
03M007	900.7	01-Sep-88	19 A	855.0	03M012	880.2	30-Aug-88	19 F	854.5
03M007	900.7	21-Sep-88	19 A	854.7	03M012	880.2	01-Sep-88	19 A	854.5
03M007	900.7	14-Oct-88	20 A	855.1	03M012	880.2	21-Sep-88	19 A	854.7
03M007	900.7	23-Nov-88	20 F	855.5	03M012	880.2	14-Oct-88	20 A	855.4
03M007	900.7	02-Dec-88	20 A	855.6	03M012	880.2	23-Nov-88	20 F	855.9
03M007	900.7	13-Jan-89	21 A	855.9	03M012	880.2	02-Dec-88	20 A	856.0
03M007	900.7	31-Mar-89	21 A	855.4	03M012	880.2	13-Jan-89	21 A	856.4
03M007	900.7	05-Aug-89	23 F	852.9	03M012	880.2	31-Mar-89	21 A	856.7
03M007	900.7	05-Oct-89	24 A	852.7	03M012	880.2	06-Aug-89	23 F	852.9
03M007	900.7	02-Nov-89	24 F	852.8	03M012	880.2	05-Oct-89	24 A	853.3
03M007	900.7	21-Dec-89	24 A	852.8	03M012	880.2	02-Nov-89	24 F	853.6
03M007	900.7	11-Jan-90	25 A	852.7	03M012	880.2	21-Dec-89	24 A	854.0
03M007	900.7	23-Apr-90	26 F	852.3	03M012	880.2	11-Jan-90	25 A	854.2
03M007	900.7	16-May-90	26 A	852.4	03M012	880.2	16-May-90	26 A	853.8
03M007	900.7	16-Jul-90	27 A	852.3	03M012	880.2	16-Jul-90	27 A	853.8
03M007	900.7	19-Jul-90	27 F	852.4	03M012	880.2	28-Feb-91	30 A	855.1
03M007	900.7	28-Feb-91	30 A	853.3	03M012	880.2	03-Jun-91	31 A	855.3
03M007	900.7	28-Mar-91	30 F	852.9	03M012	880.2	03-Sep-91	32 A	854.0
03M007	900.7	03-Jun-91	31 A	853.0	03M012	880.2	27-Sep-91	32 A	855.1
03M007	900.7	03-Sep-91	32 A	852.4	03M012	880.2	06-Dec-91	33 A	856.4
03M007	900.7	27-Sep-91	32 A	852.8	03M012	880.2	24-Mar-92	34 A	857.0
03M007	900.7	06-Dec-91	33 A	854.5	03M012	880.2	01-Jun-92	35 A	856.4
03M007	900.7	10-Mar-92	34 F	855.1	03M012	880.2	01-Sep-92	36 A	855.4
03M007	900.7	24-Mar-92	34 A	855.1	03M012	880.2	08-Oct-92	37 A	856.2
03M007	900.7	01-Jun-92	35 A	855.2	03M012	880.2	02-Mar-93	38 A	857.4
03M007	900.7	01-Sep-92	36 A	854.8	03M012	880.2	10-Sep-93	40 A	858.9
03M007	900.7	08-Oct-92	37 A	855.6	03M013	889.7	17-Nov-87	16 A	852.6
03M007	900.7	02-Mar-93	38 A	856.1	03M013	889.7	24-Nov-87	16 A	852.2
03M007	900.7	02-Mar-93	38 F	856.0	03M013	889.7	14-Dec-87	16 A	852.4
03M007	900.7	10-Sep-93	40 A	857.2	03M013	889.7	11-Jan-88	17 A	852.7
					03M013	889.7	27-Jan-88	17 F	852.4
03M010	888.9	24-Nov-87	16 A	865.5	03M013	889.7	13-Apr-88	18 F	852.5
03M010	888.9	14-Dec-87	16 A	865.8	03M013	889.7	02-May-88	18 A	852.3
03M010	888.9	11-Jan-88	17 A	866.2	03M013	889.7	20-May-88	18 A	851.7
03M010	888.9	26-Jan-88	17 F	866.2	03M013	889.7	23-Jun-88	18 A	848.9
03M010	888.9	13-Apr-88	18 F	865.9	03M013	889.7	27-Jul-88	19 A	847.7
03M010	888.9	02-May-88	18 A	864.9	03M013	889.7	30-Aug-88	19 F	847.9
03M010	888.9	20-May-88	18 A	864.5	03M013	889.7	01-Sep-88	19 A	847.7
03M010	888.9	23-Jun-88	18 A	859.1	03M013	889.7	21-Sep-88	19 A	847.7
03M010	888.9	27-Jul-88	19 A	857.6	03M013	889.7	14-Oct-88	20 A	848.2
03M010	888.9	30-Aug-88	19 F	859.5	03M013	889.7	23-Nov-88	20 F	848.8
03M010	888.9	01-Sep-88	19 A	859.5	03M013	889.7	02-Dec-88	20 A	848.8
03M010	888.9	21-Sep-88	19 A	860.0	03M013	889.7	13-Jan-89	21 A	849.4
03M010	888.9	14-Oct-88	20 A	860.9	03M013	889.7	31-Mar-89	21 A	847.8
03M010	888.9	23-Nov-88	20 F	861.7	03M013	889.7	05-Aug-89	23 F	844.9
03M010	888.9	02-Dec-88	20 A	861.7	03M013	889.7	05-Oct-89	24 A	845.0
03M010	888.9	13-Jan-89	21 A	861.9	03M013	889.7	02-Nov-89	24 F	845.2
03M010	888.9	31-Mar-89	21 A	862.9	03M013	889.7	21-Dec-89	24 A	845.3
03M010	888.9	05-Aug-89	23 F	858.2	03M013	889.7	11-Jan-90	25 A	845.5
03M010	888.9	05-Oct-89	24 A	859.3	03M013	889.7	16-May-90	26 A	845.3
03M010	888.9	02-Nov-89	24 F	859.9	03M013	889.7	28-Feb-91	30 A	846.1
03M010	888.9	21-Dec-89	24 A	860.3	03M013	889.7	27-Sep-91	32 A	845.8
03M010	888.9	11-Jan-90	25 A	860.5	03M013	889.7	24-Mar-92	34 A	847.7
03M010	888.9	27-Apr-90	26 F	860.1	03M013	889.7	08-Oct-92	37 A	847.7
03M010	888.9	01-Apr-91	30 F	861.5	03M013	889.7	02-Mar-93	38 A	848.8
03M010	888.9	27-Sep-91	32 A	862.1	03M013	889.7	10-Sep-93	40 A	850.1
03M010	888.9	10-Mar-92	34 F	863.9					
03M010	888.9	24-Mar-92	34 A	863.7	03M017	938.9	17-Nov-87	16 A	854.3
03M010	888.9	08-Oct-92	37 A	863.2	03M017	938.9	24-Nov-87	16 A	854.0

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03M017	938.9	11-Jan-88	17 A	854.3	03M713	895.6	02-Dec-88	20 A	846.3
03M017	938.9	27-Jan-88	17 F	854.3	03M713	895.6	13-Jan-89	21 A	846.3
03M017	938.9	13-Apr-88	18 F	855.0	03M713	895.6	31-Mar-89	21 A	842.0
03M017	938.9	02-May-88	18 A	854.5	03M713	895.6	07-Jul-89	23 A	840.1
03M017	938.9	20-May-88	18 A	854.0	03M713	895.6	05-Oct-89	24 A	839.9
03M017	938.9	23-Jun-88	18 A	852.7	03M713	895.6	21-Dec-89	24 A	839.4
03M017	938.9	27-Jul-88	19 A	851.3	03M713	895.6	11-Jan-90	25 A	839.5
03M017	938.9	30-Aug-88	19 F	850.5	03M713	895.6	16-May-90	26 A	839.7
03M017	938.9	01-Sep-88	19 A	850.2	03M713	895.6	16-Jul-90	27 A	839.5
03M017	938.9	21-Sep-88	19 A	850.2	03M713	895.6	28-Feb-91	30 A	840.2
03M017	938.9	14-Oct-88	20 A	850.0	03M713	895.6	03-Jun-91	31 A	839.9
03M017	938.9	23-Nov-88	20 F	850.5	03M713	895.6	03-Sep-91	32 A	839.0
03M017	938.9	02-Dec-88	20 A	850.7	03M713	895.6	27-Sep-91	32 A	839.5
03M017	938.9	13-Jan-89	21 A	851.0	03M713	895.6	06-Dec-91	33 A	840.8
03M017	938.9	31-Mar-89	21 A	849.1	03M713	895.6	24-Mar-92	34 A	841.3
03M017	938.9	05-Aug-89	23 F	847.3	03M713	895.6	01-Jun-92	35 A	841.3
03M017	938.9	05-Oct-89	24 A	847.0	03M713	895.6	01-Sep-92	36 A	840.9
03M017	938.9	04-Nov-89	24 F	846.8	03M713	895.6	08-Oct-92	37 A	841.7
03M017	938.9	21-Dec-89	24 A	846.4	03M713	895.6	02-Mar-93	38 A	842.7
03M017	938.9	11-Jan-90	25 A	846.3	03M713	895.6	10-Sep-93	40 A	844.0
03M017	938.9	16-May-90	26 A	846.4					
03M017	938.9	28-Feb-91	30 A	847.1	03M802	905.6	17-Nov-87	16 A	850.9
03M017	938.9	27-Sep-91	32 A	846.7	03M802	905.6	24-Nov-87	16 A	851.2
03M017	938.9	24-Mar-92	34 A	848.6	03M802	905.6	30-Nov-87	16 A	850.9
03M017	938.9	08-Oct-92	37 A	848.9	03M802	905.6	14-Dec-87	16 A	851.4
03M017	938.9	02-Mar-93	38 A	849.8	03M802	905.6	14-Dec-87	16 F	849.9
03M017	938.9	10-Sep-93	40 A	851.1	03M802	905.6	11-Jan-88	17 A	850.3
					03M802	905.6	13-Apr-88	18 F	849.5
03M020	954.5	17-Nov-87	16 A	854.5	03M802	905.6	02-May-88	18 A	850.9
03M020	954.5	24-Nov-87	16 A	854.4	03M802	905.6	20-May-88	18 A	850.2
03M020	954.5	30-Nov-87	16 A	854.4	03M802	905.6	23-Jun-88	18 A	849.9
03M020	954.5	14-Dec-87	16 F	854.3	03M802	905.6	27-Jul-88	19 A	848.5
03M020	954.5	11-Jan-88	17 A	854.5	03M802	905.6	30-Aug-88	19 F	846.6
03M020	954.5	27-Jan-88	17 F	854.6	03M802	905.6	01-Sep-88	19 A	847.2
03M020	954.5	14-Apr-88	18 F	855.4	03M802	905.6	21-Sep-88	19 A	846.9
03M020	954.5	02-May-88	18 A	854.8	03M802	905.6	14-Oct-88	20 A	846.7
03M020	954.5	20-May-88	18 A	854.3	03M802	905.6	23-Nov-88	20 F	847.5
03M020	954.5	23-Jun-88	18 A	853.3	03M802	905.6	02-Dec-88	20 A	848.2
03M020	954.5	27-Jul-88	19 A	851.9	03M802	905.6	13-Jan-89	21 A	847.2
03M020	954.5	30-Aug-88	19 F	850.8	03M802	905.6	31-Mar-89	21 A	843.5
03M020	954.5	01-Sep-88	19 A	850.7	03M802	905.6	06-Aug-89	23 F	843.3
03M020	954.5	21-Sep-88	19 A	850.6	03M802	905.6	05-Oct-89	24 A	842.3
03M020	954.5	14-Oct-88	20 A	850.3	03M802	905.6	03-Nov-89	24 F	837.0
03M020	954.5	23-Nov-88	20 F	850.2	03M802	905.6	21-Dec-89	24 A	842.2
03M020	954.5	02-Dec-88	20 A	850.9	03M802	905.6	11-Jan-90	25 A	841.8
03M020	954.5	13-Jan-89	21 A	851.0	03M802	905.6	16-May-90	26 A	841.4
03M020	954.5	31-Mar-89	21 A	849.2	03M802	905.6	16-Jul-90	27 A	841.1
03M020	954.5	07-Jul-89	23 A	848.0	03M802	905.6	28-Feb-91	30 A	841.9
03M020	954.5	05-Aug-89	23 F	847.7	03M802	905.6	03-Jun-91	31 A	841.4
03M020	954.5	05-Oct-89	24 A	847.0	03M802	905.6	03-Sep-91	32 A	841.0
03M020	954.5	04-Nov-89	24 F	847.0	03M802	905.6	27-Sep-91	32 A	841.1
03M020	954.5	21-Dec-89	24 A	846.7	03M802	905.6	06-Dec-91	33 A	842.3
03M020	954.5	11-Jan-90	25 A	846.5	03M802	905.6	24-Mar-92	34 A	842.9
03M020	954.5	16-May-90	26 A	846.5	03M802	905.6	01-Jun-92	35 A	843.6
03M020	954.5	16-Jul-90	27 A	846.3	03M802	905.6	01-Sep-92	36 A	843.4
03M020	954.5	28-Feb-91	30 A	847.0	03M802	905.6	08-Oct-92	37 A	844.2
03M020	954.5	03-Jun-91	31 A	847.0	03M802	905.6	02-Mar-93	38 A	844.9
03M020	954.5	03-Sep-91	32 A	846.5	03M802	905.6	10-Sep-93	40 A	846.3
03M020	954.5	27-Sep-91	32 A	846.7					
03M020	954.5	06-Dec-91	33 A	847.9	03M806	909.6	17-Nov-87	16 A	848.0
03M020	954.5	24-Mar-92	34 A	848.6	03M806	909.6	24-Nov-87	16 A	848.4
03M020	954.5	01-Jun-92	35 A	849.2	03M806	909.6	30-Nov-87	16 A	847.9
03M020	954.5	01-Sep-92	36 A	848.7	03M806	909.6	14-Dec-87	16 A	847.7
03M020	954.5	08-Oct-92	37 A	849.1	03M806	909.6	14-Dec-87	16 F	847.8
03M020	954.5	02-Mar-93	38 A	849.9	03M806	909.6	11-Jan-88	17 A	848.9
03M020	954.5	10-Sep-93	40 A	851.2	03M806	909.6	27-Jan-88	17 F	847.7
					03M806	909.6	13-Apr-88	18 F	850.2
03M505	957.3	15-Dec-87	16 F	858.8	03M806	909.6	02-May-88	18 A	848.1
03M505	957.3	28-Jan-88	17 F	859.0	03M806	909.6	20-May-88	18 A	847.5
03M505	957.3	14-Apr-88	18 F	859.2	03M806	909.6	23-Jun-88	18 A	845.9
03M505	957.3	30-Aug-88	19 F	854.2	03M806	909.6	27-Jul-88	19 A	845.7
03M505		Well Abandoned			03M806	909.6	30-Aug-88	19 F	844.4
03M509	958.0	05-Aug-89	23 F	878.5	03M806	909.6	01-Sep-88	19 A	844.9

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03M806	909.6	21-Sep-88	19 A	844.0	03U001	888.2	14-Oct-88	20 A	845.5
03M806	909.6	14-Oct-88	20 A	844.6	03U001	888.2	22-Nov-88	20 F	846.6
03M806	909.6	23-Nov-88	20 F	846.0	03U001	888.2	02-Dec-88	20 A	846.5
03M806	909.6	02-Dec-88	20 A	845.8	03U001	888.2	13-Jan-89	21 A	846.6
03M806	909.6	13-Jan-89	21 A	845.7	03U001	888.2	31-Mar-89	21 A	844.2
03M806	909.6	31-Mar-89	21 A	841.8	03U001	888.2	05-Aug-89	23 F	841.6
03M806	909.6	06-Aug-89	23 F	840.1	03U001	888.2	05-Oct-89	24 A	841.5
03M806	909.6	05-Oct-89	24 A	839.5	03U001	888.2	02-Nov-89	24 F	841.7
03M806	909.6	03-Nov-89	24 F	839.7	03U001	888.2	21-Dec-89	24 A	841.5
03M806	909.6	21-Dec-89	24 A	839.0	03U001	888.2	11-Jan-90	25 A	841.5
03M806	909.6	11-Jan-90	25 A	839.3	03U001	888.2	16-May-90	26 A	841.8
03M806	909.6	16-May-90	26 A	839.3	03U001	888.2	16-Jul-90	27 A	841.4
03M806	909.6	16-Jul-90	27 A	838.9	03U001	888.2	28-Feb-91	30 A	842.4
03M806	909.6	28-Feb-91	30 A	839.7	03U001	888.2	03-Jun-91	31 A	842.1
03M806	909.6	03-Jun-91	31 A	839.3	03U001	888.2	03-Sep-91	32 A	841.1
03M806	909.6	03-Sep-91	32 A	838.7	03U001	888.2	27-Sep-91	32 A	841.8
03M806	909.6	27-Sep-91	32 A	839.0	03U001	888.2	06-Dec-91	33 A	842.9
03M806	909.6	06-Dec-91	33 A	840.3	03U001	888.2	24-Mar-92	34 A	843.4
03M806	909.6	24-Mar-92	34 A	841.1	03U001	888.2	01-Jun-92	35 A	843.1
03M806	909.6	01-Jun-92	35 A	841.1	03U001	888.2	01-Sep-92	36 A	842.7
03M806	909.6	01-Sep-92	36 A	840.6	03U001	888.2	08-Oct-92	37 A	843.6
03M806	909.6	08-Oct-92	37 A	841.6	03U001	888.2	02-Mar-93	38 A	844.8
03M806	909.6	02-Mar-93	38 A	842.6	03U001	888.2	10-Sep-93	40 A	846.2
03M806	909.6	10-Sep-93	40 A	843.9					
03M843	885.7	14-Dec-87	16 F	839.1	03U002	917.8	17-Nov-87	16 A	851.4
03M843	885.7	26-Jan-88	17 F	839.3	03U002	917.8	24-Nov-87	16 A	851.0
03M843	885.7	13-Apr-88	18 F	839.9	03U002	917.8	30-Nov-87	16 A	851.1
03M843	885.7	30-Aug-88	19 F	835.3	03U002	917.8	14-Dec-87	16 A	850.8
03M843	885.7	23-Nov-88	20 F	836.6	03U002	917.8	14-Dec-87	16 F	850.9
03M843	885.7	05-May-89	22 F	833.1	03U002	917.8	11-Jan-88	17 A	851.3
03M843	885.7	06-Aug-89	23 F	832.5	03U002	917.8	27-Jan-88	17 F	851.1
03M843	885.7	03-Nov-89	24 F	832.9	03U002	917.8	13-Apr-88	18 F	853.1
03M843	885.7	25-Apr-90	26 F	833.2	03U002	917.8	02-May-88	18 A	851.6
03M843	885.7	21-Mar-91	30 F	832.9	03U002	917.8	20-May-88	18 A	850.9
03M843	885.7	04-Jun-91	31 F	832.4	03U002	917.8	23-Jun-88	18 A	850.3
03M843	885.7	04-Sep-91	32 F	830.9	03U002	917.8	27-Jul-88	19 A	849.0
03M843	885.7	20-Mar-92	34 F	834.9	03U002	917.8	30-Aug-88	19 F	847.7
03M843	885.7	03-Jun-92	35 F	834.2	03U002	917.8	01-Sep-88	19 A	847.6
03M843	885.7	03-Sep-92	36 F	833.2	03U002	917.8	21-Sep-88	19 A	847.3
03M843	885.7	03-Mar-93	38 F	833.8	03U002	917.8	14-Oct-88	20 A	847.2
03M843	885.7	09-Sep-93	40 F	835.0	03U002	917.8	22-Nov-88	20 F	848.4
					03U002	917.8	02-Dec-88	20 A	848.7
03M848	902.5	14-Dec-87	16 F	844.6	03U002	917.8	13-Jan-89	21 A	849.7
03M848	902.5	26-Jan-88	17 F	843.7	03U002	917.8	31-Mar-89	21 A	845.4
03M848	902.5	13-Apr-88	18 F	844.8	03U002	917.8	07-Jul-89	23 A	844.2
03M848	902.5	30-Aug-88	19 F	840.5	03U002	917.8	05-Aug-89	23 F	843.9
03M848	902.5	23-Nov-88	20 F	840.9	03U002	917.8	05-Oct-89	24 A	843.5
03M848	902.5	06-Aug-89	23 F	837.4	03U002	917.8	02-Nov-89	24 F	843.2
03M848	902.5	03-Nov-89	24 F	837.1	03U002	917.8	21-Dec-89	24 A	842.7
03M848	902.5	19-Jul-90	27 F	836.6	03U002	917.8	11-Jan-90	25 A	842.6
03M848	902.5	17-Sep-90	28 F	836.0	03U002	917.8	16-May-90	26 A	842.7
03M848	902.5	18-Mar-91	30 F	836.7	03U002	917.8	16-Jul-90	27 A	842.5
03M848	902.5	04-Jun-91	31 F	836.2	03U002	917.8	28-Feb-91	30 A	843.2
03M848	902.5	04-Sep-91	32 F	835.3	03U002	917.8	03-Jun-91	31 A	843.0
03M848	902.5	18-Mar-92	34 F	838.7	03U002	917.8	03-Sep-91	32 A	842.4
03M848	902.5	03-Jun-92	35 F	838.6	03U002	917.8	27-Sep-91	32 A	842.7
03M848	902.5	03-Sep-92	36 F	837.8	03U002	917.8	06-Dec-91	33 A	843.9
03M848	902.5	09-Mar-93	38 F	838.4	03U002	917.8	24-Mar-92	34 A	844.5
03M848	902.5	09-Sep-93	40 F	839.5	03U002	917.8	01-Jun-92	35 A	845.0
					03U002	917.8	01-Sep-92	36 A	844.6
03U001	888.2	17-Nov-87	16 A	849.8	03U002	917.8	08-Oct-92	37 A	844.8
03U001	888.2	24-Nov-87	16 A	849.4	03U002	917.8	02-Mar-93	38 A	845.8
03U001	888.2	30-Nov-87	16 A	849.8	03U002	917.8	10-Sep-93	40 A	847.1
03U001	888.2	14-Dec-87	16 F	849.5					
03U001	888.2	11-Jan-88	17 A	849.8	03U003	942.6	17-Nov-87	16 A	852.9
03U001	888.2	13-Apr-88	18 F	850.4	03U003	942.6	24-Nov-87	16 A	852.5
03U001	888.2	02-May-88	18 A	849.5	03U003	942.6	30-Nov-87	16 A	852.6
03U001	888.2	20-May-88	18 A	848.9	03U003	942.6	14-Dec-87	16 A	852.5
03U001	888.2	23-Jun-88	18 A	846.3	03U003	942.6	14-Dec-87	16 F	852.4
03U001	888.2	27-Jul-88	19 A	845.2	03U003	942.6	11-Jan-88	17 A	852.3
03U001	888.2	30-Aug-88	19 F	845.3	03U003	942.6	26-Jan-88	17 F	852.5
03U001	888.2	01-Sep-88	19 A	844.9	03U003	942.6	14-Apr-88	18 F	854.2
03U001	888.2	21-Sep-88	19 A	845.0	03U003	942.6	02-May-88	18 A	853.5
					03U003	942.6	20-May-88	18 A	852.8

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U003	942.6	23-Jun-88	18 A	852.4	03U005	970.5	14-Oct-88	20 A	853.6
03U003	942.6	27-Jul-88	19 A	850.9	03U005	970.5	22-Nov-88	20 F	853.6
03U003	942.6	30-Aug-88	19 F	849.7	03U005	970.5	02-Dec-88	20 A	853.2
03U003	942.6	01-Sep-88	19 A	849.5	03U005	970.5	13-Jan-89	21 A	853.6
03U003	942.6	21-Sep-88	19 A	849.2	03U005	970.5	31-Mar-89	21 A	852.9
03U003	942.6	14-Oct-88	20 A	848.8	03U005	970.5	05-Aug-89	23 F	851.4
03U003	942.6	22-Nov-88	20 F	849.4	03U005	970.5	05-Oct-89	24 A	851.1
03U003	942.6	02-Dec-88	20 A	849.8	03U005	970.5	03-Nov-89	24 F	850.8
03U003	942.6	13-Jan-89	21 A	849.7	03U005	970.5	21-Dec-89	24 A	850.5
03U003	942.6	31-Mar-89	21 A	846.8	03U005	970.5	11-Jan-90	25 A	850.4
03U003	942.6	07-Jul-89	23 A	845.5	03U005	970.5	24-Apr-90	26 F	850.4
03U003	942.6	05-Aug-89	23 F	845.7	03U005	970.5	16-May-90	26 A	850.2
03U003	942.6	05-Oct-89	24 A	844.9	03U005	970.5	28-Feb-91	30 A	850.7
03U003	942.6	21-Dec-89	24 A	844.5	03U005	970.5	29-Mar-91	30 F	850.2
03U003	942.6	11-Jan-90	25 A	844.2	03U005	970.5	27-Sep-91	32 A	850.3
03U003	942.6	16-May-90	26 A	844.2	03U005	970.5	17-Mar-92	34 F	852.4
03U003	942.6	16-Jul-90	27 A	843.8	03U005	970.5	24-Mar-92	34 A	851.7
03U003	942.6	28-Feb-91	30 A	844.5	03U005	970.5	08-Oct-92	37 A	852.7
03U003	942.6	03-Jun-91	31 A	844.3	03U005	970.5	02-Mar-93	38 A	853.2
03U003	942.6	03-Sep-91	32 A	843.8	03U005	970.5	09-Mar-93	38 F	853.0
03U003	942.6	27-Sep-91	32 A	843.9	03U005	970.5	10-Sep-93	40 A	854.0
03U003	942.6	06-Dec-91	33 A	845.2					
03U003	942.6	24-Mar-92	34 A	845.7	03U006	966.7	24-Nov-87	16 A	858.2
03U003	942.6	01-Jun-92	35 A	846.5	03U006	966.7	30-Nov-87	16 A	858.7
03U003	942.6	01-Sep-92	36 A	846.3	03U006	966.7	14-Dec-87	16 A	858.4
03U003	942.6	08-Oct-92	37 A	846.5	03U006	966.7	11-Jan-88	17 A	859.1
03U003	942.6	02-Mar-93	38 A	847.2	03U006	966.7	26-Jan-88	17 F	858.6
03U003	942.6	10-Sep-93	40 A	848.3	03U006	966.7	13-Apr-88	18 F	859.2
					03U006	966.7	02-May-88	18 A	859.0
03U004	950.8	17-Nov-87	16 A	856.4	03U006	966.7	20-May-88	18 A	858.6
03U004	950.8	24-Nov-87	16 A	856.2	03U006	966.7	23-Jun-88	18 A	857.5
03U004	950.8	30-Nov-87	16 A	856.3	03U006	966.7	27-Jul-88	19 A	856.2
03U004	950.8	14-Dec-87	16 A	856.1	03U006	966.7	30-Aug-88	19 F	855.0
03U004	950.8	11-Jan-88	17 A	856.2	03U006	966.7	01-Sep-88	19 A	855.1
03U004	950.8	27-Jan-88	17 F	856.3	03U006	966.7	21-Sep-88	19 A	854.4
03U004	950.8	14-Apr-88	18 F	856.9	03U006	966.7	14-Oct-88	20 A	854.7
03U004	950.8	02-May-88	18 A	856.7	03U006	966.7	22-Nov-88	20 F	854.5
03U004	950.8	20-May-88	18 A	856.3	03U006	966.7	02-Dec-88	20 A	854.5
03U004	950.8	23-Jun-88	18 A	855.3	03U006	966.7	13-Jan-89	21 A	854.8
03U004	950.8	27-Jul-88	19 A	853.9	03U006	966.7	31-Mar-89	21 A	854.1
03U004	950.8	30-Aug-88	19 F	853.0	03U006	966.7	05-Aug-89	23 F	852.8
03U004	950.8	01-Sep-88	19 A	852.7	03U006	966.7	05-Oct-89	24 A	851.9
03U004	950.8	21-Sep-88	19 A	852.5	03U006	966.7	02-Nov-89	24 F	851.6
03U004	950.8	14-Oct-88	20 A	852.2	03U006	966.7	21-Dec-89	24 A	851.6
03U004	950.8	22-Nov-88	20 F	852.3	03U006	966.7	11-Jan-90	25 A	851.4
03U004	950.8	02-Dec-88	20 A	852.5	03U006	966.7	30-Apr-90	26 F	853.0
03U004	950.8	13-Jan-89	21 A	852.8	03U006	966.7	16-May-90	26 A	851.3
03U004	950.8	31-Mar-89	21 A	851.5	03U006	966.7	28-Feb-91	30 A	851.9
03U004	950.8	05-Aug-89	23 F	850.1	03U006	966.7	28-Mar-91	30 F	850.3
03U004	950.8	05-Oct-89	24 A	849.3	03U006	966.7	27-Sep-91	32 A	851.1
03U004	950.8	04-Nov-89	24 F	849.2	03U006	966.7	10-Mar-92	34 F	853.4
03U004	950.8	21-Dec-89	24 A	849.0	03U006	966.7	24-Mar-92	34 A	853.4
03U004	950.8	11-Jan-90	25 A	848.8	03U006	966.7	08-Oct-92	37 A	854.2
03U004	950.8	16-May-90	26 A	848.7	03U006	966.7	02-Mar-93	38 A	854.7
03U004	950.8	28-Feb-91	30 A	849.2	03U006	966.7	10-Sep-93	40 A	855.2
03U004	950.8	27-Sep-91	32 A	848.7					
03U004	950.8	24-Mar-92	34 A	850.7	03U007	900.3	24-Nov-87	16 A	859.7
03U004	950.8	08-Oct-92	37 A	852.0	03U007	900.3	30-Nov-87	16 A	860.2
03U004	950.8	02-Mar-93	38 A	852.7	03U007	900.3	14-Dec-87	16 F	859.9
03U004	950.8	10-Sep-93	40 A	853.8	03U007	900.3	11-Jan-88	17 A	860.4
					03U007	900.3	26-Jan-88	17 F	860.1
03U005	970.5	30-Nov-87	16 A	857.6	03U007	900.3	13-Apr-88	18 F	860.5
03U005	970.5	14-Dec-87	16 A	857.5	03U007	900.3	02-May-88	18 A	860.0
03U005	970.5	14-Dec-87	16 F	857.6	03U007	900.3	20-May-88	18 A	859.6
03U005	970.5	11-Jan-88	17 A	858.1	03U007	900.3	23-Jun-88	18 A	857.2
03U005	970.5	26-Jan-88	17 F	857.6	03U007	900.3	27-Jul-88	19 A	855.7
03U005	970.5	14-Apr-88	18 F	858.0	03U007	900.3	30-Aug-88	19 F	855.4
03U005	970.5	02-May-88	18 A	857.8	03U007	900.3	01-Sep-88	19 A	855.4
03U005	970.5	20-May-88	18 A	857.4	03U007	900.3	21-Sep-88	19 A	855.1
03U005	970.5	23-Jun-88	18 A	856.3	03U007	900.3	14-Oct-88	20 A	855.5
03U005	970.5	27-Jul-88	19 A	854.7	03U007	900.3	22-Nov-88	20 F	855.8
03U005	970.5	30-Aug-88	19 F	854.1	03U007	900.3	02-Dec-88	20 A	855.9
03U005	970.5	01-Sep-88	19 A	853.8	03U007	900.3	13-Jan-89	21 A	856.2
03U005	970.5	21-Sep-88	19 A	853.5	03U007	900.3	31-Mar-89	21 A	855.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U007	900.3	07-Jul-89	23 A	854.0	03U009	912.9	14-Oct-88	20 A	860.9
03U007	900.3	05-Aug-89	23 F	853.2	03U009	912.9	22-Nov-88	20 F	861.7
03U007	900.3	05-Oct-89	24 A	853.1	03U009	912.9	02-Dec-88	20 A	861.9
03U007	900.3	02-Nov-89	24 F	853.1	03U009	912.9	13-Jan-89	21 A	862.0
03U007	900.3	21-Dec-89	24 A	853.2	03U009	912.9	31-Mar-89	21 A	862.8
03U007	900.3	11-Jan-90	25 A	853.1	03U009	912.9	05-Aug-89	23 F	857.9
03U007	900.3	23-Apr-90	26 F	852.9	03U009	912.9	05-Oct-89	24 A	859.2
03U007	900.3	16-May-90	26 A	852.8	03U009	912.9	02-Nov-89	24 F	859.8
03U007	900.3	16-Jul-90	27 A	852.6	03U009	912.9	21-Dec-89	24 A	860.2
03U007	900.3	19-Jul-90	27 F	852.7	03U009	912.9	11-Jan-90	25 A	860.3
03U007	900.3	28-Feb-91	30 A	853.7	03U009	912.9	23-Apr-90	26 F	859.4
03U007	900.3	28-Mar-91	30 F	853.2	03U009	912.9	16-May-90	26 A	859.9
03U007	900.3	03-Jun-91	31 A	853.4	03U009	912.9	28-Feb-91	30 A	870.4
03U007	900.3	03-Sep-91	32 A	852.8	03U009	912.9	28-Mar-91	30 F	861.2
03U007	900.3	27-Sep-91	32 A	853.2	03U009	912.9	27-Sep-91	32 A	861.9
03U007	900.3	06-Dec-91	33 A	854.9	03U009	912.9	10-Mar-92	34 F	863.7
03U007	900.3	10-Mar-92	34 F	855.4	03U009	912.9	24-Mar-92	34 A	863.6
03U007	900.3	24-Mar-92	34 A	855.5	03U009	912.9	08-Oct-92	37 A	863.2
03U007	900.3	01-Jun-92	35 A	855.6	03U009	912.9	02-Mar-93	38 A	863.9
03U007	900.3	01-Sep-92	36 A	855.2	03U009	912.9	02-Mar-93	38 F	864.1
03U007	900.3	08-Oct-92	37 A	855.6	03U009	912.9	10-Sep-93	40 A	866.0
03U007	900.3	02-Mar-93	38 A	856.2					
03U007	900.3	02-Mar-93	38 F	856.1	03U010	888.4	24-Nov-87	16 A	865.6
03U007	900.3	10-Sep-93	40 A	857.3	03U010	888.4	30-Nov-87	16 A	866.0
					03U010	888.4	14-Dec-87	16 A	866.0
03U008	915.2	24-Nov-87	16 A	864.1	03U010	888.4	11-Jan-88	17 A	866.4
03U008	915.2	30-Nov-87	16 A	864.5	03U010	888.4	26-Jan-88	17 F	866.2
03U008	915.2	14-Dec-87	16 A	864.4	03U010	888.4	13-Apr-88	18 F	866.0
03U008	915.2	14-Dec-87	16 F	864.5	03U010	888.4	02-May-88	18 A	865.1
03U008	915.2	11-Jan-88	17 A	865.0	03U010	888.4	20-May-88	18 A	864.6
03U008	915.2	26-Jan-88	17 F	864.8	03U010	888.4	23-Jun-88	18 A	859.2
03U008	915.2	13-Apr-88	18 F	864.8	03U010	888.4	27-Jul-88	19 A	857.7
03U008	915.2	02-May-88	18 A	864.0	03U010	888.4	30-Aug-88	19 F	859.6
03U008	915.2	20-May-88	18 A	863.3	03U010	888.4	01-Sep-88	19 A	859.6
03U008	915.2	23-Jun-88	18 A	858.9	03U010	888.4	21-Sep-88	19 A	860.1
03U008	915.2	27-Jul-88	19 A	857.1	03U010	888.4	14-Oct-88	20 A	861.0
03U008	915.2	30-Aug-88	19 F	858.1	03U010	888.4	22-Nov-88	20 F	861.7
03U008	915.2	01-Sep-88	19 A	858.2	03U010	888.4	02-Dec-88	20 A	861.8
03U008	915.2	21-Sep-88	19 A	858.5	03U010	888.4	13-Jan-89	21 A	861.9
03U008	915.2	14-Oct-88	20 A	859.4	03U010	888.4	31-Mar-89	21 A	863.1
03U008	915.2	22-Nov-88	20 F	860.2	03U010	888.4	05-Aug-89	23 F	858.3
03U008	915.2	02-Dec-88	20 A	860.3	03U010	888.4	05-Oct-89	24 A	859.4
03U008	915.2	13-Jan-89	21 A	860.6	03U010	888.4	02-Nov-89	24 F	860.0
03U008	915.2	31-Mar-89	21 A	861.3	03U010	888.4	21-Dec-89	24 A	860.4
03U008	915.2	05-Aug-89	23 F	857.4	03U010	888.4	11-Jan-90	25 A	860.6
03U008	915.2	05-Oct-89	24 A	858.0	03U010	888.4	27-Apr-90	26 F	860.1
03U008	915.2	02-Nov-89	24 F	858.3	03U010	888.4	16-May-90	26 A	860.2
03U008	915.2	21-Dec-89	24 A	858.7	03U010	888.4	28-Feb-91	30 A	861.6
03U008	915.2	11-Jan-90	25 A	858.7	03U010	888.4	01-Apr-91	30 F	861.5
03U008	915.2	23-Apr-90	26 F	856.7	03U010	888.4	27-Sep-91	32 A	862.2
03U008	915.2	16-May-90	26 A	858.3	03U010	888.4	10-Mar-92	34 F	864.0
03U008	915.2	28-Feb-91	30 A	859.9	03U010	888.4	24-Mar-92	34 A	863.9
03U008	915.2	01-Apr-91	30 F	859.6	03U010	888.4	08-Oct-92	37 A	863.2
03U008	915.2	27-Sep-91	32 A	859.9	03U010	888.4	02-Mar-93	38 A	864.1
03U008	915.2	10-Mar-92	34 F	861.5	03U010	888.4	02-Mar-93	38 F	864.1
03U008	915.2	24-Mar-92	34 A	861.9	03U010	888.4	10-Sep-93	40 A	866.0
03U008	915.2	08-Oct-92	37 A	861.1					
03U008	915.2	02-Mar-93	38 A	862.1	03U011	900.6	24-Nov-87	16 A	863.1
03U008	915.2	10-Sep-93	40 A	863.7	03U011	900.6	30-Nov-87	16 A	863.4
					03U011	900.6	14-Dec-87	16 F	863.6
03U009	912.9	24-Nov-87	16 A	865.6	03U011	900.6	11-Jan-88	17 A	863.8
03U009	912.9	30-Nov-87	16 A	866.0	03U011	900.6	13-Apr-88	18 F	862.5
03U009	912.9	14-Dec-87	16 A	865.9	03U011	900.6	02-May-88	18 A	863.0
03U009	912.9	14-Dec-87	16 F	866.0	03U011	900.6	20-May-88	18 A	862.6
03U009	912.9	11-Jan-88	17 A	866.4	03U011	900.6	23-Jun-88	18 A	858.5
03U009	912.9	26-Jan-88	17 F	866.2	03U011	900.6	27-Jul-88	19 A	856.9
03U009	912.9	13-Apr-88	18 F	866.0	03U011	900.6	30-Aug-88	19 F	857.8
03U009	912.9	02-May-88	18 A	864.9	03U011	900.6	01-Sep-88	19 A	857.7
03U009	912.9	20-May-88	18 A	864.4	03U011	900.6	21-Sep-88	19 A	858.0
03U009	912.9	23-Jun-88	18 A	859.1	03U011	900.6	14-Oct-88	20 A	858.5
03U009	912.9	27-Jul-88	19 A	857.5	03U011	900.6	22-Nov-88	20 F	859.0
03U009	912.9	30-Aug-88	19 F	859.4	03U011	900.6	02-Dec-88	20 A	859.0
03U009	912.9	01-Sep-88	19 A	859.5	03U011	900.6	13-Jan-89	21 A	859.3
03U009	912.9	21-Sep-88	19 A	859.9	03U011	900.6	31-Mar-89	21 A	861.0



**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U011	900.6	05-Aug-89	23 F	857.4	03U013	890.0	31-Mar-89	21 A	848.2
03U011	900.6	05-Oct-89	24 A	857.5	03U013	890.0	05-Aug-89	23 F	845.3
03U011	900.6	02-Nov-89	24 F	857.9	03U013	890.0	05-Oct-89	24 A	845.4
03U011	900.6	21-Dec-89	24 A	858.3	03U013	890.0	02-Nov-89	24 F	845.6
03U011	900.6	11-Jan-90	25 A	858.4	03U013	890.0	21-Dec-89	24 A	845.6
03U011	900.6	27-Apr-90	26 F	858.2	03U013	890.0	11-Jan-90	25 A	845.8
03U011	900.6	16-May-90	26 A	858.0	03U013	890.0	16-May-90	26 A	845.7
03U011	900.6	28-Feb-91	30 A	859.3	03U013	890.0	28-Feb-91	30 A	846.4
03U011	900.6	01-Apr-91	30 F	859.3	03U013	890.0	27-Sep-91	32 A	846.1
03U011	900.6	27-Sep-91	32 A	859.5	03U013	890.0	24-Mar-92	34 A	848.0
03U011	900.6	10-Mar-92	34 F	861.6	03U013	890.0	08-Oct-92	37 A	847.7
03U011	900.6	24-Mar-92	34 A	861.4	03U013	890.0	02-Mar-93	38 A	848.8
03U011	900.6	08-Oct-92	37 A	860.6	03U013	890.0	10-Sep-93	40 A	850.1
03U011	900.6	01-Mar-93	38 F	861.8					
03U011	900.6	02-Mar-93	38 A	861.7	03U014	988.3	17-Nov-87	16 A	856.8
03U011	900.6	10-Sep-93	40 A	863.3	03U014	988.3	24-Nov-87	16 A	856.7
					03U014	988.3	30-Nov-87	16 A	856.7
03U012	880.0	17-Nov-87	16 A	859.7	03U014	988.3	14-Dec-87	16 A	856.9
03U012	880.0	24-Nov-87	16 A	859.6	03U014	988.3	15-Dec-87	16 F	856.9
03U012	880.0	30-Nov-87	16 A	860.0	03U014	988.3	11-Jan-88	17 A	857.0
03U012	880.0	14-Dec-87	16 A	859.9	03U014	988.3	26-Jan-88	17 F	856.8
03U012	880.0	11-Jan-88	17 A	860.2	03U014	988.3	14-Apr-88	18 F	857.3
03U012	880.0	27-Jan-88	17 F	860.0	03U014	988.3	02-May-88	18 A	857.1
03U012	880.0	13-Apr-88	18 F	859.8	03U014	988.3	20-May-88	18 A	855.6
03U012	880.0	02-May-88	18 A	859.4	03U014	988.3	23-Jun-88	18 A	855.8
03U012	880.0	20-May-88	18 A	858.9	03U014	988.3	27-Jul-88	19 A	854.3
03U012	880.0	23-Jun-88	18 A	854.8	03U014	988.3	30-Aug-88	19 F	853.2
03U012	880.0	27-Jul-88	19 A	853.6	03U014	988.3	01-Sep-88	19 A	853.2
03U012	880.0	30-Aug-88	19 F	854.5	03U014	988.3	21-Sep-88	19 A	852.8
03U012	880.0	01-Sep-88	19 A	854.4	03U014	988.3	14-Oct-88	20 A	852.6
03U012	880.0	21-Sep-88	19 A	854.7	03U014	988.3	22-Nov-88	20 F	851.6
03U012	880.0	14-Oct-88	20 A	855.3	03U014	988.3	02-Dec-88	20 A	852.8
03U012	880.0	22-Nov-88	20 F	855.8	03U014	988.3	13-Jan-89	21 A	852.9
03U012	880.0	02-Dec-88	20 A	855.9	03U014	988.3	31-Mar-89	21 A	852.1
03U012	880.0	13-Jan-89	21 A	856.3	03U014	988.3	05-Aug-89	23 F	850.7
03U012	880.0	31-Mar-89	21 A	856.6	03U014	988.3	05-Oct-89	24 A	849.8
03U012	880.0	07-Jul-89	23 A	853.6	03U014	988.3	02-Nov-89	24 F	849.7
03U012	880.0	05-Aug-89	23 F	852.8	03U014	988.3	21-Dec-89	24 A	849.6
03U012	880.0	05-Oct-89	24 A	853.2	03U014	988.3	11-Jan-90	25 A	849.4
03U012	880.0	02-Nov-89	24 F	853.6	03U014	988.3	16-May-90	26 A	849.3
03U012	880.0	21-Dec-89	24 A	853.9	03U014	988.3	16-Jul-90	27 A	849.1
03U012	880.0	11-Jan-90	25 A	854.1	03U014	988.3	28-Feb-91	30 A	849.9
03U012	880.0	16-May-90	26 A	853.7	03U014	988.3	03-Jun-91	31 A	849.9
03U012	880.0	16-Jul-90	27 A	853.7	03U014	988.3	03-Sep-91	32 A	849.4
03U012	880.0	28-Feb-91	30 A	855.0	03U014	988.3	27-Sep-91	32 A	849.6
03U012	880.0	03-Jun-91	31 A	855.3	03U014	988.3	06-Dec-91	33 A	850.7
03U012	880.0	03-Sep-91	32 A	853.9	03U014	988.3	24-Mar-92	34 A	851.7
03U012	880.0	27-Sep-91	32 A	855.0	03U014	988.3	01-Jun-92	35 A	852.3
03U012	880.0	06-Dec-91	33 A	856.3	03U014	988.3	01-Sep-92	36 A	851.4
03U012	880.0	24-Mar-92	34 A	856.9	03U014	988.3	08-Oct-92	37 A	852.0
03U012	880.0	01-Jun-92	35 A	856.3	03U014	988.3	02-Mar-93	38 A	852.7
03U012	880.0	01-Sep-92	36 A	855.3	03U014	988.3	10-Sep-93	40 A	854.0
03U012	880.0	08-Oct-92	37 A	856.3					
03U012	880.0	02-Mar-93	38 A	857.4	03U015	934.6	17-Nov-87	16 A	856.8
03U012	880.0	10-Sep-93	40 A	859.0	03U015	934.6	24-Nov-87	16 A	856.7
					03U015	934.6	30-Nov-87	16 A	856.9
03U013	890.0	17-Nov-87	16 A	852.9	03U015	934.6	14-Dec-87	16 A	857.0
03U013	890.0	24-Nov-87	16 A	852.6	03U015	934.6	14-Dec-87	16 F	856.9
03U013	890.0	30-Nov-87	16 A	853.0	03U015	934.6	11-Jan-88	17 A	857.1
03U013	890.0	14-Dec-87	16 F	852.8	03U015	934.6	13-Apr-88	18 F	857.1
03U013	890.0	11-Jan-88	17 A	853.1	03U015	934.6	02-May-88	18 A	857.1
03U013	890.0	27-Jan-88	17 F	852.8	03U015	934.6	20-May-88	18 A	856.6
03U013	890.0	13-Apr-88	18 F	853.3	03U015	934.6	23-Jun-88	18 A	854.8
03U013	890.0	02-May-88	18 A	852.6	03U015	934.6	27-Jul-88	19 A	853.4
03U013	890.0	20-May-88	18 A	852.1	03U015	934.6	30-Aug-88	19 F	852.6
03U013	890.0	23-Jun-88	18 A	849.2	03U015	934.6	01-Sep-88	19 A	852.6
03U013	890.0	27-Jul-88	19 A	848.1	03U015	934.6	21-Sep-88	19 A	852.4
03U013	890.0	30-Aug-88	19 F	848.3	03U015	934.6	14-Oct-88	20 A	852.5
03U013	890.0	01-Sep-88	19 A	848.1	03U015	934.6	22-Nov-88	20 F	852.7
03U013	890.0	21-Sep-88	19 A	848.1	03U015	934.6	02-Dec-88	20 A	852.8
03U013	890.0	14-Oct-88	20 A	848.6	03U015	934.6	13-Jan-89	21 A	853.0
03U013	890.0	22-Nov-88	20 F	849.2	03U015	934.6	31-Mar-89	21 A	852.7
03U013	890.0	02-Dec-88	20 A	849.2	03U015	934.6	05-Aug-89	23 F	850.6
03U013	890.0	13-Jan-89	21 A	849.8	03U015	934.6	05-Oct-89	24 A	850.1

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U015	934.6	02-Nov-89	24 F	850.0	03U017	939.0	28-Feb-91	30 A	847.1
03U015	934.6	21-Dec-89	24 A	850.1	03U017	939.0	27-Sep-91	32 A	846.8
03U015	934.6	11-Jan-90	25 A	850.0	03U017	939.0	24-Mar-92	34 A	848.6
03U015	934.6	01-May-90	26 F	849.9	03U017	939.0	08-Oct-92	37 A	848.9
03U015	934.6	16-May-90	26 A	849.9	03U017	939.0	02-Mar-93	38 A	849.8
03U015	934.6	28-Feb-91	30 A	850.8	03U017	939.0	10-Sep-93	40 A	851.1
03U015	934.6	26-Mar-91	30 F	850.7					
03U015	934.6	27-Sep-91	32 A	850.6	03U018	988.8	24-Nov-87	16 A	856.6
03U015	934.6	16-Mar-92	34 F	852.8	03U018	988.8	30-Nov-87	16 A	856.6
03U015	934.6	24-Mar-92	34 A	852.6	03U018	988.8	14-Dec-87	16 A	856.8
03U015	934.6	08-Oct-92	37 A	852.7	03U018	988.8	14-Dec-87	16 F	856.7
03U015	934.6	02-Mar-93	38 A	853.7	03U018	988.8	11-Jan-88	17 A	856.9
03U015	934.6	04-Mar-93	38 F	853.5	03U018	988.8	27-Jan-88	17 F	856.9
03U015	934.6	10-Sep-93	40 A	855.0	03U018	988.8	14-Apr-88	18 F	857.1
					03U018	988.8	02-May-88	18 A	857.0
03U016	947.3	24-Nov-87	16 A	859.3	03U018	988.8	20-May-88	18 A	856.6
03U016	947.3	30-Nov-87	16 A	859.4	03U018	988.8	23-Jun-88	18 A	855.4
03U016	947.3	14-Dec-87	16 A	859.6	03U018	988.8	27-Jul-88	19 A	853.9
03U016	947.3	11-Jan-88	17 A	859.7	03U018	988.8	30-Aug-88	19 F	852.9
03U016	947.3	27-Jan-88	17 F	859.7	03U018	988.8	01-Sep-88	19 A	852.8
03U016	947.3	13-Apr-88	18 F	859.6	03U018	988.8	21-Sep-88	19 A	852.6
03U016	947.3	02-May-88	18 A	859.6	03U018	988.8	14-Oct-88	20 A	852.5
03U016	947.3	20-May-88	18 A	859.3	03U018	988.8	22-Nov-88	20 F	852.5
03U016	947.3	23-Jun-88	18 A	857.5	03U018	988.8	02-Dec-88	20 A	852.7
03U016	947.3	27-Jul-88	19 A	855.7	03U018	988.8	13-Jan-89	21 A	852.9
03U016	947.3	30-Aug-88	19 F	855.0	03U018	988.8	31-Mar-89	21 A	852.1
03U016	947.3	01-Sep-88	19 A	855.1	03U018	988.8	05-Aug-89	23 F	850.4
03U016	947.3	21-Sep-88	19 A	855.0	03U018	988.8	05-Oct-89	24 A	849.8
03U016	947.3	14-Oct-88	20 A	855.0	03U018	988.8	04-Nov-89	24 F	849.6
03U016	947.3	22-Nov-88	20 F	855.0	03U018	988.8	21-Dec-89	24 A	849.3
03U016	947.3	02-Dec-88	20 A	855.2	03U018	988.8	11-Jan-90	25 A	849.3
03U016	947.3	13-Jan-89	21 A	855.4	03U018	988.8	16-May-90	26 A	849.3
03U016	947.3	31-Mar-89	21 A	855.7	03U018	988.8	28-Feb-91	30 A	850.0
03U016	947.3	05-Oct-89	24 A	853.1	03U018	988.8	27-Sep-91	32 A	849.7
03U016	947.3	06-Nov-89	24 F	853.1	03U018	988.8	24-Mar-92	34 A	852.4
03U016	947.3	21-Dec-89	24 A	853.1	03U018	988.8	08-Oct-92	37 A	852.0
03U016	947.3	11-Jan-90	25 A	865.1	03U018	988.8	02-Mar-93	38 A	852.8
03U016	947.3	01-May-90	26 F	853.1	03U018	988.8	10-Sep-93	40 A	854.2
03U016	947.3	16-May-90	26 A	853.0					
03U016	947.3	28-Feb-91	30 A	853.9	03U019	943.2	24-Nov-87	16 A	857.4
03U016	947.3	25-Mar-91	30 F	853.7	03U019	943.2	30-Nov-87	16 A	857.5
03U016	947.3	27-Sep-91	32 A	853.7	03U019	943.2	14-Dec-87	16 A	857.5
03U016	947.3	13-Mar-92	34 F	855.9	03U019	943.2	11-Jan-88	17 A	857.8
03U016	947.3	24-Mar-92	34 A	855.8	03U019	943.2	27-Jan-88	17 F	857.8
03U016	947.3	08-Oct-92	37 A	855.4	03U019	943.2	14-Apr-88	18 F	857.9
03U016	947.3	02-Mar-93	38 A	856.4	03U019	943.2	02-May-88	18 A	857.8
03U016	947.3	04-Mar-93	38 F	856.4	03U019	943.2	20-May-88	18 A	857.5
03U016	947.3	10-Sep-93	40 A	857.8	03U019	943.2	23-Jun-88	18 A	856.4
					03U019	943.2	27-Jul-88	19 A	854.8
03U017	939.0	17-Nov-87	16 A	854.3	03U019	943.2	30-Aug-88	19 F	853.8
03U017	939.0	24-Nov-87	16 A	854.1	03U019	943.2	01-Sep-88	19 A	853.7
03U017	939.0	14-Dec-87	16 A	854.4	03U019	943.2	21-Sep-88	19 A	853.4
03U017	939.0	15-Dec-87	16 F	854.4	03U019	943.2	14-Oct-88	20 A	853.2
03U017	939.0	11-Jan-88	17 A	854.4	03U019	943.2	22-Nov-88	20 F	853.3
03U017	939.0	27-Jan-88	17 F	854.3	03U019	943.2	02-Dec-88	20 A	853.4
03U017	939.0	13-Apr-88	18 F	855.1	03U019	943.2	13-Jan-89	21 A	853.6
03U017	939.0	02-May-88	18 A	854.5	03U019	943.2	31-Mar-89	21 A	853.3
03U017	939.0	20-May-88	18 A	854.1	03U019	943.2	05-Aug-89	23 F	851.8
03U017	939.0	23-Jun-88	18 A	852.8	03U019	943.2	05-Oct-89	24 A	850.9
03U017	939.0	27-Jul-88	19 A	851.3	03U019	943.2	04-Nov-89	24 F	850.8
03U017	939.0	30-Aug-88	19 F	850.5	03U019	943.2	21-Dec-89	24 A	850.7
03U017	939.0	01-Sep-88	19 A	850.2	03U019	943.2	11-Jan-90	25 A	850.6
03U017	939.0	21-Sep-88	19 A	850.2	03U019	943.2	01-May-90	26 F	850.6
03U017	939.0	14-Oct-88	20 A	850.0	03U019	943.2	16-May-90	26 A	850.5
03U017	939.0	22-Nov-88	20 F	850.6	03U019	943.2	19-Jul-90	27 F	850.5
03U017	939.0	02-Dec-88	20 A	850.7	03U019	943.2	28-Feb-91	30 A	851.2
03U017	939.0	13-Jan-89	21 A	851.0	03U019	943.2	27-Mar-91	30 F	851.1
03U017	939.0	31-Mar-89	21 A	849.2	03U019	943.2	27-Sep-91	32 A	850.9
03U017	939.0	05-Aug-89	23 F	847.3	03U019	943.2	11-Mar-92	34 F	853.0
03U017	939.0	05-Oct-89	24 A	847.1	03U019	943.2	24-Mar-92	34 A	852.9
03U017	939.0	04-Nov-89	24 F	846.8	03U019	943.2	08-Oct-92	37 A	853.4
03U017	939.0	21-Dec-89	24 A	846.5	03U019	943.2	02-Mar-93	38 A	854.3
03U017	939.0	11-Jan-90	25 A	846.3	03U019	943.2	05-Mar-93	38 F	854.2
03U017	939.0	16-May-90	26 A	846.5	03U019	943.2	10-Sep-93	40 A	855.6

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U020	954.3	17-Nov-87	16 A	854.7	03U022	899.3	21-Sep-88	19 A	855.4
03U020	954.3	24-Nov-87	16 A	854.6	03U022	899.3	14-Oct-88	20 A	855.7
03U020	954.3	30-Nov-87	16 A	854.6	03U022	899.3	22-Nov-88	20 F	855.9
03U020	954.3	14-Dec-87	16 A	854.5	03U022	899.3	02-Dec-88	20 A	856.0
03U020	954.3	14-Dec-87	16 F	854.4	03U022	899.3	13-Jan-89	21 A	856.3
03U020	954.3	11-Jan-88	17 A	854.8	03U022	899.3	31-Mar-89	21 A	857.4
03U020	954.3	27-Jan-88	17 F	854.7	03U022	899.3	05-Aug-89	23 F	854.4
03U020	954.3	14-Apr-88	18 F	855.6	03U022	899.3	05-Oct-89	24 A	854.3
03U020	954.3	02-May-88	18 A	855.1	03U022	899.3	02-Nov-89	24 F	854.4
03U020	954.3	20-May-88	18 A	854.6	03U022	899.3	21-Dec-89	24 A	854.8
03U020	954.3	23-Jun-88	18 A	853.6	03U022	899.3	11-Jan-90	25 A	854.9
03U020	954.3	27-Jul-88	19 A	852.1	03U022	899.3	30-Apr-90	26 F	854.4
03U020	954.3	30-Aug-88	19 F	851.0	03U022	899.3	16-May-90	26 A	854.6
03U020	954.3	01-Sep-88	19 A	850.9	03U022	899.3	28-Feb-91	30 A	855.8
03U020	954.3	21-Sep-88	19 A	850.8	03U022	899.3	19-Mar-91	30 F	855.5
03U020	954.3	14-Oct-88	20 A	850.5	03U022	899.3	27-Sep-91	32 A	855.8
03U020	954.3	22-Nov-88	20 F	850.9	03U022	899.3	06-Mar-92	34 F	857.8
03U020	954.3	02-Dec-88	20 A	851.2	03U022	899.3	24-Mar-92	34 A	857.8
03U020	954.3	13-Jan-89	21 A	851.0	03U022	899.3	08-Oct-92	37 A	857.4
03U020	954.3	31-Mar-89	21 A	849.5	03U022	899.3	01-Mar-93	38 F	858.4
03U020	954.3	07-Jul-89	23 A	848.3	03U022	899.3	02-Mar-93	38 A	858.5
03U020	954.3	05-Aug-89	23 F	848.0	03U022	899.3	10-Sep-93	40 A	860.0
03U020	954.3	05-Oct-89	24 A	847.3					
03U020	954.3	04-Nov-89	24 F	846.1	03U023	899.5	24-Nov-87	16 A	860.2
03U020	954.3	21-Dec-89	24 A	846.8	03U023	899.5	30-Nov-87	16 A	860.5
03U020	954.3	11-Jan-90	25 A	846.6	03U023	899.5	14-Dec-87	16 A	860.5
03U020	954.3	16-May-90	26 A	846.8	03U023	899.5	14-Dec-87	16 F	860.6
03U020	954.3	16-Jul-90	27 A	846.6	03U023	899.5	11-Jan-88	17 A	860.8
03U020	954.3	28-Feb-91	30 A	847.3	03U023	899.5	27-Jan-88	17 F	860.8
03U020	954.3	03-Jun-91	31 A	847.2	03U023	899.5	13-Apr-88	18 F	860.4
03U020	954.3	03-Sep-91	32 A	846.8	03U023	899.5	02-May-88	18 A	860.1
03U020	954.3	27-Sep-91	32 A	847.0	03U023	899.5	20-May-88	18 A	859.7
03U020	954.3	06-Dec-91	33 A	848.1	03U023	899.5	23-Jun-88	18 A	856.9
03U020	954.3	24-Mar-92	34 A	848.9	03U023	899.5	27-Jul-88	19 A	854.6
03U020	954.3	01-Jun-92	35 A	849.5	03U023	899.5	30-Aug-88	19 F	855.2
03U020	954.3	01-Sep-92	36 A	849.0	03U023	899.5	01-Sep-88	19 A	855.2
03U020	954.3	08-Oct-92	37 A	849.1	03U023	899.5	21-Sep-88	19 A	855.3
03U020	954.3	02-Mar-93	38 A	850.1	03U023	899.5	14-Oct-88	20 A	855.9
03U020	954.3	10-Sep-93	40 A	851.3	03U023	899.5	22-Nov-88	20 F	856.2
					03U023	899.5	02-Dec-88	20 A	856.2
03U021	944.4	30-Nov-87	16 A	853.2	03U023	899.5	13-Jan-89	21 A	856.5
03U021	944.4	14-Dec-87	16 A	852.8	03U023	899.5	31-Mar-89	21 A	857.3
03U021	944.4	15-Dec-87	16 F	852.9	03U023	899.5	05-Aug-89	23 F	853.9
03U021	944.4	28-Jan-88	17 F	853.0	03U023	899.5	05-Oct-89	24 A	854.1
03U021	944.4	14-Apr-88	18 F	854.5	03U023	899.5	02-Nov-89	24 F	854.3
03U021	944.4	02-May-88	18 A	853.5	03U023	899.5	21-Dec-89	24 A	854.7
03U021	944.4	30-Aug-88	19 F	849.6	03U023	899.5	11-Jan-90	25 A	854.8
03U021	944.4	13-Jan-89	21 A	850.0	03U023	899.5	25-Apr-90	26 F	854.5
03U021	944.4	31-Mar-89	21 A	847.5	03U023	899.5	16-May-90	26 A	854.4
03U021	944.4	05-Aug-89	23 F	846.1	03U023	899.5	28-Feb-91	30 A	855.7
03U021	944.4	05-Oct-89	24 A	845.5	03U023	899.5	19-Mar-91	30 F	854.9
03U021	944.4	04-Nov-89	24 F	845.3	03U023	899.5	27-Sep-91	32 A	855.8
03U021	944.4	21-Dec-89	24 A	844.8	03U023	899.5	09-Mar-92	34 F	857.7
03U021	944.4	11-Jan-90	25 A	844.8	03U023	899.5	24-Mar-92	34 A	857.7
03U021	944.4	16-May-90	26 A	844.8	03U023	899.5	08-Oct-92	37 A	857.1
03U021	944.4	28-Feb-91	30 A	845.3	03U023	899.5	02-Mar-93	38 A	858.2
03U021	944.4	27-Sep-91	32 A	845.1	03U023	899.5	02-Mar-93	38 F	858.2
03U021	944.4	24-Mar-92	34 A	846.7	03U023	899.5	10-Sep-93	40 A	859.7
03U021	944.4	08-Oct-92	37 A	846.8					
03U021	944.4	02-Mar-93	38 A	847.7	03U024	894.7	24-Nov-87	16 A	859.3
03U021	944.4	10-Sep-93	40 A	849.1	03U024	894.7	30-Nov-87	16 A	859.5
					03U024	894.7	14-Dec-87	16 A	859.6
03U022	899.3	24-Nov-87	16 A	860.2	03U024	894.7	11-Jan-88	17 A	859.8
03U022	899.3	30-Nov-87	16 A	860.4	03U024	894.7	27-Jan-88	17 F	859.7
03U022	899.3	14-Dec-87	16 A	860.6	03U024	894.7	14-Apr-88	18 F	859.2
03U022	899.3	11-Jan-88	17 A	860.8	03U024	894.7	02-May-88	18 A	859.3
03U022	899.3	27-Jan-88	17 F	860.8	03U024	894.7	20-May-88	18 A	859.0
03U022	899.3	13-Apr-88	18 F	860.3	03U024	894.7	23-Jun-88	18 A	856.0
03U022	899.3	02-May-88	18 A	860.3	03U024	894.7	27-Jul-88	19 A	854.6
03U022	899.3	20-May-88	18 A	859.9	03U024	894.7	30-Aug-88	19 F	854.7
03U022	899.3	23-Jun-88	18 A	856.6	03U024	894.7	01-Sep-88	19 A	854.6
03U022	899.3	27-Jul-88	19 A	855.1	03U024	894.7	21-Sep-88	19 A	854.6
03U022	899.3	30-Aug-88	19 F	855.3	03U024	894.7	14-Oct-88	20 A	854.9
03U022	899.3	01-Sep-88	19 A	855.3	03U024	894.7	22-Nov-88	20 F	855.0

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U024	894.7	02-Dec-88	20 A	855.1	03U026	975.1	31-Mar-89	21 A	853.3
03U024	894.7	13-Jan-89	21 A	855.3	03U026	975.1	05-Aug-89	23 F	851.9
03U024	894.7	31-Mar-89	21 A	856.2	03U026	975.1	05-Oct-89	24 A	851.0
03U024	894.7	05-Aug-89	23 F	853.3	03U026	975.1	02-Nov-89	24 F	850.9
03U024	894.7	05-Oct-89	24 A	853.1	03U026	975.1	21-Dec-89	24 A	850.8
03U024	894.7	02-Nov-89	24 F	853.2	03U026	975.1	11-Jan-90	25 A	850.7
03U024	894.7	21-Dec-89	24 A	853.5	03U026	975.1	01-May-90	26 F	850.7
03U024	894.7	11-Jan-90	25 A	853.6	03U026	975.1	19-Jul-90	27 F	850.6
03U024	894.7	30-Apr-90	26 F	859.3	03U026	975.1	21-Sep-90	28 F	850.4
03U024	894.7	16-May-90	26 A	853.3	03U026	975.1	29-Mar-91	30 F	851.1
03U024	894.7	28-Feb-91	30 A	854.4	03U026	975.1	11-Mar-92	34 F	853.2
03U024	894.7	01-Apr-91	30 F	854.2	03U026	975.1	09-Mar-93	38 F	853.6
03U024	894.7	27-Sep-91	32 A	854.4					
03U024	894.7	16-Mar-92	34 F	856.5	03U027	966.5	17-Nov-87	16 A	855.0
03U024	894.7	24-Mar-92	34 A	856.3	03U027	966.5	24-Nov-87	16 A	854.9
03U024	894.7	08-Oct-92	37 A	855.7	03U027	966.5	30-Nov-87	16 A	855.0
03U024	894.7	02-Mar-93	38 A	856.9	03U027	966.5	14-Dec-87	16 F	854.9
03U024	894.7	02-Mar-93	38 F	856.8	03U027	966.5	11-Jan-88	17 A	855.2
03U024	894.7	10-Sep-93	40 A	858.3	03U027	966.5	27-Jan-88	17 F	855.0
					03U027	966.5	14-Apr-88	18 F	856.0
03U025	887.0	17-Nov-87	16 A	857.8	03U027	966.5	02-May-88	18 A	855.4
03U025	887.0	24-Nov-87	16 A	857.7	03U027	966.5	20-May-88	18 A	854.9
03U025	887.0	30-Nov-87	16 A	859.0	03U027	966.5	23-Jun-88	18 A	854.0
03U025	887.0	14-Dec-87	16 A	858.0	03U027	966.5	27-Jul-88	19 A	852.5
03U025	887.0	11-Jan-88	17 A	858.1	03U027	966.5	30-Aug-88	19 F	851.5
03U025	887.0	26-Jan-88	17 F	858.1	03U027	966.5	01-Sep-88	19 A	851.3
03U025	887.0	13-Apr-88	18 F	855.6	03U027	966.5	21-Sep-88	19 A	851.1
03U025	887.0	02-May-88	18 A	857.7	03U027	966.5	14-Oct-88	20 A	850.8
03U025	887.0	20-May-88	18 A	857.4	03U027	966.5	22-Nov-88	20 F	851.2
03U025	887.0	23-Jun-88	18 A	854.4	03U027	966.5	02-Dec-88	20 A	851.5
03U025	887.0	27-Jul-88	19 A	853.1	03U027	966.5	13-Jan-89	21 A	851.7
03U025	887.0	30-Aug-88	19 F	853.1	03U027	966.5	31-Mar-89	21 A	849.9
03U025	887.0	01-Sep-88	19 A	853.1	03U027	966.5	05-Aug-89	23 F	848.5
03U025	887.0	21-Sep-88	19 A	853.0	03U027	966.5	05-Oct-89	24 A	846.7
03U025	887.0	14-Oct-88	20 A	853.4	03U027	966.5	04-Nov-89	24 F	847.6
03U025	887.0	22-Nov-88	20 F	853.8	03U027	966.5	21-Dec-89	24 A	847.4
03U025	887.0	02-Dec-88	20 A	853.8	03U027	966.5	11-Jan-90	25 A	847.1
03U025	887.0	13-Jan-89	21 A	854.2	03U027	966.5	16-May-90	26 A	847.2
03U025	887.0	31-Mar-89	21 A	854.1	03U027	966.5	28-Feb-91	30 A	847.7
03U025	887.0	05-Aug-89	23 F	851.2	03U027	966.5	27-Sep-91	32 A	847.3
03U025	887.0	05-Oct-89	24 A	851.1	03U027	966.5	24-Mar-92	34 A	849.3
03U025	887.0	02-Nov-89	24 F	851.3	03U027	966.5	08-Oct-92	37 A	849.5
03U025	887.0	21-Dec-89	24 A	851.5	03U027	966.5	02-Mar-93	38 A	850.4
03U025	887.0	11-Jan-90	25 A	851.6	03U027	966.5	10-Sep-93	40 A	851.6
03U025	887.0	30-Apr-90	26 F	855.3					
03U025	887.0	16-May-90	26 A	851.3	03U028	957.0	17-Nov-87	16 A	854.1
03U025	887.0	28-Feb-91	30 A	852.4	03U028	957.0	30-Nov-87	16 A	854.0
03U025	887.0	01-Apr-91	30 F	852.2	03U028	957.0	14-Dec-87	16 F	853.9
03U025	887.0	27-Sep-91	32 A	852.3	03U028	957.0	11-Jan-88	17 A	854.1
03U025	887.0	16-Mar-92	34 F	854.5	03U028	957.0	27-Jan-88	17 F	854.0
03U025	887.0	24-Mar-92	34 A	854.2	03U028	957.0	14-Apr-88	18 F	855.2
03U025	887.0	08-Oct-92	37 A	853.5	03U028	957.0	02-May-88	18 A	854.5
03U025	887.0	02-Mar-93	38 A	854.6	03U028	957.0	20-May-88	18 A	854.0
03U025	887.0	02-Mar-93	38 F	854.5	03U028	957.0	23-Jun-88	18 A	853.2
03U025	887.0	10-Sep-93	40 A	856.0	03U028	957.0	27-Jul-88	19 A	851.7
					03U028	957.0	30-Aug-88	19 F	850.5
03U026	975.1	24-Nov-87	16 A	857.5	03U028	957.0	01-Sep-88	19 A	850.4
03U026	975.1	30-Nov-87	16 A	857.6	03U028	957.0	21-Sep-88	19 A	850.2
03U026	975.1	14-Dec-87	16 A	857.7	03U028	957.0	14-Oct-88	20 A	849.9
03U026	975.1	14-Dec-87	16 F	857.8	03U028	957.0	22-Nov-88	20 F	850.6
03U026	975.1	11-Jan-88	17 A	857.9	03U028	957.0	02-Dec-88	20 A	850.4
03U026	975.1	26-Jan-88	17 F	857.9	03U028	957.0	13-Jan-89	21 A	850.7
03U026	975.1	14-Apr-88	18 F	858.1	03U028	957.0	31-Mar-89	21 A	848.7
03U026	975.1	02-May-88	18 A	858.0	03U028	957.0	05-Aug-89	23 F	847.5
03U026	975.1	20-May-88	18 A	857.6	03U028	957.0	05-Oct-89	24 A	846.7
03U026	975.1	23-Jun-88	18 A	854.5	03U028	957.0	03-Nov-89	24 F	846.5
03U026	975.1	27-Jul-88	19 A	854.9	03U028	957.0	21-Dec-89	24 A	846.3
03U026	975.1	30-Aug-88	19 F	853.9	03U028	957.0	11-Jan-90	25 A	846.2
03U026	975.1	01-Sep-88	19 A	853.9	03U028	957.0	16-May-90	26 A	846.1
03U026	975.1	21-Sep-88	19 A	853.6	03U028	957.0	28-Feb-91	30 A	846.5
03U026	975.1	14-Oct-88	20 A	853.4	03U028	957.0	27-Sep-91	32 A	846.1
03U026	975.1	22-Nov-88	20 F	853.5	03U028	957.0	24-Mar-92	34 A	848.1
03U026	975.1	02-Dec-88	20 A	853.6	03U028	957.0	08-Oct-92	37 A	848.7
03U026	975.1	13-Jan-89	21 A	853.7	03U028	957.0	02-Mar-93	38 A	849.6

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U028	957.0	10-Sep-93	40 A	850.7	03U031	898.4	23-Jun-88	18 A	852.9
03U029	956.9	17-Nov-87	16 A	855.9	03U031	898.4	27-Jul-88	19 A	851.6
03U029	956.9	30-Nov-87	16 A	855.7	03U031	898.4	30-Aug-88	19 F	850.5
03U029	956.9	14-Dec-87	16 A	854.6	03U031	898.4	01-Sep-88	19 A	850.6
03U029	956.9	11-Jan-88	17 A	854.8	03U031	898.4	21-Sep-88	19 A	850.5
03U029	956.9	27-Jan-88	17 F	855.7	03U031	898.4	14-Oct-88	20 A	850.7
03U029	956.9	14-Apr-88	18 F	857.1	03U031	898.4	22-Nov-88	20 F	851.2
03U029	956.9	02-May-88	18 A	856.3	03U031	898.4	02-Dec-88	20 A	850.8
03U029	956.9	20-May-88	18 A	855.8	03U031	898.4	13-Jan-89	21 A	851.4
03U029	956.9	23-Jun-88	18 A	855.2	03U031	898.4	31-Mar-89	21 A	850.2
03U029	956.9	27-Jul-88	19 A	853.7	03U031	898.4	05-Aug-89	23 F	848.1
03U029	956.9	30-Aug-88	19 F	851.4	03U031	898.4	05-Oct-89	24 A	847.7
03U029	956.9	01-Sep-88	19 A	851.9	03U031	898.4	02-Nov-89	24 F	847.7
03U029	956.9	21-Sep-88	19 A	852.1	03U031	898.4	21-Dec-89	24 A	847.7
03U029	956.9	14-Oct-88	20 A	850.7	03U031	898.4	11-Jan-90	25 A	847.6
03U029	956.9	22-Nov-88	20 F	852.2	03U031	898.4	16-May-90	26 A	847.6
03U029	956.9	02-Dec-88	20 A	852.2	03U031	898.4	28-Feb-91	30 A	848.4
03U029	956.9	13-Jan-89	21 A	852.5	03U031	898.4	27-Sep-91	32 A	848.1
03U029	956.9	31-Mar-89	21 A	849.3	03U031	898.4	24-Mar-92	34 A	850.1
03U029	956.9	05-Aug-89	23 F	848.4	03U031	898.4	08-Oct-92	37 A	850.1
03U029	956.9	05-Oct-89	24 A	847.9	03U031	898.4	02-Mar-93	38 A	851.1
03U029	956.9	03-Nov-89	24 F	847.4	03U031	898.4	10-Sep-93	40 A	852.5
03U029	956.9	21-Dec-89	24 A	847.0	03U032	1004.1	24-Nov-87	16 A	858.3
03U029	956.9	11-Jan-90	25 A	846.9	03U032	1004.1	30-Nov-87	16 A	858.3
03U029	956.9	16-May-90	26 A	847.7	03U032	1004.1	14-Dec-87	16 A	858.5
03U029	956.9	28-Feb-91	30 A	847.1	03U032	1004.1	11-Jan-88	17 A	858.7
03U029	956.9	27-Sep-91	32 A	846.6	03U032	1004.1	26-Jan-88	17 F	858.7
03U029	956.9	24-Mar-92	34 A	848.4	03U032	1004.1	14-Apr-88	18 F	858.6
03U029	956.9	08-Oct-92	37 A	846.9	03U032	1004.1	02-May-88	18 A	858.6
03U029	956.9	02-Mar-93	38 A	847.7	03U032	1004.1	20-May-88	18 A	858.2
03U029	956.9	10-Sep-93	40 A	848.9	03U032	1004.1	23-Jun-88	18 A	856.6
03U030	958.7	17-Nov-87	16 A	855.5	03U032	1004.1	27-Jul-88	19 A	855.0
03U030	958.7	30-Nov-87	16 A	855.4	03U032	1004.1	30-Aug-88	19 F	854.3
03U030	958.7	14-Dec-87	16 A	855.4	03U032	1004.1	01-Sep-88	19 A	854.2
03U030	958.7	14-Dec-87	16 F	855.3	03U032	1004.1	21-Sep-88	19 A	854.1
03U030	958.7	11-Jan-88	17 A	855.5	03U032	1004.1	14-Oct-88	20 A	853.9
03U030	958.7	27-Jan-88	17 F	855.4	03U032	1004.1	22-Nov-88	20 F	854.1
03U030	958.7	14-Apr-88	18 F	856.1	03U032	1004.1	02-Dec-88	20 A	854.1
03U030	958.7	02-May-88	18 A	855.8	03U032	1004.1	13-Jan-89	21 A	854.3
03U030	958.7	20-May-88	18 A	855.4	03U032	1004.1	31-Mar-89	21 A	854.4
03U030	958.7	23-Jun-88	18 A	854.4	03U032	1004.1	05-Aug-89	23 F	852.6
03U030	958.7	27-Jul-88	19 A	852.9	03U032	1004.1	05-Oct-89	24 A	851.8
03U030	958.7	30-Aug-88	19 F	851.8	03U032	1004.1	02-Nov-89	24 F	851.8
03U030	958.7	01-Sep-88	19 A	851.8	03U032	1004.1	21-Dec-89	24 A	851.8
03U030	958.7	21-Sep-88	19 A	851.5	03U032	1004.1	11-Jan-90	25 A	851.7
03U030	958.7	14-Oct-88	20 A	851.3	03U032	1004.1	01-May-90	26 F	851.7
03U030	958.7	22-Nov-88	20 F	851.7	03U032	1004.1	16-May-90	26 A	851.6
03U030	958.7	02-Dec-88	20 A	851.5	03U032	1004.1	18-Jul-90	27 F	851.7
03U030	958.7	13-Jan-89	21 A	851.9	03U032	1004.1	21-Sep-90	28 F	852.5
03U030	958.7	31-Mar-89	21 A	850.5	03U032	1004.1	28-Feb-91	30 A	852.5
03U030	958.7	05-Aug-89	23 F	849.1	03U032	1004.1	26-Mar-91	30 F	852.4
03U030	958.7	05-Oct-89	24 A	848.4	03U032	1004.1	04-Jun-91	31 F	852.4
03U030	958.7	03-Nov-89	24 F	848.1	03U032	1004.1	04-Sep-91	32 F	852.1
03U030	958.7	21-Dec-89	24 A	848.0	03U032	1004.1	27-Sep-91	32 A	852.2
03U030	958.7	11-Jan-90	25 A	847.9	03U032	1004.1	13-Mar-92	34 F	854.5
03U030	958.7	16-May-90	26 A	847.7	03U032	1004.1	24-Mar-92	34 A	854.3
03U030	958.7	28-Feb-91	30 A	848.3	03U032	1004.1	02-Jun-92	35 F	854.9
03U030	958.7	27-Sep-91	32 A	847.9	03U032	1004.1	04-Sep-92	36 F	854.1
03U030	958.7	24-Mar-92	34 A	849.9	03U032	1004.1	08-Oct-92	37 A	853.9
03U030	958.7	08-Oct-92	37 A	850.4	03U032	1004.1	02-Mar-93	38 A	854.9
03U030	958.7	02-Mar-93	38 A	851.1	03U032	1004.1	04-Mar-93	38 F	854.8
03U030	958.7	10-Sep-93	40 A	852.2	03U032	1004.1	08-Sep-93	40 F	856.4
03U031	898.4	17-Nov-87	16 A	855.0	03U032	1004.1	10-Sep-93	40 A	856.2
03U031	898.4	24-Nov-87	16 A	854.8	03U075	884.6	17-Nov-87	16 A	852.2
03U031	898.4	30-Nov-87	16 A	855.0	03U075	884.6	14-Dec-87	16 A	852.2
03U031	898.4	14-Dec-87	16 A	854.9	03U075	884.6	15-Dec-87	16 F	852.3
03U031	898.4	11-Jan-88	17 A	855.1	03U075	884.6	11-Jan-88	17 A	852.3
03U031	898.4	26-Jan-88	17 F	855.1	03U075	884.6	27-Jan-88	17 F	852.1
03U031	898.4	13-Apr-88	18 F	856.6	03U075	884.6	14-Apr-88	18 F	852.5
03U031	898.4	02-May-88	18 A	854.7	03U075	884.6	02-May-88	18 A	851.9
03U031	898.4	20-May-88	18 A	854.7	03U075	884.6	20-May-88	18 A	851.4
					03U075	884.6	23-Jun-88	18 A	848.8

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U075	884.6	27-Jul-88	19 A	847.6	03U077	912.5	05-Oct-89	24 A	842.2
03U075	884.6	30-Aug-88	19 F	847.6	03U077	912.5	02-Nov-89	24 F	842.0
03U075	884.6	01-Sep-88	19 A	847.6	03U077	912.5	21-Dec-89	24 A	842.3
03U075	884.6	21-Sep-88	19 A	847.4	03U077	912.5	11-Jan-90	25 A	841.6
03U075	884.6	14-Oct-88	20 A	847.9	03U077	912.5	16-May-90	26 A	841.7
03U075	884.6	22-Nov-88	20 F	848.4	03U077	912.5	28-Feb-91	30 A	842.2
03U075	884.6	02-Dec-88	20 A	848.7	03U077	912.5	27-Sep-91	32 A	841.6
03U075	884.6	13-Jan-89	21 A	848.7	03U077	912.5	24-Mar-92	34 A	843.6
03U075	884.6	31-Mar-89	21 A	847.2	03U077	912.5	08-Oct-92	37 A	843.5
03U075	884.6	05-Aug-89	23 F	844.9	03U077	912.5	02-Mar-93	38 A	844.4
03U075	884.6	05-Oct-89	24 A	844.5	03U077	912.5	10-Sep-93	40 A	845.7
03U075	884.6	03-Nov-89	24 F	844.8					
03U075	884.6	21-Dec-89	24 A	844.6	03U078	927.2	17-Nov-87	16 A	850.4
03U075	884.6	11-Jan-90	25 A	844.9	03U078	927.2	24-Nov-87	16 A	849.9
03U075	884.6	16-May-90	26 A	844.7	03U078	927.2	30-Nov-87	16 A	850.1
03U075	884.6	28-Feb-91	30 A	845.5	03U078	927.2	14-Dec-87	16 A	850.0
03U075	884.6	27-Sep-91	32 A	845.1	03U078	927.2	14-Dec-87	16 F	850.1
03U075	884.6	24-Mar-92	34 A	847.0	03U078	927.2	11-Jan-88	17 A	850.6
03U075	884.6	08-Oct-92	37 A	840.7	03U078	927.2	27-Jan-88	17 F	850.6
03U075	884.6	02-Mar-93	38 A	847.9	03U078	927.2	13-Apr-88	18 F	854.2
03U075	884.6	10-Sep-93	40 A	849.4	03U078	927.2	02-May-88	18 A	851.5
					03U078	927.2	20-May-88	18 A	850.5
03U076	888.7	17-Nov-87	16 A	851.1	03U078	927.2	23-Jun-88	18 A	850.7
03U076	888.7	14-Dec-87	16 A	851.0	03U078	927.2	27-Jul-88	19 A	848.4
03U076	888.7	15-Dec-87	16 F	850.9	03U078	927.2	30-Aug-88	19 F	848.2
03U076	888.7	11-Jan-88	17 A	851.2	03U078	927.2	01-Sep-88	19 A	847.7
03U076	888.7	27-Jan-88	17 F	850.7	03U078	927.2	21-Sep-88	19 A	847.1
03U076	888.7	14-Apr-88	18 F	851.2	03U078	927.2	14-Oct-88	20 A	846.7
03U076	888.7	02-May-88	18 A	850.8	03U078	927.2	22-Nov-88	20 F	849.1
03U076	888.7	20-May-88	18 A	850.2	03U078	927.2	02-Dec-88	20 A	849.5
03U076	888.7	23-Jun-88	18 A	847.6	03U078	927.2	13-Jan-89	21 A	848.2
03U076	888.7	27-Jul-88	19 A	846.5	03U078	927.2	31-Mar-89	21 A	844.7
03U076	888.7	30-Aug-88	19 F	846.3	03U078	927.2	05-Aug-89	23 F	843.6
03U076	888.7	01-Sep-88	19 A	846.4	03U078	927.2	05-Oct-89	24 A	843.2
03U076	888.7	21-Sep-88	19 A	846.2	03U078	927.2	02-Nov-89	24 F	842.7
03U076	888.7	14-Oct-88	20 A	846.8	03U078	927.2	21-Dec-89	24 A	842.5
03U076	888.7	22-Nov-88	20 F	847.5	03U078	927.2	11-Jan-90	25 A	842.1
03U076	888.7	02-Dec-88	20 A	847.7	03U078	927.2	16-May-90	26 A	841.5
03U076	888.7	13-Jan-89	21 A	847.7	03U078	927.2	28-Feb-91	30 A	842.0
03U076	888.7	31-Mar-89	21 A	845.8	03U078	927.2	27-Sep-91	32 A	840.9
03U076	888.7	05-Aug-89	23 F	843.3	03U078	927.2	24-Mar-92	34 A	842.6
03U076	888.7	05-Oct-89	24 A	843.1	03U078	927.2	08-Oct-92	37 A	843.1
03U076	888.7	06-Nov-89	24 F	843.2	03U078	927.2	02-Mar-93	38 A	844.1
03U076	888.7	21-Dec-89	24 A	843.3	03U078	927.2	10-Sep-93	40 A	845.5
03U076	888.7	11-Jan-90	25 A	843.6					
03U076	888.7	16-May-90	26 A	843.4	03U079	923.4	17-Nov-87	16 A	849.7
03U076	888.7	28-Feb-91	30 A	844.1	03U079	923.4	24-Nov-87	16 A	849.8
03U076	888.7	27-Sep-91	32 A	843.6	03U079	923.4	30-Nov-87	16 A	849.7
03U076	888.7	24-Mar-92	34 A	845.4	03U079	923.4	14-Dec-87	16 A	849.5
03U076	888.7	08-Oct-92	37 A	845.1	03U079	923.4	14-Dec-87	16 F	849.4
03U076	888.7	02-Mar-93	38 A	846.2	03U079	923.4	11-Jan-88	17 A	850.0
03U076	888.7	10-Sep-93	40 A	847.7	03U079	923.4	27-Jan-88	17 F	849.7
					03U079	923.4	14-Apr-88	18 F	853.7
03U077	912.5	17-Nov-87	16 A	850.3	03U079	923.4	02-May-88	18 A	850.5
03U077	912.5	24-Nov-87	16 A	850.0	03U079	923.4	20-May-88	18 A	849.8
03U077	912.5	30-Nov-87	16 A	850.3	03U079	923.4	23-Jun-88	18 A	849.8
03U077	912.5	14-Dec-87	16 A	850.0	03U079	923.4	27-Jul-88	19 A	847.6
03U077	912.5	14-Dec-87	16 F	847.0	03U079	923.4	30-Aug-88	19 F	847.2
03U077	912.5	11-Jan-88	17 A	850.2	03U079	923.4	01-Sep-88	19 A	847.1
03U077	912.5	27-Jan-88	17 F	850.1	03U079	923.4	21-Sep-88	19 A	847.3
03U077	912.5	13-Apr-88	18 F	852.0	03U079	923.4	14-Oct-88	20 A	845.9
03U077	912.5	02-May-88	18 A	850.4	03U079	923.4	22-Nov-88	20 F	848.7
03U077	912.5	20-May-88	18 A	849.8	03U079	923.4	02-Dec-88	20 A	849.2
03U077	912.5	23-Jun-88	18 A	848.4	03U079	923.4	13-Jan-89	21 A	847.0
03U077	912.5	27-Jul-88	19 A	847.8	03U079	923.4	31-Mar-89	21 A	843.6
03U077	912.5	30-Aug-88	19 F	846.4	03U079	923.4	05-Aug-89	23 F	842.3
03U077	912.5	01-Sep-88	19 A	846.7	03U079	923.4	05-Oct-89	24 A	841.9
03U077	912.5	21-Sep-88	19 A	846.5	03U079	923.4	02-Nov-89	24 F	844.4
03U077	912.5	14-Oct-88	20 A	846.5	03U079	923.4	21-Dec-89	24 A	842.6
03U077	912.5	22-Nov-88	20 F	847.6	03U079	923.4	11-Jan-90	25 A	840.9
03U077	912.5	02-Dec-88	20 A	847.9	03U079	923.4	16-May-90	26 A	840.8
03U077	912.5	13-Jan-89	21 A	847.8	03U079	923.4	28-Feb-91	30 A	841.1
03U077	912.5	31-Mar-89	21 A	842.8	03U079	923.4	27-Sep-91	32 A	840.3
03U077	912.5	05-Aug-89	23 F	842.5	03U079	923.4	24-Mar-92	34 A	842.1

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U079	923.4	08-Oct-92	37 A	843.0	03U083	891.3	10-Sep-93	40 A	855.5
03U079	923.4	02-Mar-93	38 A	843.7					
03U079	923.4	10-Sep-93	40 A	845.2					
03U082	898.4	24-Nov-87	16 A	862.1	03U084	898.4	17-Nov-87	16 A	851.1
03U082	898.4	30-Nov-87	16 A	862.3	03U084	898.4	24-Nov-87	16 A	850.7
03U082	898.4	14-Dec-87	16 A	862.5	03U084	898.4	30-Nov-87	16 A	851.0
03U082	898.4	14-Dec-87	16 F	863.6	03U084	898.4	14-Dec-87	16 A	850.8
03U082	898.4	11-Jan-88	17 A	862.7	03U084	898.4	14-Dec-87	16 F	850.1
03U082	898.4	27-Jan-88	17 F	862.9	03U084	898.4	11-Jan-88	17 A	850.8
03U082	898.4	13-Apr-88	18 F	862.4	03U084	898.4	27-Jan-88	17 F	850.2
03U082	898.4	02-May-88	18 A	862.0	03U084	898.4	13-Apr-88	18 F	851.6
03U082	898.4	20-May-88	18 A	861.7	03U084	898.4	02-May-88	18 A	851.1
03U082	898.4	23-Jun-88	18 A	857.8	03U084	898.4	20-May-88	18 A	850.6
03U082	898.4	27-Jul-88	19 A	856.2	03U084	898.4	23-Jun-88	18 A	848.8
03U082	898.4	30-Aug-88	19 F	857.0	03U084	898.4	27-Jul-88	19 A	847.6
03U082	898.4	01-Sep-88	19 A	856.8	03U084	898.4	30-Aug-88	19 F	846.4
03U082	898.4	21-Sep-88	19 A	857.0	03U084	898.4	01-Sep-88	19 A	847.0
03U082	898.4	14-Oct-88	20 A	857.5	03U084	898.4	21-Sep-88	19 A	846.9
03U082	898.4	22-Nov-88	20 F	858.0	03U084	898.4	14-Oct-88	20 A	847.1
03U082	898.4	02-Dec-88	20 A	857.9	03U084	898.4	22-Nov-88	20 F	847.4
03U082	898.4	13-Jan-89	21 A	858.1	03U084	898.4	02-Dec-88	20 A	848.2
03U082	898.4	31-Mar-89	21 A	859.8	03U084	898.4	13-Jan-89	21 A	848.2
03U082	898.4	05-Aug-89	23 F	856.4	03U084	898.4	31-Mar-89	21 A	844.8
03U082	898.4	05-Oct-89	24 A	856.5	03U084	898.4	05-Aug-89	23 F	842.1
03U082	898.4	02-Nov-89	24 F	856.8	03U084	898.4	05-Oct-89	24 A	842.8
03U082	898.4	21-Dec-89	24 A	857.1	03U084	898.4	02-Nov-89	24 F	842.0
03U082	898.4	11-Jan-90	25 A	857.2	03U084	898.4	21-Dec-89	24 A	842.3
03U082	898.4	25-Apr-90	26 F	857.1	03U084	898.4	11-Jan-90	25 A	842.3
03U082	898.4	16-May-90	26 A	856.9	03U084	898.4	16-May-90	26 A	842.4
03U082	898.4	28-Feb-91	30 A	858.2	03U084	898.4	28-Feb-91	30 A	843.1
03U082	898.4	26-Mar-91	30 F	858.3	03U084	898.4	27-Sep-91	32 A	842.5
03U082	898.4	27-Sep-91	32 A	858.3	03U084	898.4	24-Mar-92	34 A	844.4
03U082	898.4	10-Mar-92	34 F	863.7	03U084	898.4	08-Oct-92	37 A	843.8
03U082	898.4	24-Mar-92	34 A	860.2	03U084	898.4	02-Mar-93	38 A	844.8
03U082	898.4	08-Oct-92	37 A	859.8	03U084	898.4	10-Sep-93	40 A	846.1
03U082	898.4	01-Mar-93	38 F	860.9	03U087	1004.1	24-Nov-87	16 A	857.9
03U082	898.4	02-Mar-93	38 A	860.9	03U087	1004.1	30-Nov-87	16 A	858.0
03U082	898.4	10-Sep-93	40 A	862.5	03U087	1004.1	14-Dec-87	16 A	858.2
					03U087	1004.1	14-Dec-87	16 F	858.1
03U083	891.3	24-Nov-87	16 A	855.9	03U087	1004.1	11-Jan-88	17 A	858.4
03U083	891.3	30-Nov-87	16 A	856.1	03U087	1004.1	26-Jan-88	17 F	858.3
03U083	891.3	14-Dec-87	16 A	856.2	03U087	1004.1	13-Apr-88	18 F	858.1
03U083	891.3	14-Dec-87	16 F	857.1	03U087	1004.1	02-May-88	18 A	858.2
03U083	891.3	11-Jan-88	17 A	856.2	03U087	1004.1	20-May-88	18 A	857.9
03U083	891.3	26-Jan-88	17 F	857.3	03U087	1004.1	23-Jun-88	18 A	856.0
03U083	891.3	13-Apr-88	18 F	857.2	03U087	1004.1	27-Jul-88	19 A	854.4
03U083	891.3	02-May-88	18 A	856.0	03U087	1004.1	30-Aug-88	19 F	853.7
03U083	891.3	20-May-88	18 A	855.7	03U087	1004.1	21-Sep-88	19 A	853.6
03U083	891.3	23-Jun-88	18 A	853.2	03U087	1004.1	14-Oct-88	20 A	853.5
03U083	891.3	27-Jul-88	19 A	851.7	03U087	1004.1	22-Nov-88	20 F	853.5
03U083	891.3	30-Aug-88	19 F	852.5	03U087	1004.1	02-Dec-88	20 A	853.7
03U083	891.3	01-Sep-88	19 A	851.4	03U087	1004.1	13-Jan-89	21 A	853.9
03U083	891.3	21-Sep-88	19 A	851.3	03U087	1004.1	31-Mar-89	21 A	854.2
03U083	891.3	14-Oct-88	20 A	851.5	03U087	1004.1	05-Aug-89	23 F	852.1
03U083	891.3	22-Nov-88	20 F	852.8	03U087	1004.1	05-Oct-89	24 A	851.6
03U083	891.3	02-Dec-88	20 A	851.7	03U087	1004.1	02-Nov-89	24 F	851.4
03U083	891.3	13-Jan-89	21 A	852.3	03U087	1004.1	21-Dec-89	24 A	851.7
03U083	891.3	31-Mar-89	21 A	851.9	03U087	1004.1	11-Jan-90	25 A	851.6
03U083	891.3	05-Aug-89	23 F	850.4	03U087	1004.1	30-Apr-90	26 F	851.4
03U083	891.3	05-Oct-89	24 A	849.2	03U087	1004.1	16-May-90	26 A	851.4
03U083	891.3	02-Nov-89	24 F	850.2	03U087	1004.1	28-Feb-91	30 A	852.3
03U083	891.3	21-Dec-89	24 A	849.3	03U087	1004.1	27-Mar-91	30 F	852.2
03U083	891.3	11-Jan-90	25 A	849.4	03U087	1004.1	27-Sep-91	32 A	852.2
03U083	891.3	27-Apr-90	26 F	850.4	03U087	1004.1	12-Mar-92	34 F	853.9
03U083	891.3	16-May-90	26 A	849.2	03U087	1004.1	24-Mar-92	34 A	881.2
03U083	891.3	28-Feb-91	30 A	850.1	03U087	1004.1	08-Oct-92	37 A	854.2
03U083	891.3	26-Mar-91	30 F	851.1	03U087	1004.1	02-Mar-93	38 A	875.2
03U083	891.3	27-Sep-91	32 A	850.0	03U087	1004.1	04-Mar-93	38 F	855.2
03U083	891.3	13-Mar-92	34 F	853.0	03U087	1004.1	10-Sep-93	40 A	856.5
03U083	891.3	24-Mar-92	34 A	851.9	03U088	983.7	14-Dec-87	16 A	858.6
03U083	891.3	08-Oct-92	37 A	853.1	03U088	983.7	14-Dec-87	16 F	858.5
03U083	891.3	02-Mar-93	38 A	854.1	03U088	983.7	11-Jan-88	17 A	858.7
03U083	891.3	05-Mar-93	38 F	859.1	03U088	983.7	26-Jan-88	17 F	858.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U088	983.7	13-Apr-88	18 F	858.3	03U090	982.2	30-Aug-88	19 F	853.5
03U088	983.7	02-May-88	18 A	858.6	03U090	982.2	01-Sep-88	19 A	854.2
03U088	983.7	20-May-88	18 A	858.3	03U090	982.2	21-Sep-88	19 A	854.0
03U088	983.7	23-Jun-88	18 A	856.2	03U090	982.2	14-Oct-88	20 A	853.9
03U088	983.7	27-Jul-88	19 A	854.6	03U090	982.2	22-Nov-88	20 F	853.1
03U088	983.7	30-Aug-88	19 F	853.9	03U090	982.2	02-Dec-88	20 A	854.0
03U088	983.7	01-Sep-88	19 A	854.0	03U090	982.2	13-Jan-89	21 A	854.2
03U088	983.7	21-Sep-88	19 A	853.9	03U090	982.2	31-Mar-89	21 A	853.9
03U088	983.7	14-Oct-88	20 A	853.9	03U090	982.2	06-Aug-89	23 F	851.5
03U088	983.7	22-Nov-88	20 F	853.8	03U090	982.2	05-Oct-89	24 A	851.5
03U088	983.7	02-Dec-88	20 A	854.0	03U090	982.2	02-Nov-89	24 F	850.6
03U088	983.7	13-Jan-89	21 A	854.2	03U090	982.2	21-Dec-89	24 A	851.4
03U088	983.7	31-Mar-89	21 A	854.8	03U090	982.2	11-Jan-90	25 A	851.3
03U088	983.7	06-Aug-89	23 F	852.5	03U090	982.2	01-May-90	26 F	850.1
03U088	983.7	05-Oct-89	24 A	852.0	03U090	982.2	16-May-90	26 A	851.1
03U088	983.7	02-Nov-89	24 F	851.9	03U090	982.2	19-Jul-90	27 F	850.4
03U088	983.7	21-Dec-89	24 A	852.2	03U090	982.2	28-Feb-91	30 A	851.9
03U088	983.7	11-Jan-90	25 A	852.1	03U090	982.2	26-Mar-91	30 F	851.1
03U088	983.7	30-Apr-90	26 F	852.0	03U090	982.2	27-Sep-91	32 A	851.7
03U088	983.7	16-May-90	26 A	851.9	03U090	982.2	11-Mar-92	34 F	853.0
03U088	983.7	28-Feb-91	30 A	852.9	03U090	982.2	24-Mar-92	34 A	853.8
03U088	983.7	26-Mar-91	30 F	852.8	03U090	982.2	08-Oct-92	37 A	853.1
03U088	983.7	27-Sep-91	32 A	852.8	03U090	982.2	02-Mar-93	38 A	854.0
03U088	983.7	13-Mar-92	34 F	854.8	03U090	982.2	04-Mar-93	38 F	854.5
03U088	983.7	24-Mar-92	34 A	854.8	03U090	982.2	10-Sep-93	40 A	855.3
03U088	983.7	08-Oct-92	37 A	854.7					
03U088	983.7	02-Mar-93	38 A	855.7	03U092	960.4	14-Dec-87	16 A	840.4
03U088	983.7	02-Mar-93	38 F	855.7	03U092	960.4	14-Dec-87	16 F	856.8
03U088	983.7	10-Sep-93	40 A	857.1	03U092	960.4	27-Jan-88	17 F	856.9
					03U092	960.4	14-Apr-88	18 F	857.3
03U089	973.0	24-Nov-87	16 A	858.6	03U092	960.4	02-May-88	18 A	840.6
03U089	973.0	30-Nov-87	16 A	858.8	03U092	960.4	20-May-88	18 A	840.3
03U089	973.0	14-Dec-87	16 A	859.0	03U092	960.4	23-Jun-88	18 A	839.4
03U089	973.0	14-Dec-87	16 F	858.8	03U092	960.4	27-Jul-88	19 A	837.7
03U089	973.0	11-Jan-88	17 A	859.6	03U092	960.4	30-Aug-88	19 F	853.1
03U089	973.0	26-Jan-88	17 F	859.0	03U092	960.4	01-Sep-88	19 A	836.6
03U089	973.0	13-Apr-88	18 F	858.7	03U092	960.4	21-Sep-88	19 A	836.3
03U089	973.0	02-May-88	18 A	858.9	03U092	960.4	14-Oct-88	20 A	836.0
03U089	973.0	20-May-88	18 A	858.6	03U092	960.4	22-Nov-88	20 F	852.6
03U089	973.0	23-Jun-88	18 A	856.6	03U092	960.4	02-Dec-88	20 A	836.3
03U089	973.0	27-Jul-88	19 A	855.0	03U092	960.4	13-Jan-89	21 A	836.5
03U089	973.0	30-Aug-88	19 F	854.3	03U092	960.4	31-Mar-89	21 A	835.7
03U089	973.0	01-Sep-88	19 A	854.4	03U092	960.4	06-Aug-89	23 F	850.6
03U089	973.0	21-Sep-88	19 A	854.3	03U092	960.4	05-Oct-89	24 A	833.4
03U089	973.0	14-Oct-88	20 A	854.3	03U092	960.4	04-Nov-89	24 F	849.6
03U089	973.0	22-Nov-88	20 F	854.1	03U092	960.4	21-Dec-89	24 A	832.9
03U089	973.0	02-Dec-88	20 A	854.4	03U092	960.4	11-Jan-90	25 A	832.9
03U089	973.0	13-Jan-89	21 A	854.6	03U092	960.4	01-May-90	26 F	849.4
03U089	973.0	31-Mar-89	21 A	855.1	03U092	960.4	16-May-90	26 A	832.8
03U089	973.0	06-Aug-89	23 F	852.7	03U092	960.4	28-Feb-91	30 A	833.5
03U089	973.0	05-Oct-89	24 A	852.4	03U092	960.4	24-Mar-91	30 F	849.8
03U089	973.0	02-Nov-89	24 F	852.2	03U092	960.4	04-Jun-91	31 F	849.8
03U089	973.0	21-Dec-89	24 A	852.5	03U092	960.4	04-Sep-91	32 F	849.6
03U089	973.0	11-Jan-90	25 A	852.4	03U092	960.4	27-Sep-91	32 A	833.2
03U089	973.0	30-Apr-90	26 F	852.3	03U092	960.4	17-Mar-92	34 F	851.7
03U089	973.0	16-May-90	26 A	852.3	03U092	960.4	24-Mar-92	34 A	835.2
03U089	973.0	28-Feb-91	30 A	853.2	03U092	960.4	02-Jun-92	35 F	852.4
03U089	973.0	26-Mar-91	30 F	853.1	03U092	960.4	02-Sep-92	36 F	851.8
03U089	973.0	27-Sep-91	32 A	853.1	03U092	960.4	08-Oct-92	37 A	852.0
03U089	973.0	13-Mar-92	34 F	855.1	03U092	960.4	02-Mar-93	38 A	852.9
03U089	973.0	24-Mar-92	34 A	855.1	03U092	960.4	10-Mar-93	38 F	852.4
03U089	973.0	08-Oct-92	37 A	854.6	03U092	960.4	08-Sep-93	40 F	854.2
03U089	973.0	02-Mar-93	38 A	855.6	03U092	960.4	10-Sep-93	40 A	854.1
03U089	973.0	03-Mar-93	38 F	855.6					
03U089	973.0	10-Sep-93	40 A	857.0	03U093	993.6	24-Nov-87	16 A	856.8
					03U093	993.6	30-Nov-87	16 A	856.9
03U090	982.2	14-Dec-87	16 A	858.3	03U093	993.6	14-Dec-87	16 A	856.9
03U090	982.2	14-Dec-87	16 F	857.5	03U093	993.6	11-Jan-88	17 A	857.1
03U090	982.2	11-Jan-88	17 A	858.4	03U093	993.6	27-Jan-88	17 F	857.0
03U090	982.2	26-Jan-88	17 F	857.1	03U093	993.6	14-Apr-88	18 F	857.2
03U090	982.2	14-Apr-88	18 F	857.7	03U093	993.6	02-May-88	18 A	857.2
03U090	982.2	02-May-88	18 A	858.4	03U093	993.6	20-May-88	18 A	856.8
03U090	982.2	20-May-88	18 A	858.1	03U093	993.6	23-Jun-88	18 A	855.6
03U090	982.2	27-Jul-88	19 A	855.2	03U093	993.6	27-Jul-88	19 A	853.3



**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U093	993.6	30-Aug-88	19 F	853.0	03U096	994.4	13-Jan-89	21 A	852.8
03U093	993.6	01-Sep-88	19 A	853.0	03U096	994.4	31-Mar-89	21 A	852.1
03U093	993.6	21-Sep-88	19 A	852.8	03U096	994.4	05-Aug-89	23 F	848.2
03U093	993.6	14-Oct-88	20 A	852.6	03U096	994.4	05-Oct-89	24 A	849.8
03U093	993.6	22-Nov-88	20 F	852.7	03U096	994.4	04-Nov-89	24 F	849.6
03U093	993.6	02-Dec-88	20 A	852.9	03U096	994.4	21-Dec-89	24 A	849.4
03U093	993.6	13-Jan-89	21 A	853.1	03U096	994.4	11-Jan-90	25 A	849.4
03U093	993.6	31-Mar-89	21 A	852.3	03U096	994.4	16-May-90	26 A	849.3
03U093	993.6	05-Aug-89	23 F	850.6	03U096	994.4	28-Feb-91	30 A	850.1
03U093	993.6	05-Oct-89	24 A	849.6	03U096	994.4	27-Sep-91	32 A	849.8
03U093	993.6	04-Nov-89	24 F	849.7	03U096	994.4	24-Mar-92	34 A	851.8
03U093	993.6	21-Dec-89	24 A	849.6	03U096	994.4	08-Oct-92	37 A	852.1
03U093	993.6	11-Jan-90	25 A	849.6	03U096	994.4	02-Mar-93	38 A	853.0
03U093	993.6	16-May-90	26 A	849.5	03U096	994.4	10-Sep-93	40 A	854.3
03U093	993.6	16-Jul-90	27 A	849.5					
03U093	993.6	28-Feb-91	30 A	850.3	03U097	937.4	14-Dec-87	16 F	862.0
03U093	993.6	03-Jun-91	31 A	850.3	03U097	937.4	27-Jan-88	17 F	862.3
03U093	993.6	03-Sep-91	32 A	849.8	03U097	937.4	13-Apr-88	18 F	861.7
03U093	993.6	27-Sep-91	32 A	850.0	03U097	937.4	30-Aug-88	19 F	856.8
03U093	993.6	06-Dec-91	33 A	851.1	03U097	937.4	22-Nov-88	20 F	857.4
03U093	993.6	24-Mar-92	34 A	852.0	03U097	937.4	05-Aug-89	23 F	856.8
03U093	993.6	01-Jun-92	35 A	852.6	03U097	937.4	02-Nov-89	24 F	856.8
03U093	993.6	01-Sep-92	36 A	851.9	03U097	937.4	27-Apr-90	26 F	857.2
03U093	993.6	08-Oct-92	37 A	852.0	03U097	937.4	26-Mar-91	30 F	858.3
03U093	993.6	02-Mar-93	38 A	852.9	03U097	937.4	13-Mar-92	34 F	860.6
03U093	993.6	10-Sep-93	40 A	854.2	03U097	937.4	03-Mar-93	38 F	860.9
03U094	997.0	14-Dec-87	16 A	857.0	03U099	952.3	14-Dec-87	16 F	858.0
03U094	997.0	15-Dec-87	16 F	857.0	03U099	952.3	26-Jan-88	17 F	858.1
03U094	997.0	11-Jan-88	17 A	857.0	03U099	952.3	13-Apr-88	18 F	858.7
03U094	997.0	26-Jan-88	17 F	857.0	03U099	952.3	30-Aug-88	19 F	854.8
03U094	997.0	14-Apr-88	18 F	857.3	03U099	952.3	22-Nov-88	20 F	854.0
03U094	997.0	02-May-88	18 A	857.2	03U099	952.3	05-Aug-89	23 F	852.6
03U094	997.0	20-May-88	18 A	856.9	03U099	952.3	02-Nov-89	24 F	851.3
03U094	997.0	23-Jun-88	18 A	855.9	03U099	952.3	26-Apr-90	26 F	851.1
03U094	997.0	27-Jul-88	19 A	854.4	03U099	952.3	25-Mar-91	30 F	851.2
03U094	997.0	30-Aug-88	19 F	853.2	03U099	952.3	11-Mar-92	34 F	853.2
03U094	997.0	01-Sep-88	19 A	853.2	03U099	952.3	03-Mar-93	38 F	854.0
03U094	997.0	21-Sep-88	19 A	852.9					
03U094	997.0	14-Oct-88	20 A	852.6	03U111	924.7	24-Nov-87	16 A	862.9
03U094	997.0	22-Nov-88	20 F	852.7	03U111	924.7	30-Nov-87	16 A	863.1
03U094	997.0	02-Dec-88	20 A	852.8	03U111	924.7	14-Dec-87	16 A	863.4
03U094	997.0	13-Jan-89	21 A	852.9	03U111	924.7	14-Dec-87	16 F	862.0
03U094	997.0	31-Mar-89	21 A	852.3	03U111	924.7	11-Jan-88	17 A	863.6
03U094	997.0	05-Aug-89	23 F	850.9	03U111	924.7	27-Jan-88	17 F	862.2
03U094	997.0	05-Oct-89	24 A	850.1	03U111	924.7	13-Apr-88	18 F	861.8
03U094	997.0	02-Nov-89	24 F	850.0	03U111	924.7	02-May-88	18 A	863.1
03U094	997.0	21-Dec-89	24 A	849.7	03U111	924.7	20-May-88	18 A	862.9
03U094	997.0	11-Jan-90	25 A	849.6	03U111	924.7	23-Jun-88	18 A	860.3
03U094	997.0	16-May-90	26 A	849.4	03U111	924.7	27-Jul-88	19 A	858.2
03U094	997.0	28-Feb-91	30 A	850.1	03U111	924.7	30-Aug-88	19 F	856.8
03U094	997.0	27-Sep-91	32 A	849.8	03U111	924.7	01-Sep-88	19 A	858.1
03U094	997.0	24-Mar-92	34 A	852.0	03U111	924.7	21-Sep-88	19 A	858.3
03U094	997.0	01-Jun-92	35 A	852.3	03U111	924.7	14-Oct-88	20 A	858.5
03U094	997.0	08-Oct-92	37 A	852.3	03U111	924.7	22-Nov-88	20 F	857.4
03U094	997.0	02-Mar-93	38 A	853.0	03U111	924.7	02-Dec-88	20 A	858.8
03U094	997.0	10-Sep-93	40 A	854.3	03U111	924.7	13-Jan-89	21 A	859.1
					03U111	924.7	31-Mar-89	21 A	861.0
					03U111	924.7	06-Aug-89	23 F	856.7
03U096	994.4	24-Nov-87	16 A	856.4	03U111	924.7	05-Oct-89	24 A	858.0
03U096	994.4	30-Nov-87	16 A	856.5	03U111	924.7	02-Nov-89	24 F	856.7
03U096	994.4	14-Dec-87	16 A	856.6	03U111	924.7	21-Dec-89	24 A	858.2
03U096	994.4	11-Jan-88	17 A	856.8	03U111	924.7	11-Jan-90	25 A	858.4
03U096	994.4	27-Jan-88	17 F	856.7	03U111	924.7	03-May-90	26 F	856.5
03U096	994.4	14-Apr-88	18 F	856.9	03U111	924.7	16-May-90	26 A	858.3
03U096	994.4	02-May-88	18 A	856.1	03U111	924.7	28-Feb-91	30 A	859.7
03U096	994.4	20-May-88	18 A	856.4	03U111	924.7	01-Apr-91	30 F	858.2
03U096	994.4	23-Jun-88	18 A	854.9	03U111	924.7	27-Sep-91	32 A	859.6
03U096	994.4	27-Jul-88	19 A	853.4	03U111	924.7	13-Mar-92	34 F	860.5
03U096	994.4	30-Aug-88	19 F	852.5	03U111	924.7	24-Mar-92	34 A	861.8
03U096	994.4	01-Sep-88	19 A	852.5	03U111	924.7	08-Oct-92	37 A	859.8
03U096	994.4	21-Sep-88	19 A	852.4	03U111	924.7	02-Mar-93	38 A	861.0
03U096	994.4	14-Oct-88	20 A	852.2	03U111	924.7	02-Mar-93	38 F	861.0
03U096	994.4	22-Nov-88	20 F	852.4	03U111	924.7	10-Sep-93	40 A	862.5
03U096	994.4	02-Dec-88	20 A	852.5					

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U112	978.1	24-Nov-87	16 A	857.5	03U114	973.1	22-Nov-88	20 F	853.2
03U112	978.1	30-Nov-87	16 A	857.5	03U114	973.1	05-Aug-89	23 F	851.6
03U112	978.1	14-Dec-87	16 A	857.7	03U114	973.1	02-Nov-89	24 F	850.6
03U112	978.1	14-Dec-87	16 F	857.8	03U114	973.1	01-May-90	26 F	850.4
03U112	978.1	11-Jan-88	17 A	857.8	03U114	973.1	18-Jul-90	27 F	850.3
03U112	978.1	26-Jan-88	17 F	857.9	03U114	973.1	17-Sep-90	28 F	850.1
03U112	978.1	14-Apr-88	18 F	858.1	03U114	973.1	29-Mar-91	30 F	850.8
03U112	978.1	02-May-88	18 A	857.8	03U114	973.1	04-Jun-91	31 F	850.8
03U112	978.1	20-May-88	18 A	857.5	03U114	973.1	04-Sep-91	32 F	850.3
03U112	978.1	23-Jun-88	18 A	856.4	03U114	973.1	11-Mar-92	34 F	852.7
03U112	978.1	27-Jul-88	19 A	854.7	03U114	973.1	02-Jun-92	35 F	853.5
03U112	978.1	30-Aug-88	19 F	853.9	03U114	973.1	02-Sep-92	36 F	852.9
03U112	978.1	21-Sep-88	19 A	853.5	03U114	973.1	05-Mar-93	38 F	853.9
03U112	978.1	14-Oct-88	20 A	853.3	03U114	973.1	08-Sep-93	40 F	855.3
03U112	978.1	22-Nov-88	20 F	851.4					
03U112	978.1	02-Dec-88	20 A	853.4	03U121	970.5	14-Dec-87	16 F	857.8
03U112	978.1	13-Jan-89	21 A	853.6	03U121	970.5	26-Jan-88	17 F	858.1
03U112	978.1	31-Mar-89	21 A	853.4	03U121	970.5	14-Apr-88	18 F	858.1
03U112	978.1	06-Aug-89	23 F	852.0	03U121	970.5	30-Aug-88	19 F	853.9
03U112	978.1	05-Oct-89	24 A	851.0	03U121	970.5	22-Nov-88	20 F	853.4
03U112	978.1	02-Nov-89	24 F	850.9	03U121	970.5	06-Aug-89	23 F	852.1
03U112	978.1	21-Dec-89	24 A	850.8	03U121	970.5	02-Nov-89	24 F	851.0
03U112	978.1	11-Jan-90	25 A	850.7	03U121	970.5	01-May-90	26 F	850.9
03U112	978.1	01-May-90	26 F	850.8	03U121	970.5	18-Jul-90	27 F	850.8
03U112	978.1	16-May-90	26 A	850.6	03U121	970.5	17-Sep-90	28 F	850.7
03U112	978.1	18-Jul-90	27 F	850.7	03U121	970.5	28-Mar-91	30 F	851.4
03U112	978.1	20-Sep-90	28 F	850.6	03U121	970.5	12-Mar-92	34 F	853.4
03U112	978.1	28-Feb-91	30 A	851.3	03U121	970.5	08-Mar-93	38 F	854.4
03U112	978.1	28-Mar-91	30 F	851.3					
03U112	978.1	27-Sep-91	32 A	851.1	03U124	1004.5	14-Apr-88	18 F	858.4
03U112	978.1	12-Mar-92	34 F	853.3	03U124	1004.5	22-Nov-88	20 F	857.4
03U112	978.1	24-Mar-92	34 A	853.1	03U124	1004.5	06-Aug-89	23 F	852.9
03U112	978.1	08-Oct-92	37 A	853.5	03U124	1004.5	02-Nov-89	24 F	852.1
03U112	978.1	02-Mar-93	38 A	854.4	03U124	1004.5	27-Apr-90	26 F	852.1
03U112	978.1	08-Mar-93	38 F	854.3	03U124	1004.5	19-Jul-90	27 F	852.1
03U112	978.1	10-Sep-93	40 A	855.7	03U124	1004.5	19-Sep-90	28 F	851.9
					03U124	1004.5	25-Mar-91	30 F	854.7
03U113	974.2	14-Dec-87	16 A	861.2	03U124	1004.5	04-Jun-91	31 F	852.8
03U113	974.2	14-Dec-87	16 F	858.2	03U124	1004.5	04-Sep-91	32 F	850.6
03U113	974.2	27-Jan-88	17 F	858.4	03U124	1004.5	13-Mar-92	34 F	854.9
03U113	974.2	14-Apr-88	18 F	858.6	03U124	1004.5	03-Jun-92	35 F	855.3
03U113	974.2	02-May-88	18 A	861.3	03U124	1004.5	02-Sep-92	36 F	854.6
03U113	974.2	20-May-88	18 A	861.0	03U124	1004.5	04-Mar-93	38 F	855.0
03U113	974.2	27-Jul-88	19 A	857.9	03U124	1004.5	08-Sep-93	40 F	856.6
03U113	974.2	30-Aug-88	19 F	854.4					
03U113	974.2	01-Sep-88	19 A	857.0	03U129	911.1	14-Dec-87	16 F	862.4
03U113	974.2	21-Sep-88	19 A	856.8	03U129	911.1	27-Jan-88	17 F	862.6
03U113	974.2	14-Oct-88	20 A	856.7	03U129	911.1	13-Apr-88	18 F	862.2
03U113	974.2	22-Nov-88	20 F	854.0	03U129	911.1	30-Aug-88	19 F	857.0
03U113	974.2	02-Dec-88	20 A	856.8	03U129	911.1	22-Nov-88	20 F	857.9
03U113	974.2	13-Jan-89	21 A	857.0	03U129	911.1	05-Aug-89	23 F	858.0
03U113	974.2	31-Mar-89	21 A	857.0	03U129	911.1	02-Nov-89	24 F	857.3
03U113	974.2	05-Aug-89	23 F	852.5	03U129	911.1	25-Apr-90	26 F	857.0
03U113	974.2	05-Oct-89	24 A	854.5	03U129	911.1	01-Apr-91	30 F	858.9
03U113	974.2	02-Nov-89	24 F	851.7	03U129	911.1	13-Mar-92	34 F	861.2
03U113	974.2	21-Dec-89	24 A	854.4	03U129	911.1	02-Mar-93	38 F	861.8
03U113	974.2	11-Jan-90	25 A	854.3					
03U113	974.2	27-Apr-90	26 F	851.7	03U301	955.0	27-Jan-88	17 F	854.8
03U113	974.2	16-May-90	26 A	854.2	03U301	955.0	14-Apr-88	18 F	855.5
03U113	974.2	18-Jul-90	27 F	851.7	03U301	955.0	02-May-88	18 A	854.2
03U113	974.2	28-Feb-91	30 A	855.0	03U301	955.0	23-Jun-88	18 A	853.2
03U113	974.2	28-Mar-91	30 F	852.2	03U301	955.0	27-Jul-88	19 A	851.5
03U113	974.2	27-Sep-91	32 A	854.8	03U301	955.0	01-Sep-88	19 A	849.8
03U113	974.2	12-Mar-92	34 F	854.3	03U301	955.0	21-Sep-88	19 A	849.9
03U113	974.2	24-Mar-92	34 A	856.9	03U301	955.0	14-Oct-88	20 A	833.3
03U113	974.2	08-Oct-92	37 A	854.0	03U301	955.0	02-Dec-88	20 A	850.1
03U113	974.2	02-Mar-93	38 A	854.0	03U301	955.0	13-Jan-89	21 A	850.4
03U113	974.2	03-Mar-93	38 F	854.8	03U301	955.0	31-Mar-89	21 A	830.5
03U113	974.2	10-Sep-93	40 A	856.2	03U301	955.0	05-Oct-89	24 A	831.4
					03U301	955.0	21-Dec-89	24 A	827.1
03U114	973.1	14-Dec-87	16 F	857.5	03U301	955.0	11-Jan-90	25 A	831.0
03U114	973.1	26-Jan-88	17 F	857.6	03U301	955.0	16-May-90	26 A	845.5
03U114	973.1	14-Apr-88	18 F	857.8	03U301	955.0	16-Jul-90	27 A	829.4
03U114	973.1	30-Aug-88	19 F	853.7	03U301	955.0	28-Feb-91	30 A	828.4

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U301	955.0	03-Jun-91	31 A	826.9	03U317	950.4	13-Jan-89	21 A	851.8
03U301	955.0	03-Sep-91	32 A	829.4	03U317	950.4	31-Mar-89	21 A	845.6
03U301	955.0	27-Sep-91	32 A	829.2	03U317	950.4	07-Jul-89	23 A	844.7
03U301	955.0	06-Dec-91	33 A	830.4	03U317	950.4	05-Oct-89	24 A	843.8
03U301	955.0	24-Mar-92	34 A	827.0	03U317	950.4	21-Dec-89	24 A	843.7
03U301	955.0	01-Jun-92	35 A	829.1	03U317	950.4	11-Jan-90	25 A	843.5
03U301	955.0	01-Sep-92	36 A	828.4	03U317	950.4	16-May-90	26 A	852.0
03U301	955.0	08-Oct-92	37 A	829.3	03U317	950.4	16-Jul-90	27 A	843.2
03U301	955.0	02-Mar-93	38 A	829.8	03U317	950.4	28-Feb-91	30 A	843.1
03U301	955.0	10-Sep-93	40 A	839.7	03U317	950.4	03-Jun-91	31 A	844.0
					03U317	950.4	03-Sep-91	32 A	842.8
03U314	975.9	02-Dec-88	20 A	852.4	03U317	950.4	27-Sep-91	32 A	842.3
03U314	975.9	31-Mar-89	21 A	842.7	03U317	950.4	06-Dec-91	33 A	843.9
03U314	975.9	07-Jul-89	23 A	841.7	03U317	950.4	24-Mar-92	34 A	844.2
03U314	975.9	05-Oct-89	24 A	842.5	03U317	950.4	01-Jun-92	35 A	844.5
03U314	975.9	21-Dec-89	24 A	841.5	03U317	950.4	01-Sep-92	36 A	843.8
03U314	975.9	11-Jan-90	25 A	840.1	03U317	950.4	08-Oct-92	37 A	843.6
03U314	975.9	16-May-90	26 A	843.6	03U317	950.4	02-Mar-93	38 A	844.9
03U314	975.9	16-Jul-90	27 A	846.2	03U317	950.4	10-Sep-93	40 A	844.8
03U314	975.9	28-Feb-91	30 A	845.2					
03U314	975.9	03-Jun-91	31 A	845.3	03U521	1004.6	14-Dec-87	16 F	858.1
03U314	975.9	03-Sep-91	32 A	840.3	03U521	1004.6	26-Jan-88	17 F	858.3
03U314	975.9	27-Sep-91	32 A	840.8	03U521	1004.6	13-Apr-88	18 F	858.0
03U314	975.9	06-Dec-91	33 A	846.4	03U521	1004.6	30-Aug-88	19 F	853.6
03U314	975.9	24-Mar-92	34 A	841.5	03U521	1004.6	22-Nov-88	20 F	853.5
03U314	975.9	01-Jun-92	35 A	846.9	03U521	1004.6	06-Aug-89	23 F	852.1
03U314	975.9	01-Sep-92	36 A	848.4	03U521	1004.6	02-Nov-89	24 F	851.5
03U314	975.9	08-Oct-92	37 A	845.0	03U521	1004.6	25-Apr-90	26 F	851.5
03U314	975.9	02-Mar-93	38 A	846.5	03U521	1004.6	19-Jul-90	27 F	851.5
03U314	975.9	10-Sep-93	40 A	844.2	03U521	1004.6	01-Apr-91	30 F	852.1
					03U521	1004.6	12-Mar-92	34 F	854.3
03U315	963.1	02-Dec-88	20 A	852.3	03U521	1004.6	02-Mar-93	38 F	855.5
03U315	963.1	13-Jan-89	21 A	852.5					
03U315	963.1	31-Mar-89	21 A	845.2	03U647	961.3	14-Dec-87	16 F	856.8
03U315	963.1	07-Jul-89	23 A	844.7	03U647	961.3	27-Jan-88	17 F	856.9
03U315	963.1	05-Oct-89	24 A	842.8	03U647	961.3	14-Apr-88	18 F	857.8
03U315	963.1	21-Dec-89	24 A	842.5	03U647	961.3	02-May-88	18 A	857.3
03U315	963.1	11-Jan-90	25 A	842.9	03U647	961.3	20-May-88	18 A	856.9
03U315	963.1	16-May-90	26 A	842.4	03U647	961.3	23-Jun-88	18 A	856.0
03U315	963.1	16-Jul-90	27 A	841.2	03U647	961.3	27-Jul-88	19 A	854.5
03U315	963.1	28-Feb-91	30 A	841.5	03U647	961.3	30-Aug-88	19 F	853.4
03U315	963.1	03-Jun-91	31 A	842.3	03U647	961.3	01-Sep-88	19 A	853.3
03U315	963.1	03-Sep-91	32 A	842.5	03U647	961.3	21-Sep-88	19 A	853.0
03U315	963.1	27-Sep-91	32 A	842.7	03U647	961.3	14-Oct-88	20 A	852.8
03U315	963.1	06-Dec-91	33 A	843.9	03U647	961.3	23-Nov-88	20 F	853.3
03U315	963.1	24-Mar-92	34 A	844.8	03U647	961.3	02-Dec-88	20 A	852.9
03U315	963.1	01-Jun-92	35 A	845.5	03U647	961.3	13-Jan-89	21 A	853.4
03U315	963.1	01-Sep-92	36 A	844.3	03U647	961.3	31-Mar-89	21 A	851.7
03U315	963.1	08-Oct-92	37 A	828.3	03U647	961.3	05-Aug-89	23 F	850.6
03U315	963.1	02-Mar-93	38 A	845.1	03U647	961.3	05-Oct-89	24 A	849.8
03U315	963.1	10-Sep-93	40 A	845.6	03U647	961.3	03-Nov-89	24 F	849.6
					03U647	961.3	21-Dec-89	24 A	849.4
03U316	954.6	02-Dec-88	20 A	851.6	03U647	961.3	11-Jan-90	25 A	849.3
03U316	954.6	13-Jan-89	21 A	851.8	03U647	961.3	16-May-90	26 A	849.1
03U316	954.6	31-Mar-89	21 A	835.2	03U647	961.3	28-Feb-91	30 A	849.7
03U316	954.6	07-Jul-89	23 A	836.1	03U647	961.3	27-Sep-91	32 A	849.3
03U316	954.6	05-Oct-89	24 A	836.6	03U647	961.3	24-Mar-92	34 A	851.2
03U316	954.6	21-Dec-89	24 A	826.2	03U647	961.3	08-Oct-92	37 A	849.8
03U316	954.6	11-Jan-90	25 A	830.0	03U647	961.3	02-Mar-93	38 A	850.6
03U316	954.6	16-May-90	26 A	833.7	03U647	961.3	10-Sep-93	40 A	851.7
03U316	954.6	16-Jul-90	27 A	831.7					
03U316	954.6	28-Feb-91	30 A	831.2	03U648	959.8	14-Dec-87	16 A	854.8
03U316	954.6	03-Jun-91	31 A	831.9	03U648	959.8	14-Dec-87	16 F	855.7
03U316	954.6	03-Sep-91	32 A	832.1	03U648	959.8	11-Jan-88	17 A	855.8
03U316	954.6	27-Sep-91	32 A	832.6	03U648	959.8	27-Jan-88	17 F	855.8
03U316	954.6	06-Dec-91	33 A	833.6	03U648	959.8	14-Apr-88	18 F	856.6
03U316	954.6	24-Mar-92	34 A	836.5	03U648	959.8	02-May-88	18 A	856.2
03U316	954.6	01-Jun-92	35 A	838.5	03U648	959.8	20-May-88	18 A	855.8
03U316	954.6	01-Sep-92	36 A	839.5	03U648	959.8	23-Jun-88	18 A	854.9
03U316	954.6	08-Oct-92	37 A	843.1	03U648	959.8	27-Jul-88	19 A	853.3
03U316	954.6	02-Mar-93	38 A	836.8	03U648	959.8	30-Aug-88	19 F	852.2
03U316	954.6	10-Sep-93	40 A	841.7	03U648	959.8	01-Sep-88	19 A	852.1
					03U648	959.8	21-Sep-88	19 A	851.9
03U317	950.4	02-Dec-88	20 A	851.6	03U648	959.8	14-Oct-88	20 A	851.7

**TABLE IV - 1**  
**TCAA Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U648	959.8	23-Nov-88	20 F	852.1	03U671	930.4	24-Nov-87	16 A	851.8
03U648	959.8	02-Dec-88	20 A	851.8	03U671	930.4	30-Nov-87	16 A	851.9
03U648	959.8	13-Jan-89	21 A	852.2	03U671	930.4	14-Dec-87	16 A	851.9
03U648	959.8	31-Mar-89	21 A	850.7	03U671	930.4	15-Dec-87	16 F	851.8
03U648	959.8	05-Aug-89	23 F	849.4	03U671	930.4	11-Jan-88	17 A	852.1
03U648	959.8	05-Oct-89	24 A	848.6	03U671	930.4	28-Jan-88	17 F	852.0
03U648	959.8	03-Nov-89	24 F	848.4	03U671	930.4	13-Apr-88	18 F	854.2
03U648	959.8	21-Dec-89	24 A	848.3	03U671	930.4	02-May-88	18 A	852.9
03U648	959.8	11-Jan-90	25 A	848.1	03U671	930.4	20-May-88	18 A	852.0
03U648	959.8	16-May-90	26 A	848.0	03U671	930.4	23-Jun-88	18 A	851.7
03U648	959.8	28-Feb-91	30 A	848.5	03U671	930.4	27-Jul-88	19 A	850.2
03U648	959.8	27-Sep-91	32 A	848.1	03U671	930.4	30-Aug-88	19 F	848.9
03U648	959.8	24-Mar-92	34 A	850.1	03U671	930.4	01-Sep-88	19 A	848.7
03U648	959.8	08-Oct-92	37 A	850.1	03U671	930.4	21-Sep-88	19 A	848.3
03U648	959.8	02-Mar-93	38 A	850.9	03U671	930.4	14-Oct-88	20 A	848.1
03U648	959.8	10-Sep-93	40 A	852.0	03U671	930.4	23-Nov-88	20 F	849.1
03U658	963.0	14-Dec-87	16 A	855.5	03U671	930.4	02-Dec-88	20 A	849.4
03U658	963.0	11-Jan-88	17 A	855.7	03U671	930.4	13-Jan-89	21 A	849.5
03U658	963.0	27-Jan-88	17 F	855.7	03U671	930.4	31-Mar-89	21 A	846.5
03U658	963.0	14-Apr-88	18 F	856.3	03U671	930.4	07-Aug-89	23 F	845.2
03U658	963.0	02-May-88	18 A	855.9	03U671	930.4	05-Oct-89	24 A	844.7
03U658	963.0	20-May-88	18 A	855.6	03U671	930.4	02-Nov-89	24 F	844.0
03U658	963.0	23-Jun-88	18 A	854.5	03U671	930.4	21-Dec-89	24 A	843.5
03U658	963.0	27-Jul-88	19 A	853.1	03U671	930.4	11-Jan-90	25 A	843.6
03U658	963.0	30-Aug-88	19 F	852.1	03U671	930.4	16-May-90	26 A	843.6
03U658	963.0	01-Sep-88	19 A	852.0	03U671	930.4	28-Feb-91	30 A	843.9
03U658	963.0	21-Sep-88	19 A	851.7	03U671	930.4	27-Sep-91	32 A	843.3
03U658	963.0	14-Oct-88	20 A	851.5	03U671	930.4	24-Mar-92	34 A	845.1
03U658	963.0	23-Nov-88	20 F	853.0	03U671	930.4	08-Oct-92	37 A	845.4
03U658	963.0	02-Dec-88	20 A	851.8	03U671	930.4	02-Mar-93	38 A	846.2
03U658	963.0	13-Jan-89	21 A	852.1	03U671	930.4	10-Sep-93	40 A	847.5
03U658	963.0	31-Mar-89	21 A	850.8	03U672	923.1	17-Nov-87	16 A	854.1
03U658	963.0	05-Aug-89	23 F	849.4	03U672	923.1	30-Nov-87	16 A	853.9
03U658	963.0	05-Oct-89	24 A	848.5	03U672	923.1	14-Dec-87	16 A	854.1
03U658	963.0	03-Nov-89	24 F	848.3	03U672	923.1	14-Dec-87	16 F	853.6
03U658	963.0	21-Dec-89	24 A	848.3	03U672	923.1	11-Jan-88	17 A	853.6
03U658	963.0	11-Jan-90	25 A	848.0	03U672	923.1	28-Jan-88	17 F	853.8
03U658	963.0	16-May-90	26 A	848.0	03U672	923.1	13-Apr-88	18 F	855.1
03U658	963.0	28-Feb-91	30 A	848.5	03U672	923.1	02-May-88	18 A	854.5
03U658	963.0	27-Sep-91	32 A	848.1	03U672	923.1	20-May-88	18 A	854.0
03U658	963.0	24-Mar-92	34 A	850.1	03U672	923.1	23-Jun-88	18 A	853.4
03U658	963.0	08-Oct-92	37 A	850.9	03U672	923.1	27-Jul-88	19 A	852.0
03U658	963.0	02-Mar-93	38 A	851.6	03U672	923.1	30-Aug-88	19 F	850.8
03U658	963.0	10-Sep-93	40 A	852.8	03U672	923.1	01-Sep-88	19 A	850.7
03U659	956.5	14-Dec-87	16 A	854.0	03U672	923.1	21-Sep-88	19 A	851.5
03U659	956.5	11-Jan-88	17 A	854.2	03U672	923.1	14-Oct-88	20 A	850.1
03U659	956.5	27-Jan-88	17 F	854.2	03U672	923.1	23-Nov-88	20 F	850.4
03U659	956.5	14-Apr-88	18 F	855.4	03U672	923.1	02-Dec-88	20 A	850.3
03U659	956.5	02-May-88	18 A	854.8	03U672	923.1	13-Jan-89	21 A	850.7
03U659	956.5	20-May-88	18 A	854.3	03U672	923.1	31-Mar-89	21 A	848.3
03U659	956.5	23-Jun-88	18 A	853.7	03U672	923.1	07-Jul-89	23 A	847.2
03U659	956.5	27-Jul-88	19 A	852.1	03U672	923.1	03-Aug-89	23 F	847.0
03U659	956.5	30-Aug-88	19 F	850.8	03U672	923.1	05-Oct-89	24 A	846.3
03U659	956.5	01-Sep-88	19 A	850.7	03U672	923.1	02-Nov-89	24 F	845.9
03U659	956.5	21-Sep-88	19 A	850.7	03U672	923.1	21-Dec-89	24 A	846.0
03U659	956.5	14-Oct-88	20 A	850.1	03U672	923.1	11-Jan-90	25 A	845.9
03U659	956.5	23-Nov-88	20 F	850.8	03U672	923.1	16-May-90	26 A	845.8
03U659	956.5	02-Dec-88	20 A	850.6	03U672	923.1	16-Jul-90	27 A	845.4
03U659	956.5	13-Jan-89	21 A	850.9	03U672	923.1	28-Feb-91	30 A	846.2
03U659	956.5	31-Mar-89	21 A	848.7	03U672	923.1	03-Jun-91	31 A	845.8
03U659	956.5	05-Aug-89	23 F	847.7	03U672	923.1	03-Sep-91	32 A	845.6
03U659	956.5	05-Oct-89	24 A	846.8	03U672	923.1	27-Sep-91	32 A	845.5
03U659	956.5	03-Nov-89	24 F	846.6	03U672	923.1	06-Dec-91	33 A	846.8
03U659	956.5	21-Dec-89	24 A	846.4	03U672	923.1	24-Mar-92	34 A	847.4
03U659	956.5	11-Jan-90	25 A	846.2	03U672	923.1	01-Jun-92	35 A	848.2
03U659	956.5	16-May-90	26 A	846.2	03U672	923.1	01-Sep-92	36 A	847.8
03U659	956.5	28-Feb-91	30 A	846.5	03U672	923.1	08-Oct-92	37 A	847.8
03U659	956.5	27-Sep-91	32 A	846.1	03U672	923.1	02-Mar-93	38 A	848.4
03U659	956.5	24-Mar-92	34 A	848.0	03U672	923.1	10-Sep-93	40 A	849.5
03U659	956.5	08-Oct-92	37 A	848.4	03U673	897.2	17-Nov-87	16 A	847.6
03U659	956.5	02-Mar-93	38 A	849.2	03U673	897.2	24-Nov-87	16 A	847.0
03U659	956.5	10-Sep-93	40 A	850.3					

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U673	897.2	30-Nov-87	16 A	847.4	03U676	959.4	02-Dec-88	20 A	850.8
03U673	897.2	14-Dec-87	16 A	847.6	03U676	959.4	13-Jan-89	21 A	851.2
03U673	897.2	14-Dec-87	16 F	846.5	03U676	959.4	31-Mar-89	21 A	849.4
03U673	897.2	11-Jan-88	17 A	846.7	03U676	959.4	05-Oct-89	24 A	847.3
03U673	897.2	27-Jan-88	17 F	846.6	03U676	959.4	21-Dec-89	24 A	846.9
03U673	897.2	13-Apr-88	18 F	848.0	03U676	959.4	11-Jan-90	25 A	846.8
03U673	897.2	02-May-88	18 A	847.3	03U676	959.4	28-Feb-91	30 A	847.1
03U673	897.2	20-May-88	18 A	846.9	03U676	959.4	27-Sep-91	32 A	847.1
03U673	897.2	23-Jun-88	18 A	845.9					
03U673	897.2	27-Jul-88	19 A	845.0	03U701	908.7	17-Nov-87	16 A	848.9
03U673	897.2	30-Aug-88	19 F	844.0	03U701	908.7	24-Nov-87	16 A	849.0
03U673	897.2	01-Sep-88	19 A	844.0	03U701	908.7	30-Nov-87	16 A	849.3
03U673	897.2	21-Sep-88	19 A	843.6	03U701	908.7	14-Dec-87	16 F	849.0
03U673	897.2	14-Oct-88	20 A	843.8	03U701	908.7	11-Jan-88	17 A	849.4
03U673	897.2	23-Nov-88	20 F	845.3	03U701	908.7	27-Jan-88	17 F	849.2
03U673	897.2	02-Dec-88	20 A	843.8	03U701	908.7	13-Apr-88	18 F	850.8
03U673	897.2	13-Jan-89	21 A	844.2	03U701	908.7	02-May-88	18 A	849.4
03U673	897.2	31-Mar-89	21 A	842.3	03U701	908.7	20-May-88	18 A	848.8
03U673	897.2	07-Jul-89	23 A	840.8	03U701	908.7	23-Jun-88	18 A	847.1
03U673	897.2	03-Aug-89	23 F	840.9	03U701	908.7	27-Jul-88	19 A	846.3
03U673	897.2	05-Oct-89	24 A	840.5	03U701	908.7	30-Aug-88	19 F	845.3
03U673	897.2	02-Nov-89	24 F	839.8	03U701	908.7	01-Sep-88	19 A	845.4
03U673	897.2	21-Dec-89	24 A	839.5	03U701	908.7	21-Sep-88	19 A	845.2
03U673	897.2	11-Jan-90	25 A	839.7	03U701	908.7	14-Oct-88	20 A	845.3
03U673	897.2	16-May-90	26 A	839.5	03U701	908.7	23-Nov-88	20 F	846.7
03U673	897.2	16-Jul-90	27 A	839.2	03U701	908.7	02-Dec-88	20 A	846.4
03U673	897.2	28-Feb-91	30 A	839.5	03U701	908.7	13-Jan-89	21 A	846.7
03U673	897.2	03-Jun-91	31 A	839.1	03U701	908.7	31-Mar-89	21 A	843.2
03U673	897.2	03-Sep-91	32 A	838.6	03U701	908.7	05-Aug-89	23 F	841.5
03U673	897.2	27-Sep-91	32 A	838.8	03U701	908.7	05-Oct-89	24 A	841.0
03U673	897.2	06-Dec-91	33 A	839.9	03U701	908.7	03-Nov-89	24 F	841.1
03U673	897.2	24-Mar-92	34 A	840.5	03U701	908.7	21-Dec-89	24 A	840.6
03U673	897.2	01-Jun-92	35 A	841.0	03U701	908.7	11-Jan-90	25 A	840.8
03U673	897.2	01-Sep-92	36 A	840.5	03U701	908.7	16-May-90	26 A	840.9
03U673	897.2	08-Oct-92	37 A	840.8	03U701	908.7	28-Feb-91	30 A	841.3
03U673	897.2	02-Mar-93	38 A	841.5	03U701	908.7	27-Sep-91	32 A	840.6
03U673	897.2	10-Sep-93	40 A	842.7	03U701	908.7	24-Mar-92	34 A	842.6
					03U701	908.7	08-Oct-92	37 A	843.0
03U674	955.1	14-Dec-87	16 A	852.9	03U701	908.7	02-Mar-93	38 A	844.0
03U674	955.1	15-Dec-87	16 F	853.5	03U701	908.7	10-Sep-93	40 A	845.3
03U674	955.1	27-Jan-88	17 F	854.3					
03U674	955.1	13-Apr-88	18 F	855.8	03U702	908.1	17-Nov-87	16 A	848.4
03U674	955.1	02-May-88	18 A	854.5	03U702	908.1	24-Nov-87	16 A	848.6
03U674	955.1	20-May-88	18 A	853.8	03U702	908.1	30-Nov-87	16 A	848.9
03U674	955.1	23-Jun-88	18 A	853.5	03U702	908.1	14-Dec-87	16 F	848.6
03U674	955.1	27-Jul-88	19 A	851.7	03U702	908.1	11-Jan-88	17 A	849.0
03U674	955.1	30-Aug-88	19 F	850.4	03U702	908.1	27-Jan-88	17 F	848.7
03U674	955.1	01-Sep-88	19 A	850.1	03U702	908.1	13-Apr-88	18 F	850.2
03U674	955.1	21-Sep-88	19 A	850.3	03U702	908.1	02-May-88	18 A	848.9
03U674	955.1	14-Oct-88	20 A	849.2	03U702	908.1	20-May-88	18 A	848.3
03U674	955.1	23-Nov-88	20 F	851.1	03U702	908.1	23-Jun-88	18 A	846.5
03U674	955.1	02-Dec-88	20 A	850.4	03U702	908.1	27-Jul-88	19 A	845.7
03U674	955.1	13-Jan-89	21 A	850.7	03U702	908.1	30-Aug-88	19 F	844.8
03U674	955.1	31-Mar-89	21 A	847.6	03U702	908.1	01-Sep-88	19 A	844.8
03U674	955.1	05-Aug-89	23 F	847.4	03U702	908.1	21-Sep-88	19 A	844.8
03U674	955.1	05-Oct-89	24 A	845.8	03U702	908.1	14-Oct-88	20 A	844.8
03U674	955.1	02-Nov-89	24 F	846.3	03U702	908.1	23-Nov-88	20 F	846.2
03U674	955.1	21-Dec-89	24 A	845.3	03U702	908.1	02-Dec-88	20 A	845.9
03U674	955.1	11-Jan-90	25 A	845.2	03U702	908.1	13-Jan-89	21 A	846.2
03U674	955.1	16-May-90	26 A	845.7	03U702	908.1	31-Mar-89	21 A	842.8
03U674	955.1	28-Feb-91	30 A	845.4	03U702	908.1	05-Aug-89	23 F	840.9
03U674	955.1	27-Sep-91	32 A	844.9	03U702	908.1	05-Oct-89	24 A	840.5
03U674	955.1	24-Mar-92	34 A	846.7	03U702	908.1	03-Nov-89	24 F	839.6
03U674	955.1	08-Oct-92	37 A	847.0	03U702	908.1	21-Dec-89	24 A	839.6
03U674	955.1	02-Mar-93	38 A	847.8	03U702	908.1	11-Jan-90	25 A	840.4
03U674	955.1	10-Sep-93	40 A	849.0	03U702	908.1	16-May-90	26 A	840.4
					03U702	908.1	28-Feb-91	30 A	840.8
03U676	959.4	02-May-88	18 A	855.1	03U702	908.1	27-Sep-91	32 A	840.2
03U676	959.4	20-May-88	18 A	854.6	03U702	908.1	24-Mar-92	34 A	842.1
03U676	959.4	23-Jun-88	18 A	853.8	03U702	908.1	08-Oct-92	37 A	842.6
03U676	959.4	27-Jul-88	19 A	852.3	03U702	908.1	02-Mar-93	38 A	843.6
03U676	959.4	01-Sep-88	19 A	851.0	03U702	908.1	10-Sep-93	40 A	844.9
03U676	959.4	21-Sep-88	19 A	850.9					
03U676	959.4	14-Oct-88	20 A	850.4	03U703	918.7	17-Nov-87	16 A	848.9

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U703	918.7	24-Nov-87	16 A	849.1	03U705	1047.2	13-Apr-88	18 F	858.6
03U703	918.7	30-Nov-87	16 A	849.2	03U705	1047.2	02-May-88	18 A	859.5
03U703	918.7	14-Dec-87	16 A	849.4	03U705	1047.2	20-May-88	18 A	859.2
03U703	918.7	11-Jan-88	17 A	849.7	03U705	1047.2	23-Jun-88	18 A	856.8
03U703	918.7	27-Jan-88	17 F	849.5	03U705	1047.2	27-Jul-88	19 A	855.1
03U703	918.7	13-Apr-88	18 F	853.7	03U705	1047.2	30-Aug-88	19 F	854.8
03U703	918.7	02-May-88	18 A	850.6	03U705	1047.2	01-Sep-88	19 A	854.7
03U703	918.7	20-May-88	18 A	849.5	03U705	1047.2	21-Sep-88	19 A	854.7
03U703	918.7	23-Jun-88	18 A	849.6	03U705	1047.2	14-Oct-88	20 A	854.7
03U703	918.7	27-Jul-88	19 A	847.3	03U705	1047.2	05-Aug-89	23 F	854.0
03U703	918.7	30-Aug-88	19 F	847.7	03U705	1047.2	05-Oct-89	24 A	853.3
03U703	918.7	01-Sep-88	19 A	847.3	03U705	1047.2	21-Dec-89	24 A	853.6
03U703	918.7	21-Sep-88	19 A	846.9	03U705	1047.2	11-Jan-90	25 A	853.5
03U703	918.7	14-Oct-88	20 A	845.7	03U705	1047.2	24-Apr-90	26 F	853.6
03U703	918.7	23-Nov-88	20 F	849.4	03U705	1047.2	16-May-90	26 A	853.4
03U703	918.7	02-Dec-88	20 A	849.1	03U705	1047.2	19-Jul-90	27 F	853.6
03U703	918.7	13-Jan-89	21 A	847.0	03U705	1047.2	21-Sep-90	28 F	853.5
03U703	918.7	31-Mar-89	21 A	843.6	03U705	1047.2	28-Feb-91	30 A	854.5
03U703	918.7	05-Aug-89	23 F	842.5	03U705	1047.2	03-Jun-91	31 A	854.7
03U703	918.7	05-Oct-89	24 A	842.0	03U705	1047.2	03-Sep-91	32 A	854.0
03U703	918.7	02-Nov-89	24 F	841.6	03U705	1047.2	27-Sep-91	32 A	854.5
03U703	918.7	21-Dec-89	24 A	842.0	03U705	1047.2	06-Dec-91	33 A	855.7
03U703	918.7	11-Jan-90	25 A	841.1	03U705	1047.2	24-Mar-92	34 A	856.6
03U703	918.7	16-May-90	26 A	840.6	03U705	1047.2	08-Oct-92	37 A	856.5
03U703	918.7	28-Feb-91	30 A	841.0	03U705	1047.2	02-Mar-93	38 A	857.5
03U703	918.7	27-Sep-91	32 A	840.0	03U705	1047.2	10-Sep-93	40 A	858.8
03U703	918.7	24-Mar-92	34 A	841.8					
03U703	918.7	08-Oct-92	37 A	842.7	03U706	918.3	24-Nov-87	16 A	859.3
03U703	918.7	02-Mar-93	38 A	843.6	03U706	918.3	30-Nov-87	16 A	859.4
03U703	918.7	10-Sep-93	40 A	845.0	03U706	918.3	14-Dec-87	16 A	859.6
					03U706	918.3	14-Dec-87	16 F	859.7
03U704	976.4	24-Nov-87	16 A	859.2	03U706	918.3	11-Jan-88	17 A	859.8
03U704	976.4	30-Nov-87	16 A	859.3	03U706	918.3	27-Jan-88	17 F	859.9
03U704	976.4	14-Dec-87	16 F	859.5	03U706	918.3	13-Apr-88	18 F	859.0
03U704	976.4	11-Jan-88	17 A	859.7	03U706	918.3	02-May-88	18 A	859.4
03U704	976.4	27-Jan-88	17 F	859.7	03U706	918.3	20-May-88	18 A	859.1
03U704	976.4	13-Apr-88	18 F	856.4	03U706	918.3	23-Jun-88	18 A	856.3
03U704	976.4	02-May-88	18 A	859.4	03U706	918.3	27-Jul-88	19 A	854.9
03U704	976.4	20-May-88	18 A	859.1	03U706	918.3	30-Aug-88	19 F	854.8
03U704	976.4	23-Jun-88	18 A	856.7	03U706	918.3	01-Sep-88	19 A	854.7
03U704	976.4	27-Jul-88	19 A	855.1	03U706	918.3	21-Sep-88	19 A	854.6
03U704	976.4	30-Aug-88	19 F	854.7	03U706	918.3	14-Oct-88	20 A	854.8
03U704	976.4	01-Sep-88	19 A	854.7	03U706	918.3	23-Nov-88	20 F	854.8
03U704	976.4	21-Sep-88	19 A	854.6	03U706	918.3	02-Dec-88	20 A	854.7
03U704	976.4	14-Oct-88	20 A	854.6	03U706	918.3	13-Jan-89	21 A	855.1
03U704	976.4	23-Nov-88	20 F	854.4	03U706	918.3	31-Mar-89	21 A	856.2
03U704	976.4	02-Dec-88	20 A	854.5	03U706	918.3	07-Jul-89	23 A	854.6
03U704	976.4	13-Jan-89	21 A	854.8	03U706	918.3	05-Aug-89	23 F	853.9
03U704	976.4	31-Mar-89	21 A	846.9	03U706	918.3	05-Oct-89	24 A	853.2
03U704	976.4	07-Jul-89	23 A	854.6	03U706	918.3	04-Nov-89	24 F	853.5
03U704	976.4	05-Aug-89	23 F	853.5	03U706	918.3	21-Dec-89	24 A	853.6
03U704	976.4	05-Oct-89	24 A	853.1	03U706	918.3	11-Jan-90	25 A	853.6
03U704	976.4	02-Nov-89	24 F	853.5	03U706	918.3	16-May-90	26 A	853.4
03U704	976.4	21-Dec-89	24 A	853.3	03U706	918.3	16-Jul-90	27 A	853.6
03U704	976.4	11-Jan-90	25 A	853.2	03U706	918.3	28-Feb-91	30 A	854.4
03U704	976.4	27-Apr-90	26 F	853.2	03U706	918.3	03-Jun-91	31 A	854.7
03U704	976.4	16-May-90	26 A	853.1	03U706	918.3	03-Sep-91	32 A	853.9
03U704	976.4	16-Jul-90	27 A	853.3	03U706	918.3	27-Sep-91	32 A	854.5
03U704	976.4	28-Feb-91	30 A	854.1	03U706	918.3	06-Dec-91	33 A	855.6
03U704	976.4	03-Jun-91	31 A	854.3	03U706	918.3	24-Mar-92	34 A	856.4
03U704	976.4	03-Sep-91	32 A	853.6	03U706	918.3	01-Jun-92	35 A	854.6
03U704	976.4	27-Sep-91	32 A	854.1	03U706	918.3	01-Sep-92	36 A	855.7
03U704	976.4	06-Dec-91	33 A	855.3	03U706	918.3	08-Oct-92	37 A	856.2
03U704	976.4	24-Mar-92	34 A	856.1	03U706	918.3	02-Mar-93	38 A	857.3
03U704	976.4	08-Oct-92	37 A	856.0	03U706	918.3	10-Sep-93	40 A	858.7
03U704	976.4	02-Mar-93	38 A	857.0					
03U704	976.4	10-Sep-93	40 A	858.4	03U707	916.1	24-Nov-87	16 A	859.7
					03U707	916.1	30-Nov-87	16 A	859.9
03U705	1047.2	24-Nov-87	16 A	859.2	03U707	916.1	14-Dec-87	16 A	860.0
03U705	1047.2	30-Nov-87	16 A	859.3	03U707	916.1	11-Jan-88	17 A	860.2
03U705	1047.2	14-Dec-87	16 A	859.6	03U707	916.1	27-Jan-88	17 F	860.2
03U705	1047.2	15-Dec-87	16 F	859.6	03U707	916.1	13-Apr-88	18 F	859.1
03U705	1047.2	11-Jan-88	17 A	859.8	03U707	916.1	02-May-88	18 A	859.8
03U705	1047.2	27-Jan-88	17 F	859.9	03U707	916.1	20-May-88	18 A	859.4

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U707	916.1	23-Jun-88	18 A	856.5	03U709	910.1	05-Aug-89	23 F	842.9
03U707	916.1	27-Jul-88	19 A	854.9	03U709	910.1	05-Oct-89	24 A	842.6
03U707	916.1	30-Aug-88	19 F	854.9	03U709	910.1	02-Nov-89	24 F	842.3
03U707	916.1	01-Sep-88	19 A	854.9	03U709	910.1	21-Dec-89	24 A	841.8
03U707	916.1	21-Sep-88	19 A	854.9	03U709	910.1	11-Jan-90	25 A	841.6
03U707	916.1	14-Oct-88	20 A	855.2	03U709	910.1	16-May-90	26 A	841.8
03U707	916.1	23-Nov-88	20 F	855.2	03U709	910.1	28-Feb-91	30 A	842.2
03U707	916.1	02-Dec-88	20 A	855.3	03U709	910.1	27-Sep-91	32 A	841.7
03U707	916.1	13-Jan-89	21 A	855.6	03U709	910.1	24-Mar-92	34 A	843.6
03U707	916.1	31-Mar-89	21 A	856.8	03U709	910.1	08-Oct-92	37 A	844.0
03U707	916.1	05-Aug-89	23 F	854.0	03U709	910.1	02-Mar-93	38 A	844.9
03U707	916.1	05-Oct-89	24 A	853.8	03U709	910.1	10-Sep-93	40 A	846.3
03U707	916.1	04-Nov-89	24 F	854.0					
03U707	916.1	21-Dec-89	24 A	854.2	03U710	944.7	17-Nov-87	16 A	851.0
03U707	916.1	11-Jan-90	25 A	854.3	03U710	944.7	24-Nov-87	16 A	851.2
03U707	916.1	16-May-90	26 A	854.1	03U710	944.7	30-Nov-87	16 A	851.3
03U707	916.1	28-Feb-91	30 A	855.1	03U710	944.7	14-Dec-87	16 A	851.1
03U707	916.1	27-Sep-91	32 A	855.2	03U710	944.7	11-Jan-88	17 A	851.5
03U707	916.1	24-Mar-92	34 A	857.1	03U710	944.7	27-Jan-88	17 F	850.3
03U707	916.1	08-Oct-92	37 A	856.8	03U710	944.7	13-Apr-88	18 F	853.8
03U707	916.1	02-Mar-93	38 A	857.9	03U710	944.7	02-May-88	18 A	852.2
03U707	916.1	10-Sep-93	40 A	859.4	03U710	944.7	20-May-88	18 A	851.5
					03U710	944.7	23-Jun-88	18 A	851.3
03U708	919.8	17-Nov-87	16 A	851.4	03U710	944.7	27-Jul-88	19 A	849.6
03U708	919.8	24-Nov-87	16 A	851.0	03U710	944.7	30-Aug-88	19 F	848.5
03U708	919.8	30-Nov-87	16 A	851.0	03U710	944.7	01-Sep-88	19 A	848.2
03U708	919.8	14-Dec-87	16 F	850.8	03U710	944.7	21-Sep-88	19 A	848.0
03U708	919.8	11-Jan-88	17 A	851.3	03U710	944.7	14-Oct-88	20 A	847.6
03U708	919.8	27-Jan-88	17 F	851.1	03U710	944.7	23-Nov-88	20 F	848.7
03U708	919.8	13-Apr-88	18 F	853.5	03U710	944.7	02-Dec-88	20 A	849.2
03U708	919.8	02-May-88	18 A	852.0	03U710	944.7	13-Jan-89	21 A	848.7
03U708	919.8	20-May-88	18 A	851.1	03U710	944.7	31-Mar-89	21 A	845.4
03U708	919.8	23-Jun-88	18 A	850.9	03U710	944.7	05-Aug-89	23 F	844.3
03U708	919.8	27-Jul-88	19 A	849.5	03U710	944.7	05-Oct-89	24 A	843.6
03U708	919.8	30-Aug-88	19 F	848.0	03U710	944.7	02-Nov-89	24 F	842.8
03U708	919.8	01-Sep-88	19 A	847.9	03U710	944.7	21-Dec-89	24 A	843.3
03U708	919.8	21-Sep-88	19 A	847.5	03U710	944.7	11-Jan-90	25 A	842.7
03U708	919.8	14-Oct-88	20 A	847.4	03U710	944.7	16-May-90	26 A	842.6
03U708	919.8	23-Nov-88	20 F	848.5	03U710	944.7	28-Feb-91	30 A	842.9
03U708	919.8	02-Dec-88	20 A	848.9	03U710	944.7	27-Sep-91	32 A	842.3
03U708	919.8	13-Jan-89	21 A	848.8	03U710	944.7	24-Mar-92	34 A	844.1
03U708	919.8	31-Mar-89	21 A	845.6	03U710	944.7	08-Oct-92	37 A	845.1
03U708	919.8	05-Aug-89	23 F	844.3	03U710	944.7	02-Mar-93	38 A	845.9
03U708	919.8	05-Oct-89	24 A	843.8	03U710	944.7	10-Sep-93	40 A	847.1
03U708	919.8	02-Nov-89	24 F	843.2					
03U708	919.8	21-Dec-89	24 A	842.8	03U711	906.9	24-Nov-87	16 A	850.4
03U708	919.8	11-Jan-90	25 A	842.6	03U711	906.9	30-Nov-87	16 A	850.4
03U708	919.8	16-May-90	26 A	842.7	03U711	906.9	14-Dec-87	16 F	850.1
03U708	919.8	28-Feb-91	30 A	843.0	03U711	906.9	11-Jan-88	17 A	850.7
03U708	919.8	27-Sep-91	32 A	842.4	03U711	906.9	26-Jan-88	17 F	850.2
03U708	919.8	24-Mar-92	34 A	844.2	03U711	906.9	13-Apr-88	18 F	852.9
03U708	919.8	08-Oct-92	37 A	844.8	03U711	906.9	02-May-88	18 A	850.7
03U708	919.8	02-Mar-93	38 A	845.7	03U711	906.9	20-May-88	18 A	850.2
03U708	919.8	10-Sep-93	40 A	847.0	03U711	906.9	23-Jun-88	18 A	849.5
					03U711	906.9	27-Jul-88	19 A	848.7
03U709	910.1	17-Nov-87	16 A	850.2	03U711	906.9	30-Aug-88	19 F	847.3
03U709	910.1	24-Nov-87	16 A	850.2	03U711	906.9	01-Sep-88	19 A	847.4
03U709	910.1	30-Nov-87	16 A	850.2	03U711	906.9	21-Sep-88	19 A	846.9
03U709	910.1	14-Dec-87	16 A	850.2	03U711	906.9	14-Oct-88	20 A	847.0
03U709	910.1	11-Jan-88	17 A	850.4	03U711	906.9	23-Nov-88	20 F	848.3
03U709	910.1	27-Jan-88	17 F	850.2	03U711	906.9	02-Dec-88	20 A	848.1
03U709	910.1	13-Apr-88	18 F	852.5	03U711	906.9	13-Jan-89	21 A	848.2
03U709	910.1	02-May-88	18 A	850.7	03U711	906.9	31-Mar-89	21 A	844.4
03U709	910.1	20-May-88	18 A	850.0	03U711	906.9	07-Jul-89	23 A	843.2
03U709	910.1	23-Jun-88	18 A	849.4	03U711	906.9	05-Aug-89	23 F	843.2
03U709	910.1	27-Jul-88	19 A	848.3	03U711	906.9	05-Oct-89	24 A	842.5
03U709	910.1	30-Aug-88	19 F	847.0	03U711	906.9	03-Nov-89	24 F	842.4
03U709	910.1	01-Sep-88	19 A	846.8	03U711	906.9	21-Dec-89	24 A	841.8
03U709	910.1	21-Sep-88	19 A	846.3	03U711	906.9	11-Jan-90	25 A	841.6
03U709	910.1	14-Oct-88	20 A	846.5	03U711	906.9	16-May-90	26 A	841.9
03U709	910.1	23-Nov-88	20 F	847.9	03U711	906.9	16-Jul-90	27 A	840.6
03U709	910.1	02-Dec-88	20 A	848.1	03U711	906.9	28-Feb-91	30 A	842.3
03U709	910.1	13-Jan-89	21 A	848.0	03U711	906.9	03-Jun-91	31 A	841.9
03U709	910.1	31-Mar-89	21 A	844.5	03U711	906.9	03-Sep-91	32 A	840.2

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U711	906.9	27-Sep-91	32 A	840.6	03U801	912.2	31-Mar-89	21 A	844.0
03U711	906.9	06-Dec-91	33 A	842.1	03U801	912.2	03-Aug-89	23 F	842.9
03U711	906.9	24-Mar-92	34 A	842.6	03U801	912.2	05-Oct-89	24 A	842.1
03U711	906.9	01-Jun-92	35 A	844.0	03U801	912.2	03-Nov-89	24 F	841.9
03U711	906.9	01-Sep-92	36 A	843.6	03U801	912.2	21-Dec-89	24 A	841.9
03U711	906.9	08-Oct-92	37 A	843.4	03U801	912.2	11-Jan-90	25 A	841.7
03U711	906.9	02-Mar-93	38 A	844.3	03U801	912.2	16-May-90	26 A	841.4
03U711	906.9	10-Sep-93	40 A	845.7	03U801	912.2	16-Jul-90	27 A	841.1
03U715	961.0	02-Dec-88	20 A	852.2	03U801	912.2	28-Feb-91	30 A	841.8
03U715	961.0	13-Jan-89	21 A	852.4	03U801	912.2	03-Jun-91	31 A	842.0
03U715	961.0	31-Mar-89	21 A	851.0	03U801	912.2	03-Sep-91	32 A	841.0
03U715	961.0	07-Jul-89	23 A	850.1	03U801	912.2	27-Sep-91	32 A	841.2
03U715	961.0	05-Oct-89	24 A	848.8	03U801	912.2	06-Dec-91	33 A	842.4
03U715	961.0	21-Dec-89	24 A	848.3	03U801	912.2	24-Mar-92	34 A	843.0
03U715	961.0	11-Jan-90	25 A	848.2	03U801	912.2	01-Jun-92	35 A	843.6
03U715	961.0	16-May-90	26 A	848.2	03U801	912.2	01-Sep-92	36 A	843.3
03U715	961.0	16-Jul-90	27 A	848.1	03U801	912.2	08-Oct-92	37 A	843.9
03U715	961.0	28-Feb-91	30 A	848.8	03U801	912.2	02-Mar-93	38 A	844.6
03U715	961.0	03-Jun-91	31 A	848.9	03U801	912.2	10-Sep-93	40 A	846.0
03U715	961.0	03-Sep-91	32 A	848.4	03U803	898.1	17-Nov-87	16 A	849.7
03U715	961.0	27-Sep-91	32 A	848.5	03U803	898.1	24-Nov-87	16 A	849.6
03U715	961.0	06-Dec-91	33 A	849.7	03U803	898.1	30-Nov-87	16 A	849.5
03U715	961.0	24-Mar-92	34 A	850.5	03U803	898.1	14-Dec-87	16 A	848.9
03U715	961.0	01-Jun-92	35 A	851.3	03U803	898.1	11-Jan-88	17 A	849.0
03U715	961.0	01-Sep-92	36 A	850.7	03U803	898.1	26-Jan-88	17 F	848.9
03U715	961.0	08-Oct-92	37 A	851.0	03U803	898.1	13-Apr-88	18 F	851.0
03U715	961.0	02-Mar-93	38 A	851.8	03U803	898.1	02-May-88	18 A	849.6
03U715	961.0	10-Sep-93	40 A	853.0	03U803	898.1	20-May-88	18 A	849.2
03U716	950.1	02-Dec-88	20 A	851.4	03U803	898.1	23-Jun-88	18 A	848.4
03U716	950.1	31-Mar-89	21 A	849.7	03U803	898.1	27-Jul-88	19 A	847.7
03U716	950.1	07-Jul-89	23 A	848.5	03U803	898.1	30-Aug-88	19 F	846.7
03U716	950.1	05-Oct-89	24 A	847.6	03U803	898.1	01-Sep-88	19 A	846.6
03U716	950.1	21-Dec-89	24 A	846.9	03U803	898.1	21-Sep-88	19 A	846.0
03U716	950.1	11-Jan-90	25 A	846.9	03U803	898.1	14-Oct-88	20 A	846.1
03U716	950.1	16-May-90	26 A	847.0	03U803	898.1	23-Nov-88	20 F	846.9
03U716	950.1	16-Jul-90	27 A	846.8	03U803	898.1	02-Dec-88	20 A	846.5
03U716	950.1	28-Feb-91	30 A	847.6	03U803	898.1	13-Jan-89	21 A	846.6
03U716	950.1	10-Apr-91	30 F	847.6	03U803	898.1	31-Mar-89	21 A	844.0
03U716	950.1	03-Jun-91	31 A	847.5	03U803	898.1	03-Aug-89	23 F	842.7
03U716	950.1	04-Jun-91	31 F	848.2	03U803	898.1	05-Oct-89	24 A	841.7
03U716	950.1	03-Sep-91	32 A	847.0	03U803	898.1	03-Nov-89	24 F	841.8
03U716	950.1	04-Sep-91	32 F	848.0	03U803	898.1	21-Dec-89	24 A	841.3
03U716	950.1	27-Sep-91	32 A	847.2	03U803	898.1	11-Jan-90	25 A	841.4
03U716	950.1	06-Dec-91	33 A	848.5	03U803	898.1	16-May-90	26 A	841.1
03U716	950.1	17-Mar-92	34 F	847.3	03U803	898.1	28-Feb-91	30 A	841.3
03U716	950.1	24-Mar-92	34 A	849.1	03U803	898.1	27-Sep-91	32 A	840.6
03U716	950.1	01-Jun-92	35 A	849.8	03U803	898.1	24-Mar-92	34 A	842.3
03U716	950.1	02-Jun-92	35 F	850.6	03U803	898.1	08-Oct-92	37 A	843.1
03U716	950.1	01-Sep-92	36 A	849.2	03U803	898.1	02-Mar-93	38 A	843.8
03U716	950.1	02-Sep-92	36 F	850.2	03U803	898.1	10-Sep-93	40 A	845.1
03U716	950.1	08-Oct-92	37 A	849.7	03U804	910.1	24-Nov-87	16 A	849.9
03U716	950.1	02-Mar-93	38 A	850.5	03U804	910.1	30-Nov-87	16 A	849.7
03U716	950.1	10-Sep-93	40 A	851.9	03U804	910.1	14-Dec-87	16 F	849.4
03U801	912.2	17-Nov-87	16 A	850.0	03U804	910.1	11-Jan-88	17 A	850.6
03U801	912.2	24-Nov-87	16 A	850.3	03U804	910.1	26-Jan-88	17 F	849.6
03U801	912.2	30-Nov-87	16 A	850.0	03U804	910.1	13-Apr-88	18 F	852.5
03U801	912.2	14-Dec-87	16 A	849.8	03U804	910.1	02-May-88	18 A	850.0
03U801	912.2	11-Jan-88	17 A	850.6	03U804	910.1	20-May-88	18 A	849.6
03U801	912.2	26-Jan-88	17 F	849.9	03U804	910.1	23-Jun-88	18 A	848.8
03U801	912.2	13-Apr-88	18 F	853.0	03U804	910.1	27-Jul-88	19 A	848.4
03U801	912.2	02-May-88	18 A	850.5	03U804	910.1	30-Aug-88	19 F	846.9
03U801	912.2	20-May-88	18 A	849.9	03U804	910.1	01-Sep-88	19 A	847.1
03U801	912.2	23-Jun-88	18 A	849.3	03U804	910.1	21-Sep-88	19 A	846.4
03U801	912.2	27-Jul-88	19 A	848.6	03U804	910.1	14-Oct-88	20 A	846.8
03U801	912.2	30-Aug-88	19 F	847.3	03U804	910.1	23-Nov-88	20 F	847.9
03U801	912.2	01-Sep-88	19 A	846.9	03U804	910.1	02-Dec-88	20 A	847.8
03U801	912.2	21-Sep-88	19 A	846.5	03U804	910.1	13-Jan-89	21 A	847.5
03U801	912.2	14-Oct-88	20 A	846.8	03U804	910.1	31-Mar-89	21 A	843.8
03U801	912.2	23-Nov-88	20 F	848.3	03U804	910.1	03-Aug-89	23 F	842.5
03U801	912.2	02-Dec-88	20 A	848.1	03U804	910.1	05-Oct-89	24 A	841.8
03U801	912.2	13-Jan-89	21 A	847.1	03U804	910.1	03-Nov-89	24 F	841.8
03U801	912.2	13-Jan-89	21 A	847.1	03U804	910.1	21-Dec-89	24 A	841.3



**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U804	910.1	11-Jan-90	25 A	841.3	03U806	909.6	02-Mar-93	38 A	843.3
03U804	910.1	16-May-90	26 A	841.2	03U806	909.6	10-Sep-93	40 A	844.6
03U804	910.1	28-Feb-91	30 A	841.5					
03U804	910.1	27-Sep-91	32 A	841.0	03U811	908.2	14-Dec-87	16 F	846.5
03U804	910.1	24-Mar-92	34 A	843.0	03U811	908.2	27-Jan-88	17 F	846.5
03U804	910.1	08-Oct-92	37 A	843.5	03U811	908.2	13-Apr-88	18 F	847.9
03U804	910.1	02-Mar-93	38 A	844.3	03U811	908.2	30-Aug-88	19 F	842.7
03U804	910.1	10-Sep-93	40 A	845.8	03U811	908.2	23-Nov-88	20 F	844.1
					03U811	908.2	04-May-89	22 F	839.0
03U805	905.3	17-Nov-87	16 A	848.8	03U811	908.2	06-Aug-89	23 F	839.4
03U805	905.3	24-Nov-87	16 A	848.9	03U811	908.2	03-Nov-89	24 F	838.9
03U805	905.3	14-Dec-87	16 F	848.4	03U811	908.2	26-Apr-90	26 F	839.1
03U805	905.3	11-Jan-88	17 A	849.5	03U811	908.2	20-Mar-91	30 F	839.4
03U805	905.3	27-Jan-88	17 F	848.3	03U811	908.2	19-Mar-92	34 F	840.6
03U805	905.3	13-Apr-88	18 F	851.0	03U811	908.2	10-Mar-93	38 F	841.5
03U805	905.3	02-May-88	18 A	848.8					
03U805	905.3	20-May-88	18 A	848.3	03U815	872.6	14-Dec-87	16 F	839.0
03U805	905.3	27-Jul-88	19 A	846.7	03U815	872.6	26-Jan-88	17 F	839.0
03U805	905.3	30-Aug-88	19 F	845.4	03U815	872.6	13-Apr-88	18 F	839.8
03U805	905.3	01-Sep-88	19 A	845.7	03U815	872.6	30-Aug-88	19 F	835.1
03U805	905.3	21-Sep-88	19 A	844.9	03U815	872.6	23-Nov-88	20 F	835.6
03U805	905.3	14-Oct-88	20 A	845.5	03U815	872.6	06-Aug-89	23 F	831.6
03U805	905.3	23-Nov-88	20 F	846.7	03U815	872.6	03-Nov-89	24 F	832.9
03U805	905.3	02-Dec-88	20 A	846.6	03U815	872.6	16-Mar-92	34 F	835.0
03U805	905.3	13-Jan-89	21 A	846.4	03U815	872.6	04-Mar-93	38 F	835.3
03U805	905.3	31-Mar-89	21 A	842.7					
03U805	905.3	03-Aug-89	23 F	841.2	03U821	878.0	14-Dec-87	16 F	838.0
03U805	905.3	05-Oct-89	24 A	840.5	03U821	878.0	26-Jan-88	17 F	838.1
03U805	905.3	03-Nov-89	24 F	840.6	03U821	878.0	13-Apr-88	18 F	838.7
03U805	905.3	21-Dec-89	24 A	840.0	03U821	878.0	30-Aug-88	19 F	834.1
03U805	905.3	11-Jan-90	25 A	840.2	03U821	878.0	23-Nov-88	20 F	835.4
03U805	905.3	16-May-90	26 A	840.2	03U821	878.0	10-May-89	22 F	831.7
03U805	905.3	28-Feb-91	30 A	840.5	03U821	878.0	06-Aug-89	23 F	831.3
03U805	905.3	27-Sep-91	32 A	840.0	03U821	878.0	03-Nov-89	24 F	831.8
03U805	905.3	24-Mar-92	34 A	841.9	03U821	878.0	01-May-90	26 F	801.8
03U805	905.3	08-Oct-92	37 A	842.0	03U821	878.0	23-Jul-90	27 F	831.0
03U805	905.3	02-Mar-93	38 A	842.9	03U821	878.0	21-Mar-91	30 F	831.6
03U805	905.3	10-Sep-93	40 A	844.3	03U821	878.0	20-Mar-92	34 F	833.8
					03U821	878.0	03-Mar-93	38 F	833.3
03U806	909.6	17-Nov-87	16 A	848.7					
03U806	909.6	24-Nov-87	16 A	848.8	03U822	876.7	14-Dec-87	16 F	837.5
03U806	909.6	30-Nov-87	16 A	848.6	03U822	876.7	26-Jan-88	17 F	837.6
03U806	909.6	14-Dec-87	16 A	848.4	03U822	876.7	13-Apr-88	18 F	838.2
03U806	909.6	11-Jan-88	17 A	848.9	03U822	876.7	30-Aug-88	19 F	833.6
03U806	909.6	27-Jan-88	17 F	848.3	03U822	876.7	23-Nov-88	20 F	834.9
03U806	909.6	13-Apr-88	18 F	850.3	03U822	876.7	05-May-89	22 F	831.6
03U806	909.6	02-May-88	18 A	848.7	03U822	876.7	06-Aug-89	23 F	830.9
03U806	909.6	20-May-88	18 A	848.1	03U822	876.7	03-Nov-89	24 F	831.4
03U806	909.6	23-Jun-88	18 A	846.4	03U822	876.7	25-Apr-90	26 F	831.6
03U806	909.6	27-Jul-88	19 A	845.7	03U822	876.7	21-Mar-91	30 F	831.2
03U806	909.6	30-Aug-88	19 F	844.9	03U822	876.7	19-Mar-92	34 F	832.9
03U806	909.6	01-Sep-88	19 A	845.0	03U822	876.7	04-Mar-93	38 F	832.8
03U806	909.6	21-Sep-88	19 A	844.6					
03U806	909.6	14-Oct-88	20 A	844.8	03U824	879.9	14-Dec-87	16 F	837.3
03U806	909.6	23-Nov-88	20 F	846.1	03U824	879.9	26-Jan-88	17 F	837.4
03U806	909.6	02-Dec-88	20 A	845.9	03U824	879.9	13-Apr-88	18 F	838.0
03U806	909.6	13-Jan-89	21 A	846.2	03U824	879.9	30-Aug-88	19 F	833.4
03U806	909.6	31-Mar-89	21 A	842.6	03U824	879.9	23-Nov-88	20 F	834.5
03U806	909.6	03-Aug-89	23 F	841.0	03U824	879.9	06-Aug-89	23 F	830.7
03U806	909.6	05-Oct-89	24 A	840.4	03U824	879.9	03-Nov-89	24 F	831.2
03U806	909.6	03-Nov-89	24 F	840.5	03U824	879.9	03-May-90	26 F	832.5
03U806	909.6	21-Dec-89	24 A	839.9	03U824	879.9	28-Mar-91	30 F	830.7
03U806	909.6	11-Jan-90	25 A	840.2					
03U806	909.6	16-May-90	26 A	840.3	03U831	888.6	14-Dec-87	16 F	836.6
03U806	909.6	16-Jul-90	27 A	839.9	03U831	888.6	26-Jan-88	17 F	836.8
03U806	909.6	28-Feb-91	30 A	840.7	03U831	888.6	13-Apr-88	18 F	837.3
03U806	909.6	03-Jun-91	31 A	840.4	03U831	888.6	30-Aug-88	19 F	832.6
03U806	909.6	03-Sep-91	32 A	839.6	03U831	888.6	10-May-89	22 F	830.6
03U806	909.6	27-Sep-91	32 A	840.0	03U831	888.6	07-Aug-89	23 F	830.3
03U806	909.6	06-Dec-91	33 A	841.3	03U831	888.6	25-Apr-90	26 F	830.5
03U806	909.6	24-Mar-92	34 A	842.0	03U831	888.6	19-Mar-91	30 F	830.2
03U806	909.6	01-Jun-92	35 A	842.0	03U831	888.6	23-Mar-92	34 F	832.5
03U806	909.6	01-Sep-92	36 A	841.6	03U831	888.6	04-Mar-93	38 F	832.8
03U806	909.6	08-Oct-92	37 A	842.3					

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
03U832	884.8	14-Dec-87	16 F	836.7	04J713	895.9	06-Dec-91	33 A	840.8
03U832	884.8	26-Jan-88	17 F	836.9	04J713	895.9	24-Mar-92	34 A	841.4
03U832	884.8	13-Apr-88	18 F	835.6	04J713	895.9	01-Jun-92	35 A	841.3
03U832	884.8	30-Aug-88	19 F	832.5	04J713	895.9	01-Sep-92	36 A	840.9
03U832	884.8	23-Nov-88	20 F	833.9	04J713	895.9	08-Oct-92	37 A	841.4
03U832	884.8	09-May-89	22 F	831.0	04J713	895.9	02-Mar-93	38 A	842.4
03U832	884.8	07-Aug-89	23 F	829.9	04J713	895.9	10-Sep-93	40 A	844.0
03U832	884.8	03-Nov-89	24 F	830.6					
03U832	884.8	25-Apr-90	26 F	830.8	04J714	891.6	02-Dec-88	20 A	846.9
03U832	884.8	20-Mar-91	30 F	830.8	04J714	891.6	13-Jan-89	21 A	853.7
03U832	884.8	16-Mar-92	34 F	832.7	04J714	891.6	31-Mar-89	21 A	843.5
03U832	884.8	04-Mar-93	38 F	831.9	04J714	891.6	07-Jul-89	23 A	841.1
					04J714	891.6	05-Oct-89	24 A	847.7
03U841	911.5	28-Feb-91	30 A	838.8	04J714	891.6	21-Dec-89	24 A	847.4
03U841	911.5	03-Sep-91	32 A	838.8	04J714	891.6	11-Jan-90	25 A	847.5
03U841	911.5	27-Sep-91	32 A	838.1	04J714	891.6	16-May-90	26 A	847.7
03U841	911.5	08-Oct-92	37 A	840.4	04J714	891.6	16-Jul-90	27 A	847.5
03U841	911.5	02-Mar-93	38 A	841.3	04J714	891.6	28-Feb-91	30 A	848.2
03U841	911.5	10-Sep-93	40 A	842.5	04J714	891.6	03-Jun-91	31 A	848.0
					04J714	891.6	03-Sep-91	32 A	847.1
04J077	912.3	21-Sep-88	19 A	847.3	04J714	891.6	27-Sep-91	32 A	847.6
04J077	912.3	02-Dec-88	20 A	847.8	04J714	891.6	06-Dec-91	33 A	848.9
04J077	912.3	13-Jan-89	21 A	847.4	04J714	891.6	24-Mar-92	34 A	849.4
04J077	912.3	31-Mar-89	21 A	840.2	04J714	891.6	01-Jun-92	35 A	849.3
04J077	912.3	05-Oct-89	24 A	837.9	04J714	891.6	01-Sep-92	36 A	848.8
04J077	912.3	21-Dec-89	24 A	836.7	04J714	891.6	08-Oct-92	37 A	842.6
04J077	912.3	11-Jan-90	25 A	836.7	04J714	891.6	02-Mar-93	38 A	843.7
04J077	912.3	16-May-90	26 A	837.3	04J714	891.6	10-Sep-93	40 A	845.1
04J077	912.3	28-Feb-91	30 A	838.1					
04J077	912.3	27-Sep-91	32 A	837.6	04U001	888.8	17-Nov-87	16 A	849.7
04J077	912.3	24-Mar-92	34 A	839.3	04U001	888.8	24-Nov-87	16 A	849.3
04J077	912.3	08-Oct-92	37 A	839.4	04U001	888.8	30-Nov-87	16 A	849.7
04J077	912.3	02-Mar-93	38 A	840.2	04U001	888.8	14-Dec-87	16 A	849.4
04J077	912.3	10-Sep-93	40 A	841.4	04U001	888.8	11-Jan-88	17 A	849.6
					04U001	888.8	13-Apr-88	18 F	850.4
04J702	908.3	02-Dec-88	20 A	847.0	04U001	888.8	02-May-88	18 A	849.5
04J702	908.3	13-Jan-89	21 A	847.2	04U001	888.8	20-May-88	18 A	848.8
04J702	908.3	31-Mar-89	21 A	842.5	04U001	888.8	23-Jun-88	18 A	846.4
04J702	908.3	05-Oct-89	24 A	840.3	04U001	888.8	27-Jul-88	19 A	845.2
04J702	908.3	21-Dec-89	24 A	839.5	04U001	888.8	30-Aug-88	19 F	845.2
04J702	908.3	11-Jan-90	25 A	839.8	04U001	888.8	01-Sep-88	19 A	844.8
04J702	908.3	16-May-90	26 A	839.9	04U001	888.8	21-Sep-88	19 A	845.0
04J702	908.3	28-Feb-91	30 A	840.3	04U001	888.8	14-Oct-88	20 A	845.5
04J702	908.3	27-Sep-91	32 A	839.7	04U001	888.8	25-Nov-88	20 F	846.5
04J702	908.3	24-Mar-92	34 A	841.6	04U001	888.8	02-Dec-88	20 A	846.4
04J702	908.3	08-Oct-92	37 A	841.6	04U001	888.8	13-Jan-89	21 A	846.6
04J702	908.3	02-Mar-93	38 A	842.5	04U001	888.8	31-Mar-89	21 A	843.7
04J702	908.3	10-Sep-93	40 A	843.8	04U001	888.8	07-Jul-89	23 A	841.4
					04U001	888.8	05-Aug-89	23 F	841.2
04J708	919.2	31-Mar-89	21 A	843.2	04U001	888.8	05-Oct-89	24 A	841.1
04J708	919.2	05-Oct-89	24 A	841.1	04U001	888.8	02-Nov-89	24 F	841.4
04J708	919.2	21-Dec-89	24 A	840.3	04U001	888.8	21-Dec-89	24 A	841.0
04J708	919.2	11-Jan-90	25 A	840.2	04U001	888.8	11-Jan-90	25 A	841.1
04J708	919.2	16-May-90	26 A	840.3	04U001	888.8	16-May-90	26 A	841.3
04J708	919.2	28-Feb-91	30 A	840.7	04U001	888.8	16-Jul-90	27 A	841.0
04J708	919.2	27-Sep-91	32 A	840.3	04U001	888.8	28-Feb-91	30 A	841.9
04J708	919.2	24-Mar-92	34 A	839.2	04U001	888.8	03-Jun-91	31 A	841.6
04J708	919.2	08-Oct-92	37 A	843.0	04U001	888.8	03-Sep-91	32 A	840.7
04J708	919.2	02-Mar-93	38 A	843.9	04U001	888.8	27-Sep-91	32 A	841.3
04J708	919.2	10-Sep-93	40 A	845.0	04U001	888.8	06-Dec-91	33 A	842.6
					04U001	888.8	24-Mar-92	34 A	843.1
04J713	895.9	02-Dec-88	20 A	847.2	04U001	888.8	01-Jun-92	35 A	842.9
04J713	895.9	13-Jan-89	21 A	847.1	04U001	888.8	01-Sep-92	36 A	842.4
04J713	895.9	31-Mar-89	21 A	842.3	04U001	888.8	08-Oct-92	37 A	843.1
04J713	895.9	07-Jul-89	23 A	840.4	04U001	888.8	02-Mar-93	38 A	844.3
04J713	895.9	05-Oct-89	24 A	840.2	04U001	888.8	10-Sep-93	40 A	845.7
04J713	895.9	21-Dec-89	24 A	839.5					
04J713	895.9	11-Jan-90	25 A	839.6	04U002	920.4	17-Nov-87	16 A	850.8
04J713	895.9	16-May-90	26 A	839.8	04U002	920.4	24-Nov-87	16 A	850.5
04J713	895.9	16-Jul-90	27 A	839.6	04U002	920.4	30-Nov-87	16 A	850.8
04J713	895.9	28-Feb-91	30 A	840.2	04U002	920.4	14-Dec-87	16 A	850.5
04J713	895.9	03-Jun-91	31 A	839.9	04U002	920.4	14-Dec-87	16 F	850.6
04J713	895.9	03-Sep-91	32 A	839.1	04U002	920.4	11-Jan-88	17 A	850.8
04J713	895.9	27-Sep-91	32 A	839.5	04U002	920.4	27-Jan-88	17 F	850.7

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U002	920.4	13-Apr-88	18 F	853.2	04U007	903.1	11-Jan-88	17 A	859.6
04U002	920.4	02-May-88	18 A	851.1	04U007	903.1	26-Jan-88	17 F	859.5
04U002	920.4	20-May-88	18 A	850.6	04U007	903.1	13-Apr-88	18 F	859.7
04U002	920.4	23-Jun-88	18 A	849.5	04U007	903.1	02-May-88	18 A	859.1
04U002	920.4	27-Jul-88	19 A	848.3	04U007	903.1	20-May-88	18 A	858.9
04U002	920.4	30-Aug-88	19 F	848.0	04U007	903.1	23-Jun-88	18 A	856.6
04U002	920.4	01-Sep-88	19 A	848.0	04U007	903.1	27-Jul-88	19 A	855.2
04U002	920.4	21-Sep-88	19 A	847.7	04U007	903.1	30-Aug-88	19 F	854.9
04U002	920.4	14-Oct-88	20 A	847.1	04U007	903.1	01-Sep-88	19 A	854.9
04U002	920.4	25-Nov-88	20 F	848.6	04U007	903.1	21-Sep-88	19 A	854.5
04U002	920.4	13-Jan-89	21 A	848.2	04U007	903.1	14-Oct-88	20 A	854.8
04U002	920.4	31-Mar-89	21 A	844.0	04U007	903.1	25-Nov-88	20 F	855.1
04U002	920.4	05-Aug-89	23 F	842.5	04U007	903.1	02-Dec-88	20 A	855.4
04U002	920.4	05-Oct-89	24 A	842.1	04U007	903.1	13-Jan-89	21 A	855.6
04U002	920.4	02-Nov-89	24 F	842.0	04U007	903.1	31-Mar-89	21 A	854.9
04U002	920.4	21-Dec-89	24 A	841.4	04U007	903.1	07-Jul-89	23 A	852.9
04U002	920.4	11-Jan-90	25 A	841.3	04U007	903.1	05-Aug-89	23 F	852.2
04U002	920.4	16-May-90	26 A	841.5	04U007	903.1	05-Oct-89	24 A	852.3
04U002	920.4	16-Jul-90	27 A	841.3	04U007	903.1	02-Nov-89	24 F	852.5
04U002	920.4	28-Feb-91	30 A	841.9	04U007	903.1	21-Dec-89	24 A	852.3
04U002	920.4	03-Jun-91	31 A	841.7	04U007	903.1	11-Jan-90	25 A	852.2
04U002	920.4	03-Sep-91	32 A	841.2	04U007	903.1	16-May-90	26 A	851.9
04U002	920.4	27-Sep-91	32 A	841.4	04U007	903.1	16-Jul-90	27 A	851.6
04U002	920.4	06-Dec-91	33 A	842.7	04U007	903.1	20-Sep-90	28 F	852.0
04U002	920.4	24-Mar-92	34 A	843.3	04U007	903.1	28-Feb-91	30 A	853.0
04U002	920.4	01-Jun-92	35 A	843.7	04U007	903.1	28-Mar-91	30 F	852.4
04U002	920.4	01-Sep-92	36 A	843.3	04U007	903.1	03-Jun-91	31 A	852.7
04U002	920.4	08-Oct-92	37 A	843.4	04U007	903.1	03-Sep-91	32 A	852.2
04U002	920.4	02-Mar-93	38 A	844.3	04U007	903.1	27-Sep-91	32 A	852.1
04U002	920.4	10-Sep-93	40 A	845.5	04U007	903.1	06-Dec-91	33 A	854.0
					04U007	903.1	10-Mar-92	34 F	854.6
04U003	943.2	17-Nov-87	16 A	850.1	04U007	903.1	24-Mar-92	34 A	854.4
04U003	943.2	24-Nov-87	16 A	849.9	04U007	903.1	01-Jun-92	35 A	854.5
04U003	943.2	30-Nov-87	16 A	850.0	04U007	903.1	01-Sep-92	36 A	854.1
04U003	943.2	14-Dec-87	16 A	849.8	04U007	903.1	08-Oct-92	37 A	854.7
04U003	943.2	14-Dec-87	16 F	849.7	04U007	903.1	02-Mar-93	38 A	855.4
04U003	943.2	11-Jan-88	17 A	850.2	04U007	903.1	02-Mar-93	38 F	855.1
04U003	943.2	26-Jan-88	17 F	849.8	04U007	903.1	10-Sep-93	40 A	856.3
04U003	943.2	14-Apr-88	18 F	851.2					
04U003	943.2	02-May-88	18 A	850.3	04U012	880.2	17-Nov-87	16 A	859.5
04U003	943.2	20-May-88	18 A	849.8	04U012	880.2	24-Nov-87	16 A	859.4
04U003	943.2	23-Jun-88	18 A	848.6	04U012	880.2	30-Nov-87	16 A	859.7
04U003	943.2	27-Jul-88	19 A	847.8	04U012	880.2	14-Dec-87	16 A	859.6
04U003	943.2	30-Aug-88	19 F	846.6	04U012	880.2	14-Dec-87	16 F	859.7
04U003	943.2	01-Sep-88	19 A	846.6	04U012	880.2	11-Jan-88	17 A	860.0
04U003	943.2	21-Sep-88	19 A	846.2	04U012	880.2	27-Jan-88	17 F	859.9
04U003	943.2	14-Oct-88	20 A	846.4	04U012	880.2	13-Apr-88	18 F	859.6
04U003	943.2	25-Nov-88	20 F	847.1	04U012	880.2	02-May-88	18 A	859.1
04U003	943.2	02-Dec-88	20 A	847.4	04U012	880.2	20-May-88	18 A	858.6
04U003	943.2	13-Jan-89	21 A	847.0	04U012	880.2	23-Jun-88	18 A	854.5
04U003	943.2	31-Mar-89	21 A	844.6	04U012	880.2	27-Jul-88	19 A	853.4
04U003	943.2	07-Jul-89	23 A	843.2	04U012	880.2	30-Aug-88	19 F	855.3
04U003	943.2	05-Aug-89	23 F	843.0	04U012	880.2	01-Sep-88	19 A	854.1
04U003	943.2	05-Oct-89	24 A	842.5	04U012	880.2	21-Sep-88	19 A	854.4
04U003	943.2	02-Nov-89	24 F	842.2	04U012	880.2	14-Oct-88	20 A	855.1
04U003	943.2	21-Dec-89	24 A	842.3	04U012	880.2	25-Nov-88	20 F	855.6
04U003	943.2	11-Jan-90	25 A	841.9	04U012	880.2	02-Dec-88	20 A	855.6
04U003	943.2	16-May-90	26 A	842.1	04U012	880.2	13-Jan-89	21 A	856.0
04U003	943.2	16-Jul-90	27 A	841.8	04U012	880.2	31-Mar-89	21 A	856.3
04U003	943.2	28-Feb-91	30 A	842.6	04U012	880.2	07-Jul-89	23 A	853.3
04U003	943.2	03-Jun-91	31 A	842.3	04U012	880.2	05-Aug-89	23 F	852.5
04U003	943.2	03-Sep-91	32 A	841.8	04U012	880.2	05-Oct-89	24 A	852.9
04U003	943.2	27-Sep-91	32 A	842.0	04U012	880.2	02-Nov-89	24 F	853.4
04U003	943.2	06-Dec-91	33 A	843.3	04U012	880.2	21-Dec-89	24 A	853.7
04U003	943.2	24-Mar-92	34 A	843.8	04U012	880.2	11-Jan-90	25 A	853.9
04U003	943.2	01-Jun-92	35 A	844.3	04U012	880.2	16-May-90	26 A	853.5
04U003	943.2	01-Sep-92	36 A	844.0	04U012	880.2	16-Jul-90	27 A	853.4
04U003	943.2	08-Oct-92	37 A	844.3	04U012	880.2	28-Feb-91	30 A	854.7
04U003	943.2	02-Mar-93	38 A	845.2	04U012	880.2	03-Jun-91	31 A	855.0
04U003	943.2	10-Sep-93	40 A	846.4	04U012	880.2	03-Sep-91	32 A	853.7
					04U012	880.2	27-Sep-91	32 A	854.7
04U007	903.1	24-Nov-87	16 A	859.0	04U012	880.2	06-Dec-91	33 A	856.0
04U007	903.1	30-Nov-87	16 A	859.5	04U012	880.2	24-Mar-92	34 A	856.6
04U007	903.1	14-Dec-87	16 F	859.2	04U012	880.2	01-Jun-92	35 A	856.0

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U012	880.2	01-Sep-92	36 A	855.1	04U027	967.2	10-Sep-93	40 A	849.9
04U012	880.2	08-Oct-92	37 A	856.1	04U077	912.1	17-Nov-87	16 A	849.1
04U012	880.2	02-Mar-93	38 A	857.2	04U077	912.1	24-Nov-87	16 A	848.8
04U012	880.2	10-Sep-93	40 A	858.8	04U077	912.1	30-Nov-87	16 A	848.9
04U020	954.8	17-Nov-87	16 A	854.2	04U077	912.1	14-Dec-87	16 A	846.6
04U020	954.8	24-Nov-87	16 A	854.0	04U077	912.1	14-Dec-87	16 F	847.3
04U020	954.8	30-Nov-87	16 A	854.0	04U077	912.1	11-Jan-88	17 A	849.0
04U020	954.8	14-Dec-87	16 A	854.0	04U077	912.1	27-Jan-88	17 F	849.3
04U020	954.8	11-Jan-88	17 A	853.6	04U077	912.1	13-Apr-88	18 F	852.4
04U020	954.8	27-Jan-88	17 F	853.4	04U077	912.1	02-May-88	18 A	849.1
04U020	954.8	14-Apr-88	18 F	854.4	04U077	912.1	20-May-88	18 A	848.5
04U020	954.8	02-May-88	18 A	854.4	04U077	912.1	23-Jun-88	18 A	847.2
04U020	954.8	20-May-88	18 A	853.9	04U077	912.1	27-Jul-88	19 A	847.2
04U020	954.8	23-Jun-88	18 A	852.0	04U077	912.1	30-Aug-88	19 F	846.2
04U020	954.8	27-Jul-88	19 A	852.2	04U077	912.1	01-Sep-88	19 A	846.2
04U020	954.8	30-Aug-88	19 F	849.7	04U077	912.1	21-Sep-88	19 A	845.1
04U020	954.8	01-Sep-88	19 A	850.2	04U077	912.1	14-Oct-88	20 A	845.5
04U020	954.8	21-Sep-88	19 A	850.1	04U077	912.1	25-Nov-88	20 F	847.7
04U020	954.8	14-Oct-88	20 A	850.0	04U077	912.1	02-Dec-88	20 A	847.4
04U020	954.8	25-Nov-88	20 F	850.5	04U077	912.1	05-Aug-89	23 F	841.2
04U020	954.8	02-Dec-88	20 A	850.7	04U077	912.1	05-Oct-89	24 A	840.2
04U020	954.8	13-Jan-89	21 A	850.7	04U077	912.1	02-Nov-89	24 F	840.7
04U020	954.8	31-Mar-89	21 A	849.0	04U077	912.1	21-Dec-89	24 A	839.4
04U020	954.8	07-Jul-89	23 A	846.9	04U077	912.1	11-Jan-90	25 A	839.4
04U020	954.8	05-Aug-89	23 F	846.5	04U077	912.1	23-Apr-90	26 F	851.3
04U020	954.8	05-Oct-89	24 A	846.1	04U077	912.1	16-May-90	26 A	839.5
04U020	954.8	04-Nov-89	24 F	846.7	04U077	912.1	19-Jul-90	27 F	851.3
04U020	954.8	21-Dec-89	24 A	846.3	04U077	912.1	28-Feb-91	30 A	840.0
04U020	954.8	11-Jan-90	25 A	846.2	04U077	912.1	27-Sep-91	32 A	839.5
04U020	954.8	16-May-90	26 A	846.3	04U077	912.1	24-Mar-92	34 A	841.5
04U020	954.8	16-Jul-90	27 A	846.1	04U077	912.1	08-Oct-92	37 A	841.9
04U020	954.8	28-Feb-91	30 A	846.9	04U077	912.1	02-Mar-93	38 A	842.8
04U020	954.8	03-Jun-91	31 A	846.9	04U077	912.1	10-Sep-93	40 A	844.2
04U020	954.8	03-Sep-91	32 A	846.3	04U510	911.0	14-Dec-87	16 F	867.9
04U020	954.8	27-Sep-91	32 A	846.6	04U510	911.0	27-Jan-88	17 F	868.1
04U020	954.8	06-Dec-91	33 A	847.9	04U510	911.0	13-Apr-88	18 F	867.0
04U020	954.8	24-Mar-92	34 A	848.5	04U510	911.0	02-May-88	18 A	864.2
04U020	954.8	01-Jun-92	35 A	849.0	04U510	911.0	20-May-88	18 A	863.7
04U020	954.8	01-Sep-92	36 A	848.4	04U510	911.0	27-Jul-88	19 A	857.0
04U020	954.8	08-Oct-92	37 A	848.8	04U510	911.0	30-Aug-88	19 F	861.4
04U020	954.8	02-Mar-93	38 A	849.7	04U510	911.0	01-Sep-88	19 A	858.9
04U020	954.8	10-Sep-93	40 A	851.1	04U510	911.0	21-Sep-88	19 A	859.4
04U027	967.2	17-Nov-87	16 A	853.2	04U510	911.0	14-Oct-88	20 A	860.0
04U027	967.2	24-Nov-87	16 A	853.1	04U510	911.0	25-Nov-88	20 F	863.5
04U027	967.2	30-Nov-87	16 A	853.2	04U510	911.0	02-Dec-88	20 A	861.0
04U027	967.2	14-Dec-87	16 A	853.1	04U510	911.0	13-Jan-89	21 A	861.1
04U027	967.2	14-Dec-87	16 F	853.4	04U510	911.0	31-Mar-89	21 A	862.1
04U027	967.2	27-Jan-88	17 F	853.5	04U510	911.0	05-Aug-89	23 F	860.1
04U027	967.2	14-Apr-88	18 F	854.4	04U510	911.0	05-Oct-89	24 A	858.5
04U027	967.2	02-May-88	18 A	853.5	04U510	911.0	04-Nov-89	24 F	861.9
04U027	967.2	20-May-88	18 A	853.0	04U510	911.0	21-Dec-89	24 A	859.3
04U027	967.2	23-Jun-88	18 A	851.8	04U510	911.0	11-Jan-90	25 A	859.4
04U027	967.2	27-Jul-88	19 A	850.4	04U510	911.0	23-Apr-90	26 F	859.3
04U027	967.2	30-Aug-88	19 F	849.5	04U510	911.0	16-May-90	26 A	859.1
04U027	967.2	01-Sep-88	19 A	849.5	04U510	911.0	28-Feb-91	30 A	860.6
04U027	967.2	21-Sep-88	19 A	849.2	04U510	911.0	28-Mar-91	30 F	863.2
04U027	967.2	14-Oct-88	20 A	849.0	04U510	911.0	27-Sep-91	32 A	860.8
04U027	967.2	25-Nov-88	20 F	850.0	04U510	911.0	24-Mar-92	34 A	862.6
04U027	967.2	02-Dec-88	20 A	849.9	04U510	911.0	25-Mar-92	34 F	867.0
04U027	967.2	13-Jan-89	21 A	850.1	04U510	911.0	08-Oct-92	37 A	862.2
04U027	967.2	31-Mar-89	21 A	847.9	04U510	911.0	02-Mar-93	38 A	863.1
04U027	967.2	05-Aug-89	23 F	846.3	04U510	911.0	02-Mar-93	38 F	866.1
04U027	967.2	05-Oct-89	24 A	845.5	04U510	911.0	10-Sep-93	40 A	865.0
04U027	967.2	06-Nov-89	24 F	845.6	04U673	897.8	17-Nov-87	16 A	844.8
04U027	967.2	21-Dec-89	24 A	845.4	04U673	897.8	24-Nov-87	16 A	845.5
04U027	967.2	11-Jan-90	25 A	845.2	04U673	897.8	30-Nov-87	16 A	845.8
04U027	967.2	16-May-90	26 A	845.2	04U673	897.8	14-Dec-87	16 A	845.3
04U027	967.2	28-Feb-91	30 A	845.7	04U673	897.8	14-Dec-87	16 F	845.4
04U027	967.2	27-Sep-91	32 A	845.3	04U673	897.8	11-Jan-88	17 A	845.5
04U027	967.2	24-Mar-92	34 A	847.3	04U673	897.8	27-Jan-88	17 F	845.6
04U027	967.2	08-Oct-92	37 A	847.9	04U673	897.8	13-Apr-88	18 F	846.9
04U027	967.2	02-Mar-93	38 A	848.8					

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U673	897.8	02-May-88	18 A	845.8	04U702	907.9	23-Jun-88	18 A	847.0
04U673	897.8	20-May-88	18 A	845.4	04U702	907.9	27-Jul-88	19 A	846.6
04U673	897.8	23-Jun-88	18 A	843.9	04U702	907.9	30-Aug-88	19 F	845.4
04U673	897.8	27-Jul-88	19 A	842.9	04U702	907.9	01-Sep-88	19 A	845.5
04U673	897.8	30-Aug-88	19 F	842.2	04U702	907.9	21-Sep-88	19 A	845.2
04U673	897.8	01-Sep-88	19 A	842.1	04U702	907.9	14-Oct-88	20 A	845.4
04U673	897.8	21-Sep-88	19 A	841.8	04U702	907.9	25-Nov-88	20 F	846.7
04U673	897.8	14-Oct-88	20 A	842.1	04U702	907.9	02-Dec-88	20 A	846.7
04U673	897.8	25-Nov-88	20 F	842.9	04U702	907.9	13-Jan-89	21 A	846.9
04U673	897.8	02-Dec-88	20 A	842.5	04U702	907.9	31-Mar-89	21 A	842.7
04U673	897.8	13-Jan-89	21 A	838.9	04U702	907.9	05-Aug-89	23 F	840.8
04U673	897.8	31-Mar-89	21 A	840.9	04U702	907.9	05-Oct-89	24 A	840.4
04U673	897.8	03-May-89	22 F	840.0	04U702	907.9	03-Nov-89	24 F	840.4
04U673	897.8	07-Jul-89	23 A	839.2	04U702	907.9	21-Dec-89	24 A	840.1
04U673	897.8	05-Aug-89	23 F	839.3	04U702	907.9	11-Jan-90	25 A	840.0
04U673	897.8	05-Oct-89	24 A	838.9	04U702	907.9	16-May-90	26 A	840.0
04U673	897.8	03-Nov-89	24 F	838.6	04U702	907.9	28-Feb-91	30 A	840.4
04U673	897.8	21-Dec-89	24 A	838.3	04U702	907.9	27-Sep-91	32 A	839.8
04U673	897.8	11-Jan-90	25 A	838.5	04U702	907.9	24-Mar-92	34 A	841.7
04U673	897.8	16-May-90	26 A	838.5	04U702	907.9	08-Oct-92	37 A	842.0
04U673	897.8	16-Jul-90	27 A	838.0	04U702	907.9	02-Mar-93	38 A	843.0
04U673	897.8	28-Feb-91	30 A	838.5	04U702	907.9	10-Sep-93	40 A	844.3
04U673	897.8	03-Jun-91	31 A	838.2					
04U673	897.8	03-Sep-91	32 A	837.6	04U708	919.3	17-Nov-87	16 A	849.8
04U673	897.8	27-Sep-91	32 A	837.9	04U708	919.3	24-Nov-87	16 A	849.5
04U673	897.8	06-Dec-91	33 A	839.1	04U708	919.3	30-Nov-87	16 A	849.6
04U673	897.8	24-Mar-92	34 A	840.2	04U708	919.3	14-Dec-87	16 A	849.5
04U673	897.8	01-Jun-92	35 A	839.1	04U708	919.3	11-Jan-88	17 A	849.8
04U673	897.8	01-Sep-92	36 A	839.5	04U708	919.3	27-Jan-88	17 F	849.6
04U673	897.8	08-Oct-92	37 A	839.8	04U708	919.3	13-Apr-88	18 F	852.2
04U673	897.8	02-Mar-93	38 A	840.6	04U708	919.3	02-May-88	18 A	850.0
04U673	897.8	10-Sep-93	40 A	841.8	04U708	919.3	20-May-88	18 A	849.5
					04U708	919.3	23-Jun-88	18 A	848.5
04U701	908.7	17-Nov-87	16 A	848.6	04U708	919.3	27-Jul-88	19 A	847.4
04U701	908.7	24-Nov-87	16 A	848.8	04U708	919.3	30-Aug-88	19 F	847.1
04U701	908.7	30-Nov-87	16 A	849.0	04U708	919.3	01-Sep-88	19 A	847.0
04U701	908.7	14-Dec-87	16 A	848.7	04U708	919.3	21-Sep-88	19 A	846.8
04U701	908.7	11-Jan-88	17 A	849.1	04U708	919.3	14-Oct-88	20 A	846.2
04U701	908.7	27-Jan-88	17 F	848.8	04U708	919.3	25-Nov-88	20 F	847.4
04U701	908.7	13-Apr-88	18 F	851.0	04U708	919.3	02-Dec-88	20 A	847.8
04U701	908.7	02-May-88	18 A	849.1	04U708	919.3	13-Jan-89	21 A	847.2
04U701	908.7	20-May-88	18 A	848.5	04U708	919.3	31-Mar-89	21 A	844.1
04U701	908.7	23-Jun-88	18 A	846.8	04U708	919.3	05-Aug-89	23 F	842.0
04U701	908.7	27-Jul-88	19 A	846.5	04U708	919.3	05-Oct-89	24 A	841.7
04U701	908.7	30-Aug-88	19 F	845.2	04U708	919.3	02-Nov-89	24 F	841.4
04U701	908.7	01-Sep-88	19 A	845.6	04U708	919.3	21-Dec-89	24 A	841.0
04U701	908.7	21-Sep-88	19 A	845.0	04U708	919.3	11-Jan-90	25 A	840.8
04U701	908.7	14-Oct-88	20 A	845.4	04U708	919.3	16-May-90	26 A	841.0
04U701	908.7	25-Nov-88	20 F	847.0	04U708	919.3	28-Feb-91	30 A	841.5
04U701	908.7	02-Dec-88	20 A	846.7	04U708	919.3	27-Sep-91	32 A	841.0
04U701	908.7	13-Jan-89	21 A	846.8	04U708	919.3	24-Mar-92	34 A	842.9
04U701	908.7	31-Mar-89	21 A	842.7	04U708	919.3	08-Oct-92	37 A	843.6
04U701	908.7	05-Aug-89	23 F	840.1	04U708	919.3	02-Mar-93	38 A	844.5
04U701	908.7	05-Oct-89	24 A	839.6	04U708	919.3	10-Sep-93	40 A	845.8
04U701	908.7	03-Nov-89	24 F	839.7					
04U701	908.7	21-Dec-89	24 A	838.8	04U709	910.0	17-Nov-87	16 A	849.5
04U701	908.7	11-Jan-90	25 A	839.1	04U709	910.0	24-Nov-87	16 A	849.5
04U701	908.7	16-May-90	26 A	839.2	04U709	910.0	30-Nov-87	16 A	850.2
04U701	908.7	28-Feb-91	30 A	839.6	04U709	910.0	14-Dec-87	16 A	849.7
04U701	908.7	27-Sep-91	32 A	839.0	04U709	910.0	15-Dec-87	16 F	849.7
04U701	908.7	24-Mar-92	34 A	840.9	04U709	910.0	11-Jan-88	17 A	850.0
04U701	908.7	08-Oct-92	37 A	841.3	04U709	910.0	27-Jan-88	17 F	849.6
04U701	908.7	02-Mar-93	38 A	842.1	04U709	910.0	13-Apr-88	18 F	852.6
04U701	908.7	10-Sep-93	40 A	843.4	04U709	910.0	02-May-88	18 A	850.1
					04U709	910.0	20-May-88	18 A	849.5
04U702	907.9	17-Nov-87	16 A	848.9	04U709	910.0	23-Jun-88	18 A	848.6
04U702	907.9	24-Nov-87	16 A	849.0	04U709	910.0	27-Jul-88	19 A	847.8
04U702	907.9	30-Nov-87	16 A	849.3	04U709	910.0	30-Aug-88	19 F	847.3
04U702	907.9	14-Dec-87	16 A	849.0	04U709	910.0	01-Sep-88	19 A	847.3
04U702	907.9	11-Jan-88	17 A	849.5	04U709	910.0	21-Sep-88	19 A	846.9
04U702	907.9	27-Jan-88	17 F	849.1	04U709	910.0	14-Oct-88	20 A	846.3
04U702	907.9	13-Apr-88	18 F	851.0	04U709	910.0	25-Nov-88	20 F	848.0
04U702	907.9	02-May-88	18 A	849.4	04U709	910.0	02-Dec-88	20 A	848.1
04U702	907.9	20-May-88	18 A	848.7	04U709	910.0	13-Jan-89	21 A	847.6

**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U709	910.0	31-Mar-89	21 A	844.1	04U714	891.5	02-Dec-88	20 A	846.8
04U709	910.0	05-Aug-89	23 F	841.5	04U714	891.5	13-Jan-89	21 A	853.7
04U709	910.0	05-Oct-89	24 A	841.1	04U714	891.5	31-Mar-89	21 A	850.1
04U709	910.0	02-Nov-89	24 F	840.9	04U714	891.5	07-Jul-89	23 A	848.0
04U709	910.0	21-Dec-89	24 A	841.4	04U714	891.5	05-Oct-89	24 A	847.8
04U709	910.0	11-Jan-90	25 A	840.3	04U714	891.5	21-Dec-89	24 A	847.5
04U709	910.0	16-May-90	26 A	840.4	04U714	891.5	11-Jan-90	25 A	847.6
04U709	910.0	28-Feb-91	30 A	840.8	04U714	891.5	16-May-90	26 A	847.8
04U709	910.0	27-Sep-91	32 A	840.4	04U714	891.5	16-Jul-90	27 A	847.6
04U709	910.0	24-Mar-92	34 A	842.3	04U714	891.5	28-Feb-91	30 A	848.3
04U709	910.0	08-Oct-92	37 A	842.5	04U714	891.5	03-Jun-91	31 A	848.1
04U709	910.0	02-Mar-93	38 A	843.4	04U714	891.5	03-Sep-91	32 A	847.2
04U709	910.0	10-Sep-93	40 A	844.7	04U714	891.5	27-Sep-91	32 A	847.7
					04U714	891.5	06-Dec-91	33 A	849.0
04U711	906.6	17-Nov-87	16 A	849.4	04U714	891.5	24-Mar-92	34 A	849.5
04U711	906.6	24-Nov-87	16 A	849.4	04U714	891.5	01-Jun-92	35 A	849.3
04U711	906.6	30-Nov-87	16 A	849.4	04U714	891.5	01-Sep-92	36 A	848.9
04U711	906.6	14-Dec-87	16 A	849.2	04U714	891.5	08-Oct-92	37 A	842.7
04U711	906.6	15-Dec-87	16 F	849.1	04U714	891.5	02-Mar-93	38 A	843.8
04U711	906.6	11-Jan-88	17 A	850.1	04U714	891.5	10-Sep-93	40 A	845.2
04U711	906.6	28-Jan-88	17 F	849.3					
04U711	906.6	13-Apr-88	18 F	851.7	04U802	903.0	17-Nov-87	16 A	849.2
04U711	906.6	02-May-88	18 A	849.6	04U802	903.0	24-Nov-87	16 A	849.1
04U711	906.6	20-May-88	18 A	849.0	04U802	903.0	30-Nov-87	16 A	849.1
04U711	906.6	23-Jun-88	18 A	847.8	04U802	903.0	14-Dec-87	16 F	848.8
04U711	906.6	27-Jul-88	19 A	848.0	04U802	903.0	11-Jan-88	17 A	849.3
04U711	906.6	30-Aug-88	19 F	845.9	04U802	903.0	26-Jan-88	17 F	849.0
04U711	906.6	21-Sep-88	19 A	845.6	04U802	903.0	13-Apr-88	18 F	850.9
04U711	906.6	14-Oct-88	20 A	846.0	04U802	903.0	02-May-88	18 A	849.4
04U711	906.6	25-Nov-88	20 F	847.4	04U802	903.0	20-May-88	18 A	848.9
04U711	906.6	02-Dec-88	20 A	847.3	04U802	903.0	23-Jun-88	18 A	847.7
04U711	906.6	13-Jan-89	21 A	847.1	04U802	903.0	27-Jul-88	19 A	846.8
04U711	906.6	31-Mar-89	21 A	843.2	04U802	903.0	30-Aug-88	19 F	845.8
04U711	906.6	07-Jul-89	23 A	841.6	04U802	903.0	21-Sep-88	19 A	845.3
04U711	906.6	05-Aug-89	23 F	841.7	04U802	903.0	14-Oct-88	20 A	845.5
04U711	906.6	05-Oct-89	24 A	841.1	04U802	903.0	25-Nov-88	20 F	846.4
04U711	906.6	03-Nov-89	24 F	841.0	04U802	903.0	02-Dec-88	20 A	846.2
04U711	906.6	21-Dec-89	24 A	840.6	04U802	903.0	13-Jan-89	21 A	846.1
04U711	906.6	11-Jan-90	25 A	840.3	04U802	903.0	31-Mar-89	21 A	843.6
04U711	906.6	16-May-90	26 A	840.7	04U802	903.0	03-Aug-89	23 F	842.2
04U711	906.6	16-Jul-90	27 A	841.3	04U802	903.0	05-Oct-89	24 A	841.5
04U711	906.6	28-Feb-91	30 A	840.9	04U802	903.0	03-Nov-89	24 F	841.4
04U711	906.6	03-Jun-91	31 A	840.7	04U802	903.0	21-Dec-89	24 A	841.2
04U711	906.6	03-Sep-91	32 A	841.1	04U802	903.0	11-Jan-90	25 A	841.2
04U711	906.6	27-Sep-91	32 A	841.2	04U802	903.0	16-May-90	26 A	841.2
04U711	906.6	06-Dec-91	33 A	842.9	04U802	903.0	16-Jul-90	27 A	840.8
04U711	906.6	24-Mar-92	34 A	843.4	04U802	903.0	28-Feb-91	30 A	841.5
04U711	906.6	01-Jun-92	35 A	842.6	04U802	903.0	03-Jun-91	31 A	841.2
04U711	906.6	01-Sep-92	36 A	842.2	04U802	903.0	03-Sep-91	32 A	840.7
04U711	906.6	08-Oct-92	37 A	842.3	04U802	903.0	27-Sep-91	32 A	841.0
04U711	906.6	02-Mar-93	38 A	843.2	04U802	903.0	06-Dec-91	33 A	842.2
04U711	906.6	10-Sep-93	40 A	844.4	04U802	903.0	24-Mar-92	34 A	842.8
					04U802	903.0	01-Jun-92	35 A	843.2
04U713	895.5	02-Dec-88	20 A	848.5	04U802	903.0	01-Sep-92	36 A	842.9
04U713	895.5	13-Jan-89	21 A	848.5	04U802	903.0	08-Oct-92	37 A	843.9
04U713	895.5	31-Mar-89	21 A	844.2	04U802	903.0	02-Mar-93	38 A	844.7
04U713	895.5	07-Jul-89	23 A	842.6	04U802	903.0	10-Sep-93	40 A	845.9
04U713	895.5	05-Oct-89	24 A	842.7					
04U713	895.5	21-Dec-89	24 A	842.0	04U806	909.6	17-Nov-87	16 A	848.6
04U713	895.5	11-Jan-90	25 A	842.0	04U806	909.6	24-Nov-87	16 A	848.9
04U713	895.5	16-May-90	26 A	842.2	04U806	909.6	30-Nov-87	16 A	848.5
04U713	895.5	16-Jul-90	27 A	842.0	04U806	909.6	14-Dec-87	16 F	848.3
04U713	895.5	28-Feb-91	30 A	842.8	04U806	909.6	11-Jan-88	17 A	849.2
04U713	895.5	03-Jun-91	31 A	842.6	04U806	909.6	27-Jan-88	17 F	848.1
04U713	895.5	03-Sep-91	32 A	841.9	04U806	909.6	13-Apr-88	18 F	850.4
04U713	895.5	27-Sep-91	32 A	842.2	04U806	909.6	02-May-88	18 A	848.6
04U713	895.5	06-Dec-91	33 A	843.5	04U806	909.6	20-May-88	18 A	848.0
04U713	895.5	24-Mar-92	34 A	844.2	04U806	909.6	23-Jun-88	18 A	846.4
04U713	895.5	01-Jun-92	35 A	844.3	04U806	909.6	27-Jul-88	19 A	846.0
04U713	895.5	01-Sep-92	36 A	843.8	04U806	909.6	30-Aug-88	19 F	844.8
04U713	895.5	08-Oct-92	37 A	844.2	04U806	909.6	01-Sep-88	19 A	845.3
04U713	895.5	02-Mar-93	38 A	845.2	04U806	909.6	21-Sep-88	19 A	844.6
04U713	895.5	10-Sep-93	40 A	846.5	04U806	909.6	14-Oct-88	20 A	845.0
					04U806	909.6	25-Nov-88	20 F	846.2

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U806	909.6	02-Dec-88	20 A	846.2	04U843	886.1	21-Mar-91	30 F	831.4
04U806	909.6	13-Jan-89	21 A	846.2	04U843	886.1	20-Mar-92	34 F	833.4
04U806	909.6	31-Mar-89	21 A	842.3	04U843	886.1	03-Mar-93	38 F	833.0
04U806	909.6	07-Jul-89	23 A	840.4					
04U806	909.6	03-Aug-89	23 F	840.5	04U844	884.5	14-Dec-87	16 F	836.1
04U806	909.6	05-Oct-89	24 A	840.0	04U844	884.5	26-Jan-88	17 F	836.3
04U806	909.6	03-Nov-89	24 F	840.1	04U844	884.5	13-Apr-88	18 F	836.6
04U806	909.6	21-Dec-89	24 A	839.5	04U844	884.5	30-Aug-88	19 F	831.9
04U806	909.6	11-Jan-90	25 A	839.8	04U844	884.5	25-Nov-88	20 F	833.4
04U806	909.6	16-May-90	26 A	839.9	04U844	884.5	04-May-89	22 F	830.7
04U806	909.6	16-Jul-90	27 A	839.4	04U844	884.5	06-Aug-89	23 F	839.4
04U806	909.6	28-Feb-91	30 A	840.2	04U844	884.5	03-Nov-89	24 F	830.1
04U806	909.6	03-Jun-91	31 A	839.9	04U844	884.5	25-Apr-90	26 F	830.3
04U806	909.6	03-Sep-91	32 A	839.2	04U844	884.5	23-Jul-90	27 F	829.1
04U806	909.6	27-Sep-91	32 A	839.5	04U844	884.5	17-Sep-90	28 F	828.8
04U806	909.6	06-Dec-91	33 A	840.8	04U844	884.5	19-Mar-91	30 F	830.7
04U806	909.6	24-Mar-92	34 A	841.5	04U844	884.5	23-Mar-92	34 F	832.1
04U806	909.6	01-Jun-92	35 A	841.5	04U844	884.5	04-Mar-93	38 F	831.5
04U806	909.6	01-Sep-92	36 A	841.1					
04U806	909.6	08-Oct-92	37 A	841.4	04U845	894.5	14-Dec-87	16 F	838.1
04U806	909.6	02-Mar-93	38 A	842.4	04U845	894.5	13-Apr-88	18 F	838.7
04U806	909.6	10-Sep-93	40 A	843.7	04U845	894.5	30-Aug-88	19 F	833.9
					04U845	894.5	25-Nov-88	20 F	835.3
04U821	877.6	14-Dec-87	16 F	837.7	04U845	894.5	04-May-89	22 F	834.2
04U821	877.6	26-Jan-88	17 F	837.9	04U845	894.5	06-Aug-89	23 F	831.2
04U821	877.6	13-Apr-88	18 F	838.4	04U845	894.5	03-Nov-89	24 F	831.7
04U821	877.6	30-Aug-88	19 F	833.8	04U845	894.5	26-Apr-90	26 F	831.9
04U821	877.6	25-Nov-88	20 F	835.2	04U845	894.5	20-Mar-91	30 F	831.5
04U821	877.6	06-Aug-89	23 F	831.1	04U845	894.5	16-Mar-92	34 F	833.9
04U821	877.6	03-Nov-89	24 F	831.6	04U845	894.5	04-Mar-93	38 F	833.3
04U821	877.6	19-Apr-90	26 F	831.9					
04U821	877.6	23-Jul-90	27 F	830.7	04U846	888.4	14-Dec-87	16 F	832.8
04U821	877.6	20-Sep-90	28 F	830.6	04U846	888.4	26-Jan-88	17 F	833.0
04U821	877.6	21-Mar-91	30 F	831.4	04U846	888.4	13-Apr-88	18 F	833.2
04U821	877.6	04-Jun-91	31 F	830.9	04U846	888.4	30-Aug-88	19 F	828.8
04U821	877.6	04-Sep-91	32 F	829.5	04U846	888.4	25-Nov-88	20 F	830.1
04U821	877.6	20-Mar-92	34 F	833.5	04U846	888.4	28-Apr-89	22 F	829.0
04U821	877.6	03-Jun-92	35 F	832.7	04U846	888.4	06-Aug-89	23 F	826.6
04U821	877.6	03-Sep-92	36 F	831.7	04U846	888.4	02-Nov-89	24 F	827.1
04U821	877.6	03-Mar-93	38 F	833.0	04U846	888.4	27-Apr-90	26 F	827.4
04U821	877.6	09-Sep-93	40 F	834.2	04U846	888.4	18-Mar-91	30 F	826.7
					04U846	888.4	25-Mar-92	34 F	829.0
04U832	883.8	14-Dec-87	16 F	837.4	04U846	888.4	04-Mar-93	38 F	828.7
04U832	883.8	26-Jan-88	17 F	836.8					
04U832	883.8	13-Apr-88	18 F	837.8	04U847	914.9	14-Dec-87	16 F	845.4
04U832	883.8	30-Aug-88	19 F	833.0	04U847	914.9	26-Jan-88	17 F	845.6
04U832	883.8	25-Nov-88	20 F	834.6	04U847	914.9	13-Apr-88	18 F	847.0
04U832	883.8	07-Aug-89	23 F	830.3	04U847	914.9	30-Aug-88	19 F	841.9
04U832	883.8	03-Nov-89	24 F	831.2	04U847	914.9	25-Nov-88	20 F	843.1
04U832	883.8	25-Apr-90	26 F	831.4	04U847	914.9	03-May-89	22 F	839.4
04U832	883.8	20-Mar-91	30 F	831.0	04U847	914.9	06-Aug-89	23 F	838.6
04U832	883.8	25-Mar-92	34 F	833.4	04U847	914.9	03-Nov-89	24 F	838.1
04U832	883.8	12-Mar-93	38 F	831.7	04U847	914.9	26-Apr-90	26 F	838.2
					04U847	914.9	16-May-90	26 A	834.0
04U841	911.5	26-Jan-88	17 F	845.8	04U847	914.9	20-Jul-90	27 F	837.7
04U841	911.5	13-Apr-88	18 F	847.1	04U847	914.9	17-Sep-90	28 F	837.3
04U841	911.5	30-Aug-88	19 F	842.2	04U847	914.9	28-Feb-91	30 A	838.4
04U841	911.5	25-Nov-88	20 F	843.2	04U847	914.9	20-Mar-91	30 F	838.3
04U841	911.5	06-Aug-89	23 F	838.8	04U847	914.9	04-Jun-91	31 F	837.9
04U841	911.5	03-Nov-89	24 F	838.7	04U847	914.9	03-Sep-91	32 A	838.4
04U841	911.5	16-May-90	26 A	838.8	04U847	914.9	04-Sep-91	32 F	836.6
04U841	911.5	20-Mar-91	30 F	838.7	04U847	914.9	27-Sep-91	32 A	837.7
04U841	911.5	19-Mar-92	34 F	840.6	04U847	914.9	19-Mar-92	34 F	839.8
04U841	911.5	10-Mar-93	38 F	839.8	04U847	914.9	24-Mar-92	34 A	839.6
04U841	911.5	10-Sep-93	40 F	841.9	04U847	914.9	04-Jun-92	35 F	839.7
					04U847	914.9	03-Sep-92	36 F	838.1
04U843	886.1	14-Dec-87	16 F	837.6	04U847	914.9	08-Oct-92	37 A	839.9
04U843	886.1	26-Jan-88	17 F	837.8	04U847	914.9	02-Mar-93	38 A	840.9
04U843	886.1	13-Apr-88	18 F	838.3	04U847	914.9	10-Mar-93	38 F	840.8
04U843	886.1	30-Aug-88	19 F	833.8	04U847	914.9	10-Sep-93	40 A	842.2
04U843	886.1	25-Nov-88	20 F	835.0	04U847	914.9	10-Sep-93	40 F	841.8
04U843	886.1	06-Aug-89	23 F	831.1					
04U843	886.1	03-Nov-89	24 F	831.5	04U848	902.6	14-Dec-87	16 F	844.7
04U843	886.1	25-Apr-90	26 F	831.7	04U848	902.6	26-Jan-88	17 F	844.8

**TABLE IV - 1**  
**TCAAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U848	902.6	13-Apr-88	18 F	846.0	04U855	896.1	14-Dec-87	16 F	815.0
04U848	902.6	30-Aug-88	19 F	841.4	04U855	896.1	26-Jan-88	17 F	835.2
04U848	902.6	25-Nov-88	20 F	842.1	04U855	896.1	13-Apr-88	18 F	835.6
04U848	902.6	03-May-89	22 F	838.4	04U855	896.1	30-Aug-88	19 F	831.4
04U848	902.6	06-Aug-89	23 F	838.2	04U855	896.1	25-Nov-88	20 F	832.2
04U848	902.6	03-Nov-89	24 F	837.9	04U855	896.1	06-Aug-89	23 F	829.3
04U848	902.6	19-Jul-90	27 F	837.6	04U855	896.1	03-Nov-89	24 F	830.2
04U848	902.6	17-Sep-90	28 F	836.9	04U855	896.1	03-May-90	26 F	829.5
04U848	902.6	18-Mar-91	30 F	837.6	04U855	896.1	18-Mar-91	30 F	809.5
04U848	902.6	18-Mar-92	34 F	839.8	04U855	896.1	25-Mar-92	34 F	831.0
04U848	902.6	10-Mar-93	38 F	839.5	04U855	896.1	04-Mar-93	38 F	831.5
04U849	873.0	14-Dec-87	16 F	832.7	04U859	901.0	14-Dec-87	16 F	843.4
04U849	873.0	26-Jan-88	17 F	832.9	04U859	901.0	26-Jan-88	17 F	843.6
04U849	873.0	13-Apr-88	18 F	833.1	04U859	901.0	13-Apr-88	18 F	844.8
04U849	873.0	30-Aug-88	19 F	828.7	04U859	901.0	30-Aug-88	19 F	840.2
04U849	873.0	25-Nov-88	20 F	829.8	04U859	901.0	25-Nov-88	20 F	841.0
04U849	873.0	06-Aug-89	23 F	824.5	04U859	901.0	06-Aug-89	23 F	834.9
04U849	873.0	03-Nov-89	24 F	824.6	04U859	901.0	03-Nov-89	24 F	836.7
04U849	873.0	18-Apr-90	26 F	827.5	04U859	901.0	30-Apr-90	26 F	836.5
04U849	873.0	18-Mar-91	30 F	826.7	04U859	901.0	20-Mar-91	30 F	816.7
04U849	873.0	25-Mar-92	34 F	828.4	04U859	901.0	20-Mar-92	34 F	838.7
04U849	873.0	04-Mar-93	38 F	828.8	04U859	901.0	03-Mar-93	38 F	839.2
04U850	916.8	14-Dec-87	16 F	832.4	04U860	893.9	14-Dec-87	16 F	836.5
04U850	916.8	26-Jan-88	17 F	832.6	04U860	893.9	26-Jan-88	17 F	836.6
04U850	916.8	13-Apr-88	18 F	829.8	04U860	893.9	13-Apr-88	18 F	836.9
04U850	916.8	30-Aug-88	19 F	828.5	04U860	893.9	30-Aug-88	19 F	831.9
04U850	916.8	25-Nov-88	20 F	829.7	04U860	893.9	25-Nov-88	20 F	830.5
04U850	916.8	29-Apr-89	22 F	823.6	04U860	893.9	06-Aug-89	23 F	831.6
04U850	916.8	06-Aug-89	23 F	826.4	04U860	893.9	03-Nov-89	24 F	830.3
04U850	916.8	02-Nov-89	24 F	826.8	04U860	893.9	19-Apr-90	26 F	830.5
04U850	916.8	18-Apr-90	26 F	827.1	04U860	893.9	20-Mar-91	30 F	830.1
04U850	916.8	15-Mar-91	30 F	826.3	04U860	893.9	16-Mar-92	34 F	832.5
04U850	916.8	26-Mar-92	34 F	828.3	04U860	893.9	10-Mar-93	38 F	832.1
04U850	916.8	04-Mar-93	38 F	828.3	04U861	888.8	14-Dec-87	16 F	836.8
04U851	913.4	14-Dec-87	16 F	832.0	04U861	888.8	26-Jan-88	17 F	836.9
04U851	913.4	26-Jan-88	17 F	832.2	04U861	888.8	13-Apr-88	18 F	837.3
04U851	913.4	13-Apr-88	18 F	832.3	04U861	888.8	30-Aug-88	19 F	832.4
04U851	913.4	30-Aug-88	19 F	827.5	04U861	888.8	25-Nov-88	20 F	831.3
04U851	913.4	25-Nov-88	20 F	829.3	04U861	888.8	06-Aug-89	23 F	831.1
04U851	913.4	06-Aug-89	23 F	824.9	04U861	888.8	30-Apr-90	26 F	830.7
04U851	913.4	03-Nov-89	24 F	825.1	04U861	888.8	25-Mar-91	30 F	830.3
04U851	913.4	17-Apr-90	26 F	826.7	04U861	888.8	23-Mar-92	34 F	832.8
04U851	913.4	18-Mar-91	30 F	825.9	04U861	888.8	04-Mar-93	38 F	832.1
04U851	913.4	27-Mar-92	34 F	828.1	04U871	957.1	30-Aug-88	19 F	814.6
04U851	913.4	05-Mar-93	38 F	828.5	04U871	957.1	25-Nov-88	20 F	816.2
04U852	902.9	14-Dec-87	16 F	829.3	04U871	957.1	08-May-89	22 F	814.9
04U852	902.9	26-Jan-88	17 F	829.6	04U871	957.1	07-Aug-89	23 F	812.6
04U852	902.9	13-Apr-88	18 F	829.5	04U871	957.1	02-Nov-89	24 F	814.1
04U852	902.9	30-Aug-88	19 F	824.4	04U871	957.1	18-Apr-90	26 F	815.5
04U852	902.9	25-Nov-88	20 F	827.0	04U871	957.1	15-Mar-91	30 F	813.9
04U852	902.9	06-Aug-89	23 F	821.6	04U871	957.1	17-Mar-92	34 F	816.0
04U852	902.9	03-Nov-89	24 F	822.3	04U871	957.1	08-Mar-93	38 F	816.9
04U852	902.9	19-Apr-90	26 F	824.6	04U872	952.2	30-Aug-88	19 F	812.0
04U852	902.9	18-Mar-91	30 F	823.5	04U872	952.2	25-Nov-88	20 F	813.9
04U852	902.9	27-Mar-92	34 F	826.0	04U872	952.2	08-May-89	22 F	811.8
04U852	902.9	05-Mar-93	38 F	826.5	04U872	952.2	07-Aug-89	23 F	809.8
04U854	889.8	14-Dec-87	16 F	836.8	04U872	952.2	02-Nov-89	24 F	811.6
04U854	889.8	26-Jan-88	17 F	837.1	04U872	952.2	18-Apr-90	26 F	812.9
04U854	889.8	13-Apr-88	18 F	837.2	04U872	952.2	14-Mar-91	30 F	811.0
04U854	889.8	30-Aug-88	19 F	832.4	04U872	952.2	27-Mar-92	34 F	813.6
04U854	889.8	25-Nov-88	20 F	834.0	04U872	952.2	05-Mar-93	38 F	816.1
04U854	889.8	04-May-89	22 F	830.4	04U875	1013.6	30-Aug-88	19 F	812.6
04U854	889.8	06-Aug-89	23 F	829.9	04U875	1013.6	25-Nov-88	20 F	814.1
04U854	889.8	03-Nov-89	24 F	830.5	04U875	1013.6	07-Aug-89	23 F	810.7
04U854	889.8	30-Apr-90	26 F	830.7	04U875	1013.6	02-Nov-89	24 F	811.8
04U854	889.8	01-Apr-91	30 F	830.2	04U875	1013.6	17-Apr-90	26 F	813.8
04U854	889.8	16-Mar-92	34 F	832.8	04U875	1013.6	15-Mar-91	30 F	812.3
04U854	889.8	04-Mar-93	38 F	832.0	04U875	1013.6	18-Mar-92	34 F	814.7



**TABLE IV - 1**  
**TCAAP Groundwater Elevation Data**

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
04U875	1013.6	08-Mar-93	38 F	816.2	234463	945.7	08-May-89	22 F	892.3
04U877	920.9	30-Aug-88	19 F	828.5	409546	867.0	10-May-89	22 F	826.4
04U877	920.9	25-Nov-88	20 F	829.7	409546	867.0	06-Aug-89	23 F	825.3
04U877	920.9	29-Apr-89	22 F	827.4	409546	867.0	02-Nov-89	24 F	824.7
04U877	920.9	07-Aug-89	23 F	826.5	409546	867.0	03-May-90	26 F	826.1
04U877	920.9	02-Nov-89	24 F	826.7	409546	867.0	18-Mar-91	30 F	825.7
04U877	920.9	18-Apr-90	26 F	827.1	409546	867.0	25-Mar-92	34 F	827.6
04U877	920.9	15-Mar-91	30 F	826.2	409546	867.0	09-Mar-93	38 F	827.7
04U877	920.9	17-Mar-92	34 F	828.3	409547	896.0	06-Aug-89	23 F	830.7
04U877	920.9	08-Mar-93	38 F	828.0	409547	896.0	02-Nov-89	24 F	830.6
04U879	945.6	30-Aug-88	19 F	826.9	409547	896.0	03-May-90	26 F	841.4
04U879	945.6	25-Nov-88	20 F	827.2	409547	896.0	20-Jul-90	27 F	830.4
04U879	945.6	07-Aug-89	23 F	825.4	409547	896.0	20-Sep-90	28 F	830.3
04U879	945.6	02-Nov-89	24 F	825.1	409547	896.0	20-Mar-91	30 F	831.0
04U879	945.6	18-Apr-90	26 F	825.9	409547	896.0	23-Mar-92	34 F	832.7
04U879	945.6	15-Mar-91	30 F	824.8	409547	896.0	04-Mar-93	38 F	832.6
04U879	945.6	26-Mar-92	34 F	826.6	409548	867.0	06-Jan-00	22 F	825.5
04U879	945.6	04-Mar-93	38 F	827.0	409548	867.0	06-Aug-89	23 F	824.3
04U880	972.0	30-Aug-88	19 F	806.7	409548	867.0	02-Nov-89	24 F	825.3
04U880	972.0	25-Nov-88	20 F	808.4	409548	867.0	03-May-90	26 F	825.1
04U880	972.0	07-Aug-89	23 F	806.2	409548	867.0	18-Mar-91	30 F	824.5
04U880	972.0	02-Nov-89	24 F	806.8	409548	867.0	25-Mar-92	34 F	826.4
04U880	972.0	18-Apr-90	26 F	809.3	409548	867.0	09-Mar-93	38 F	826.5
04U880	972.0	14-Mar-91	30 F	808.7	409549	920.0	06-Aug-89	23 F	825.2
04U880	972.0	18-Mar-92	34 F	810.8	409549	920.0	02-Nov-89	24 F	825.3
04U880	972.0	05-Mar-93	38 F	813.3	409549	920.0	03-May-90	26 F	825.8
04U881	976.5	25-Nov-88	20 F	807.3	409549	920.0	23-Jul-90	27 F	824.4
04U881	976.5	07-Aug-89	23 F	802.1	409549	920.0	20-Sep-90	28 F	824.3
04U881	976.5	02-Nov-89	24 F	803.6	409549	920.0	18-Mar-91	30 F	824.9
04U881	976.5	17-Apr-90	26 F	813.7	409549	920.0	05-Jun-91	31 F	824.5
04U881	976.5	14-Mar-91	30 F	807.1	409549	920.0	17-Mar-92	34 F	826.5
04U881	976.5	28-Mar-92	34 F	810.4	409549	920.0	04-Jun-92	35 F	825.9
04U881	976.5	08-Mar-93	38 F	811.5	409549	920.0	04-Sep-92	36 F	825.1
04U882	917.7	25-Nov-88	20 F	800.8	409549	920.0	09-Mar-93	38 F	826.7
04U882	917.7	03-May-89	22 F	800.1	409549	920.0	09-Sep-93	40 F	827.9
04U882	917.7	02-Nov-89	24 F	798.6	409550	912.0	17-Nov-87	16 A	847.0
04U882	917.7	17-Apr-90	26 F	802.5	409550	912.0	24-Nov-87	16 A	846.8
04U882	917.7	14-Mar-91	30 F	802.7	409550	912.0	30-Nov-87	16 A	846.9
04U882	917.7	18-Mar-92	34 F	806.1	409550	912.0	14-Dec-87	16 A	847.0
04U882	917.7	05-Mar-93	38 F	808.1	409550	912.0	11-Jan-88	17 A	847.4
04U882	917.7	10-Sep-93	40 F	804.2	409550	912.0	02-May-88	18 A	846.8
04U883	948.6	25-Nov-88	20 F	799.9	409550	912.0	20-May-88	18 A	846.3
04U883	948.6	07-Aug-89	23 F	788.0	409550	912.0	23-Jun-88	18 A	844.2
04U883	948.6	02-Nov-89	24 F	796.0	409550	912.0	27-Jul-88	19 A	843.4
04U883	948.6	17-Apr-90	26 F	799.7	409550	912.0	01-Sep-88	19 A	843.0
04U883	948.6	14-Mar-91	30 F	800.6	409550	912.0	21-Sep-88	19 A	842.8
04U883	948.6	27-Mar-92	34 F	804.3	409550	912.0	14-Oct-88	20 A	843.1
04U883	948.6	05-Mar-93	38 F	806.3	409550	912.0	13-Jan-89	21 A	844.1
191942	880.5	14-Dec-87	16 F	838.0	409550	912.0	31-Mar-89	21 A	841.3
191942	880.5	26-Jan-88	17 F	838.2	409550	912.0	10-May-89	22 F	838.6
191942	880.5	13-Apr-88	18 F	838.7	409550	912.0	06-Aug-89	23 F	839.1
191942	880.5	30-Aug-88	19 F	834.0	409550	912.0	05-Oct-89	24 A	839.1
191942	880.5	25-Nov-88	20 F	835.4	409550	912.0	02-Nov-89	24 F	839.1
206688	1000.0	07-Aug-89	23 F	815.0	409550	912.0	21-Dec-89	24 A	838.6
206688	1000.0	03-Nov-89	24 F	815.1	409550	912.0	11-Jan-90	25 A	839.0
206797	1025.8	23-Jul-90	27 F	745.8	409550	912.0	03-May-90	26 F	838.7
206797	1025.8	25-Mar-91	30 F	741.3	409550	912.0	16-May-90	26 A	839.0
206797	1025.8	26-Mar-92	34 F	753.8	409550	912.0	20-Jul-90	27 F	838.3
206797	1025.8	08-Mar-93	38 F	1024.7	409550	912.0	20-Sep-90	28 F	838.0
234353	906.5	12-May-89	22 F	840.8	409550	912.0	28-Feb-91	30 A	839.3
234425	914.0	11-May-89	22 F	841.1	409550	912.0	21-Mar-91	30 F	839.0
234430	918.1	09-May-89	22 F	845.0	409550	912.0	27-Sep-91	32 A	838.6
					409550	912.0	19-Mar-92	34 F	840.4
					409550	912.0	24-Mar-92	34 A	840.5
					409550	912.0	08-Oct-92	36 A	840.8
					409550	912.0	03-Mar-93	38 F	841.3
					409550	912.0	10-Sep-93	40 F	842.4

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
409555	923.0	06-Aug-89	23 F	813.1	OW543U3	959.4	24-Mar-92	34 A	849.0
409555	923.0	02-Nov-89	24 F	812.5	OW543U3	959.4	08-Oct-92	37 A	848.7
409555	923.0	03-May-90	26 F	816.8	OW543U3	959.4	02-Mar-93	38 A	849.6
409555	923.0	01-Apr-91	30 F	816.3	OW543U3	959.4	10-Sep-93	40 A	850.8
409555	923.0	18-Mar-92	34 F	818.3					
409555	923.0	05-Mar-93	38 F	819.4	PJ#003	944.2	14-Dec-87	16 F	849.1
					PJ#003	944.2	27-Jan-88	17 F	849.2
409556	960.0	10-May-89	22 F	825.7	PJ#003	944.2	14-Apr-88	18 F	850.4
409556	960.0	06-Aug-89	23 F	826.7	PJ#003	944.2	02-May-88	18 A	849.5
409556	960.0	02-Nov-89	24 F	826.0	PJ#003	944.2	20-May-88	18 A	848.9
409556	960.0	03-May-90	26 F	826.0	PJ#003	944.2	27-Jul-88	19 A	846.4
409556	960.0	18-Mar-91	30 F	825.2	PJ#003	944.2	30-Aug-88	19 F	845.7
409556	960.0	17-Mar-92	34 F	826.4	PJ#003	944.2	01-Sep-88	19 A	845.6
					PJ#003	944.2	21-Sep-88	19 A	845.3
409557	896.0	04-May-89	22 F	833.7	PJ#003	944.2	14-Oct-88	20 A	845.5
409557	896.0	06-Aug-89	23 F	832.8	PJ#003	944.2	25-Nov-88	20 F	846.2
409557	896.0	02-Nov-89	24 F	832.8	PJ#003	944.2	02-Dec-88	20 A	846.4
409557	896.0	03-May-90	26 F	845.0	PJ#003	944.2	13-Jan-89	21 A	846.1
409557	896.0	20-Mar-91	30 F	832.6	PJ#003	944.2	31-Mar-89	21 A	844.0
409557	896.0	20-Mar-92	34 F	834.0	PJ#003	944.2	05-Aug-89	23 F	842.3
409557	896.0	04-Mar-93	38 F	834.8	PJ#003	944.2	05-Oct-89	24 A	841.7
					PJ#003	944.2	02-Nov-89	24 F	841.6
409595	882.3	14-Dec-87	16 F	837.3	PJ#003	944.2	21-Dec-89	24 A	841.4
409595	882.3	26-Jan-88	17 F	837.5	PJ#003	944.2	11-Jan-90	25 A	840.5
409595	882.3	13-Apr-88	18 F	838.0	PJ#003	944.2	16-May-90	26 A	841.4
409595	882.3	30-Aug-88	19 F	833.4	PJ#003	944.2	16-Jul-90	27 A	841.0
409595	882.3	23-Nov-88	20 F	834.6	PJ#003	944.2	28-Feb-91	30 A	841.8
409595	882.3	17-Mar-92	34 F	832.4	PJ#003	944.2	03-Jun-91	31 A	841.5
					PJ#003	944.2	03-Sep-91	32 A	840.9
409596	880.4	14-Dec-87	16 F	837.6	PJ#003	944.2	27-Sep-91	32 A	841.2
409596	880.4	26-Jan-88	17 F	837.7	PJ#003	944.2	06-Dec-91	33 A	842.5
409596	880.4	30-Aug-88	19 F	833.6	PJ#003	944.2	24-Mar-92	34 A	843.1
409596	880.4	23-Nov-88	20 F	835.0	PJ#003	944.2	01-Jun-92	35 A	843.3
409596	880.4	25-Apr-90	26 F	831.6	PJ#003	944.2	01-Sep-92	36 A	843.0
409596	880.4	29-Mar-91	30 F	829.6	PJ#003	944.2	08-Oct-92	37 A	843.7
409596	880.4	18-Mar-92	34 F	831.9	PJ#003	944.2	02-Mar-93	38 A	844.5
409596	880.4	09-Mar-93	38 F	830.0	PJ#003	944.2	10-Sep-93	40 A	845.7
409597	880.3	14-Dec-87	16 F	837.6	PJ#027	967.7	17-Nov-87	16 A	853.4
409597	880.3	26-Jan-88	17 F	837.7	PJ#027	967.7	24-Nov-87	16 A	853.2
409597	880.3	13-Apr-88	18 F	838.2	PJ#027	967.7	30-Nov-87	16 A	853.2
409597	880.3	30-Aug-88	19 F	833.6	PJ#027	967.7	14-Dec-87	16 A	853.2
409597	880.3	23-Nov-88	20 F	834.9	PJ#027	967.7	11-Jan-88	17 A	853.1
409597	880.3	25-Apr-90	26 F	831.6	PJ#027	967.7	27-Jan-88	17 F	853.3
409597	880.3	29-Mar-91	30 F	829.4	PJ#027	967.7	14-Apr-88	18 F	854.3
409597	880.3	23-Mar-92	34 F	831.7	PJ#027	967.7	02-May-88	18 A	853.6
409597	880.3	04-Mar-93	38 F	829.6	PJ#027	967.7	20-May-88	18 A	853.0
					PJ#027	967.7	23-Jun-88	18 A	851.9
409598	879.8	14-Dec-87	16 F	837.3	PJ#027	967.7	27-Jul-88	19 A	850.5
409598	879.8	26-Jan-88	17 F	837.4	PJ#027	967.7	30-Aug-88	19 F	849.4
409598	879.8	13-Apr-88	18 F	838.0	PJ#027	967.7	01-Sep-88	19 A	849.6
409598	879.8	30-Aug-88	19 F	833.4	PJ#027	967.7	21-Sep-88	19 A	849.3
409598	879.8	23-Nov-88	20 F	834.1	PJ#027	967.7	14-Oct-88	20 A	849.2
409598	879.8	23-Mar-92	34 F	832.9	PJ#027	967.7	25-Nov-88	20 F	849.8
					PJ#027	967.7	02-Dec-88	20 A	850.0
500691	891.2	02-Nov-89	24 F	828.8	PJ#027	967.7	13-Jan-89	21 A	850.2
500691	891.2	19-Apr-90	26 F	829.7	PJ#027	967.7	31-Mar-89	21 A	848.1
500691	891.2	20-Jul-90	27 F	828.0	PJ#027	967.7	05-Aug-89	23 F	847.1
500691	891.2	20-Sep-90	28 F	827.4	PJ#027	967.7	05-Oct-89	24 A	845.7
500691	891.2	18-Mar-91	30 F	829.0	PJ#027	967.7	06-Nov-89	24 F	842.5
500691	891.2	17-Mar-92	34 F	831.5	PJ#027	967.7	21-Dec-89	24 A	845.5
500691	891.2	05-Mar-93	38 F	831.2	PJ#027	967.7	11-Jan-90	25 A	845.3
					PJ#027	967.7	16-May-90	26 A	845.4
508115	910.7	19-Apr-90	26 F	828.7	PJ#027	967.7	28-Feb-91	30 A	845.9
508115	910.7	20-Jul-90	27 F	827.0	PJ#027	967.7	27-Sep-91	32 A	845.5
508115	910.7	20-Sep-90	28 F	827.4	PJ#027	967.7	24-Mar-92	34 A	847.4
508115	910.7	18-Mar-91	30 F	827.9	PJ#027	967.7	08-Oct-92	37 A	845.6
508115	910.7	17-Mar-92	34 F	830.2	PJ#027	967.7	02-Mar-93	38 A	846.5
508115	910.7	05-Mar-93	38 F	830.1	PJ#027	967.7	10-Sep-93	40 A	847.6
MPCA6	914.40	08-Oct-92	37 A	840.8	PJ#074	954.2	14-Dec-87	16 A	854.1
MPCA6	914.40	02-Mar-93	38 A	841.8	PJ#074	954.2	28-Jan-88	17 F	854.2
MPCA6	914.40	10-Sep-93	40 A	843.2	PJ#074	954.2	14-Apr-88	18 F	854.9
					PJ#074	954.2	02-May-88	18 A	854.4

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
PJ#074	954.2	20-May-88	18 A	853.9	PJ#311	905.2	24-Mar-92	34 A	840.7
PJ#074	954.2	23-Jun-88	18 A	852.6	PJ#311	905.2	01-Jun-92	35 A	839.9
PJ#074	954.2	27-Jul-88	19 A	851.1	PJ#311	905.2	01-Sep-92	36 A	840.0
PJ#074	954.2	30-Aug-88	19 F	850.2	PJ#311	905.2	08-Oct-92	37 A	838.0
PJ#074	954.2	01-Sep-88	19 A	849.4	PJ#311	905.2	02-Mar-93	38 A	840.3
PJ#074	954.2	21-Sep-88	19 A	850.0	PJ#311	905.2	10-Sep-93	40 A	841.5
PJ#074	954.2	14-Oct-88	20 A	849.1					
PJ#074	954.2	25-Nov-88	20 F	850.5	PJ#313	893.2	02-Dec-88	20 A	847.3
PJ#074	954.2	02-Dec-88	20 A	850.7	PJ#313	893.2	13-Jan-89	21 A	845.5
PJ#074	954.2	13-Jan-89	21 A	850.8	PJ#313	893.2	31-Mar-89	21 A	838.4
PJ#074	954.2	31-Mar-89	21 A	849.0	PJ#313	893.2	07-Jul-89	23 A	836.6
PJ#074	954.2	05-Aug-89	23 F	847.3	PJ#313	893.2	05-Aug-89	23 F	839.7
PJ#074	954.2	05-Oct-89	24 A	846.0	PJ#313	893.2	05-Oct-89	24 A	835.6
PJ#074	954.2	03-Nov-89	24 F	851.8	PJ#313	893.2	21-Dec-89	24 A	835.3
PJ#074	954.2	21-Dec-89	24 A	846.3	PJ#313	893.2	11-Jan-90	25 A	894.3
PJ#074	954.2	11-Jan-90	25 A	846.2	PJ#313	893.2	16-May-90	26 A	836.5
					PJ#313	893.2	16-Jul-90	27 A	836.3
PJ#309	911.8	02-Dec-88	20 A	854.5	PJ#313	893.2	28-Feb-91	30 A	834.9
PJ#309	911.8	13-Jan-89	21 A	847.4	PJ#313	893.2	03-Jun-91	31 A	836.1
PJ#309	911.8	31-Mar-89	21 A	839.9	PJ#313	893.2	03-Sep-91	32 A	835.2
PJ#309	911.8	07-Jul-89	23 A	839.2	PJ#313	893.2	27-Sep-91	32 A	835.6
PJ#309	911.8	05-Aug-89	23 F	837.2	PJ#313	893.2	06-Dec-91	33 A	836.7
PJ#309	911.8	05-Oct-89	24 A	834.8	PJ#313	893.2	24-Mar-92	34 A	837.4
PJ#309	911.8	11-Jan-90	25 A	838.1	PJ#313	893.2	01-Jun-92	35 A	837.5
PJ#309	911.8	16-May-90	26 A	838.8	PJ#313	893.2	01-Sep-92	36 A	836.8
PJ#309	911.8	16-Jul-90	27 A	838.7	PJ#313	893.2	08-Oct-92	37 A	807.6
PJ#309	911.8	28-Feb-91	30 A	838.2	PJ#313	893.2	02-Mar-93	38 A	839.6
PJ#309	911.8	03-Jun-91	31 A	838.0	PJ#313	893.2	10-Sep-93	40 A	841.6
PJ#309	911.8	03-Sep-91	32 A	838.1					
PJ#309	911.8	27-Sep-91	32 A	838.5	PJ#318	983.0	30-Aug-88	19 F	806.2
PJ#309	911.8	06-Dec-91	33 A	839.4	PJ#318	983.0	25-Nov-88	20 F	807.3
PJ#309	911.8	24-Mar-92	34 A	840.2	PJ#318	983.0	29-Apr-89	22 F	806.1
PJ#309	911.8	01-Jun-92	35 A	840.7	PJ#318	983.0	07-Aug-89	23 F	809.0
PJ#309	911.8	01-Sep-92	36 A	840.0	PJ#318	983.0	02-Nov-89	24 F	805.1
PJ#309	911.8	08-Oct-92	37 A	839.4	PJ#318	983.0	17-Apr-90	26 F	812.4
PJ#309	911.8	02-Mar-93	38 A	841.6	PJ#318	983.0	14-Mar-91	30 F	807.3
PJ#309	911.8	10-Sep-93	40 A	842.4	PJ#318	983.0	24-Mar-92	34 F	811.5
					PJ#318	983.0	08-Mar-93	38 F	810.1
PJ#310	913.3	02-Dec-88	20 A	845.2					
PJ#310	913.3	13-Jan-89	21 A	847.3	PJ#501	904.2	15-Dec-87	16 F	856.0
PJ#310	913.3	31-Mar-89	21 A	838.1	PJ#501	904.2	27-Jan-88	17 F	854.1
PJ#310	913.3	07-Jul-89	23 A	835.3	PJ#501	904.2	14-Apr-88	18 F	854.7
PJ#310	913.3	05-Aug-89	23 F	837.0	PJ#501	904.2	30-Aug-88	19 F	850.0
PJ#310	913.3	05-Oct-89	24 A	835.3	PJ#501	904.2	25-Nov-88	20 F	850.0
PJ#310	913.3	06-Nov-89	24 F	833.3	PJ#501	904.2	05-Aug-89	23 F	847.4
PJ#310	913.3	21-Dec-89	24 A	833.9					
PJ#310	913.3	11-Jan-90	25 A	833.9	PJ#502	920.7	15-Dec-87	16 F	864.0
PJ#310	913.3	16-May-90	26 A	835.1	PJ#502	920.7	27-Jan-88	17 F	853.7
PJ#310	913.3	16-Jul-90	27 A	835.2	PJ#502	920.7	14-Apr-88	18 F	854.3
PJ#310	913.3	28-Feb-91	30 A	836.0	PJ#502	920.7	30-Aug-88	19 F	849.7
PJ#310	913.3	03-Jun-91	31 A	835.7	PJ#502	920.7	25-Nov-88	20 F	849.7
PJ#310	913.3	03-Sep-91	32 A	835.7	PJ#502	920.7	05-Aug-89	23 F	846.9
PJ#310	913.3	27-Sep-91	32 A	835.7					
PJ#310	913.3	06-Dec-91	33 A	836.8	PJ#503	927.3	15-Dec-87	16 F	852.2
PJ#310	913.3	24-Mar-92	34 A	837.4	PJ#503	927.3	27-Jan-88	17 F	853.7
PJ#310	913.3	01-Jun-92	35 A	837.5	PJ#503	927.3	14-Apr-88	18 F	854.3
PJ#310	913.3	01-Sep-92	36 A	837.2	PJ#503	927.3	30-Aug-88	19 F	849.9
PJ#310	913.3	08-Oct-92	37 A	836.8	PJ#503	927.3	25-Nov-88	20 F	849.9
PJ#310	913.3	02-Mar-93	38 A	838.6	PJ#503	927.3	05-Aug-89	23 F	853.5
PJ#310	913.3	10-Sep-93	40 A	839.7					
PJ#311	905.2	31-Mar-89	21 A	840.7	PJ#504	884.0	05-Aug-89	23 F	762.8
PJ#311	905.2	07-Jul-89	23 A	840.2	PJ#504	884.0	06-Nov-89	24 F	762.8
PJ#311	905.2	05-Aug-89	23 F	838.2					
PJ#311	905.2	05-Oct-89	24 A	840.3	PJ#506	943.6	15-Dec-87	16 F	854.5
PJ#311	905.2	06-Nov-89	24 F	837.8	PJ#506	943.6	27-Jan-88	17 F	854.2
PJ#311	905.2	21-Dec-89	24 A	845.7	PJ#506	943.6	14-Apr-88	18 F	855.1
PJ#311	905.2	11-Jan-90	25 A	838.9	PJ#506	943.6	30-Aug-88	19 F	850.5
PJ#311	905.2	16-May-90	26 A	839.6	PJ#506	943.6	25-Nov-88	20 F	850.5
PJ#311	905.2	16-Jul-90	27 A	838.4	PJ#506	943.6	05-Aug-89	23 F	847.5
PJ#311	905.2	28-Feb-91	30 A	839.2			Well Abandoned		
PJ#311	905.2	03-Jun-91	31 A	839.2	PJ#507	946.6	15-Dec-87	16 F	854.1
PJ#311	905.2	27-Sep-91	32 A	838.5	PJ#507	946.6	27-Jan-88	17 F	853.9
PJ#311	905.2	06-Dec-91	33 A	840.2	PJ#507	946.6	14-Apr-88	18 F	854.6

TABLE IV - 1  
TCAAP Groundwater Elevation Data

Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)	Well	TOS (1) (ft)	Date	Qtr (2)	Groundwater Elev.(ft)
PJ#507	946.6	30-Aug-88	19 F	850.2	PJ#806	909.4	03-Nov-89	24 F	839.9
PJ#507	946.6	25-Nov-88	20 F	850.2	PJ#806	909.4	21-Dec-89	24 A	839.2
PJ#507	946.6	05-Aug-89	23 F	847.3	PJ#806	909.4	11-Jan-90	25 A	839.5
PJ#507	Well Abandoned				PJ#806	909.4	16-May-90	26 A	839.6
					PJ#806	909.4	16-Jul-90	27 A	839.2
PJ#508	956.8	15-Dec-87	16 F	854.0	PJ#806	909.4	28-Feb-91	30 A	839.9
PJ#508	956.8	27-Jan-88	17 F	856.0	PJ#806	909.4	03-Jun-91	31 A	839.6
PJ#508	956.8	14-Apr-88	18 F	854.5	PJ#806	909.4	03-Sep-91	32 A	838.9
PJ#508	956.8	30-Aug-88	19 F	850.2	PJ#806	909.4	27-Sep-91	32 A	839.3
PJ#508	956.8	25-Nov-88	20 F	850.2	PJ#806	909.4	06-Dec-91	33 A	840.6
PJ#508	956.8	05-Aug-89	23 F	847.2	PJ#806	909.4	24-Mar-92	34 A	841.2
PJ#508	956.8	03-Nov-89	24 F	846.3	PJ#806	909.4	01-Jun-92	35 A	841.2
PJ#508	Well Abandoned				PJ#806	909.4	01-Sep-92	36 A	840.8
					PJ#806	909.4	08-Oct-92	37 A	841.4
PJ#802	902.7	17-Nov-87	16 A	849.7	PJ#806	909.4	02-Mar-93	38 A	842.3
PJ#802	902.7	24-Nov-87	16 A	849.6	PJ#806	909.4	10-Sep-93	40 A	843.7
PJ#802	902.7	30-Nov-87	16 A	849.5					
PJ#802	902.7	14-Dec-87	16 A	849.3	S.G. #1	860.4	28-Feb-91	30 A	865.2
PJ#802	902.7	14-Dec-87	16 F	849.2	S.G. #1	860.4	27-Sep-91	32 A	865.7
PJ#802	902.7	11-Jan-88	17 A	849.6	S.G. #1	860.4	24-Mar-92	34 A	867.6
PJ#802	902.7	26-Jan-88	17 F	849.3	S.G. #1	860.4	08-Oct-92	37 A	866.6
PJ#802	902.7	13-Apr-88	18 F	848.7	S.G. #1	860.4	02-Mar-93	38 A	866.9
PJ#802	902.7	02-May-88	18 A	849.8	S.G. #1	860.4	10-Sep-93	40 A	867.9
PJ#802	902.7	20-May-88	18 A	849.3					
PJ#802	902.7	23-Jun-88	18 A	848.0	S.G. #2	862.8	28-Feb-91	30 A	865.0
PJ#802	902.7	27-Jul-88	19 A	847.1	S.G. #2	862.8	27-Sep-91	32 A	865.9
PJ#802	902.7	30-Aug-88	19 F	846.1	S.G. #2	862.8	24-Mar-92	34 A	867.8
PJ#802	902.7	01-Sep-88	19 A	846.1	S.G. #2	862.8	08-Oct-92	37 A	866.8
PJ#802	902.7	21-Sep-88	19 A	845.8	S.G. #2	862.8	02-Mar-93	38 A	868.1
PJ#802	902.7	14-Oct-88	20 A	845.9	S.G. #2	862.8	10-Sep-93	40 A	868.1
PJ#802	902.7	25-Nov-88	20 F	846.7					
PJ#802	902.7	02-Dec-88	20 A	846.6	S.G. #3	865.3	28-Feb-91	30 A	865.5
PJ#802	902.7	13-Jan-89	21 A	846.6	S.G. #3	865.3	27-Sep-91	32 A	866.0
PJ#802	902.7	31-Mar-89	21 A	844.1	S.G. #3	865.3	24-Mar-92	34 A	867.5
PJ#802	902.7	03-Aug-89	23 F	842.5	S.G. #3	865.3	08-Oct-92	37 A	866.5
PJ#802	902.7	05-Oct-89	24 A	842.1	S.G. #3	865.3	02-Mar-93	38 A	867.6
PJ#802	902.7	03-Nov-89	24 F	841.8	S.G. #3	865.3	10-Sep-93	40 A	867.6
PJ#802	902.7	21-Dec-89	24 A	841.6					
PJ#802	902.7	11-Jan-90	25 A	841.7					
PJ#802	902.7	16-May-90	26 A	841.7					
PJ#802	902.7	16-Jul-90	27 A	841.3					
PJ#802	902.7	28-Feb-91	30 A	841.9					
PJ#802	902.7	03-Jun-91	31 A	841.7					
PJ#802	902.7	03-Sep-91	32 A	841.1					
PJ#802	902.7	27-Sep-91	32 A	841.4					
PJ#802	902.7	06-Dec-91	33 A	841.6					
PJ#802	902.7	24-Mar-92	34 A	842.1					
PJ#802	902.7	01-Jun-92	35 A	842.3					
PJ#802	902.7	01-Sep-92	36 A	842.1					
PJ#802	902.7	08-Oct-92	37 A	843.5					
PJ#802	902.7	02-Mar-93	38 A	844.3					
PJ#802	902.7	10-Sep-93	40 A	845.5					
PJ#806	909.4	17-Nov-87	16 A	849.0					
PJ#806	909.4	24-Nov-87	16 A	848.6					
PJ#806	909.4	30-Nov-87	16 A	848.3					
PJ#806	909.4	14-Dec-87	16 A	848.1					
PJ#806	909.4	11-Jan-88	17 A	848.9					
PJ#806	909.4	27-Jan-88	17 F	847.9					
PJ#806	909.4	13-Apr-88	18 F	848.5					
PJ#806	909.4	02-May-88	18 A	848.3					
PJ#806	909.4	20-May-88	18 A	847.8					
PJ#806	909.4	23-Jun-88	18 A	846.1					
PJ#806	909.4	27-Jul-88	19 A	845.7					
PJ#806	909.4	30-Aug-88	19 F	844.6					
PJ#806	909.4	01-Sep-88	19 A	845.0					
PJ#806	909.4	21-Sep-88	19 A	844.3					
PJ#806	909.4	14-Oct-88	20 A	844.8					
PJ#806	909.4	25-Nov-88	20 F	846.1					
PJ#806	909.4	02-Dec-88	20 A	845.9					
PJ#806	909.4	13-Jan-89	21 A	845.9					
PJ#806	909.4	31-Mar-89	21 A	842.0					
PJ#806	909.4	03-Aug-89	23 F	840.3					
PJ#806	909.4	05-Oct-89	24 A	839.8					

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## Table IV-2

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### TCAAP Groundwater Quality Data (Organics)

Notes:

- (1) The parameters are grouped by chemical categories. Benzene, toluene, and total xylenes comprise Category 7 -- all other parameters are Category 1. The Category 1 parameters are sub-grouped into the -ethene, -ethane, and miscellaneous compounds. Furthermore, within each sub-group the parameters are arranged in descending order with respect to the number of chloride ions. This order is intended to represent potential degradation pathways.
- (2) Qtr = Quarter. Under this heading, F = FCC; A = Alliant Techsystems, Inc.; and M = MPCA. For MPCA data, "PP" = Peak Present, but not quantifiable. All MPCA data was validated and provided directly by the MPCA and was not retrieved through IRDMIS.
- (3) PC = PACE; B1 = Braun Intertec; MH = Minnesota Department of Health
- (4) USAEC Method Designations.
- (5) TCAAP GW Action Criteria = groundwater action criteria set forth in revised Table 3.7A of the Federal Facilities Agreement.
- (6) Duplicate sample collected for QA/QC purposes.
- (7) Raw laboratory data not retrieved from IRDMIS.

Shading denotes exceedances or potential exceedances of TCAAP action criteria. Exceedances are concentrations greater than the TCAAP action criteria. Potential exceedances are values reported as "less than the method detection limit," where the method detection limit is greater than the TCAAP action criteria.

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetrachloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01L811	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01L813	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01L816	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01L816			Well Abandoned																						
01L821	30-Nov-87	F16		<1.80	2.80	<1.00	39.00			110.00	<1.60	<2.00	15.00	3.00	<2.20	<0.82	<1.20	<9.00	<3.60						
01L822	01-Dec-87	F16		<18.00	<22.00	<10.00	43.00			<30.00	<16.00	<20.00	<14.00	<10.00	<22.00	<8.20	<12.00	<90.00	<36.00						
01L823	01-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U003	27-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U003	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
01U004	27-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U004	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
01U004	27-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
01U022	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U033	24-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.08						
01U034	11-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U034	14-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U035	14-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U036	11-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U036	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U036	14-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U036	25-Apr-89	F22		1.26	0.70	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U036	26-Apr-89	F22		1.41	0.75	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U036	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U036	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U036	24-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U036	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U036	13-Mar-91	F30		<1.00	<0.50	<1.00	0.62			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U036	09-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U036	08-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U036	08-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U036	08-Mar-93	M38	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
01U037	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U037	18-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U038	06-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			1.61	<0.87	<8.28			
01U039	06-Apr-88	F18		<1.00	<0.50	<1.00	0.93			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U039	18-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U039	13-Mar-91	F30		<5.00	<2.50	<5.00	<2.50			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00	<0.41	<0.87	<8.28			
01U039	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U039	30-Jul-91	M32		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
01U039	05-Mar-92	F34		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U039	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U039	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U040	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
01U041	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2- Dichloro ethene C12DCE	Trans 1,2- Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1- Tri chloro ethane 111TCE	1,1,2- Tri chloro ethane 112TCE	1,1- Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2- Trichloro 2,2,1-tri fluoroethane TCLTFF	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta & Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
01U045	08-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U047	27-Apr-89	F22		<1.00	<0.50	<1.00	23.10			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U047	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U047	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U048	27-Apr-89	F22		<1.00	<0.50	<1.00	9.89			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U048	26-Jul-89	F23		<0.88	<1.10	<0.49	5.75			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U048	25-Oct-89	F24		<0.88	<1.10	<0.49	2.89			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U050	16-Nov-87	F16		<0.88	6.88	<0.49	<0.56			<1.50	2.26	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U050	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U050	15-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U050	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U051	16-Nov-87	F16		<0.88	2.39	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U051	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U051	15-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U051	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U052	27-Apr-89	F22		<1.00	<0.50	<1.00	1.24			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U052	26-Jul-89	F23		<0.88	<1.10	<0.49	1.75			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U052	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U053	16-Nov-87	F16		<0.88	<1.10	0.94	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U053	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U053	15-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U053	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U054	16-Nov-87	F16		<0.88	16.10	<0.49	<0.56			<1.50	5.92	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U054	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U054	15-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U054	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U054	27-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U054	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U054	26-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U060	19-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	22.70	<1.17		
01U060	11-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U060	17-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U060	26-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U060	25-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U060	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17		
01U062	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U062	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U062	16-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U062	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U062	09-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U062	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U062	26-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U063	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U063	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLEN
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
01U064	12-May-89	F22		<1.00	5.42	2.96	150.00			3.58	7.15	<1.00		1.42	<0.72	<1.00			<0.41	<0.87	<8.28			
01U064	26-Jul-89	F23		<22.00	<28.00	<12.00	430.00			<38.00	<20.00	<25.00		<13.00	<10.00	<16.00			<3.09	<3.39	<1.17			
01U064	27-Oct-89	F24		<22.00	41.00	<12.00	430.00			<38.00	22.00	<25.00		<13.00	<10.00	<16.00			<77.00	<85.00	<29.00			
01U064	22-Mar-91	A30		<2.00	14.00	<2.00	350.00			<3.80	4.50	<2.00	14.00	<1.00	<2.60	<1.40	<2.00	<2.00						
01U064	17-Mar-92	A34		<5.00	5.20	<5.00	220.00		<13.00	<3.80	4.50	<2.00	14.00	<1.00	<2.60	<1.40	<2.00	<2.00						
01U064	(6) 17-Mar-92	A34		<5.00	6.40	<5.00	230.00		10.00	<9.50	7.70	<5.00	5.80	<2.50	<6.50	<3.60	<5.00	<5.00						
01U064	24-Mar-93	A38 (7)		<5.00	3.80	<5.00	300.00		10.00	<9.50	8.80	<5.00	5.80	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
01U064				<5.00	3.80	<5.00	300.00		10.00	16.00	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
01U065	28-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U065	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	<3.39	<1.17			
01U065	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	<3.39	<1.17			
01U067	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U072	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U085	11-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U085	10-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62	<1.00	<1.80	<3.09	<3.39	<1.17		
01U085	17-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62	<1.00	<1.80	<3.09	<3.39	<1.17		
01U085	18-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U085	13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U085	16-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<3.20	<0.41	<0.87	<8.28		
01U085	05-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U098	19-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U098	11-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62	<1.00	<1.80	<3.09	<3.39	<1.17		
01U098	17-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62	<1.00	<1.80	<3.09	<3.39	<1.17		
01U098	26-Apr-90	F26		<1.00	0.57	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U098	25-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U098	11-Mar-92	F34		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U098	11-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<3.20	<0.41	<0.87	<8.28		
01U098	03-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U100	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U101	14-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U101	25-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U101	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	<3.39	<1.17			
01U101	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	<3.39	<1.17			
01U101	24-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	0.38	<0.62			<3.09	<3.39	<1.17			
01U101	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	<3.39	<1.17			
01U102	08-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U102	11-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			<0.41	<0.87	<8.28			
01U102	25-Apr-89	F22		41.60	31.00	<1.00	9.60			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00			0.84	<0.87	<8.28			
01U102	25-Jul-89	F23		<0.88	2.20	<0.49	44.00			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	34.00	<1.17			
01U102	27-Jul-89	F23		<1.80	2.80	<0.98	47.00			<3.00	<1.60	<2.00		<1.00	<0.82	<1.20			<6.20	34.00	<2.30			
01U102	25-Oct-89	F24		81.00	160.00	<0.49	75.00			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<3.09	<3.39	<1.17			
01U102	26-Oct-89	F24		64.00	200.00	<0.49	80.00			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62			<6.20	<6.80	<2.30			
01U102	16-Apr-90	F26		250.00	270.00	<1.00	77.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
01U102	17-Apr-90	F26																						
01U102	17-Jul-90	F27		250.00	300.00	<1.00	130.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
01U102	19-Sep-90	F28		170.00	170.00	<1.00	170.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
01U102	21-Sep-90	F28		170.00	190.00	<1.00	190.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
01U102	(6) 21-Sep-90	F28		190.00	190.00	<1.00	200.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLE	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01U102	09-Mar-92	F34		180.00	47.00	<5.00		98.00	<5.30	<20.00	<5.80	<7.60	<4.90	<23.00	<6.00	<5.40	<20.00	<22.00	<7.00						
01U102	09-Mar-92	F34																							
01U102	09-Mar-92	M34		150.00	41.00	<2.50		95.00	<0.50	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	<0.50	<1.00	<1.00	<2.50	<3.09	<3.39	<1.17			
01U102	01-Jun-92	F35		45.3	140.00	<1.01		<4.10	<4.47	<1.20	<1.16	<1.52	<0.97	<4.63	<1.41	<1.06	<3.94	130	<1.08	<1.00	<1.00		<1.00	<1.00	
01U102	01-Jun-92	F35		140.00				130.00												<3.09	<3.39	<1.17			
01U102	01-Sep-92	F36																							
01U102	20-Oct-92	F36		130.00	61.00	<10.00	490.00		<19.00	<10.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00	4.57	<3.39	<1.17				
01U102	02-Mar-93	F38	PC UP01																						
01U102	(6) 02-Mar-93	F38	PC UG03	79.00	88.00	<20.00	590.00		<38.00	<20.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<20.00	<64.00	19.00	<17.00	<170.00			
01U102	02-Jun-93	F39	PC UP01																						
01U102	02-Jun-93	F39	PC UG03	150.00	160.00	<10.00	590.00		<19.00	<10.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00	17.00	<8.70	<83.00				
01U102	(6) 02-Jun-93	F39	PC UP01																						
01U102	(6) 02-Jun-93	F39	PC UG03	77.60	160.00	<1.00	540.00		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	14.90	<0.87	<8.28				
01U102	08-Sep-93	F40	PC UG03	55.00	39.00	<20.00	630.00		<38.00	<20.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00							
01U103	11-Nov-87	F16																		<3.09	<3.39	1.48			
01U103	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62									
01U103	18-Nov-87	F16		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80							
01U103	08-Aug-88	F19		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00									
01U103	11-Nov-88	F20		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00									
01U103	25-Apr-89	F22		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00				<0.41	<0.87	<8.28			
01U103	26-Apr-89	F22		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00				<0.41	<0.87	<8.28			
01U103	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	11.40	<1.17			
01U103	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	11.40	<1.17			
01U103	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	11.40	<1.17			
01U103	26-Oct-89	F24		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	11.40	<1.17			
01U103	16-Apr-90	F26		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00				<3.09	11.40	<1.17			
01U103	13-Mar-91	F30		6.20	<2.50	<5.00	<2.50		<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00	<4.50	<0.41	<0.87	<8.28			
01U103	30-Jul-91	F32		0.76	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80		<0.41	<0.87	<8.28			
01U103	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U103	05-Mar-92	F34																							
01U103	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<3.09	<3.39	<1.17			
01U103	08-Sep-93	F40	PC UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20							
01U104	06-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U105	06-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U105	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20							
01U106	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80							
01U106	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U106	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20							
01U107	08-Apr-88	F18		<1.00	<0.54	<1.00	<1.49		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00				<0.41	<0.87	<8.28			
01U107	08-Aug-88	F19		<1.00	<0.50	<1.00	1.04		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00									
01U107	15-Nov-88	F20		2.19	0.88	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00									
01U107	25-Apr-89	F22		<1.00	<0.50	<1.00	0.63		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00				<0.41	<0.87	<8.28			
01U107	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	<3.39	<1.17			
01U107	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	<3.39	<1.17			
01U107	25-Oct-89	F24		<0.88	1.43	<0.49	1.23		<1.50	<0.81	<0.99		<0.51		<0.41	<0.62				<3.09	<3.39	<1.17			
01U107	26-Apr-90	F22		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00		<0.50		<0.72	<1.00				<0.41	<0.87	<1.17			
01U107	13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28			
01U108	10-Dec-85	F8		1100.00	520.00		510.00																		
01U108	18-Mar-86	F9		990.00	520.00		590.00																		
01U108	07-Jul-86	F11		930.00	300.00		530.00																		
01U108	17-Nov-87	F16		260.00	150.00	<12.00	670.00		<38.00	<20.00	<25.00	<18.00													

TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00			
01U108	21-Feb-89	F21		620.00	400.00	<1.00	310.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	21-Mar-89	F21		410.00	230.00	<1.00	170.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	24-Apr-89	F22		380.00	280.00	<1.00	110.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	24-Apr-89	F22		420.00	300.00	12.00	120.00			<19.00	<10.00	<10.00		<5.00		<7.20	<10.00			<4.10	<8.70	<83.00			
01U108	23-May-89	F22		150.00	95.00	<1.00	30.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	23-Jun-89	F22		590.00	340.00	<1.00	80.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	17-Jul-89	F23		380.00	200.00	<1.00	71.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	28-Aug-89	F23		440.00	210.00	<1.00	62.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	03-Oct-89	F24		150.00	64.00	<1.00	40.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	24-Oct-89	F24		280.00	33.00	<1.00	67.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	24-Oct-89	F24		180.00	160.00	<12.00	100.00			<38.00	<20.00	<25.00		<13.00		<10.00	<16.00		<77.00	<85.00	<29.00				
01U108	22-Nov-89	F24		140.00	72.00	<1.00	48.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	19-Dec-89	F24		99.00	45.00	<1.00	30.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	23-Jan-90	F25		200.00	110.00	<1.00	63.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	20-Feb-90	F25		170.00	110.00	<1.00	61.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	20-Mar-90	F25		240.00	140.00	<1.00	68.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	16-Apr-90	F26		200.00	150.00	<1.00	70.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	16-Apr-90	F26		230.00	160.00	<20.00	76.00			<38.00	<20.00	<20.00		<10.00		<14.00	<20.00								
01U108	22-May-90	F26		76.20	45.00	<1.00	18.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	19-Jun-90	F26		68.30	9.94	<1.00	15.90			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	17-Jul-90	F27		68.00	39.00	<1.00	13.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	17-Jul-90	F27		75.00	42.00	<1.00	14.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U108	21-Aug-90	F27		110.00	62.00	<1.00	14.10			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	18-Sep-90	F28		140.00	73.00	<1.00	20.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U108	(6) 18-Sep-90	F28		120.00	67.00	<1.00	19.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U108	19-Sep-90	F28		110.00	63.00	<1.00	18.40			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	22-Oct-90	F28		120.00	54.00	<1.00	12.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U108	22-Oct-90	F29		133.00	57.40	<1.00	12.80			<1.90	<1.00	<1.00		<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	20-Nov-90	F29		100.99	59.55	<1.00	15.31			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	18-Dec-90	F29		70.09	35.52	<1.00	12.42			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	22-Jan-91	F30		160.00	86.00	<5.00	33.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U108	19-Feb-91	F30		94.00	49.10	<1.00	19.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	19-Mar-91	F30		84.30	50.00	<1.00	19.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	19-Mar-91	M30		73.00	43.00	<1.30		26.00	<1.30	<2.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.30	<0.50	<0.50	<1.30	<0.41	<0.87	<8.28			
01U108	16-Apr-91	F31		240.00	170.00	<5.00	6.50	<7.50		<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00	<0.50	<0.50		<0.50	<0.50	
01U108	18-May-91	F31		94.80	67.00	<1.00	17.80			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U108	18-Jun-91	F31		180.00	120.00	<5.00	27.00		<1.50	<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00	<0.41	<0.87	<8.28			
01U108	23-Jul-91	F32		180.00	110.00	<5.00	20.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U108	30-Jul-91	F32		180.00	240.00	<12.00	47.00			<38.00	<20.00	<25.00	<18.00	<13.00	<28.00	<10.00	<16.00	<110.00	65.00						
01U108	19-Aug-91	F32		150.00	84.00	<2.00	15.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<0.41	<0.87	<8.28			
01U108	17-Sep-91	F32		130.00	82.00	<2.00	15.40			<3.80	<2.00	<2.00	<1.56	<1.00	<2.60	<1.44	<2.00	<2.00	<6.40	<0.41	<0.87	<8.28			
01U108	22-Oct-91	F33		130.00	97.00	<1.00	21.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	19-Nov-91	F33		36.40	24.70	<1.00	8.59			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	17-Dec-91	F33		20.60	12.00	<1.00	3.21			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	21-Jan-92	F34		270.00	240.00	<5.00	71.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U108	18-Feb-92	F34		70.20	69.00	<1.00	17.10			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	05-Mar-92	F34		13.90	12.80	<1.01		3.86	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U108	05-Mar-92	F34																		<3.09	<3.39	<1.17			
01U108	17-Mar-92	F34		130.00	97.00	<5.00	28.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U108	13-Apr-92	F35		5.02	5.14	<1.00	1.58			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	18-May-92	F35		72.00	52.00	<5.00	15.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U108	01-Jun-92	F35																							
01U108	16-Jun-92	F35		5.94	2.70	<1.00	2.44			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
01U108	21-Jul-92	F36		66.00	49.00	<5.00	20.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U108	18-Aug-92	F36		120.00	71.00	<2.00	28.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U108	01-Sep-92	F36																		<3.09	<3.39	<1.17			
01U108	(6) 01-Sep-92																								

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3Cl	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCl3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFe	Methylene Chloride CH2Cl2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01U108	01-Dec-92	F37	PC UG03	210.00	210.00	<10.00	190.00			<19.00	<10.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
01U108	05-Jan-93	F38	PC UG03	53.00	67.00	<2.00	57.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U108	02-Feb-93	F38	PC UG03	31.00	34.00	<2.00	17.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U108	02-Mar-93	F38	PC UG03	25.40	27.70	<1.00	10.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	19-Apr-93	F39	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	07-May-93	F39	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	(6) 07-May-93	F39	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	01-Jun-93	F39	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	22-Jul-93	F40	PC UG03	3.92	2.74	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	16-Aug-93	F40	PC UG03	22.10	8.59	<1.00	4.67			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U108	14-Sep-93	F40	PC UG03	13.90	5.68	<1.00	5.45			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U109	08-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U110	08-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U115	11-Nov-87	F16		<2.20	12.00	<1.20	43.00			<3.80	<2.00	<2.50	<1.80	<1.30	<2.80	<1.00	<1.60	<11.00	<4.50	<3.09	<3.39	<1.17			
01U115	16-Nov-87	F16		<0.88	3.70	<0.49	16.00			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62								
01U115	11-Apr-88	F18		<1.00	13.10	<1.00	32.70			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U115	09-Aug-88	F19		<1.00	6.04	<1.00	24.40			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U115	15-Nov-88	F20		1.21	9.72	<1.00	18.60			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U115	24-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U115	25-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U115	25-Jul-89	F23		<0.88	6.53	<0.49	14.30			<1.50	<0.81	<0.99		<0.51		<0.41	<1.00		<0.41	<0.87	<8.28				
01U115	27-Jul-89	F23		<0.88	8.29	<0.49	15.30			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17				
01U115	25-Oct-89	F24		<0.88	4.19	<0.49	9.17			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17				
01U115	27-Oct-89	F24		<0.88	5.32	<0.49	9.84			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17				
01U115	19-Apr-90	F26		<1.00	5.71	<1.00	6.99			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<1.17				
01U115	17-Jul-90	F27		<1.00	0.91	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<1.17				
01U115	19-Sep-90	F28		<1.00	4.21	<1.00	4.92			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<1.17				
01U115	20-Sep-90	F28		<1.00	4.52	<1.00	5.36			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U115	19-Mar-91	F30		<1.00	2.86	<1.00	42.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U115	19-Mar-91	M30		<0.20	2.70	<0.50		5.50	0.90	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
01U115	05-Jun-91	F31		<1.00	4.21	<1.00	5.28			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U115	05-Jun-91	M31		<0.20	3.60	<0.50		1.10	0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
01U115	30-Jul-91	F32		<0.88	3.42	<0.49	1.94			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U115	03-Sep-91	F32		<1.00	3.10	<1.00	2.18			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U115	09-Mar-92	F34		<2.41	5.94	<1.01		19.20	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U115	09-Mar-92	F34																							
01U115	09-Mar-92	M34		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	
01U115	01-Jun-92	F35																							
01U115	01-Jun-92	F35		<2.41	5.12	<1.01		9.24	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U115	01-Sep-92	F36																							
01U115	01-Sep-92	F36		<2.41	7.80	<1.01		13.00	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U115	01-Mar-93	F38	PC UG03	<1.00	7.97	<1.00	17.90			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U115	01-Jun-93	F39	PC UG03	<1.00	7.90	<1.00	9.67			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U115	(6) 01-Jun-93	F39	PC UG03	<1.00	6.96	<1.00	8.88			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U115	07-Sep-93	F40	PC UG03	<1.00	4.52	<1.00	50.10			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U116	11-Nov-87	F16		<0.88	2.65	<0.49	24.70			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U116	16-Nov-87	F16		<0.88	2.09	<0.49	23.00			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62								
01U116	06-Apr-88	F18		<1.00	2.22	<1.00	10.30			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28				
01U116	09-Aug-88	F19		<1.00	4.15	<1.00	9.12																		

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2- Dichloro ethene C12DCE	Trans 1,2- Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1- Tri chloro ethane 111TCE	1,1,2- Tri chloro ethane 112TCE	1,1- Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2- Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
01U116	19-Mar-91	F30		<1.00	2.23	<1.00	1.04			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U116	30-Jul-91	F32		<0.88	3.68	<0.49	1.64			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
01U116	06-Mar-92	F34		<2.41	2.68	<1.01		1.21	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
01U116	06-Mar-92	F34																						
01U116	01-Mar-93	F38	PC UG03	<1.00	2.20	<1.00	2.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17		
01U117	11-Nov-87	F16		14.00	7.00	<1.20	51.00			<3.80	<2.00	<2.50	<1.80	<1.30	<2.80	<1.00	<1.60	<11.00	<4.50	<3.09	<3.39	<1.17		
01U117	16-Nov-87	F16		7.20	2.20	<0.49	19.00			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62							
01U117	06-Apr-88	F18		50.20	22.90	<1.00	44.40			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62							
01U117	09-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62			<0.41	<0.87	<8.28		
01U117	15-Nov-88	F20		52.90	21.80	<1.00	39.90			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62							
01U117	25-Apr-89	F22		78.20	17.20	1.24	1.58			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.41	<0.62							
01U117	25-Jul-89	F23		15.40	3.16	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51		0.84	<1.00			1.28	<0.87	<8.28		
01U117	27-Jul-89	F23		12.10	4.01	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51			<1.00			<3.09	<3.39	<8.28		
01U117	25-Oct-89	F24		11.70	10.10	<0.49	60.00			<1.50	<0.81	<0.99	<0.72	<0.51			<1.00			<3.09	<3.39	<8.28		
01U117	27-Oct-89	F24		9.21	12.80	<0.49	64.00			<1.50	<0.81	<0.99	<0.72	<0.51			<1.00			<3.09	<3.39	<8.28		
01U117	25-Apr-90	F26		10.27	13.63	<1.00	7.84			<1.90	<1.00	<1.00	<0.78	0.99	<1.30	<0.72	<1.00	<1.00		<3.09	<3.39	<1.17		
01U117	19-Mar-91	F30		5.84	21.40	<1.00	200.00			<1.90	1.35	<1.00	<0.78	<0.50	<1.30	<0.72	1.07	<1.00	<3.20	2.08	8.33	<8.28		
01U117	11-Jun-91	M31		8.10	2.10	<0.50		4.30	0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<1.00	<0.20	<0.20	<0.50	<0.20				<0.20	<0.20
01U117	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
01U117	30-Jul-91	F32		<8.80	38.00	<4.90	98.00			<15.00	<8.10	<9.90	<7.20	<5.10	<11.00	<4.10	<6.20	<45.00	17.00					
01U117	09-Mar-92	F34		6.78	39.00	<5.00		130.00	6.70	<20.00	<5.80	<7.60	<4.90	<23.00	<6.00	<5.40	<20.00	<22.00	9.10					
01U117	09-Mar-92	F34																						
01U117	09-Mar-92	M34		6.10	32.00	<1.00		120.00	4.50	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.20	<0.40	<0.40	<1.00	<3.09	<3.39	<1.17		
01U117	02-Mar-93	F38	PC UG03	<5.00	47.00	<3.00	160.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.30	<3.60	<5.00	<5.00	<16.00	<0.40	<0.40	<41.00	<0.40	<0.40
01U117	02-Mar-93	F38	PC UG03	3.80	28.00	<2.00	100.00			<3.80	<2.00	<2.00	<1.60	<2.60	<3.40	<2.60	<2.00	<6.40	<2.00					
01U117	01-Jun-93	F39	PC UG03	4.57	13.70	<1.00	43.10			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	2.47	<1.00	<1.00	<3.20					
01U117	07-Sep-93	F40	PC UG03																					
01U118	11-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U118	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62							
01U118	07-Apr-88	F18		<1.00	1.41	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62			<0.41	<0.87	<8.28		
01U118	09-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U118	15-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U118	25-Apr-89	F22		<1.00	<0.50	1.28	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U118	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62			<0.41	<0.87	<8.28		
01U118	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<8.28		
01U118	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17		
01U118	27-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<8.28		
01U118	25-Apr-90	F26		<1.00	0.78	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17		
01U118	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U119	11-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U119	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62							
01U119	07-Apr-88	F18		<1.00	0.77	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62			<0.41	<0.87	<8.28		
01U119	12-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U119	15-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U119	25-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U119	26-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.41	<0.62							
01U119	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62			<0.41	<0.87	<8.28		
01U119	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51										

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 1DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
01U120	25-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U120	27-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U120	25-Jul-89	F23		<0.88	1.11	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<8.28		
01U120	27-Jul-89	F23		<0.88	1.41	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U120	25-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<8.28		
01U120	27-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U120	25-Apr-90	F26		<1.00	0.71	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			1.31	6.17	<8.28		
01U120	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U120	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
01U120	06-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
01U120	06-Mar-92	F34																		<3.09	<3.39	<1.17		
01U120	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U122	09-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U122	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U122	08-Aug-88	F19		<1.00	1.11	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U122	11-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U125	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62							
01U125	08-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U125	11-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U125	12-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U125	17-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U125	01-May-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U125	13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U125	(6) 13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U125	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
01U125	05-Mar-92	F34																		<3.09	<3.39	<1.17		
01U125	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
01U125	(6) 05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
01U125	(6) 05-Mar-92	F34																		<3.09	<3.39	<1.17		
01U125	02-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17		
01U126	16-Nov-87	F16		16.00	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62							
01U126	08-Dec-87	F16		25.00	<2.20	<1.00	<1.10			<3.00	<1.60	<2.00	<1.40	<1.00	<2.20	<0.82	<1.20	<9.00	<3.60	<3.09	<3.39	<1.17		
01U126	06-Apr-88	F18		37.60	0.79	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
01U126	12-Aug-88	F19		30.80	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U126	17-Nov-88	F20		34.70	2.11	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U126	24-Apr-89	F22		5.41	0.70	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U126	25-Apr-89	F22		4.90	0.65	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U126	25-Jul-89	F23		4.85	1.39	<0.49	1.20			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<8.28		
01U126	27-Jul-89	F23		3.82	1.76	<0.49	1.29			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U126	25-Oct-89	F24		2.29	2.14	<0.49	1.37			<1.50	<0.81	<0.99		<0.51		0.33	<0.62			<3.09	<3.39	<1.17		
01U126	01-May-90	F26		5.85	0.79	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.93	6.07	<8.28		
01U126	13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U126	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
01U126	09-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
01U126	09-Mar-92	F34																		<3.09	<3.39	<1.17		
01U126	09-Mar-92	M34		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<1.17	<0.20	<0.20
01U126	02-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U126	(6) 02-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U127	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.							

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCPLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLE	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01U127	13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U127	30-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U127	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U127	05-Mar-92	F34																		<3.09	<3.39	<1.17			
01U127	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U128	09-Dec-87	F16		<1.80	<2.20	<1.00	41.00			<3.00	<1.60	<2.00	<1.40	<1.00	<2.20	<0.82	<1.20	<9.00	<3.60	<3.09	<3.39	<1.17			
01U128	05-Apr-88	F18		<1.00	<0.50	<1.00	34.00			<1.90	<1.00	<1.00	<1.00	<1.00	<2.20	<0.72	<1.00	<9.00	<3.60	<3.09	<3.39	<1.17			
01U128	08-Aug-88	F19		<1.00	<0.50	<1.00	41.30			<1.90	<1.00	<1.00	<1.00	<1.00	<2.20	<0.72	<1.00	<9.00	<3.60	<3.09	<3.39	<1.17			
01U128	16-Nov-88	F20		<1.00	<0.50	<1.00	30.70			<1.90	<1.00	<1.00	<1.00	<1.00	<2.20	<0.72	<1.00	<9.00	<3.60	<3.09	<3.39	<1.17			
01U128	24-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	30.50		2.57	<1.90	<1.00	<1.00	1.20	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	17.00	22.60			
01U128	(6) 24-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	28.20		2.17	<1.90	<1.00	<1.00	0.97	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41					
01U130	07-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U130	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U130	15-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U130	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U133	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U133	11-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U133	12-Aug-88	F19		<1.00	<0.50	<1.00	0.61			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U133	14-Nov-88	F20		<1.00	<0.50	<1.00	0.62			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U133	26-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U135	21-Nov-88	F20		<1.00	<0.50	<1.00	0.66			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	25-Apr-89	F22		<1.00	<0.50	<1.00	1.07			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	25-Jul-89	F23		<0.88	<1.10	<0.49	0.71			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	26-Jul-89	F23		<0.88	<1.10	<0.49	0.76			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	25-Oct-89	F24		<0.88	<1.10	<0.49	1.46			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	19-Apr-90	F26		<1.00	1.38	<1.00	1.41			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	13-Mar-91	F30		<1.00	<0.50	<1.00	0.98			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U135	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
01U135	05-Mar-92	F34																		<3.09	<3.39	<1.17			
01U135	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	0.73			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U135	(6) 01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	0.71			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U136	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U136	25-Apr-89	F22		<1.00	<0.50	1.26	<0.50			<1.90	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U136	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U136	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U136	25-Oct-89	F24		<0.88	<1.10	<0.49	1.16			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U136	19-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.66	<0.87	<8.28			
01U136	13-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U136	05-Mar-92	F34																		<3.09	<3.39	<1.17			
01U136	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
01U136	02-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U137	29-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U137	30-Jul-91	M32		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
01U137	06-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
01U137	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50											

TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tr chloro ethane 111TCE	1,1,2-Tr chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLE	
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01U139	02-Mar-93	F38	PC UG03	<5.00	<2.50	<5.00	160.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U139	02-Mar-93	F38	PC UP01																						
01U139	07-Sep-93	F40	PC UG03	<5.00	4.20	<5.00	160.00			<9.50	6.20	<5.00	<3.90	<2.50	<6.50	4.30	<5.00	<5.00	<16.00	11.00	<4.40	<41.00			
01U140	29-Jul-91	F32		<0.88	1.76	<0.49	13.00			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U140	29-Jul-91	M32		<0.20	0.30	<0.50		4.70	0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	4.90	<0.20		<0.20	<0.20	
01U140	06-Mar-92	F34		<24.00	<10.00	<10.00		190.00	<11.00	<41.00	<12.00	<15.00	<9.70	<46.00	<12.00	<11.00	<39.00	<45.00	19.00						
01U140	02-Mar-93	F38	PC UG03	<10.00	<5.00	<10.00	290.00			<19.00	<10.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
01U140	02-Mar-93	F38	PC UP01																						
01U140	07-Sep-93	F40	PC UG03	<1.00	0.58	<1.00	110.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	23.00	<8.70	<83.00			
01U141	29-Jul-91	F32		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
01U141	29-Jul-91	M32		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
01U141	06-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U141	06-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
01U141	01-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U350	13-Sep-88	F20		620.00	380.00	<1.00	540.00			<1.90	<1.00	91.00		14.00		<0.72	<1.00								
01U350	21-Sep-88	F20		130.00	58.00	<1.00	120.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	27-Sep-88	F20		80.50	37.00	<1.00	88.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	04-Oct-88	F20		110.00	38.00	<1.00	85.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	19-Oct-88	F20		120.00	39.00	<1.00	78.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	25-Oct-88	F20		49.40	21.10	<1.00	43.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	08-Nov-88	F20		57.40	25.90	<1.00	41.20			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	29-Nov-88	F20		38.70	19.10	<1.00	32.30			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	06-Dec-88	F20		31.00	16.00	<1.00	38.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	20-Dec-88	F20		46.70	20.00	<1.00	38.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	17-Jan-89	F21		27.00	10.00	<1.00	40.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	21-Feb-89	F21		24.00	16.00	<1.00	24.00			<1.90	<1.00	<1.00		<0.50	3.70	<0.72	<1.00								
01U350	21-Mar-89	F21		22.00	13.00	<1.00	39.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	24-Apr-89	F22		30.00	16.00	<1.00	32.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	23-May-89	F22		17.00	10.00	<1.00	27.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	23-Jun-89	F22		15.00	8.00	<1.00	24.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	17-Jul-89	F23		16.00	9.00	<1.00	23.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	28-Aug-89	F23		16.00	11.00	<1.00	28.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	03-Oct-89	F24		10.00	6.00	<1.00	23.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	24-Oct-89	F24		15.00	8.00	<1.00	28.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	22-Nov-89	F24		20.00	11.00	<1.00	34.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	19-Dec-89	F24		14.00	8.00	<1.00	27.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	23-Jan-90	F25		17.00	11.00	<1.00	33.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	20-Feb-90	F25		18.00	11.00	<1.00	37.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	20-Mar-90	F25		17.00	11.00	<1.00	32.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	16-Apr-90	F26		17.00	11.00	<1.00	24.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	22-May-90	F26		13.70	9.24	<1.00	18.70			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	19-Jun-90	F26		17.80	9.94	<1.00	17.30			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	17-Jul-90	F27		20.40	10.20	<1.00	13.40			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	21-Aug-90	F27		18.50	9.89	<1.00	15.20			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	18-Sep-90	F28		20.50	10.30	<1.00	16.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	19-Sep-90	F28		18.60	9.62	<1.00	14.70			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U350	22-Oct-90	F28		27.70	12.00	<1.00	14.40			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
01U350	22-Oct-90	F29		30.57	12.98	<1.00	15.69			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U350	20-Nov-90	F29		30.46	13.73	<1.00	18.41			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U350	18-Dec-90	F29		23.95	13.95	<1.00	25.82			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U350	22-Jan-91	F30		24.40	12.90	<1.00	19.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U350	19-Feb-91	F30		27.90	14.70	<1.00																			

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethene 111TCE	1,1,2-Tri chloro ethene 112TCE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFFe	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
01U350	30-Jul-91	F32		19.00	19.00	<0.98	8.20			<3.00	<1.60	<2.00	<1.40	<1.00	<2.20	0.81	<1.20	<9.00	<3.60					
01U350	19-Aug-91	F32		37.10	17.40	<1.00	16.40			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	0.93	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U350	17-Sep-91	F32		<1.00	29.40	<1.00	13.90			<1.90	15.30	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U350	22-Oct-91	F33		22.30	10.70	<1.00	13.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	0.83	<1.00	<1.00	<3.20					
01U350	19-Nov-91	F33		26.40	13.10	<1.00	13.40			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	0.97	<1.00	<1.00	<3.20					
01U350	17-Dec-91	F33		33.00	17.00	<2.00	14.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
01U350	21-Jan-92	F34		37.70	17.70	<1.00	16.70			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.19	<1.00	<1.00	<3.20					
01U350	18-Feb-92	F34		21.50	11.70	<1.00	15.70			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.00	<1.00	<1.00	<3.20					
01U350	05-Mar-92	F34																						
01U350	17-Mar-92	F34		31.40	14.00	<1.00	16.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	16.00		
01U350	13-Apr-92	F35		41.80	18.20	<1.00	18.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.24	<1.00	<1.00	<3.20					
01U350	18-May-92	F35		32.90	15.30	<1.00	18.80			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.38	<1.00	<1.00	<3.20					
01U350	01-Jun-92	F35																						
01U350	16-Jun-92	F35		58.20	24.80	<1.00	23.10			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.48	<1.00	<1.00	<3.20					
01U350	21-Jul-92	F36		45.00	18.90	<1.00	22.90			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.60	<1.00	<1.00	<3.20					
01U350	18-Aug-92	F36		43.50	18.10	<1.00	21.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.64	<1.00	<1.00	<3.20					
01U350	01-Sep-92	F36																						
01U350	15-Sep-92	F36		38.00	16.10	<1.00	23.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.61	<1.00	<1.00	<3.20	<3.09	<3.39	2.36		
01U350	20-Oct-92	F36		39.40	18.80	<1.00	33.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.02	<1.00	<1.00	<3.20					
01U350	03-Nov-92	F37	PC UG03	55.00	24.00	<2.00	41.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	1.70	<2.00	<2.00	<6.40					
01U350	01-Dec-92	F37	PC UG03	53.00	24.00	<2.00	50.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	1.70	<2.00	<2.00	<6.40					
01U350	05-Jan-93	F38	PC UG03	35.00	19.00	<2.00	35.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	3.00	<2.00	<2.00	<6.40					
01U350	02-Feb-93	F38	PC UG03	33.00	19.00	<2.00	35.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	1.70	<2.00	<2.00	<6.40					
01U350	02-Mar-93	F38	PC UG03	33.60	19.30	<1.00	33.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	2.42	<1.00	<1.00	<3.20					
01U350	19-Apr-93	F39	PC UG03	24.00	15.00	<2.00	22.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	2.70	<2.00	<2.00	<6.40					
01U350	07-May-93	F39	PC UG03	28.50	15.90	<1.00	23.70			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	4.60	<1.00	<1.00	<3.20					
01U350	01-Jun-93	F39	PC UG03	19.30	10.50	<1.00	15.80			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	4.45	<1.00	<1.00	<3.20					
01U350	22-Jul-93	F40	PC UG03	23.80	10.70	<1.00	18.70			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	14.10	<1.00	<1.00	<3.20					
01U350	16-Aug-93	F40	PC UG03	19.30	9.43	<1.00	21.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	12.30	<1.00	<1.00	<3.20					
01U350	14-Sep-93	F40	PC UG03	24.90	11.40	<1.00	26.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	13.90	<1.00	<1.00	<3.20					
01U524	17-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U524	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U524	16-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U524	21-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U525	16-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U525	07-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U525	15-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U525	14-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U525	27-Apr-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U525	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U525	26-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U526	17-Nov-87	F16		<0.88	2.80	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
01U526	07-Apr-88	F18		<1.00	0.99	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U526	15-Aug-88	F19		<1.00	1.16	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U526	14-Nov-88	F20		<1.00	1.74	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U526	09-May-89	F22		<1.00	0.93	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U526	26-Jul-89	F23		<0.88	1.95	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3			



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCTLFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01U601	07-Dec-87	F16		<1.80	3.60	<1.00	<1.10			<3.00	<1.60	<2.00	<1.40	<1.00	<2.20	<0.82	<1.20	<9.00	<3.60	<6.20	<6.80	<2.30			
01U604	13-Aug-87	A15		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U604	01-Dec-87	A16		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			1.00						
01U604	07-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
01U604	29-Feb-88	A17		<0.50	0.60	<0.50		1.00	<0.50	<0.50	<0.50	<0.50	1.50	<0.50	<0.50	<0.50									
01U604	26-May-88	A18		<0.50	1.50	<0.50		1.80	<0.50	<0.50	<0.50	<0.50	2.00	<0.50	<0.50	<0.50									
01U604	08-May-90	A26		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U604	08-May-90	A26	(6)	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U604	05-Mar-91	A30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
01U604	05-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
01U604	27-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
01U611	01-Dec-87	A16		<0.50	110000.00	<0.50		3900.00	<0.50	120.00	<0.50		74.00	<0.50	<0.50	<0.50									
01U611	08-Dec-87	F16		<4400.00	120000.00	<2400.00	<2800.00			<7500.00	<4000.00	<5000.00	<3600.00	<2600.00	<5500.00	<2000.00	<3100.00	<22000.00	<9000.00	<15000.00	<17000.00	<5800.00			
01U611	01-Mar-88	A17		<0.50	38000.00	<0.50		1800.00	<0.50	<0.50	33.00	<0.50	<0.50	<0.50	<0.50	<0.50									
01U611	26-May-88	A18		<0.50	60000.00	<0.50		1500.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U611	08-May-90	A26		<0.50	35000.00	<0.50		3300.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U611	08-May-90	A30		<1000.00	40000.00	<1000.00	3900.00		<300.00	<1900.00	<1000.00	<1000.00	<780.00	<500.00	<1300.00	<720.00	<1000.00	<1000.00	<3200.00						
01U611	03-Mar-92	A34		<500.00	200000.00	<500.00	1300.00		<250.00	<950.00	<500.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<1600.00						
01U611	27-Mar-93	A38	PC UG03	<2000.00	81000.00	<2000.00	<1000.00		<600.00	<3800.00	<2000.00	<2000.00	<1600.00	<1000.00	<2600.00	<1400.00	<2000.00	<2000.00	<6400.00						
01U615	07-Dec-87	F16		<88.00	1500.00	<49.00	490.00			<150.00	<81.00	<99.00	<72.00	<51.00	<110.00	<41.00	<62.00	<450.00	<180.00	<3.09	<3.39	<1.17			
01U615	08-May-90	A26		<0.50	6500.00	<0.50		1200.00	270.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U615	05-Mar-91	A30		<500.00	8800.00	<500.00	950.00		160.00	<950.00	<500.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<1600.00						
01U615	03-Mar-92	A34		<500.00	14000.00	<500.00	1300.00		<250.00	<950.00	<500.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<1600.00						
01U615	24-Mar-93	A38	PC UG03	<500.00	17000.00	<500.00	930.00		<150.00	<950.00	<500.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<1600.00						
01U617	13-Aug-87	A15		<0.50	1.40	0.50		6.20	<0.50	<0.50	<0.50	<0.50	1.90	<0.50	<0.50	<0.50									
01U617	01-Dec-87	A16		<0.50	1.40	<0.50		6.50	<0.50	<0.50	<0.50	<0.50	3.20	<0.50	<0.50	<0.50									
01U617	29-Feb-88	A17		<0.50	1.10	0.30		3.40	<0.50	<0.50	<0.50	<0.50	1.40	<0.50	<0.50	<0.50									
01U617	26-May-88	A18		<0.50	1.90	<0.50		4.00	<0.50	<0.50	<0.50	<0.50	1.70	<0.50	<0.50	<0.50									
01U617	26-May-88	A18	(6)	<0.50	2.00	0.40		4.00	<0.50	<0.50	<0.50	<0.50	2.00	<0.50	<0.50	<0.50									
01U617	19-Aug-88	F19		<1.00	1.72	<1.00	6.29			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00									
01U617	08-May-90	A26		<0.50	2.00	0.40		4.90	0.40	<0.50	<0.50	<0.50	0.80	<0.50	<0.50	<0.50									
01U617	03-Jul-90	A27		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50									
01U617	02-Oct-90	A29		<1.00	<0.30	<0.30		4.80	0.50	<1.50	<0.50	<1.00	0.50	<0.20	<0.30	<0.50									
01U617	05-Mar-91	A30		<1.00	1.17	<1.00	3.33		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	05-Mar-91	M30		<0.20	1.30	0.70		5.20	0.40	<1.00	<0.20	<0.20	0.60	<0.20	<0.30	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.20	
01U617	10-Jun-91	A31		<1.00	1.08	<1.00	3.68		<0.30	<1.90	<1.00	<1.00	<0.78	0.68	<1.30	<0.72	<1.00	<1.00	<1.00				<0.20	<0.20	
01U617	03-Sep-91	A32		<1.00	1.80	<1.00	4.35			<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	03-Sep-91	A32	(6)	<1.00	1.71	<1.00	4.32			<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	03-Dec-91	A33		<1.00	1.68	<1.00	3.09			<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	03-Mar-92	A34		<1.00	1.29	<1.00	2.90		<0.50	<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	03-Mar-92	A34	(6)	<1.00	1.27	<1.00	2.98		<0.50	<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	02-Jun-92	A35		<1.00	1.28	<1.00	3.67		0.45	<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	02-Jun-92	A35	(6)	<1.00	1.13	<1.00	3.54		0.53	<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	10-Sep-92	A36	(7)	<1.00	0.92	<1.00	1.69			<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	24-Mar-93	A38	PC UG03	<1.00	1.31	<1.00	2.66		<0.30	<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	16-Sep-93	A40	PC UG03	<1.00	0.99	<1.00	1.75		<0.30	<1.90	<1.00	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00						
01U617	16-Sep-93	A40	PC UG03	<1.00	1.14	<1.00	1.84		<0.																

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCEEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
01U618	03-Mar-92	A34		<1.00	3.77	<1.00	2.09		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00								
01U618	27-Mar-93	A38	PC UG03	<1.00	5.30	<1.00	1.13		<0.30	<1.90	<1.00	<1.00	0.85	<1.30	<0.72	<1.00	5.31	<3.20							
01U619	19-Aug-88	F19		<1.00	1.74	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<1.30	<0.72	<1.00								
01U619	08-May-90	A26		<0.50	2.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.00			<0.41	<0.87	<8.28			
01U619	05-Mar-91	A30		<1.00	2.76	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	42.20	<3.20						
01U619	03-Mar-92	A34		<1.00	0.98	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	12.70	<3.20						
01U619	24-Mar-93	A38	PC UG03	<1.00	2.00	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	2.23	<0.50	<1.30	<0.72	<1.00	4.91	<3.20						
01U621	08-May-90	A26		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			1.20						
01U621	03-Jul-90	A27		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50			<0.50						
01U621	02-Oct-90	A29		<1.00	<0.50	<0.30		<0.50	<0.30	<1.50	<0.50	<1.00	<0.20	<0.30	<0.30	<0.50			<0.50						
01U621	05-Mar-91	A30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	(6) 05-Mar-91	A30		9.35	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	10-Jun-91	A31		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	03-Sep-91	A32		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	03-Dec-91	A33		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	(6) 03-Dec-91	A33		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	03-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	(6) 03-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	02-Jun-92	A35		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	(6) 02-Jun-92	A35		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	10-Sep-92	A36	(7)	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	(6) 10-Sep-92	A36	(7)	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	24-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U621	16-Sep-93	A40	PC UG03	<1.00	<0.50	<1.00	3.21		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U634	12-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<1.30	<0.72	<1.00			<0.41	<0.87	<8.28			
01U634	26-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<1.30	<0.72	<1.00			<3.09	<3.39	<1.17			
01U636	12-May-89	F22		<1.00	0.82	<1.00	<0.50			<1.90	1.75	<1.00		<0.50	<1.30	<0.72	<1.00			<0.41	<0.87	<8.28			
01U636	26-Jul-89	F23		<0.88	3.31	<0.49	<0.56			<1.50	3.56	<0.99		<0.51	<1.30	<0.72	<1.00			<3.09	<3.39	<1.17			
01U636	22-Mar-91	A30		<1.00	0.76	<1.00	<0.50		<0.30	<1.90	1.92	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U636	17-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	1.04	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U639	12-May-89	F22		<1.00	1.85	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<1.30	<0.72	<1.00			<0.41	<0.87	<8.28			
01U639	26-Jul-89	F23		<1.80	41.00	<0.98	<1.10			4.70	<1.60	<2.00		<1.00	<1.30	<0.82	<1.20			<3.09	<3.39	<1.17			
01U639	22-Mar-91	A30		<1.00	1.07	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U639	22-Mar-91	M30		<0.20	0.80	<0.50	<0.50	<0.20	<0.10	<1.00	0.60	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
01U639	17-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	1.41	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U640	26-Jul-89	F23		<1.80	30.00	<0.98	<1.10			7.90	2.60	<2.00		<1.00	<1.30	<0.82	<1.20			<3.09	27.50	<1.17			
01U640	22-Mar-91	A30		<1.00	17.40	<1.00	<0.50		<0.30	<1.90	8.92	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U640	22-Mar-91	A30		<1.00	16.10	<1.00	<0.50		<0.30	<1.90	8.04	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U640	17-Mar-92	A34		<1.00	14.60	<1.00	<0.50		<0.50	<1.90	5.33	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U640	17-Mar-92	M34		<0.20	15.00	<0.50	<0.50	<0.20	<0.10	<1.00	3.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
01U652	12-May-89	F22		<1.00	<0.50	<1.00	37.30			<1.90	<1.00	<1.00		<0.50	<1.30	<0.72	<1.00			<0.41	1.24	<8.28			
01U652	26-Jul-89	F23		<0.88	<1.10	<0.49	28.50			2.20	<0.81	<0.99		<0.51	<1.30	<0.72	<1.00			<3.09	5.53	<1.17			
01U652	27-Oct-89	F24		<0.88	<1.10	<0.49	18.70			<1.50	<0.81	<0.99		<0.51	<1.30	<0.72	<1.00			<3.09	<3.39	<1.17			
01U666	12-May-89	F22		<1.00	77.00	<1.00	18.70			<1.90	<1.00	<1.00		<0.50	<1.30	<0.72	<1.00			<0.41	<0.87	<8.28			
01U803	05-Sep-91	F32		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U805	05-Sep-91	F32		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
01U806	05-Sep-91	F32		<1.00																					

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2- Dichloro ethene C12DCE	Trans 1,2- Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1- chloro ethane 111TCE	1,1,2- chloro ethane 112TCE	1,1- Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2- Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TKYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PKYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
01U901	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	19.70	<8.28		
01U901	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	19.70	<1.17		
01U901	20-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
01U901	25-Oct-89	F24		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U901	30-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U901	17-Jul-90	F27		<1.00	2.16	<1.00	0.83			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
01U901	18-Sep-90	F28		<1.00	<0.50	<1.00	0.82			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U901	19-Sep-90	F28		<1.00	<0.50	<1.00	0.75			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U901	22-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U901	13-Mar-91	F30		<1.00	<0.50	<1.00	0.53			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
01U901	11-Jun-91	M31		<0.20	<0.10	<0.50		0.30	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<1.00	<0.20	<0.20		<0.20	<0.20	
01U901	30-Jul-91	F32		<0.88	<1.10	<0.49	1.28			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
01U901	19-Nov-91	F33		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U901	05-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47						
01U901	05-Mar-92	F34																						
01U901	16-Jun-92	F35		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17		
01U901	02-Sep-92	F36		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47						
01U901	01-Dec-92	F37	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U901	02-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	0.57			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U901	08-Sep-93	F40	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U901	(6) 08-Sep-93	F40	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	25-Jul-89	F23		<1.00	49.00	<1.00	65.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	27-Jul-89	F23		35.00	62.00	<0.98	70.00			<3.00	<1.60	<2.00		<1.00		<0.82	<1.20			<3.09	<3.39	<1.17		
01U902	20-Oct-89	F24		<4.40	8.90	<2.40	54.00			<7.50	<4.00	<5.00		<2.60		<2.00	<3.10			<15.00	<17.00	<5.80		
01U902	25-Oct-89	F24		<1.00	7.00	<1.00	50.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	08-Feb-90	F25		<1.00	4.00	<1.00	77.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	20-Feb-90	F25		<1.00	3.00	<1.00	83.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	16-Apr-90	F26		<1.00	2.03	<1.00	71.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	22-May-90	F26		<1.00	2.66	<1.00	70.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	19-Jun-90	F27		<1.00	3.32	<1.00	75.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	17-Jul-90	F27		<1.00	5.20	<1.00	70.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	1.60	<0.87	<8.28		
01U902	21-Aug-90	F27		3.31	3.03	<1.00	64.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
01U902	18-Sep-90	F28		<1.00	2.45	<1.00	48.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.55	<0.87	<8.28		
01U902	19-Sep-90	F28		<1.00	2.28	<1.00	44.10			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			0.51	<0.87	<8.28		
01U902	22-Oct-90	F29		3.27	3.26	<1.00	6.10			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	(6) 22-Oct-90	F29		2.60	3.05	<1.00	56.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			0.51	<0.87	<8.28		
01U902	20-Nov-90	F29		<1.00	4.82	<1.00	68.08			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	18-Dec-90	F29		1.30	3.64	<1.00	53.60			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	22-Jan-91	F30		<1.00	2.35	<1.00	56.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	19-Feb-91	F30		3.85	3.25	70.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	19-Mar-91	F30		<1.00	2.40	<1.00	47.30			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.56	<0.87	<8.28		
01U902	19-Mar-91	M30		<0.20	2.60	<0.50		73.00	3.80	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50			<0.20	<0.20	
01U902	16-Apr-91	F31		<1.00	2.32	<1.00	51.10		2.80	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.70	<0.20		<0.20	<0.20
01U902	18-May-91	F31		<1.00	3.09	<1.00	50.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.87	<0.87	<8.28		
01U902	05-Jun-91	F31																						
01U902	18-Jun-91	F31		<1.00	3.82	<1.00	48.00		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	23-Jul-91	F32		<1.00	4.74	<1.00	38.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
01U902	30-Jul-91	F32		4.40	7.10	<0.98	32.00			<3.00	1.90	6.10	<1.40	<1.0										

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans-1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00			
01U902	02-Jun-92	F35																							
01U902	(6) 02-Jun-92	F35																		<3.09	<3.39	<1.17			
01U902	16-Jun-92	F35		<2.00	2.10	<2.00	74.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<3.09	<3.39	<1.17			
01U902	21-Jul-92	F36		<1.00	2.06	<1.00	70.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	18-Aug-92	F36		<2.00	2.60	<2.00	76.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<3.09	<3.39	<1.17			
01U902	01-Sep-92	F36																							
01U902	15-Sep-92	F36		<2.00	2.10	<2.00	76.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	20-Oct-92	F36		<2.00	2.60	<2.00	85.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	20-Oct-92	M37	MH	<0.20	2.00	<0.50		76.00	3.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
01U902	03-Nov-92	F37	PC UG03	<1.00	2.55	<1.00	100.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	01-Dec-92	F37	PC UG03	<1.00	3.11	<1.00	120.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	05-Jan-93	F38	PC UG03	<2.00	<1.00	<2.00	48.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	02-Feb-93	F38	PC UG03	<2.00	2.40	<2.00	100.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	(6) 02-Feb-93	F38	PC UG03	<2.00	3.90	<2.00	100.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	02-Mar-93	F38	PC UG03	<1.00	2.40	<1.00	110.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	(6) 02-Mar-93	F38	PC UG03	<5.00	<2.50	<5.00	100.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U902	18-Mar-93	F38	PC UG03	<1.00	2.40	<1.00	98.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	19-Mar-93	F38	PC UP01																	1.25	<0.87	<8.28			
01U902	19-Apr-93	F39	PC UG03	<1.00	2.39	<1.00	120.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	(6) 19-Apr-93	F39	PC UG03	<1.00	2.07	<1.00	98.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	07-May-93	F39	PC UG03	<2.00	2.40	<2.00	100.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	01-Jun-93	F39	PC UG03	<2.00	1.70	<2.00	85.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
01U902	22-Jul-93	F40	PC UG03	<1.00	1.96	<1.00	100.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	16-Aug-93	F40	PC UG03	<5.00	<2.50	<5.00	110.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
01U902	14-Sep-93	F40	PC UG03	<1.00	1.89	<1.00	110.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
01U902	(6) 14-Sep-93	F40	PC UG03	<1.00	1.62	<1.00	100.00			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03F302	17-Nov-87	A16		0.60	1040.00	3.80		51.40	<0.20	<0.20	9.70	0.30	5.00	<0.02		11.30									
03F302	15-Dec-87	A16		1.50	2120.00	12.30		177.00	1.10	<0.20	23.20	0.28	12.80	<0.20		26.00									
03F302	12-Jan-88	A17		<4.00	2580.00	12.00		182.00	<4.00	<4.00	23.00	<4.00	20.00	<4.00		18.00									
03F302	28-Apr-88	A18		<10.00	2895.00	12.00		124.00	<10.00	<10.00	41.00	<10.00	14.00	<10.00		22.00									
03F302	19-Jul-88	A19		2.70	4300.00	7.50		234.00	1.20	<0.20	24.00	0.49	18.00	<0.20		<0.20									
03F302	21-Oct-88	A20		2.20	4800.00	10.00		135.00	0.66	<0.50	24.00	<0.50	14.00	<1.00		0.50									
03F302	06-Jan-89	A21		2.40	2850.00	16.00		158.00	<1.00	<1.00	35.00	<1.00	18.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	
03F302	16-Mar-89	A21		<10.00	5800.00	<10.00		130.00	<10.00	<10.00	31.00	<10.00	11.00	<10.00		<10.00				<1.00	<1.00	<1.00	<1.00	<1.00	
03F302	20-Apr-89	A22		1.60	4500.00	14.00		100.00	0.70	<1.00	27.00	0.60	13.00	<0.20		0.70									
03F302	19-Jul-89	A23		<20.00	2700.00	22.00		120.00	<20.00	<100.00	44.00	<20.00	<20.00	<20.00		<20.00									
03F302	24-Oct-89	A24		<20.00	2300.00	<20.00		67.00	<20.00	<100.00	62.00	<20.00	<20.00	<20.00		<20.00									
03F302	18-Jan-90	A25		<20.00	2700.00	<20.00		110.00	<20.00	<100.00	56.00	<20.00	<20.00	<20.00		<20.00									
03F302	08-May-90	A26		<0.50	1300.00	2.20		28.00	<0.50	<0.50	3.60	<0.50	2.40	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					<0.50	
03F302	13-Jul-90	A27		<25.00	1900.00	23.00		120.00	<7.50	<38.00	85.00	<25.00	18.00	<5.00	<7.50	<12.00	<5.00	<5.00	68.00					74.00	
03F302	(6) 13-Jul-90	A27		<25.00	1900.00	22.00		120.00	<7.50	<38.00	83.00	<25.00	18.00	<5.00	<7.50	<12.00	<5.00	<5.00	74.00					<3.20	
03F302	19-Dec-90	A29		<1.00	1840.13	<1.00	72.99			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03F302	19-Mar-91	A30		<50.00	1300.00	<50.00	42.00		<15.00	<95.00	<50.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F302	05-Jun-91	A31		<50.00	1400.00	<50.00	42.00		<15.00	<95.00	<50.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F302	05-Sep-91	A32		<50.00	1300.00	<50.00	44.00		<15.00	<95.00	<50.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F302	04-Dec-91	A33		<25.00	1200.00	<25.00	44.00		<7.50	<48.00	57.00	<25.00	<20.00	<12.00	<32.00	<18.00	<25.00	<25.00	<80.00						
03F302	06-Mar-92	A34		<50.00	1200.00	<50.00	76.00		<25.00	<95.00	62.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F302	05-Jun-92	A35		<25.00	890.00	<25.00	30.00		<7.50	<48.00	31.00	<25.00	<20.00	<12.00	<32.00	<18.00	<25.00	<25.00	<80.00						

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCEE	1,1-Di chloro ethene 11DCCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCL	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro fluoroethane TClTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03F303	20-Apr-89	A22		11.00	1100.00	6.90		38.00	0.30	<1.00	14.00	<0.20	5.70	<0.20		0.80								
03F303	19-Jul-89	A23		17.00	860.00	9.00		48.00	<4.00	<20.00	20.00	<4.00	6.80	<4.00		<4.00								
03F303	24-Oct-89	A24		12.00	850.00	<5.00		28.00	<5.00	<25.00	19.00	<5.00	<5.00	<5.00		<5.00								
03F303	18-Jan-90	A25		8.60	650.00	6.20		33.00	<5.00	<25.00	24.00	<5.00	<5.00	<5.00		<5.00								
03F303	08-May-90	A26		8.60	700.00	5.50		20.00	<0.50	<0.50	15.00	<0.50	4.50	<0.50	<0.50	<0.50	<0.50							
03F303	13-Jul-90	A27		11.00	510.00	6.90		29.00	<1.50	<7.50	24.00	<5.00	5.90	<1.00	<1.50	<2.50	<1.00					<0.50	7.50	
03F303	19-Dec-90	A29		<1.00	320.82	<1.00	18.08			<1.90	11.64	<1.00	<0.78	<1.00	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F303	19-Mar-91	A30		<10.00	380.00	<10.00	17.00		<3.00	<19.00	16.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00
03F303	05-Jun-91	A31		<10.00	350.00	<10.00	15.00		<15.00	<19.00	13.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00
03F303	05-Sep-91	A32		<20.00	360.00	<20.00	14.00		<6.00	<38.00	<20.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<64.00
03F303	04-Dec-91	A33		<5.00	360.00	<5.00	15.00		<1.50	<9.50	14.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<16.00
03F303	06-Mar-92	A34		<10.00	400.00	<10.00	15.00		<5.00	<19.00	18.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00
03F303	05-Jun-92	A35		<10.00	390.00	<10.00	13.00		<3.00	<19.00	15.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00
03F303	01-Sep-92	A36	(7)	<20.00	400	<20.00	11			<38.00	32	<20.00	<15.60	<10.00	<26.00	<14.40	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<64.00
03F303	03-Mar-93	A38	PC UG03	6.10	340.00	5.90	10.00		<1.50	<9.50	21.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<16.00
03F303	15-Sep-93	A40	PC UG03	<10.00	390.00	<10.00	9.80		<3.00	<19.00	44.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00
03F303	(6) 15-Sep-93	A40	PC UG03	6.10	350.00	<5.00	7.60		<1.50	<9.50	33.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<16.00
03F304	17-Nov-87	A16		<0.20	5.10	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03F304	15-Dec-87	A16		<0.20	8.33	<0.20		1.11	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		0.39								
03F304	12-Jan-88	A17		<0.20	8.20	<0.20		1.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03F304	28-Apr-88	A18		<0.20	8.02	<0.20		1.16	<0.20	<0.20	1.26	<0.20	<0.20	<0.20		<0.20								
03F304	19-Jul-88	A19		<0.20	9.50	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03F304	16-Mar-89	A21		<1.00	6.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00								
03F304	20-Apr-89	A22		<0.20	11.00	<0.30		0.50	<0.20	<1.00	0.20	<0.20	0.20	<0.20		<0.20								
03F304	19-Jul-89	A23		<0.20	4.60	0.20		0.40	<0.20	<5.00	<0.20	<0.20	<0.20	<1.00		<1.00								
03F304	24-Oct-89	A24		<0.20	5.40	<0.20		<0.20	<0.20	<1.00	0.50	<0.20	<0.20	<0.20		<0.20								
03F304	18-Jan-90	A25		<0.20	5.10	<0.20		0.40	<0.20	<1.00	0.70	0.40	<0.20	<0.20		<0.20								
03F304	08-May-90	A26		<0.50	6.70	<0.50		<0.50	<0.50	<0.50	1.80	1.30	<0.50	<0.50	<0.50	<0.50	<0.50							<0.50
03F304	13-Jul-90	A27		<1.00	7.30	0.40		<0.50	<0.30	<1.50	5.90	1.10	0.20	<0.20	<0.30	<0.50	<0.20	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
03F304	19-Dec-90	A29		<1.00	5.41	<1.00	<0.50			<1.90	6.44	1.53	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	19-Mar-91	A30		<1.00	8.34	<1.00	<0.50		<0.30	<1.90	9.82	1.62	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	05-Jun-91	A31		<1.00	8.00	<1.00	<0.50		<0.30	<1.90	8.21	1.96	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	05-Jun-91	A31		<1.00	9.42	1.78	<0.50		<0.30	<1.90	8.81	2.03	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	05-Sep-91	A32		<1.00	7.83	<1.00	<0.50		<0.30	<1.90	8.32	1.82	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	04-Dec-91	A33		<1.00	7.28	<1.00	<0.50		<0.30	<1.90	12.40	1.71	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	06-Mar-92	A34		<1.00	7.30	1.09	<0.50		<0.50	<1.90	17.30	1.61	0.92	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	05-Jun-92	A35		<1.00	7.52	2.40	<0.50		<0.30	<1.90	22.30	1.53	1.05	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	(6) 05-Jun-92	A35		<1.00	8.28	2.41	<0.50		<0.30	<1.90	24.30	1.43	1.12	1.05	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	01-Sep-92	A36	(7)	<1.00	6.22	2.84	<0.50		<0.30	<1.90	21.9	1.74	1.19	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	(6) 01-Sep-92	A36	(7)	<1.00	6.83	2.9	<0.50		<0.30	<1.90	23.1	1.51	1.1	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	03-Mar-93	A38	PC UG03	<1.00	7.48	3.50	<0.50		<0.30	<1.90	25.80	1.27	1.87	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	(6) 03-Mar-93	A38	PC UG03	<1.00	8.84	3.43	<0.50		<0.30	<1.90	28.40	1.30	1.94	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F304	15-Sep-93	A40	PC UG03	<1.00	12.10	4.78	<0.50		<0.30	<1.90	40.10	1.19	2.51	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20
03F305	17-Nov-87	A16		0.80	22.90	2.20		0.80	<0.20	<0.20	17.60	2.40	2.00	<0.20		0.40								
03F305	15-Dec-87	A16		1.10	54.00	4.10		1.55	<0.20	<0.20	31.00	3.10	6.14	&lt										

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00			
03F305	05-Jun-91	A31		<50.00	2100.00	150.00	49.00		<15.00	<95.00	930.00	<50.00	160.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F305	05-Sep-91	A32		<100.00	2400.00	110.00	<50.00		<30.00	<190.00	880.00	<100.00	160.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F305	05-Sep-91	A32	(6)	<100.00	2900.00	120.00	62.00		<30.00	<190.00	970.00	<100.00	170.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F305	04-Dec-91	A33		<50.00	2800.00	140.00	60.00		<15.00	<95.00	1100.00	<50.00	170.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F305	06-Mar-92	A34		<100.00	2600.00	120.00	60.00		<50.00	<190.00	950.00	<100.00	170.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F305	05-Jun-92	A35		<100.00	2700.00	160.00	<50.00		<30.00	<190.00	910.00	<100.00	170.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F305	01-Sep-92	A36	(7)	8.52	2800	200	62		<1.90	1300	4.38	210	6	<1.30	2.83	<1.00	<1.00	<1.00	<3.20						
03F305	03-Mar-93	A38	PC UG03	<50.00	2600.00	140.00	65.00		<15.00	<95.00	1100.00	<50.00	170.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03F305	15-Sep-93	A40	PC UG03	<100.00	2700.00	140.00	58.00		<30.00	<190.00	940.00	<100.00	150.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F306	17-Nov-87	A16		0.40	1500.00	130.00		17.00	<0.20	0.20	845.00	1.30	90.00	2.50		15.80									
03F306	15-Dec-87	A16		0.36	2130.00	48.80		27.40	0.60	<0.20	1150.00	1.46	143.00	4.40		15.30									
03F306	12-Jan-88	A17		<4.00	2420.00	171.00		5.70	<4.00	<4.00	1224.00	<4.00	185.00	<4.00		9.20									
03F306	28-Apr-88	A18		<0.20	530.00	160.00		38.00	<0.20	<0.20	100.00	<0.20	120.00	<0.20		<0.20									
03F306	19-Jul-88	A19		<0.20	2920.00	135.00		34.00	<0.20	<0.20	1500.00	3.80	236.00	8.00		<0.20									
03F306	21-Oct-88	A20		1.10	1400.00	90.00		25.00	<0.50	<0.50	475.00	2.00	55.00	<1.00		2.00									
03F306	06-Jan-89	A21		1.50	3000.00	55.00		18.00	<1.00	<1.00	450.00	1.30	75.00	3.60	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	
03F306	16-Mar-89	A21		<10.00	2800.00	170.00		33.00	<10.00	<10.00	1200.00	<10.00	150.00	<10.00		<10.00									
03F306	20-Apr-89	A22		0.80	2800.00	330.00		100.00	0.40	1.30	1400.00	2.00	200.00	3.20		0.90									
03F306	19-Jul-89	A23		<5.00	2200.00	300.00		30.00	<5.00	<25.00	800.00	<5.00	130.00	<5.00		<5.00									
03F306	23-Oct-89	A24		<20.00	2700.00	290.00		<20.00	<20.00	<100.00	940.00	<20.00	130.00	<20.00		<20.00									
03F306	18-Jan-90	A25		<40.00	3300.00	220.00		<40.00	<40.00	<200.00	1200.00	<40.00	170.00	<40.00		<40.00									
03F306	08-May-90	A26		1.40	4200.00	250.00		33.00	<0.50	<0.50	1100.00	2.40	120.00	3.30	<0.50	2.20	<0.50		4.50						
03F306	13-Jul-90	A27		<50.00	4700.00	350.00		32.00	<15.00	<75.00	1400.00	<50.00	200.00	<10.00	<15.00	<25.00	<10.00		140.00						
03F306	13-Jul-90	A27	(6)	<50.00	4900.00	340.00		33.00	<15.00	<75.00	1500.00	<50.00	190.00	<10.00	<15.00	<25.00	<10.00		180.00						
03F306	19-Dec-90	A29		<1.00	6437.77	<1.00	<0.50			<1.90	1373.84	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03F306	19-Mar-91	A30		<250.00	7000.00	<250.00	<130.00		<75.00	<480.00	1600.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00	<250.00	<800.00						
03F306	05-Jun-91	A31		<200.00	6400.00	<200.00	<100.00		<60.00	<380.00	1600.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03F306	05-Sep-91	A32		<250.00	7200.00	<250.00	<130.00		<75.00	<480.00	1500.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00	<250.00	<800.00						
03F306	04-Dec-91	A33		<500.00	7500.00	<500.00	<250.00		<150.00	<950.00	1900.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<1600.00						
03F306	06-Mar-92	A34		<200.00	6900.00	<200.00	<100.00		<100.00	<380.00	1400.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03F306	05-Jun-92	A35		<200.00	6400.00	<200.00	<100.00		<60.00	<380.00	1300.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03F306	01-Sep-92	A36	(7)	17.2	7500	200	28.4		<1.90	1900	10.2	95	<0.50	<1.30	3.28	<1.00	<1.00	12.1	8.47						
03F306	03-Mar-93	A38	PC UG03	<100.00	7300.00	170.00	<50.00		<30.00	<190.00	1800.00	<100.00	95.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F306	15-Sep-93	A40	PC UG03	<100.00	7500.00	130.00	<50.00		<30.00	<190.00	1400.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03F307	17-Nov-87	A16		3.00	2370.00	60.00		18.00	<0.20	<0.20	480.00	3.00	48.00	<0.20		<0.20									
03F307	15-Dec-87	A16		1.70	3275.00	110.00		16.30	0.40	<0.20	90.80	1.80	45.00	4.10		13.10									
03F307	12-Jan-88	A17		<4.00	3300.00	61.40		27.00	<4.00	<4.00	786.00	<4.00	103.00	<4.00		131.00									
03F307	28-Apr-88	A18		<4.00	3400.00	100.00		31.00	<4.00	<4.00	550.00	<4.00	75.00	<4.00		<4.00									
03F307	19-Jul-88	A19		2.30	3020.00	76.00		22.00	<0.20	<0.20	893.00	2.00	82.00	5.00		<0.20									
03F307	21-Oct-88	A20		1.50	3200.00	70.00		18.00	<0.50	<0.50	605.00	1.20	70.00	3.20		2.00									
03F307	16-Mar-89	A21		<10.00	4174.00	64.00		59.00	<10.00	<10.00	900.00	<10.00	98.00	<10.00		<10.00									
03F307	20-Apr-89	A22		2.20	3600.00	150.00		23.00	0.20	1.00	530.00	2.00	83.00	3.90		0.60									
03F307	19-Jul-89	A23		<4.00	2400.00	210.00		25.00	<4.00	<20.00	640.00	<4.00	100.00	<4.00		<4.00									
03F307	23-Oct-89	A24		<20.00	3300.00	170.00		<20.00	<20.00	<100.00	590.00	<20.00	82.00	<20.00		<20.00									
03F307	19-Jan-90	A25		<20.00	2700.00	91.00		20.00	<20.00	<100.00	570.00	<20.00	110.00	<20.00		<20.00									
03F307	08-May-90	A26		1.50	3200.00	130.00		22.00	<0.50	<0.50	550.00	2.30	80.00	3.40	<0.50	1.20	<0.50		4.10						
03F307	13-Jul-90	A27		<50.00	2800.00	160.00		<25.00	<15.00</																

TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFFe	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03F307	15-Sep-93	A40	PC UG03	<50.00	2400.00	<50.00	<25.00		<15.00	<95.00	350.00	<50.00	53.00	<23.00	<65.00	<36.00	<50.00	<50.00	<160.00					
03F308	16-Mar-89	A21		<5.00	75.00	<5.00		<5.00	<5.00	<5.00	15.00	<5.00	<5.00	<5.00		<5.00								
03F308	20-Apr-89	A22		<0.20	44.00	<1.70		0.30	<0.20	<1.00	5.00	<0.20	1.30	<0.20		<0.20								
03F308	19-Jul-89	A23		<0.20	29.00	1.40		0.30	<0.20	<1.00	4.50	<0.20	0.80	<0.20		<0.20								
03F308	23-Oct-89	A24		<0.20	32.00	1.10		<0.20	<0.20	<1.00	5.30	<0.20	0.80	<0.20		<0.20								
03F308	19-Jan-90	A25		<0.20	22.00	0.50		<0.20	<0.20	<1.00	4.00	<0.20	0.70	<0.20		<0.20								
03F308	08-May-90	A26		<0.50	23.00	<0.50		<0.50	<0.50	<0.50	2.40	<0.50	0.50	<0.50	<0.50	<0.50	<0.50							3.40
03F308	13-Jul-90	A27		<1.00	20.00	0.30		<0.50	<0.30	<1.50	2.90	<1.00	0.40	<0.20	<0.30	<0.50	<0.20							<1.00
03F308	19-Dec-90	A29		<1.00	16.31	<1.00	<0.50		<1.90	1.38	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00						<1.00
03F308	19-Dec-90	A29		<1.00	17.38	<1.00	<0.50		<1.90	1.39	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00						<1.00
03F308	19-Mar-91	A30		<1.00	13.20	<1.00	<0.50		<0.30	<1.90	1.37	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	06-Jun-91	A31		<1.00	8.22	<1.00	<0.50		<0.30	<1.90	1.37	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	05-Sep-91	A32		<1.00	12.70	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	04-Dec-91	A33		<1.00	10.70	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	06-Mar-92	A34		<1.00	11.00	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	05-Jun-92	A35		<1.00	8.52	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	01-Sep-92	A36 (7)		<1.00	8.57	<1.00	<0.50		<0.30	<1.90	1.79	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	03-Mar-93	A38	PC UG03	<1.00	9.73	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F308	15-Sep-93	A40	PC UG03	<1.00	7.78	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	19-Dec-88	A20		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00								
03F312	16-Mar-89	A21		<1.00	1.30	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00								
03F312	20-Apr-89	A22		<0.20	6.30	<0.80		0.40	<0.20	<1.00	1.70	<0.20	0.80	<0.20		<0.20								
03F312	19-Jul-89	A23		<0.20	10.00	1.90		0.80	<0.20	<1.00	3.60	<0.20	2.80	<0.20		<0.20								
03F312	24-Oct-89	A24		<0.20	31.00	2.10		1.70	<0.20	<1.00	3.70	<0.20	3.70	<0.20		<0.20								
03F312	18-Jan-90	A25		<0.20	26.00	2.10		2.30	<0.20	<1.00	3.20	<0.20	4.30	<0.20		<0.20								
03F312	08-May-90	A26		<0.50	22.00	1.20		1.10	<0.50	<0.50	1.20	<0.50	2.40	<0.50	<0.50	<0.50	<0.50							<0.50
03F312	13-Jul-90	A27		<1.00	20.00	2.70		2.50	<0.30	<1.50	2.20	<1.00	4.50	<0.20	<0.30	<0.50	<0.20							1.40
03F312	19-Dec-90	A29		<1.00	17.92	1.19	1.54		<1.90	<1.00	<1.00	2.59	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00						<1.00
03F312	19-Mar-91	A30		<1.00	17.00	1.21	1.31		<0.30	<1.90	<1.00	<1.00	2.54	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	05-Jun-91	A31		<1.00	18.50	<1.00	1.47		<0.30	<1.90	<1.00	<1.00	2.13	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	05-Sep-91	A32		<1.00	21.80	<0.50							2.32											
03F312	05-Sep-91	A32		<1.00	<0.50	<1.00	1.45		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	04-Dec-91	A33		<1.00	18.10	<1.00	1.05		<0.30	<1.90	<1.00	<1.00	2.02	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	06-Mar-92	A34		<1.00	17.60	<1.00	1.16		<0.50	<1.90	<1.00	<1.00	1.93	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	06-Mar-92	A34		<1.00	16.80	<1.00	1.13		<0.50	<1.90	<1.00	<1.00	1.89	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	05-Jun-92	A35		<1.00	19.30	<1.00	0.96		<0.30	<1.90	<1.00	<1.00	1.70	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	01-Sep-92	A36		<1.00	20.60	<1.00		0.86	<0.30	<1.90	1.08	<1.00	1.57	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	03-Mar-93	A38	PC UG03	<1.00	16.70	<1.00	0.82		<0.30	<1.90	<1.00	<1.00	1.31	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03F312	15-Sep-93	A40	PC UG03	<1.00	14.90	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						<1.00
03L001	16-Nov-87	F16		<0.88	1.69	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80		<3.09	<3.39	<1.17		
03L001	13-Jan-88	A17		<0.20	1.00	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	11-May-88	A18		<0.20	2.40	<0.20		<0.20	<0.20	<0.20	0.73	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	29-Jul-88	A19		<0.20	0.41	<0.20		<0.20	<0.20	<0.20	0.23	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	20-Oct-88	A20		<0.50	<0.50	<0.50		<0.50	<1.00	<0.50	<0.50	<0.50	<1.00	<1.00	<0.50	<0.50	<0.50	<1.80						
03L001	18-Apr-89	A22		<0.20	<0.40	<0.30		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	11-Jul-89	A23		<0.20	1.70	0.20		<0.20	<0.20	<1.00	0.70	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	11-Oct-89	A24		<0.20	0.40	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	16-Jan-90	A25		<0.20	1.20	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.80						
03L001	27-Apr-90	A26		<0.50	3.00																			

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PYXL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03L001	03-Sep-92	A36	(7)	<1.00	0.68	<1.00	<0.50			<1.90	1.43	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L001	11-Mar-93	A38	PC UG03	<1.00	1.05	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L001	15-Sep-93	A40	PC UG03	<1.00	0.74	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L002	17-Nov-87	F16		<44.00	1100.00	61.00	38.00			<75.00	260.00	<50.00	190.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00	<3.09	<3.39	<1.17			
03L002	18-Jan-88	A17		<0.20	2450.00	24.00		68.00	<0.20	1.60	660.00	0.63	312.00	3.40		<0.20									
03L002	10-May-88	A18		<2.00	2000.00	<159.00		66.00	<2.00	<2.00	613.00	<2.00	270.00	<0.20		2.50									
03L002	04-Aug-88	A19		<0.20	2280.00	154.00		72.00	<0.20	0.63	510.00	0.58	255.00	3.40		3.10									
03L002	24-Oct-88	A20		<0.50	2670.00	139.00		144.00	<0.50	<1.00	588.00	0.47	410.00	8.40		5.50									
03L002	12-Oct-89	A24		<10.00	1100.00	42.00		<10.00	<10.00	<50.00	68.00	<10.00	52.00	<10.00		<10.00									
03L002	27-Apr-90	A26		<0.50	1900.00	160.00		44.00	<0.50	<0.50	520.00	<0.50	170.00	<0.50	2.10	1.40	5.40		<0.50						
03L002	08-Mar-91	A30		<100.00	1500.00	<100.00	<50.00		<30.00	<190.00	320.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03L002	09-Mar-92	A34		<25.00	940.00	<25.00	<12.00		<12.00	<48.00	140.00	<25.00	23.00	<12.00	<32.00	<18.00	<25.00	<80.00							
03L002	09-Mar-93	A38	PC UG03	<5.00	320.00	<5.00	4.60		<1.50	<9.50	42.00	<5.00	9.50	<2.50	<6.50	<3.60	<5.00	<16.00							
03L003	19-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	4.75	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L003	11-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L004	18-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L004	09-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L005	23-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L005	10-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L005	24-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03L005	29-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L005	17-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
03L005	09-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<3.20							
03L007	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L007	10-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L007	28-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L007	10-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
03L010	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L010	10-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L010	10-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
03L012	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L012	11-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L013	10-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L014	23-Nov-87	F16		<0.88	2.77	<0.49	<0.56			<1.50	2.34	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L014	10-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L017	10-Nov-87	F16		<22.00	540.00	<12.00	<14.00			<38.00	200.00	<25.00	<18.00	<13.00	<28.00	<10.00	<16.00	<110.00	<45.00	<3.09	<3.39	<1.17			
03L017	25-Apr-90	A26		<0.50	44.00	3.20		<0.50	<0.50	<0.50	14.00	<0.50	1.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50						
03L017	07-Mar-91	A30		<1.00	6.41	<1.00	<0.50		<0.30	<1.90	1.77	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L017	11-Mar-92	A34		<1.00	1.87	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L017	12-Mar-93	A38	PC UG03	<1.00	10.96	<1.00	<0.50		<0.30	<1.90	1.45	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L018	23-Nov-87	F16		<0.88	2.54	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03L018	08-Apr-88	F18		<1.00	1.06	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L018	22-Aug-88	F19		<1.00	2.70	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	<0.87	<8.28				
03L018	18-Nov-88	F20		<1.00	6.52	<1.00	<0.50			<1.90	1.64	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	3.02	<8.28				
03L018	04-May-90	A26		<0.50	13.00	<0.50		<0.50	<0.50	<0.50	2.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50						
03L018	15-Mar-91	A30		<1.00	0.60	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L018																									



TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03L020	07-Dec-87	F16		<880.00	14000.00	<490.00	<560.00			<1500.00	4200.00	<990.00	<720.00	<510.00	<1100.00	<410.00	<620.00	<4500.00	<1800.00	<3100.00	<3400.00	<1200.00		
03L020	17-Aug-88	F19		<200.00	4700.00	280.00	520.00			<380.00	1300.00	<200.00		<100.00		<140.00	<200.00		<0.41	1.27	<8.28			
03L021	13-Oct-89	A24		<0.40	10.00	11.00		2.20	<0.40	<2.00	20.00	<0.40	42.00	<0.40	<0.40	<0.40								
03L021	02-May-90	A26		<0.50	370.00	46.00		13.00	<0.50	<0.50	73.00	<0.50	110.00	<0.50	0.80	<0.50	<0.50		<0.50					
03L021	14-Mar-91	A30		<25.00	540.00	<25.00	19.00		<7.50	<48.00	70.00	<25.00	74.00	<13.00	<33.00	<18.00	<25.00		<25.00					
03L021	11-Mar-92	A34		<1.00	160.00	3.44	4.07		<0.50	<1.90	8.87	<1.00	13.60	<0.50	<1.30	<0.72	<1.00		<1.00					
03L021	15-Mar-93	A38	PC UG03	<2.00	100.00	2.40	2.40		<0.60	<3.80	6.00	<2.00	8.60	<1.00	<2.60	<1.40	<2.00		<2.00					
03L029	03-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62		<4.50	<1.80	<3.09	<3.39	<1.17	
03L077	04-Dec-87	F16		<88.00	1600.00	61.00	<56.00			<150.00	610.00	<99.00	<72.00	<51.00	<110.00	<41.00	<62.00		<450.00	<180.00	<150.00	<170.00	<58.00	
03L077	19-Jan-88	A17		<0.20	875.00	63.00		10.00	<0.20	0.70	350.00	0.32	53.00	1.10	1.30									
03L077	09-May-88	A18		<0.20	287.00	12.00		3.00	<0.20	<0.20	103.00	<0.20	12.00	0.44	0.36									
03L077	03-Aug-88	A19		<0.20	458.00	8.00		7.00	<0.20	<0.20	163.00	<0.20	15.00	<0.20	<0.20									
03L077	21-Oct-88	A20		<0.50	1000.00	32.00		7.00	<0.50	<0.50	310.00	<0.50	41.00	<1.00	1.40									
03L077	11-Oct-89	A24		<40.00	5600.00	440.00	<40.00	<40.00	<200.00	1600.00	<40.00	<40.00	<40.00	<40.00	<40.00	<40.00								
03L077	24-Apr-90	A26		2.40	4500.00	140.00	19.00		<0.50	<0.50	1100.00	3.00	37.00	<0.50	3.80	2.20	<0.50		<0.50					
03L077	07-Mar-91	A30		<500.00	7000.00	<500.00	<250.00		<150.00	<950.00	1700.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00		<500.00					
03L077	05-Mar-92	A34		<200.00	5800.00	<200.00	<100.00		<100.00	<380.00	1300.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00		<200.00					
03L077	09-Mar-93	A38	PC UG03	<100.00	5500.00	56.00	<50.00		<30.00	<190.00	950.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00		<100.00					
03L078	23-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62		<4.50	<1.80	<3.09	<3.39	<1.17	
03L078	15-Jan-88	A17		<0.20	0.62	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L078	13-May-88	A18		<0.20	1.30	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L078	03-Aug-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L078	18-Aug-88	F19		<1.00	2.69	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<0.72	<1.00				<0.41	<0.87	<8.28		
03L078	16-Oct-89	A24		<0.20	1.50	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L078	30-Apr-90	A26		<0.50	1.10	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50								
03L078	13-Mar-91	A30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L078	11-Mar-92	A34		<1.00	1.03	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L078	12-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L079	04-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62		<4.50	<1.80	<3.09	<3.39	<1.17	
03L079	14-Jan-88	A17		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L079	09-May-88	A18		<0.20	2.40	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L079	03-Aug-88	A19		<0.20	1.00	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L079	18-Aug-88	F19		<1.00	0.84	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<0.72	<1.00				0.69	<0.87	<8.28		
03L079	26-Oct-88	A20		<0.50	1.00	<0.50		<0.50	<0.50	<0.50	<0.50	<1.00	<1.00	<0.50	<0.50	<0.50								
03L079	16-Oct-89	A24		<0.20	0.50	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03L079	01-May-90	A26		<0.50	0.70	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50								
03L079	13-Mar-91	A30		<1.00	1.52	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L079	13-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L079	15-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	1.15	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L080	30-Apr-90	A26		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50								
03L080	18-Mar-91	A30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L080	18-Mar-91	A30	(6)	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L080	17-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L080	15-Mar-93	A38	PC UG03	<1.00	0.64	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L081	01-May-90	A26		<0.50	7.70	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50								
03L081	29-Mar-91	F30		<1.00	1.97	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
03L081	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94		<4.47					
03L081	11-Mar-92	F34	(6)	<2.41	12.30	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52</												

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tr chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFFe	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03L084	04-Aug-88	A19		<0.20	27.00	<0.20		<0.20	<0.20	<0.20	6.80	<0.20	<0.20	<0.20		<0.20								
03L084	20-Oct-88	A20		<0.50	18.00	<0.50		<0.50	<0.50	<0.50	4.20	<0.50	<1.00	<1.00		<0.50								
03L084	11-Oct-89	A24		<0.20	15.00	1.70		<0.20	<0.20	<1.00	4.30	<0.20	<0.20	<0.20		<0.20								
03L084	26-Apr-90	A26		<0.50	5.20	<0.50		<0.50	<0.50	1.10	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50							
03L084	13-Mar-91	A30		<1.00	1.65	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L084	06-Mar-92	A34		<1.00	1.20	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L084	08-Mar-93	A38	PC UG03	<1.00	0.67	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L086	11-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
03L091	03-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03L091	25-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00							
03L091	01-May-90	F26		<1.00	0.62	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L091	26-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L091	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47						
03L091	12-Mar-92	F34																						
03L091	05-Mar-93	F38	PC UG03	<1.00	1.16	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L113	18-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03L113	06-Apr-88	F18		<1.00	0.76	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00							
03L113	09-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00							
03L113	18-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00							
03L113	27-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L113	19-Jul-90	F27		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L113	28-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L113	13-Mar-92	F34		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L113	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47						
03L113	03-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L137	17-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03L137	24-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L137	18-Jul-90	F27		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L137	21-Sep-90	F28		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L137	27-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L137	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47						
03L137	12-Mar-92	F34																						
03L138	17-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03L138	24-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L138	18-Jul-90	F27		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L138	21-Sep-90	F28		<1.00	1.72	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L138	29-Mar-91	F30		<1.00	0.58	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L138	12-Mar-92	F34						<0.30		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L138	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47						
03L138	05-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L138	(6) 05-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L523	27-Apr-90	F26		<1.00	0.85	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L523	26-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L523	26-Mar-91	F30																						
03L523	04-Sep-91	F32		<1.00	0.52	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L523	(6) 04-Sep-91	F32		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L523	05-Aug-92	Well Abandoned																						
03L673	12-Nov-87	A16		<0.20	1200.00	5.00		77.00	<0.20	<0.20	<0.20	<0.20	7.00	<0.20		25.00								
03L673	02-May-90	A26		<0.50	3200.00	6.50		120.00	0.70	<0.50	3.80	1.50	8.50	<0.50	<0.50	0.70	<0.50							
03L673	11-Mar-91	A30		<100.00	2000.00	<100.00	75.00																	
03L673	11-Mar-91	M30		<20.00	1900.00	<50.00		110.00	<10.00	<190.00	<100.00	&												

TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFFe	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00			
03L802	03-Dec-87	F16		<440.00	13000.00	<240.00	<280.00			<750.00	<400.00	<500.00	<360.00	<260.00	<550.00	<200.00	<310.00	<2200.00	<900.00						
03L802	21-Jan-88	A17		<5.00	11500.00	33.00		325.00	<5.00	<5.00	30.00	<5.00	50.00	<5.00		140.00									
03L802	13-May-88	A18		0.59	7540.00	22.00		168.00	0.60	<0.20	50.00	1.40	26.00	1.30		0.25									
03L802	04-Aug-88	A19		0.38	3180.00	17.00		147.00	0.24	<0.20	27.00	1.10	23.00	0.28		3.90									
03L802	28-Oct-88	A20		<0.50	2200.00	7.50		90.00	<0.50	<0.50	6.30	<0.50	16.00	<1.00		<0.50									
03L802	20-Apr-89	A22		<0.20	7.30	5.00		27.00	<0.20	<1.00	3.20	<0.20	8.50	<0.20		<0.20									
03L802	12-Jul-89	A23		<4.00	810.00	<4.00		32.00	<4.00	<20.00	4.80	<4.00	12.00	<4.00		<4.00									
03L802	18-Oct-89	A24		<0.20	350.00	5.30		12.00	<0.20	<1.00	8.80	<0.20	6.30	<0.20		<0.20									
03L802	16-Jan-90	A25		<1.00	160.00	3.90		7.50	<1.00	<5.00	41.00	<1.00	4.20	<1.00		<1.00									
03L802	01-May-90	A26		<0.50	92.00	2.70		1.30	<0.50	<0.50	7.50	<0.50	1.30	<0.50	<0.50	<0.50	<0.50								
03L802	18-Jul-90	A27		<1.00	59.00	2.80		2.30	<0.30	<1.50	8.20	<1.00	1.70	<0.20		<0.50			<0.50						
03L802	14-Mar-91	A30		<1.00	36.50	1.61	1.80		<0.30	<1.90	10.20	<1.00	1.63	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L802	07-Jun-91	A31		<1.00	41.50	1.98	1.79		<0.30	<1.90	14.20	<1.00	1.45	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L802	04-Sep-91	A32		<1.00	27.40	<1.00	1.35		<0.30	<1.90	8.62	<1.00	1.53	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L802	12-Mar-92	A34		<2.00	36.00	<2.00	2.20		<1.00	<3.80	8.00	<2.00	1.90	<1.00	<2.60	<1.40	<2.00	<2.00	<2.00	<2.00			<6.40		
03L802	04-Jun-92	A35		<1.00	36.30	1.52	1.55		<0.30	<1.90	4.34	<1.00	1.26	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L802	08-Sep-92	A36		<1.00	35.50	<1.00		1.27	<0.30	<1.90	4.33	<1.00	1.05	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L802	04-Mar-93	A38	PC UG03	<1.00	45.20	1.08	1.03		<0.30	<1.90	1.71	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L802	13-Sep-93	A40	PC UG03	<1.00	42.20	<1.00	0.69		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L806	02-Dec-87	F16		<180.00	5100.00	260.00	<110.00			<300.00	1700.00	<200.00	340.00	<100.00	<220.00	<82.00	<120.00	<900.00	<360.00						
03L806	19-Jan-88	A17		<0.20	3500.00	262.00		67.00	<0.20	<0.20	1250.00	2.60	370.00	8.30		<0.20									
03L806	12-May-88	A18		<0.20	740.00	134.00		66.00	0.24	0.25	378.00	0.66	304.00	6.10		0.79									
03L806	04-Aug-88	A19		<0.20	2065.00	232.00		124.00	<0.20	0.68	810.00	0.71	403.00	7.80		5.70									
03L806	25-Oct-88	A20		<0.50	3890.00	150.00		120.00	<0.50	<0.50	1170.00	0.73	300.00	6.60		5.10									
03L806	11-Jul-89	A23		<4.00	540.00	130.00		110.00	<4.00	<20.00	150.00	<4.00	240.00	4.10		<4.00									
03L806	16-Oct-89	A24		<10.00	2000.00	230.00		27.00	<10.00	<50.00	590.00	<10.00	130.00	<10.00		<10.00									
03L806	17-Jan-90	A25		<20.00	2200.00	160.00		31.00	<20.00	<100.00	790.00	<20.00	150.00	<20.00		<20.00									
03L806	23-Apr-90	A26		<0.50	5500.00	500.00		44.00	<0.50	<0.50	1800.00	1.40	220.00	<0.50	5.20	4.10	<0.50								<0.50
03L806	18-Jul-90	A27		<10.00	1100.00	340.00		140.00	<3.00	<15.00	360.00	<10.00	360.00	8.80		5.70									
03L806	11-Mar-91	A30		<500.00	5100.00	<500.00	<250.00		<150.00	<950.00	2400.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<500.00	<500.00			<1600.00		
03L806	07-Jun-91	A31		<200.00	4700.00	410.00	130.00		<12000.00	<380.00	1600.00	<200.00	440.00	<100.00	<260.00	<140.00	<200.00	<200.00	<200.00	<200.00			<320.00		
03L806	04-Sep-91	A32		<500.00	5400.00	<500.00	<250.00		<150.00	<950.00	1600.00	<500.00	460.00	<250.00	<650.00	<360.00	<500.00	<500.00	<500.00	<500.00			<1600.00		
03L806	04-Mar-92	A34		<100.00	3300.00	210.00	130.00		<50.00	<190.00	730.00	<100.00	460.00	<50.00	<130.00	<72.00	<100.00	<100.00	<100.00	<100.00			<320.00		
03L806	(6) 04-Mar-92	A34		<25.00	4300.00	350.00	120.00		<12.00	<48.00	1200.00	<25.00	550.00	13.00	<32.00	<18.00	<25.00	<25.00	<25.00	<25.00			<80.00		
03L806	05-Jun-92	A35		<100.00	3300.00	270.00	96.00		<30.00	<190.00	600.00	<100.00	440.00	<50.00	<130.00	<72.00	<100.00	<100.00	<100.00	<100.00			<320.00		
03L806	03-Sep-92	A36		<5.00	1800.00	210.00		54.00	<1.50	<9.50	440.00	<5.00	340.00	5.90	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00			<16.00		
03L806	03-Mar-93	A38	PC UG03	<10.00	410.00	110.00	82.00		<3.00	<19.00	25.00	<10.00	240.00	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00			<32.00		
03L806	13-Sep-93	A40	PC UG03	<10.00	390.00	30.00	12.00		<3.00	<19.00	100.00	<10.00	68.00	<5.00	<13.00	<7.20	13.00	<10.00	<10.00	<10.00			<32.00		
03L809	10-May-89	F22		<50.00	1900.00	230.00	45.00			<95.00	1030.00	<50.00		<25.00		<36.00	<50.00				<21.00	<44.00	<410.00		
03L809	20-Oct-89	F24		<88.00	1800.00	150.00	140.00			<150.00	380.00	<99.00		<51.00		<41.00	<62.00				<3.09	<3.39	<1.17		
03L809	24-Apr-90	F26		<1.00	3200.00	240.00	70.00			<1.90	1100.00	<1.00	350.00	<0.50	<1.30	<0.72	<1.00	<2.00					<3.20		
03L809	20-Jul-90	F27		<1.00	2200.00	120.00	71.00			<1.90	610.00	<1.00	300.00	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00			<3.20		
03L809	17-Sep-90	F28		<1.00	2200.00	180.00	58.00			<1.90	660.00	<1.00	310.00	5.40	<1.30	4.00	<1.00	<1.00	<1.00	<1.00			<3.20		
03L809	21-Mar-91	F30		<100.00	2000.00	170.00	<50.00			<190.00	630.00	<100.00	270.00	<50.00	<130.00	<72.00	<100.00	<100.00	<100.00	<100.00			<320.00		
03L809	19-Mar-92	F34		<2.41	>50.10	>50.20		54.50	<1.06	<4.10	>50.80	<1.52	>49.90	10.80	<1.20	6.63	<3.94	<4.47	4.56						
03L809	20-Mar-92	F34		<120.00	1800.00	180.00		<45.00	<53.00	<210.00	750.00	<76.0													

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3Cl	1,1,1-Trichloro ethane 111TCE	1,1,2-Trichloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCl3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFE	Methylene Chloride CH2Cl2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03L813	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03L813	05-May-89	F22		<1.00	0.64	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03L813	24-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L813	20-Oct-89	F24		<0.88	6.24	0.73	<0.56			<1.50	0.98	<0.99		<0.51		0.27	<0.62			<6.20	<6.80	<2.30			
03L822	01-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	18.00	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03L822	05-May-89	F22		<1.00	1.96	<1.00	<0.50			<1.90	11.20	<1.00		<0.50		<0.72	<1.00			0.68	3.34	<8.28			
03L822	24-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	19.30	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L822	23-Oct-89	F24		<0.88	14.80	1.08	<0.56			<1.50	19.00	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L822	25-Apr-90	F26		<1.00	1.35	<1.00	<0.50			<1.90	21.60	<1.00		<0.50		<0.72	<1.00	<1.00							
03L822	21-Mar-91	F30		<1.00	7.99	1.88	<0.50			<1.90	20.60	<1.00		8.25	<1.30	<0.72	<1.00	<1.00							
03L822	23-Mar-92	F34		<2.41	<1.04	5.89		<0.89	<1.06	<4.10	40.70	<1.52	15.10	<4.63	<1.20	<1.08	<3.94	<4.47	6.64						
03L822	12-Mar-93	F38	PC UG03	<1.00	<0.50	14.60	2.40			<1.90	40.00	<1.00	19.20	1.09	<1.30	0.77	<1.00	<1.00	<3.20						
03L832	24-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03L832	16-Dec-88	A20		<1.00	<1.00	<1.00	<0.50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.10	<0.41	<0.62	<4.50	<1.80						
03L832	09-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03L832	24-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L832	24-Oct-89	F24		<0.88	1.42	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L832	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L832	24-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.23						
03L832	16-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L833	08-Mar-93	F38 (7) PC		<1.00	140.00	<1.00	<0.50			<1.90	2.37	<1.00	0.89	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L833	11-May-93	F39 PC UG03		<1.00	160.00	<1.00	<2.50			<1.90	<1.00	<1.00	<3.90	<2.50	<1.30	<0.72	<1.00	<1.00	<16.00						
03L833	(6) 11-May-93	F39 PC UG03		<1.00	160.00	<1.00	<2.50			<1.90	<1.00	<1.00	<3.90	<2.50	<1.30	<0.72	<1.00	<1.00	<16.00						
03L841	20-Oct-87	A16		<0.20	1.00	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
03L841	12-Nov-87	A16		<0.20	0.50	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
03L841	19-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L841	20-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L841	19-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.23						
03L841	10-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L846	23-Aug-88	F19		<1.00	2.01	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03L846	08-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
03L846	03-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03L846	18-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L846	19-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
03L846	18-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L846	18-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L846	25-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	2.84	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.23						
03L846	15-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L848	02-Dec-87	F16		<44.00	570.00	<24.00	<28.00			<75.00	<40.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00						
03L848	03-May-89	F22		<1.00	270.00	2.64	24.90			<1.90	1.56	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03L848	20-Jul-89	F23		<18.00	130.00	<9.80	<11.00			<30.00	<16.00	<20.00		<10.00		<8.20	<12.00			<62.00	<68.00	<23.00			
03L848	19-Oct-89	F24		<0.88	610.00	1.16	21.60			<1.50	1.56	<0.99		<0.51		0.43	<0.62			<3.09	<3.39	<1.17			
03L848	19-Apr-90	F26		<20.00	460.00	<20.00	23.00			<38.00	<20.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	63.00						
03L848	19-Jul-90	F27		<1.00	260.00	<1.00	13.00			<1.90	<1.00	<1.00	1.06	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L848	18-Mar-91	F30		<10.00	250.00	<10.00	9.20			<10.00	<10.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03L848	18-Mar-92	F34		<6.00	92.00	<2.50		2.90	<2.70	<10.00	<2.90	<3.80	<2.40	<12.00	<3.00	<2.70	<9.90	<11.00	6.70						
03L848	09-Mar-93	F38	PC UG03	<1.00	52.90	<1.00	1.91			<1.90	0.74	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03L853	03-Dec-87	F16		<88.00	2500.00	<49.00	<56.00			<150.00	440.00	<99.00	<72.00	<51.00	<110.00	<41.00	<62.00	<450.00	<180.00						
03L853	05-May-89	F22		3.90	1200.00	56.00	10.80			<1.90	320.00	<													

TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCELE	1,2-Di chloro ethane 12DCELE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03L853	20-Mar-92	F34			19.70						2.99													
03L853	20-Mar-92	F34		<2.41		13.30		1.62	<1.06	<4.10		<1.52	8.94	<4.63	<1.20	<1.08	<3.94	<4.47	1.86					
03L853	11-Mar-93	F38	PC UG03	<10.00	420.00	<10.00	<5.00			<19.00	69.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
03L854	20-Oct-87	A16		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20						
03L854	24-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03L854	16-Dec-88	A20		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00						
03L854	20-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.51	<0.51	<0.41	<0.62	<0.62	<4.50	<1.80					
03L854	27-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.51	<0.51	<0.41	<0.62	<0.62	<4.50	<1.80					
03L854	30-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L854	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L854	23-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	3.44					
03L854	15-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L855	08-Mar-93	M38	BI	<1.00	110.00	<1.00		<0.20	<0.20	<1.00	<2.00	<1.20	<1.00	<0.30	<1.70	<1.30	<1.00	<5.00	<5.00					
03L855	13-May-93	M39	MH	<0.20	110.00	<0.50		0.80	<0.20	<1.00	2.60	<0.20	<1.00	<0.30	<1.70	<1.30	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00
03L856	24-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	6.90	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03L856	05-May-89	F22		<1.00	<1.00	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00	<1.00	<1.00						
03L856	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.51	<0.51	<0.41	<0.62	<0.62	<4.50	<1.80	<0.41	1.58	<8.28		
03L856	23-Oct-89	F24		<0.88	1.47	<0.49	<0.56			<1.50	<0.81	<0.99	<0.51	<0.51	<0.41	<0.62	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03L856	21-Mar-91	F30		<1.00	1.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00						
03L856	(6) 21-Mar-91	F30		<1.00	1.91	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L856	20-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
03L856	(6) 20-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.88					
03L856	17-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L858	24-Nov-87	F16		<2.20	7.90	<1.20	<1.40			<3.80	<2.00	<2.50	<1.80	<1.30	16.00	2.90	<1.60	<11.00	<4.50					
03L858	08-May-89	F22		<1.00	5.26	<1.00	3.10			<1.90	43.50	<1.00	<0.50	<0.50	11.70	<1.00	<1.00	<1.00		<0.41	1.42	<8.28		
03L858	21-Jul-89	F23		<4.40	7.60	<2.40	<2.80			<7.50	46.00	<5.00	<2.60	<2.60	7.10	<3.10	<3.10	<3.10	<15.00	<17.00	<5.80			
03L858	23-Oct-89	F24		<4.40	11.00	<2.40	6.40			<7.50	44.00	<5.00	<2.60	<2.60	4.90	<3.10	<3.10	<3.10	<15.00	<17.00	<5.80			
03L858	17-Apr-90	F26		<1.00	6.83	<1.00	3.42			<1.90	<1.00	<1.00	<0.78	<0.50	34.20	13.00	<1.00	<1.00	<3.20					
03L858	25-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L858	27-Mar-92	F34		<2.41	8.66	<1.01		1.70	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	43.30	10.40	<3.94	<4.47	<1.41					
03L858	(6) 27-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	22.50					
03L858	23-Mar-93	F38	PC UG03	<1.00	6.67	<1.00	2.03			<1.90	<1.00	<1.00	<0.78	<0.50	30.80	8.54	<1.00	<1.00	<3.20					
03L859	13-Nov-87	A16		0.40	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20						
03L859	15-Dec-88	A20		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00						
03L859	30-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L859	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L859	20-Mar-92	F34		<2.41	2.14	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
03L859	11-Mar-93	F38	PC UG03	<1.00	3.50	<1.00	0.65			<1.90	1.04	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L860	13-Nov-87	A16		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20						
03L860	15-Dec-88	A20		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00						
03L860	19-Apr-90	F26		<1.00	1.62	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L860	20-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L860	24-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.73					
03L860	10-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03L861	12-Nov-87	A16		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20						
03L861	15-Dec-88	A20		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00						
03L861	30-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	1.47	<8.28		

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03M002	17-Nov-87	F16		<180.00	4100.00	200.00	170.00			<300.00	1500.00	<200.00	220.00	<100.00	<220.00	<82.00	<120.00	<900.00	<360.00	<3.09	<3.39	<1.17			
03M003	19-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03M003	11-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<1.80	<0.41	<0.87	<1.17	<8.28		
03M004	18-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03M004	27-Jul-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03M004	09-Aug-88	F19		1.68	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03M005	08-Dec-87	F16		<0.88	8.49	<0.49	<0.56			<1.50	0.98	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03M005	14-Jan-88	A17		<0.20	33.00	<0.20		0.54	<0.20	<0.20	0.42	<0.20	<0.20	<0.20	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03M005	06-Apr-88	F18		<1.00	1.27	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<1.80	<0.41	<0.87	<8.28			
03M005	16-May-88	A18		<0.20	7.10	<0.20		<0.20	<0.20	<0.20	1.50	<0.20	<0.20	<0.20	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03M005	27-Jul-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
03M005	11-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<1.80	<0.41	<0.87	<8.28			
03M005	31-Oct-88	A20		<0.50	2.00	<0.50		<0.50	<0.50	<0.50	<0.50	<1.00		<1.00		<0.72	<1.00		<1.80	<0.41	<0.87	<8.28			
03M005	10-Nov-88	F20		<1.00	0.87	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<1.80	<0.41	<0.87	<8.28			
03M005	11-Oct-89	A24		<0.20	<0.20	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.72	<1.00		<1.80	<0.41	<0.87	<8.28			
03M005	24-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M005	29-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M005	17-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<3.20	<0.41	<0.87	<8.28			
03M005	05-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M010	10-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<3.20	<0.41	<0.87	<8.28			
03M010	10-Mar-92	F34	(6)	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<3.20	<0.41	<0.87	<8.28			
03M013	10-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03M017	10-Nov-87	F16		<44.00	1300.00	40.00	<28.00			<75.00	860.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00	<3.09	<3.39	<1.17			
03M017	11-Jan-88	A17		<0.20	1540.00	71.00		4.60	<0.20	<0.20	1040.00	<0.20	19.00	<0.20		<0.20									
03M017	12-May-88	A18		<0.20	965.00	38.00		3.10	<0.20	<0.20	835.00	<0.20	8.90	<0.20		0.35									
03M017	01-Aug-88	A19		0.24	2380.00	90.00		7.40	<0.20	<0.20	2320.00	<0.20	9.20	<0.20		<0.20									
03M017	31-Oct-88	A20		<0.50	1480.00	66.00		4.40	<0.50	<0.50	1160.00	<0.50	6.00	<1.00		<0.50									
03M017	13-Oct-89	A24		<10.00	1400.00	210.00		<10.00	<10.00	<50.00	990.00	<10.00	<10.00	<10.00		<10.00									
03M017	25-Apr-90	A26		<0.50	380.00	49.00		2.80	<0.50	<0.50	280.00	<0.50	4.60	<0.50	<0.50	<0.50	<0.50							<0.50	
03M017	07-Mar-91	A30		<25.00	400.00	<25.00	<13.00		<7.50	<48.00	280.00	<25.00	<20.00	<13.00	<33.00	<18.00	<25.00	<25.00	<25.00	<25.00	<25.00	<25.00	<25.00	<80.00	
03M017	11-Mar-92	A34		<10.00	360.00	39.00		<10.00	<5.00	<19.00	490.00	<10.00	<7.80	<5.00	<13.00	<7.20	<5.00	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00	<32.00	
03M017	12-Mar-93	A38	PC UG03	<5.00	210.00	16.00	<2.50		<1.50	<9.50	150.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00	<16.00	<16.00	<16.00	<16.00	<16.00	<16.00
03M020	19-Jan-88	A17		<4.00	5400.00	240.00		84.20	<4.00	<4.00	2780.00	4.20	468.00	10.00		14.00									
03M020	11-May-88	A18		1.20	5900.00	240.00		53.00	0.87	<0.20	3000.00	<0.20	600.00	7.90		<0.20									
03M020	01-Aug-88	A19		1.30	2380.00	333.00		95.00	1.10	1.00	5950.00	2.20	728.00	<0.20		1.90									
03M020	18-Aug-88	F19		<50.00	7700.00	420.00	260.00			<95.00	3700.00	<50.00		<25.00		100.00	<50.00		<21.00	<44.00	<410.00				
03M020	25-Oct-88	A20		1.50	10500.00	430.00		220.00	<0.50	1.70	4500.00	2.00	810.00	33.00		10.00									
03M020	11-Oct-89	A24		<50.00	11000.00	1200.00		93.00	<50.00	<250.00	4900.00	<50.00	840.00	<50.00		<50.00									
03M020	25-Apr-90	A26		<25.00	9000.00	850.00		80.00	<25.00	<25.00	5500.00	<25.00	550.00	<25.00	<25.00	<25.00	<25.00							<25.00	
03M020	14-Mar-91	A30		<500.00	13000.00	<500.00	380.00		<150.00	<950.00	3900.00	<500.00	840.00	<250.00	<250.00	<680.00	<360.00	<500.00	<1600.00	<3.09	<3.39	<1.17			
03M020	10-Mar-92	A34		<500.00	14000.00	<500.00		<500.00	<250.00	<950.00	3200.00	<500.00	1200.00	520.00	<650.00	<360.00	<250.00	<500.00	<1600.00	<3.09	<3.39	<1.17			
03M020	16-Mar-93	A38	PC UG03	<200.00	3900.00	<200.00	120.00		<60.00	<380.00	890.00	<200.00	190.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00	<3.09	<3.39	<1.17			
03M505	09-Nov-87	F16																		<3.09	<3.39	<1.17			
03M713	04-Jan-89	A21	Well Abandoned	<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
03M713	18-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M713	09-Mar-92	A34		<1.00	1.08	<1.00		<1.00	<0.50	<1.90	<1.00														

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLE	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03M802	(6)	14-Mar-91	A30	<20.00	490.00	<20.00	<10.00		<6.00	<38.00	27.00	<20.00	<16.00	<10.00	54.00	<14.00	<20.00	<20.00	<64.00						
03M802		12-Mar-92	A34	<50.00	700.00	<50.00		<50.00	<25.00	<95.00	<50.00	<50.00	<39.00	<25.00	<65.00	<36.00	<25.00	<50.00	<160.00						
03M802		04-Mar-93	A38	<5.00	470.00	<5.00	9.80		<1.50	<9.50	8.20	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
03M806		02-Dec-87	F16	<44.00	890.00	27.00	<28.00			<75.00	140.00	<50.00	47.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00						
03M806		23-Apr-90	A26	<0.50	800.00	120.00		7.80	<0.50	<0.50	210.00	<0.50	92.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50						
03M806		11-Mar-91	A30	<20.00	200.00	<20.00	<10.00		<6.00	<38.00	25.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
03M806		04-Mar-92	A34	<2.00	120.00	<2.00		<2.00	<1.00	<3.80	5.10	<2.00	5.10	<1.00	<2.60	<1.40	<1.00	<2.00	<6.40						
03M806		04-Mar-93	A38	<1.00	43.30	1.41	1.47		<0.30	<1.90	<1.00	<1.00	10.30	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03M843		24-Nov-87	F16	<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03M843		05-May-89	F22	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00			<0.41	1.13	<8.28				
03M843		25-Jul-89	F23	<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.50	<0.50	<0.41	<0.62			<3.09	<3.39	<1.17				
03M843		23-Oct-89	F24	<0.88	1.45	<0.49	<0.56			<1.50	<0.81	<0.99	<0.50	<0.50	<0.41	<0.62			<3.09	<3.39	<1.17				
03M843		25-Apr-90	F26	<1.00	6.79	<1.00	<0.50			<1.90	2.29	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	10.10	41.00	31.30			
03M843		21-Mar-91	F30	<1.00	1.52	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03M843		04-Jun-91	F31	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M843	(6)	04-Jun-91	F31	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M843		03-Sep-91	F32	<1.00	3.76	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03M843		20-Mar-92	F34	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843		20-Mar-92	F34	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843		03-Jun-92	F35	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843	(6)	03-Jun-92	F35	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843	(6)	03-Jun-92	F35	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843		03-Sep-92	F36	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843		03-Sep-92	F36	<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M843		11-Mar-93	F38	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03M848		02-Dec-87	F16	<22.00	440.00	<12.00	110.00			<38.00	<20.00	<25.00	<18.00	<13.00	<28.00	<10.00	<16.00	<110.00	<45.00						
03M848		19-Apr-90	F26	<5.00	190.00	6.00	60.00			<9.50	<5.00	<5.00	9.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
03M848		19-Jul-90	F27	<1.00	190.00	<1.00	45.00			<1.90	<1.00	<1.00	7.40	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03M848		17-Sep-90	F28	<1.00	330.00	5.80	78.00			<1.90	<1.00	<1.00	13.00	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03M848		18-Mar-91	F30	<10.00	310.00	<10.00	81.00			<19.00	<10.00	<10.00	12.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00	<4.10	<8.70	<83.00			
03M848		04-Jun-91	F31	<2.50	730.00	7.30	110.00			<4.80	4.40	<2.50	13.00	<1.30	<3.30	<1.80	<2.50	<8.00	<1.00	<10.00	<2.20	<21.00			
03M848		03-Sep-91	F32	<25.00	700.00	<25.00	100.00			<47.50	<25.00	<25.00	<19.50	<12.50	<32.50	<18.00	<25.00	<25.00	<80.00	<10.00	<22.00	<210.00			
03M848		18-Mar-92	F34	<48.00	640.00	<20.00		76.00	<21.00	<82.00	<23.00	<30.00	<19.00	<93.00	<24.00	<22.00	<79.00	<89.00	76.00	<3.09	<3.39	<1.17			
03M848		03-Jun-92	F35	<2.41	>50.10	5.82		46.00	<1.06	<4.10	4.38	<1.52	9.41	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M848		03-Jun-92	F35	<2.41	>50.10	5.82		>50.20	<1.06	<4.10	4.38	<1.52	9.41	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M848		03-Sep-92	F36	<2.41	>50.10	6.56		56	<1.06	<4.10	5.65	<1.52	10.10	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M848		03-Sep-92	F36	<2.41	>50.10	6.56		>50.20	<1.06	<4.10	5.65	<1.52	10.10	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03M848		09-Mar-93	F38	<10.00	1300.00	<10.00	96.00			<19.00	<10.00	<10.00	8.60	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03M848	(6)	09-Mar-93	F38	<1.00	970.00	3.71	87.00			<1.90	3.49	<1.00	8.51	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U001		16-Nov-87	F16	<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U002		17-Nov-87	F16	<4.40	16.00	<2.40	<2.80			<7.50	45.00	<5.00	<3.60	<2.60	<5.50	<2.00	<3.10	<22.00	<9.00	<3.09	<3.39	<1.17			
03U002		26-May-88	A18	<0.20	46.00	7.50		0.26	<0.20	<0.20	51.00	1.30	0.48	<0.20	<0.20	<0.20									
03U002		04-Aug-88	A19	<0.20	104.00	7.40		0.55	<0.20	<0.20	36.00	2.90	<0.20	<0.20	<0.20	<0.20									
03U002		24-Oct-88	A20	<0.50	49.00	2.10		<0.50	<0.50	<0.50	34.00	1.50	<1.00	<1.00	<0.50										
03U003		19-Nov-87	F16	<88.00	1300.00	<49.00	<56.00			<150.00	95.00	<99.00	<72.00	<51.00	<110.00	<41.00	<62.00	<450.00	<180.00	<3.09	<3.3				

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3Cl	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane T112TFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03U003	26-Oct-88	A20		<0.50	3.80	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<1.00		<0.50									
03U003	19-Apr-89	A22		<0.20	280.00	14.00		28.00	<0.20	<1.00	36.00	3.10	22.00	3.00		1.00									
03U003	12-Jul-89	A23		<0.40	900.00	110.00		84.00	<0.40	<2.00	270.00	7.40	62.00	6.20		4.00									
03U003	18-Jan-90	A25		<10.00	910.00	41.00		48.00	<10.00	<50.00	210.00	<10.00	44.00	<10.00		<10.00									
03U003	23-Apr-90	A26		<0.50	1800.00	110.00		61.00	<0.50	<0.50	380.00	5.90	44.00	<0.50	<0.50	3.70	<0.50		<0.50						
03U003	18-Jul-90	A27		<25.00	1800.00	130.00		120.00	<7.50	<38.00	420.00	<25.00	<5.00	82.00		<12.00									
03U003	08-Mar-91	A30		<100.00	1400.00	<100.00	<50.00		<30.00	<190.00	250.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<100.00	<320.00					
03U003	06-Jun-91	A31		<1.00	30.30	<1.00	0.87		<0.30	<1.90	3.65	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U003	04-Sep-91	A32		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U003	10-Mar-92	A34		<25.00	990.00	<25.00	<12.00		<12.00	<48.00	80.00	<25.00	<20.00	<12.00	<32.00	<18.00	<25.00	<25.00	<25.00	<80.00					
03U003	03-Jun-92	A35 (7)		<5.00	670	6.4	9.2		<5.00	<9.50	35	<5.00	4.4	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
03U003	02-Sep-92	A36		<10.00	430.00	<10.00		<5.00	<3.00	<19.00	39.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<32.00					
03U003	22-Mar-93	A38	PC UG03	<20.00	450.00	<20.00	<10.00		<6.00	<38.00	27.00	<20.00	<16.00	<10.00	<28.00	<14.00	<20.00	<20.00	<64.00						
03U003	29-Jul-93	A40	PC UG03	<1.00	340.00	1.51	3.02		<0.30	<1.90	11.30	<1.00	1.88	<0.50	<1.30	0.94	<1.00	<1.00	<3.20						
03U003	15-Sep-93	A40	PC UG03	<5.00	320.00	<5.00	<2.50		<1.50	<9.50	9.80	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
03U004	18-Nov-87	F16		<0.88	<1.10	<0.49	0.93			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U004	13-Jan-88	A17		<0.20	1.00	<0.20		0.92	<0.20	<0.20	<0.20	<0.20	0.45	<0.20		0.24									
03U004	18-May-88	A18		<0.20	16.00	<0.20		2.10	<0.20	<0.20	3.00	<0.20	0.55	<0.20		<0.20									
03U004	27-Jul-88	A19		<0.20	0.66	<0.20		0.46	<0.20	<0.20	0.22	<0.20	0.24	<0.20		<0.20									
03U004	09-Aug-88	F19		<1.00	1.59	<1.00	3.02			<1.90	3.44	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03U004	28-Oct-88	A20		<0.50	17.00	<0.50		1.50	<0.50	<0.50	2.10	<0.50	0.63	<1.00		<0.50									
03U004	25-Oct-89	A24		<0.20	5.80	<0.20		0.90	<0.20	<1.00	1.10	<0.20	0.50	<0.20		<0.20									
03U004	02-May-90	A26		<0.50	13.00	<0.50		0.70	<0.50	<0.50	3.70	<0.50	0.50	<0.50	<0.50	<0.50	<0.50								
03U004	16-Apr-91	A30		<1.00	0.71	<1.00	<0.50		<0.30	<1.90	1.08	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U004	19-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U004	22-Mar-93	A38	PC UG03	<1.00	7.75	<1.00	0.67		<0.30	<1.90	3.35	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U005	23-Nov-87	F16		<0.88	<1.10	<0.49	4.21			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U005	14-Jan-88	A17		<0.20	5.00	<0.20		6.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
03U005	06-Apr-88	F18		<1.00	3.61	<1.00	4.95			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03U005	16-May-88	A18		<0.20	8.40	<0.20		3.40	<0.20	<0.20	0.62	<0.20	<0.20	<0.20		<0.20									
03U005	27-Jul-88	A19		<0.20	1.10	<0.20		1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
03U005	10-Aug-88	F19		<1.00	0.65	<1.00	2.00			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
03U005	31-Oct-88	A20		<0.50	2.30	<0.50		6.20	<0.50	<0.50	<0.50	<1.00	<1.00	<1.00		<0.50									
03U005	10-Nov-88	F20		<1.00	2.11	<1.00	4.80			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
03U005	11-Oct-89	A24		<0.20	0.30	<0.20		3.40	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20									
03U005	24-Apr-90	F26		<1.00	0.70	<1.00	1.66			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U005	29-Mar-91	F30		<1.00	<0.50	<1.00	5.41		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U005	17-Mar-92	F34		<2.41	<1.04	<1.01		1.82	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
03U005	09-Mar-93	F38	PC UG03	<1.00	1.13	<1.00	1.36			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U005	(6) 09-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	1.36			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U007	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U007	07-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
03U007	23-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U007	28-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U007	10-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
03U008	09-Nov-87	F16		1.06	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U008	10-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
03U008	23-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U009	20-Nov-87	F16</																							



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCEEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFe	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U010	10-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
03U012	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U012	11-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
03U013	10-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U014	04-Dec-87	F16		<880.00	13000.00	<490.00	1500.00			<1500.00	6400.00	<990.00	<720.00	<510.00	<1100.00	<410.00	<620.00	<4500.00	5400.00	<1500.00	<1700.00	<580.00		
03U014	18-Jan-88	A17		<0.20	5250.00	122.00		1538.00	<0.20	<0.20	2938.00	4.80	636.00	15.80	<0.20									
03U014	18-May-88	A18		2.60	11300.00	815.00		1575.00	4.10	0.40	6000.00	3.50	795.00	10.00	<0.20									
03U014	02-Aug-88	A19		<20.00	13500.00	392.00		3330.00	<20.00	<20.00	8850.00	<20.00	1460.00	<20.00										
03U014	17-Aug-88	F19		<200.00	12000.00	670.00	3300.00			<380.00	9500.00	<200.00		<100.00		<140.00	<200.00			<0.41	<0.87	<8.28		
03U014	24-Oct-88	A20		7.60	14000.00	6.60		2250.00	<0.50	0.90	6000.00	5.20	1050.00	57.00		28.00								
03U014	20-Apr-89	A22		6.70	14000.00	1200.00		2200.00	6.30	2.10	6100.00	6.60	1200.00	22.00		3.50								
03U014	19-Jul-89	A23		<40.00	12000.00	1800.00		2300.00	<40.00	<200.00	7700.00	<40.00	1200.00	<40.00		<40.00								
03U014	24-Oct-89	A24		<100.00	17000.00	1600.00		2300.00	<100.00	<500.00	10000.00	<100.00	1300.00	<100.00		<100.00								
03U014	16-Jan-90	A25		110.00	11000.00	740.00		1600.00	110.00	<500.00	7800.00	110.00	990.00	150.00		130.00								
03U014	02-May-90	A26		3.20	9500.00	800.00		690.00	2.80	<0.50	7500.00	5.00	430.00	<0.50	<0.50	5.20	<0.50		5.30					
03U014	18-Mar-91	A30		<500.00	8000.00	<500.00	350.00		<150.00	<90.00	6200.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<1600.00					
03U014	17-Mar-92	A34		<200.00	7100.00	<200.00	<100.00		<100.00	<380.00	4900.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00					
03U014	17-Mar-92	A34	(6)	<200.00	8200.00	<200.00	<100.00		<100.00	<380.00	5100.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00					
03U014	22-Mar-93	A38	PC UG03	<1.00	19.30	<1.00	<0.50		<0.30	<1.90	8.24	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U015	17-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U015	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72				<0.41	<0.87	<8.28		
03U015	09-Aug-88	F19		44.90	20.70	<1.00	48.80			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
03U015	16-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
03U015	01-May-90	F26		<2.00	<1.00	<2.00	<1.00			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
03U015	26-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U015	16-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	1.81					
03U015	04-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U016	27-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U016	25-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U016	25-Mar-91	M30		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20
03U016	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	1.81				<0.20	<0.20
03U016	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	1.81				<0.20	<0.20
03U016	04-Mar-93	F38	PC UG03	<1.00	1.04	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17		<0.20
03U017	10-Nov-87	F16		<22.00	600.00	20.00	<14.00			<38.00	480.00	<25.00	<18.00	<13.00	<28.00	<10.00	<16.00	<110.00	<45.00	<3.09	<3.39	<1.17		
03U017	24-Apr-90	A26		<0.50	270.00	43.00		<0.50	<0.50	<0.50	190.00	<0.50	1.70	<0.50	<0.50	<0.50			<0.50					
03U017	07-Mar-91	A30		<50.00	400.00	59.00	<25.00		<15.00	<95.00	620.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00					
03U017	11-Mar-92	A34		<5.00	120.00	<5.00	<2.50		<2.50	<9.50	77.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
03U017	12-Mar-93	A38	PC UG03	<1.00	49.00	1.18	<0.50		<0.30	<1.90	11.40	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U018	04-Dec-87	F16		<440.00	11000.00	<240.00	<280.00			<750.00	3300.00	<500.00	<360.00	<260.00	<550.00	<200.00	<310.00	<2200.00	<900.00	<1500.00	<1700.00	<580.00		
03U018	22-Aug-88	F19		<1.00	3600.00	103.00	26.70			<1.90	2100.00	1.68	<0.50		1.57	<1.00			<0.41	<0.87	<8.28			
03U018	20-Apr-89	A22		0.20	1500.00	97.00		14.00	<0.20	<1.00	410.00	<0.20	22.00	<0.20	1.40									
03U018	12-Jul-89	A23		<1.00	9900.00	750.00		70.00	<1.00	<5.00	3100.00	<1.00	280.00	<1.00	<1.00									
03U018	20-Oct-89	A24		<20.00	4000.00	210.00		<20.00	<20.00	<100.00	1200.00	<20.00	590.00	<20.00	<20.00	<40.00								
03U018	18-Jan-90	A25		<40.00	6600.00	140.00		52.00	<40.00	<200.00	2200.00	<40.00	190.00	<40.00										
03U018	02-May-90	A26		0.80	2500.00	85.00		17.00	<0.50	<0.50	850.00	<0.50	75.00	<0.50	<0.50	2.30	<0.50		<0.50					
03U018	15-Mar-91	A30		<100.00	240.00	<100.00	<50.00		<30.00	<190.00	690.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U018	11-Mar-92	A34		<200.00	4500.00</																			

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3Cl	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCl3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2Cl2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03U019	27-Oct-88	A20		<0.50	2.60	<0.50		<0.50	<0.50	<0.50	2.90	<0.50	<1.00	<1.00		<0.50									
03U019	18-Oct-89	A24		<0.20	0.40	<0.20		<0.20	<0.20	<1.00	1.10	<0.20	<0.20	<0.20		<0.20									
03U019	01-May-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	1.28	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U019	19-Jul-90	F27		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U019	27-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U019	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U019	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U019	05-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U020	07-Dec-87	F16		<440.00	11000.00	250.00	<280.00			<750.00	6000.00	<500.00	<360.00	<260.00	<550.00	<200.00	<310.00	<2200.00	<900.00	<1500.00	<1700.00	<580.00			
03U020	17-Aug-88	F19		<200.00	5200.00	450.00	740.00			<380.00	4100.00	<200.00	<100.00	<100.00	<100.00	<140.00	<200.00	<200.00	<200.00	<0.41	<0.87	<8.28			
03U020	25-Apr-90	A26		<25.00	1100.00	120.00		45.00	<25.00	<25.00	420.00	<25.00	45.00	<25.00	<25.00	<25.00	<25.00	<25.00	<25.00						
03U020	20-Mar-91	A30		<50.00	1800.00	76.00	82.00		<15.00	<95.00	930.00	<50.00	74.00	<25.00	<65.00	<36.00	<50.00	<50.00	<50.00						
03U020	11-Mar-92	A34		<200.00	3000.00	<200.00	170.00		<100.00	<380.00	1200.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U020	22-Mar-93	A38	PC UG03	<100.00	3100.00	<100.00	120.00		<30.00	<190.00	1000.00	<100.00	93.00	<30.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03U020	22-Mar-93	A38	PC UG03	<100.00	3200.00	<100.00	130.00		<30.00	<190.00	1000.00	<100.00	95.00	<30.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03U021	17-May-88	A18		<0.20	7.40	<0.20		<0.20	<0.20	<0.20	2.00	<0.20	0.60	<0.20		<0.20									
03U021	29-Jul-88	A19		<0.20	1.90	<0.20		<0.20	<0.20	<0.20	0.38	<0.20	<0.20	<0.20		<0.20									
03U021	28-Oct-88	A20		<0.50	3.30	<0.50		<0.50	<0.50	<0.50	0.59	<0.50	<1.00	<1.00		<0.50									
03U021	13-Oct-89	A24		<4.00	340.00	120.00		<4.00	<4.00	<20.00	380.00	<4.00	9.00	<4.00		<4.00									
03U021	02-May-90	A26		<0.50	900.00	150.00		6.00	<0.50	<0.50	800.00	1.40	24.00	<0.50	0.60	1.00	<0.50	<0.50	<0.50						
03U021	14-Mar-91	A30		<1.00	53.10	4.19	2.25		<0.30	<1.90	27.40	<1.00	2.57	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U021	11-Mar-92	A34		<200.00	4700.00	240.00	220.00		<100.00	<380.00	1800.00	<200.00	380.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U021	15-Mar-93	A38	PC UG03	<1.00	5100.00	43.70	34.30		<0.30	<1.90	2200.00	<1.00	44.50	2.24	<1.30	1.30	<1.00	<1.00	<3.20						
03U022	05-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50		<0.72	<1.00				<0.41	<0.87	<8.28			
03U023	10-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U023	15-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.51	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U023	25-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	1.13	<8.28			
03U023	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U023	09-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U023	09-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U023	02-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U024	10-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50		<0.72	<1.00				<0.41	<0.87	<8.28			
03U025	10-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50		<0.72	<1.00				<0.41	1.92	<8.28			
03U026	18-Nov-87	F16		<4.40	36.00	<2.40	<2.80			<7.50	42.00	<5.00	<3.60	<2.60	<5.50	6.50	<3.10	<22.00	<9.00	<3.09	<3.39	<1.17			
03U026	08-Apr-88	F18		<1.00	23.10	2.44	<0.50			<1.90	35.70	<1.00	<0.50	<0.50	<1.30	21.40	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U026	22-Aug-88	F19		<1.00	31.10	<1.00	<0.50			<1.90	32.20	<1.00	<0.50	<0.50	<1.30	15.30	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U026	16-Nov-88	F20		<1.00	29.40	1.97	<0.50			<1.90	36.00	<1.00	<0.50	<0.50	<1.30	35.40	<1.00	<1.00	<3.20	<0.41	4.66	<8.28			
03U026	01-May-90	F26		<1.00	27.50	2.54	<0.50			<1.90	40.40	<1.00	<0.78	<0.50	<1.30	42.30	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U026	19-Jul-90	F27		<1.00	25.30	2.10	<0.50			<1.90	25.00	<1.00	<0.78	<0.50	<1.30	55.80	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U026	21-Sep-90	F28		<1.00	34.20	2.06	0.80			<1.90	15.00	<1.00	<0.78	<0.50	<1.30	92.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U026	29-Mar-91	F30		<2.00	54.00	<2.00	<1.00		<1.20	<3.80	25.00	<2.00	<1.60	<1.00	<2.60	80.00	<2.00	<2.00	<6.40	<0.82	<1.70	<17.00			
03U026	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U026	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U026	12-Mar-92	F34			18.50						12.80	<1.52	<0.97	<4.63	1.52	14.80	<3.94	<4.47	<1.41						
03U026	09-Mar-93	F38	PC UG03	<1.00	44.70	<1.00	1.24			<1.90	3.26	<1.00	<0.78	<0.50	<1.30	39.60	<1.00	<1.00	<3.20						
03U																									

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFe	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U027	14-Mar-91	A30		<5.00	64.00	11.00	2.80		<1.50	<9.50	10.00	11.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00					
03U027	13-Mar-92	A34		<1.00	40.70	5.26	5.12		<0.50	<1.90	38.20	10.30	<0.78	<0.50	<1.30	1.41	<1.00	<1.00	<3.20					
03U027	18-Mar-93	A38	PC UG03	<5.00	91.00	<5.00	<2.50		<1.50	<9.50	18.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
03U027	18-Mar-93	A38	PC UG03	<5.00	97.00	<5.00	<2.50		<1.50	<9.50	23.00	5.70	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
03U028	03-Dec-87	F16		<44.00	310.00	<24.00	<28.00			<75.00	<40.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00					
03U028	22-Aug-88	F19		<10.00	540.00	<10.00	44.00			<19.00	76.00	<10.00	<5.00	<5.00	<7.20	<10.00				<4.10	<8.70	<83.00		
03U028	25-Oct-89	A24		<2.00	280.00	5.40		4.20	<2.00	<10.00	34.00	<2.00	<2.00	<2.00		<2.00								
03U028	07-May-90	A26		<0.50	120.00	1.20		1.30	<0.50	<0.50	7.40	<0.50	<0.50	<0.50	<0.50	<0.50								
03U028	12-Mar-91	M30		<20.00	890.00	<50.00		140.00	<10.00	<100.00	99.00	<20.00	<20.00	<20.00	<20.00	<10.00	<20.00	<20.00	<50.00	<20.00	<20.00	<20.00	<20.00	<20.00
03U028	21-Mar-91	A30		<5.00	9.70	<5.00	<2.50		<1.50	<9.50	11.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00				<20.00	<20.00
03U028	20-Mar-92	A34		<20.00	470.00	<20.00	14.00		<10.00	<38.00	45.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00				<20.00	<20.00
03U028	23-Mar-93	A38	PC UG03	<25.00	720.00	<25.00	17.00		<7.50	<48.00	57.00	<25.00	<20.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00					
03U029	03-Dec-87	F16		<180.00	1400.00	<100.00	<110.00			<300.00	<160.00	<200.00	<140.00	<100.00	<220.00	<82.00	<120.00	<900.00	<360.00	<620.00	<680.00	<230.00		
03U029	26-Jan-88	A17		<0.20	1030.00	<0.20		143.00	<0.20	<0.20	91.60	<0.20	<0.20	<0.20		8.50								
03U029	17-May-88	A18		0.61	1125.00	0.67		115.00	0.91	<0.20	46.00	<0.20	1.90	<0.20		<0.20								
03U029	08-Aug-88	A19		4.30	5700.00	24.00		395.00	6.50	<0.20	435.00	0.51	9.40	<0.20		1090.00								
03U029	17-Aug-88	F19		<50.00	2100.00	<50.00	390.00			<95.00	180.00	<50.00	<25.00	<36.00	<50.00					<0.41	<0.87	<8.28		
03U029	31-Oct-88	A20		2.20	1720.00	12.00		390.00	2.60	<0.50	200.00	<0.50	4.80	<1.00		<0.50								
03U029	18-Oct-89	A24		0.80	1900.00	33.00		230.00	1.50	<1.00	130.00	<0.20	6.80	<0.20		0.50								
03U029	07-May-90	A26		0.60	1400.00	13.00		110.00	1.00	<0.50	110.00	<0.50	3.10	<0.50	<0.50	0.80	<0.50							<0.50
03U029	12-Mar-91	A30		<100.00	990.00	<100.00	120.00		<30.00	<190.00	150.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U029	17-Mar-92	A34		<10.00	250.00	<10.00	19.00		<5.00	<19.00	45.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
03U029	17-Mar-92	M34		<2.00	240.00	<5.00		16.00	<1.00	<10.00	26.00	<2.00	<2.00	<2.00	<1.00	<2.00	<2.00	<2.00	<5.00	<2.00	<2.00		<2.00	<2.00
03U029	23-Mar-93	A38	PC UG03	<10.00	270.00	<10.00	13.00		<3.00	<19.00	18.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00				<2.00	<2.00
03U030	03-Dec-87	F16		<1.80	25.00	<1.00	<1.10			<3.00	<1.60	<2.00	<1.40	<1.00	<2.20	<0.82	<1.20	<9.00	<3.60					
03U030	26-Jan-88	A17		<0.20	6.50	<0.20				<0.20	0.26	<0.20	<0.20	<0.20		<0.20								
03U030	18-May-88	A18		<0.20	17.00	<0.20			<0.20	<0.20	0.59	<0.20	<0.20	<0.20		<0.20								
03U030	08-Aug-88	A19		<0.20	7.70	<0.20			<0.20	<0.20	0.67	<0.20	<0.20	<0.20		<0.20								
03U030	22-Aug-88	F19		<1.00	11.50	<1.00	<0.50			<1.90	1.64	<1.00	<0.50	<0.72	<1.00									
03U030	01-Nov-88	A20		<0.50	11.00	<0.50		<0.50	<0.50	<0.50	1.40	<0.50	<1.00	<0.50		<0.50								
03U030	25-Oct-89	A24		<0.20	7.10	<0.20		<0.20	<0.20	<1.00	0.60	<0.20	<0.20	<0.20		<0.20								
03U030	07-May-90	A26		<0.50	2.90	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					<0.50
03U030	21-Mar-91	A30		<1.00	16.50	<1.00	1.08		<0.30	<1.90	2.84	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U030	20-Mar-92	A34		<1.00	24.80	<1.00	2.06		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U030	20-Mar-92	A34		<1.00	23.80	<1.00	1.97		<0.50	<1.90	1.30	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U030	23-Mar-93	A38	PC UG03	<1.00	9.32	<1.00	<0.50		<0.30	<1.90	1.32	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U031	18-Jan-88	A17		<0.20	0.68	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03U031	10-May-88	A18		<0.20	6.00	<0.20		<0.20	<0.20	<0.20	1.00	<0.20	<0.20	<0.20		<0.20								
03U031	29-Jul-88	A19		<0.20	0.53	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03U031	10-Aug-88	F19		<1.00	0.63	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.72	<1.00					<0.41	<0.87	<8.28		
03U031	20-Oct-88	A20		<0.50	<0.50	<0.50		<0.50	<1.00	<0.50	<0.50	<0.50	<1.00	<0.50		<0.50								
03U031	11-Oct-89	A24		<0.20	<0.20	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20								
03U031	24-Apr-90	A26		<0.50	2.60	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					<0.50
03U031	18-Mar-91	A30		<1.00	1.20	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U031	19-Mar-92	A34		<1.00	10.20	<1.00	<0.50		<0.50	<1.90	2.77	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U031	18-Mar-93	A38	PC UG03	<1.00	13.30	<1.00	<0.50		<0.30	<1.90	1.43	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					<3.20
03U032	20-Nov-87	F16		<8.80	15.00	<4.90	<5.60			<15.00	16.00	<9.90	<7.20	<5.10	<11.00	<4.10	<6.20	<45.00	<18.00	<3.09	<3.39	<1.17		
03U032	08-Apr-88	F18		<1.00																				

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Trichloro ethane 111TCE	1,1,2-Trichloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane T1,1,2TTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U032	04-Sep-91	F32		<1.00	2.28	<1.00	<0.50			<1.90	3.50	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U032	(6) 04-Sep-91	F32		<1.00	2.51	<1.00	<0.50			<1.90	3.36	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U032	13-Mar-92	F34		<2.41	1.51	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	(6) 13-Mar-92	F34		<2.41	1.51	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	(6) 13-Mar-92	F34		<2.41	1.51	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	02-Jun-92	F35		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	02-Jun-92	F35		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	04-Sep-92	F36		<2.41	2.13	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	04-Sep-92	F36		<2.41	2.13	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41			<3.09	<3.39	<1.17
03U032	04-Mar-93	F38	PC UG03	<1.00	1.46	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17		
03U075	10-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U075	18-Aug-88	F19		<1.00	1.04	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<4.50	<1.80	<3.09	<3.39	<1.17		
03U075	20-Jul-90	A27		<1.00	<0.50	<0.30		<0.50	<0.30	<1.50	<0.50	<1.00	<0.20	<0.20	<0.50	<0.50								
03U075	18-Mar-91	A30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U075	19-Mar-92	A34		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U075	16-Mar-93	A38	PC UG03	<1.00	0.62	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U076	10-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U076	18-Aug-88	F19		<1.00	1.03	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<4.50	<1.80	<3.09	<3.39	<1.17		
03U077	19-Jan-88	A17		<0.20	25.00	5.40		0.31	<0.20	<0.20	31.00	<0.20	2.20	<0.20	0.64	1.30								
03U077	09-May-88	A18		0.33	27.00	1.80		<0.20	<0.20	<0.20	22.00	<0.20	0.89	<0.20		0.86								
03U077	03-Aug-88	A19		<0.20	6.90	<0.20		<0.20	<0.20	<0.20	12.00	<0.20	0.86	<0.20		<0.20								
03U077	21-Oct-88	A20		<0.50	9.90	1.20		<0.50	<0.50	<0.50	8.90	<0.50	1.90	<0.10		<0.50								
03U077	16-Oct-89	A24		<20.00	3000.00	360.00		<20.00	<20.00	<100.00	1600.00	<20.00	<20.00	<20.00		<20.00								
03U077	24-Apr-90	A26		24.00	6500.00	490.00		8.60	<0.50	<0.50	2000.00	1.60	28.00	5.40	10.00	<0.50	<0.50							5.30
03U077	07-Mar-91	A30		<250.00	5900.00	<250.00	<130.00		<75.00	<480.00	1300.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00	<250.00	<800.00					
03U077	05-Mar-92	A34		<50.00	1900.00	<50.00	<25.00		<25.00	<95.00	420.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00					
03U077	09-Mar-93	A38	PC UG03	<10.00	470.00	25.00	<5.00		<3.00	<19.00	340.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
03U077	(6) 09-Mar-93	A38	PC UG03	<10.00	450.00	26.00	<5.00		<3.00	<19.00	340.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
03U078	23-Nov-87	F16		27.00	100.00	<4.90	8.30			<15.00	<8.10	<9.90	<7.20	<5.10	<11.00	<4.10	<6.20	<45.00	<18.00	<3.09	<3.39	<1.17		
03U078	14-Jan-88	A17		47.00	150.00	5.70		30.00	<0.20	<0.20	<0.20	<0.20	4.10	<0.20		4.10								
03U078	13-May-88	A18		33.00	130.00	3.60		11.00	<0.20	<0.20	16.00	<0.20	1.30	<0.20		1.90								
03U078	03-Aug-88	A19		20.00	68.00	0.54		9.30	<0.20	<0.20	11.00	<0.20	0.39	<0.20		<0.20								
03U078	18-Aug-88	F19		22.30	49.80	1.44	12.30			<1.90	8.44	<1.00		<0.50		3.11	<1.00			<0.41	2.54	<8.28		
03U078	16-Oct-89	A24		34.00	170.00	7.40		15.00	<1.00	<5.00	25.00	<1.00	1.90	<1.00		3.70								
03U078	30-Apr-90	A26		24.00	120.00	3.20		4.60	<0.50	<0.50	11.00	<0.50	1.20	<0.50	<0.50	4.00	<0.50							<0.50
03U078	13-Mar-91	A30		24.00	110.00	<5.00	<2.50		<1.50	<9.50	13.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
03U078	11-Mar-92	A34		22.00	210.00	<5.00	<5.00		<5.00	<19.00	13.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
03U078	12-Mar-93	A38	PC UG03	11.00	90.00	4.80	<1.00		<0.60	<3.80	49.00	<2.00	2.50	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
03U079	04-Dec-87	F16		<440.00	7000.00	<240.00	<280.00			<750.00	<400.00	<500.00	<360.00	<260.00	<550.00	<200.00	<310.00	<2200.00	<900.00	<620.00	<680.00	<230.00		
03U079	14-Jan-88	A17		<10.00	10350.00	<10.00		380.00	<10.00	<10.00	41.00	<10.00	24.00	<10.00		<10.00								
03U079	09-May-88	A18		<2.00	2900.00	<2.00		62.00	<2.00	<2.00	11.00	<2.00	6.80	<2.00		<2.00								
03U079	03-Aug-88	A19		0.73	8400.00	8.30		564.00	2.10	<0.20	31.00	1.20	18.00	<0.20		<0.20								
03U079	18-Aug-88	F19		<1.00	11000.00	13.00	290.00			<1.90	28.70	<1.00		<0.50		2.68	<1.00			<0.41	<0.87	<8.28		
03U079	26-Oct-88	A20		<0.50	5800.00	14.00		198.00	<0.50	<0.50	84.00	1.10	17.00	1.10		11.00								
03U079	16-Oct-89	A24		<20.00	2300.00	28.00		<20.00	<20.00	<100.00	86.00	<20.00	<20.00	<20.00		<20.00								
03U079	01-May-90	A26		<0.50	1900.00	39.00		<0.50	<0.50	<0.50	110.00	3.40	18.00	<0.50	1.30	1.50	<0.50							<0.50
03U079	13-Mar-91	A30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0										

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans-1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFF	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylylene M&PXYLE
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U083	10-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28		
03U083	27-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.78	<1.30	<0.72	<1.00	<1.00	<3.20	1.25	5.26	<8.28		
03U083	26-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.78	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U083	13-Mar-92	F34																		<3.09	<3.39	<1.17		
03U083	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
03U083	05-Mar-93	F38	PC																					
03U083	05-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U084	23-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U084	18-Jan-88	A17		<0.20	1.40	<0.20		<0.20	<0.20	<0.20	0.51	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U084	11-May-88	A18		<0.20	7.20	<0.20		<0.20	<0.20	<0.20	2.70	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U084	04-Aug-88	A19		<0.20	2.00	<0.20		<0.20	<0.20	<0.20	0.28	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U084	20-Oct-88	A20		<0.50	<0.50	<0.50		<0.50	<1.00	<0.50	<0.50	<0.50	<1.00	<1.00	<0.50	<0.50	<0.50	<0.50	<3.20					
03U084	11-Oct-89	A24		<0.20	5.70	<0.20		<0.20	<0.20	<1.00	0.90	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U084	26-Apr-90	A26		<0.50	2.40	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<3.20					
03U084	13-Mar-91	A30		<1.00	0.91	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U084	06-Mar-92	A34		<1.00	1.58	<1.00	<0.50	<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U084	08-Mar-93	A38	PC																					
03U084	08-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U087	20-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	26-Jan-88	A17		<0.20	6.00	<0.20		<0.20	<0.20	<0.20	0.81	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	11-Apr-88	F18		<1.00	0.90	<1.00	<0.50	<0.20	<0.20	<1.90	<1.00	<1.00	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	18-May-88	A18		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	29-Jul-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	24-Aug-88	F19		<1.00	1.67	<1.00	<0.50	<0.50	<0.50	<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	28-Oct-88	A20		<0.50	0.84	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<1.00	<0.50	<0.50	<0.50	<0.50	<3.20					
03U087	17-Nov-88	F20		<1.00	1.41	<1.00	<0.50	<0.50	<0.50	<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	24-Oct-89	A24		<0.20	5.20	<0.20		<0.20	<0.20	<1.00	0.30	<0.20	<0.20	<0.20	<1.10	<0.20	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U087	27-Mar-91	F30		<1.00	<0.50	<1.00	<0.50	<0.20	<0.20	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U087	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.41					
03U087	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.76					
03U087	04-Mar-93	F38	PC																					
03U087	04-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U087	04-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U088	17-Nov-87	F16																		<3.09	<3.39	<1.17		
03U088	05-Apr-88	F18		1.34	5.86	<1.00	<0.50			<1.90	1.57	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
03U088	08-Aug-88	F19		4.16	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
03U088	16-Nov-88	F20		3.87	0.55	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
03U088	30-Apr-90	F26		2.94	0.67	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U088	26-Mar-91	F30		1.67	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U088	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	16.40					
03U089	20-Nov-87	F16		0.91	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U089	05-Apr-88	F18		2.08	1.68	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
03U089	08-Aug-88	F19		2.00	0.95	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
03U089	17-Nov-88	F20		1.58	1.20	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
03U089	30-Apr-90	F26		1.83	1.19	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U089	26-Mar-91	F30		2.12	0.81	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U089	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	38.70					
03U089	03-Mar-93	F38	PC UG																					

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U090	11-Mar-92	F34																						
03U090	12-Mar-92	F34									27.40									<3.09	<3.39	<1.17		
03U090	04-Mar-93	F38	PC UG03	<1.00	20.10	1.26	1.80			<1.90	54.30	<1.00	<0.78	<0.50	<1.30	1.43	<1.00	<1.00	<3.20					
03U092	23-Nov-87	F16		<0.88	13.80	0.63	<0.56			<1.50	16.50	<0.99	<0.72	<0.51	<1.10	1.13	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
03U092	08-Apr-88	F18		<1.00	21.50	3.24	<0.50			<1.90	29.60	<1.00	<1.00	<0.50	<1.10	3.85	<1.00	<4.50	<1.80	<0.41	<0.87	<8.28		
03U092	25-Aug-88	F19		<1.00	8.32	<1.00	<0.50			<1.90	17.70	<1.00	<1.00	<0.50	<1.10	6.07	<1.00	<4.50	<1.80	<0.41	<0.87	<8.28		
03U092	16-Nov-88	F20		<1.00	12.10	1.21	<0.50			<1.90	24.90	<1.00	<1.00	<0.50	<1.10	4.40	<1.00	<4.50	<1.80	2.43	31.20	13.30		
03U092	01-May-90	F26		<1.00	200.00	25.00	<0.50			<1.90	390.00	<1.00	2.18	<0.50	<1.30	6.42	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U092	29-Mar-91	F30		<1.00	36.10	2.79	<0.50		<0.30	<1.90	30.40	<1.00	1.33	<0.50	<1.30	15.30	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U092	04-Jun-91	F31																						
03U092	04-Jun-91	F31		<1.00	36.20	2.14	<0.50			<1.90	22.50	<1.00	<0.78	<0.50	<1.30	19.40	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U092	04-Sep-91	F32		<1.00	27.20	1.56	<0.50			<1.90	19.80	<1.00	<0.78	<0.50	<1.30	15.20	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
03U092	17-Mar-92	F34																						
03U092	17-Mar-92	F34		<2.41	25.80	1.31		<0.89	<1.06	<4.10	18.90	<1.52	<0.97	<4.63	1.52	24.70	<3.94	<4.47	2.20					
03U092	02-Jun-92	F35		<2.41	11.00	<1.01		<0.89	<1.06	<4.10	9.44	<1.52	<0.97	<4.63	<1.20	13.90	<3.94	<4.47	<1.41					
03U092	02-Jun-92	F35																		<3.09	<3.39	<1.17		
03U092	02-Sep-92	F36																		<3.09	<3.39	<1.17		
03U092	02-Sep-92	F36		<2.41	16.40	<1.01		<0.89	<1.06	<4.10	8.61	<1.52	<0.97	<4.63	<1.20	25.10	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17		
03U092	10-Mar-93	F38	PC UG03	<1.00	24.50	1.77	<0.50			<1.90	26.80	<1.00	<0.78	<0.50	<1.30	36.80	<1.00	<1.00	<3.20					
03U093	04-Dec-87	F16		<8800.00	79000.00	<4900.00	<5600.00			<15000.00	9300.00	<9900.00	<7200.00	<5100.00	<11000.00	<4100.00	<6200.00	<45000.00	<18000.00	<15000.00	<17000.00	<5800.00		
03U093	26-Jan-88	A17		<0.20	34200.00	405.00		197.00	44.00	<0.20	7670.00	24.00	38.00	<0.20										
03U093	18-May-88	A18		3.40	65400.00	1630.00		420.00	<0.20	<0.20	16250.00	25.00	292.00	41.00		29.00								
03U093	08-Aug-88	A19		17.00	35000.00	600.00		31.00	<0.20	<0.20	7750.00	16.00	180.00	24.00		14.00								
03U093	17-Aug-88	F19		<200.00	30000.00	480.00	630.00			<380.00	8700.00	<200.00		<100.00		<140.00	<200.00			<82.00	17.20	<8.28		
03U093	01-Nov-88	A20		58.00	33000.00	300.00		440.00	3.40	<0.50	8000.00	14.00	60.00	50.00		23.00								
03U093	19-Oct-89	A24		<100.00	43000.00	1800.00		360.00	<100.00	<500.00	13000.00	<100.00	<100.00	<100.00		<100.00								
03U093	02-May-90	A26		15.00	40000.00	740.00		280.00	1.30	<0.50	7800.00	25.00	60.00	<0.50		<0.50	18.00	<0.50						
03U093	18-Jul-90	A27		<500.00	30000.00	780.00		300.00	<150.00	<750.00	7200.00	<500.00	<100.00	<100.00		<250.00								
03U093	18-Jul-90	A27	(6)	<500.00	30000.00	760.00		280.00	<150.00	<750.00	7100.00	<500.00	<100.00	<100.00		<250.00								
03U093	15-Mar-91	A30		<500.00	8600.00	<500.00	<250.00		<150.00	<950.00	2000.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00	<500.00	<500.00	<500.00	<1600.00			
03U093	05-Jun-91	A31		<200.00	4300.00	<200.00	<100.00		<60.00	<380.00	840.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<200.00	<640.00				
03U093	05-Sep-91	A32		<250.00	3800.00	<250.00	<130.00		<75.00	<480.00	1000.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00	<250.00	<250.00	<800.00				
03U093	13-Mar-92	A34		<50.00	2000.00	<50.00	<25.00		<25.00	<95.00	480.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00					
03U093	05-Jun-92	A35		<100.00	2000.00	<100.00	<50.00		<30.00	<190.00	440.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U093	09-Sep-92	A36		<25.00	670.00	<25.00			<7.50	<48.00	200.00	<25.00	<20.00	<12.00	<32.00	<18.00	<25.00	<25.00	<80.00					
03U093	17-Mar-93	A38	PC UG03	<20.00	340.00	<20.00	<10.00		<6.00	<38.00	180.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00					
03U093	18-Mar-93	M38	MH	<0.20	320.00	15.00		3.80	<0.20	<1.00	97.00	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50						
03U093	15-Sep-93	A40	PC UG03	<10.00	940.00	24.00	6.50		<3.00	<19.00	280.00	<10.00	17.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00	<0.20	<0.20	<0.20	<0.20	<0.20
03U094	04-Dec-87	F16		<880.00	18000.00	<490.00	2300.00			<1500.00	9100.00	<990.00	830.00	<510.00	<1100.00	<410.00	<620.00	<4500.00	<1800.00	<1500.00	<1700.00	<580.00		
03U094	25-Aug-88	F19		<200.00	6900.00	<200.00	1200.00			<380.00	5600.00	<200.00	<160.00	<100.00	<330.00	<180.00	<250.00	<250.00	<800.00	<82.00	<170.00	<1700.00		
03U094	20-Mar-91	A30		<250.00	7500.00	270.00	<130.00		<75.00	<480.00	5400.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00	<250.00	<800.00					
03U094	20-Mar-92	A34		<100.00	2600.00	<100.00	<50.00		<50.00	<190.00	1200.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U094	18-Mar-93	A38	PC UG03	<200.00	3200.00	<200.00	<100.00		<60.00	<380.00	2100.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00					
03U096	04-Dec-87	F16		<180.00	1200.00	<100.00	<110.00			<300.00	830.00	<200.00	<140.00	<100.00	<220.00	<82.00	<120.00	<900.00	<360.00	<620.00	<680.00	<230.00		
03U096	25-Aug-88	F19		<50.00	2300.00	110.00	<25.00		<95.00	<250.00	2500.00	<50.00	<25.00	<16.00	<36.00	<50.00	<50.00	<50.00	<160.00	<21.00	<44.00	<410.00		
03U096	19-Jul-90	A27		<10.00	630.00	90.00		<5.00	<3.00	<15.00	650.00	<10.00	2.40	<2.00	<5.00									
03U096	18-Mar-91	A30		<20.00	690.00	24.00	<10.00		<6.00	<3														

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXLYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00			
03U097	13-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47							
03U097	13-Mar-92	M34		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<1.41	<0.20	<0.20		<0.20	<0.20	
03U097	03-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.30	<1.30	<0.72	<1.00	<1.00	<3.20						
03U099	19-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U099	11-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U099	27-Jul-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<1.00							
03U099	12-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00							
03U099	17-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00							
03U099	26-Apr-90	F26		<1.00	1.14	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	0.63	2.67	<8.28			
03U099	25-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U099	11-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	1.82	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
03U099	11-Mar-92	F34		<1.00		<1.00				<1.90															
03U099	03-Mar-93	F38	PC UG03	<1.00	1.92	<1.00	<0.50			<1.90	4.74	<1.00	<0.78	<0.30	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U099	(6) 03-Mar-93	F38	PC UG03	<1.00	1.65	<1.00	<0.50			<1.90	4.09	<1.00	<0.78	<0.30	<1.30	<0.72	<1.00	<1.00	<3.20						
03U111	20-Nov-87	F16		<0.88	3.98	<0.49	<0.56			<1.50	0.85	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U111	07-Apr-88	F18		<1.00	1.41	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U111	11-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00							
03U111	17-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00							
03U112	20-Nov-87	F16		<2.20	35.00	<1.20	<1.40			<3.80	11.00	<2.50	<1.80	<1.30	<2.80	8.60	<1.60	<11.00	<4.50	<3.09	<3.39	<1.17			
03U112	08-Apr-88	F18		<1.00	29.10	1.60	<0.50			<1.90	25.20	<1.00	<1.00	<0.50	<1.10	19.60	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U112	16-Aug-88	F19		<1.00	43.60	2.16	<0.50			<1.90	25.20	<1.00	<1.00	<0.50	<1.10	27.90	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U112	18-Nov-88	F20		<1.00	27.70	<1.00	<0.50			<1.90	21.00	<1.00	<1.00	<0.50	<1.10	17.70	<1.00	<1.00	<3.20	<0.41	3.69	<8.28			
03U112	01-May-90	F26		<1.00	40.70	<1.00	<0.50			<1.90	12.60	<1.00	<0.78	<0.50	<1.30	40.30	<1.00	<1.00	<3.20	0.88	3.90	<8.28			
03U112	18-Jul-90	F27		<1.00	43.00	<1.00	<0.50			<1.90	8.28	<1.00	<0.78	<0.50	<1.30	39.20	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U112	20-Sep-90	F28		<1.00	39.80	<1.00	0.64			<1.90	6.49	<1.00	<0.78	<0.50	<1.30	41.30	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U112	28-Mar-91	F30		<1.00	46.20	<1.00	<0.50			<1.90	3.85	<1.00	<0.78	<0.50	<1.30	42.80	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U112	12-Mar-92	F34		<2.41	37.60	<1.01		<0.89	<1.06	<4.10	2.74	<1.52	<0.97	<4.63	<1.20	34.90	<3.94	<4.47	2.38						
03U112	12-Mar-92	F34		<1.00		<1.00				<1.90															
03U112	08-Mar-93	F38	PC UG03	<1.00	25.40	<1.00	<0.50			<1.90	1.73	<1.00	<0.78	<0.30	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U113	18-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U113	06-Apr-88	F18		<1.00	0.68	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U113	09-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U113	18-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	4.06	<8.28			
03U113	27-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	2.15	10.20	<8.28			
03U113	18-Jul-90	F27		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U113	28-Mar-91	F30		<1.00	0.82	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U113	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.29						
03U113	12-Mar-92	F34		<1.00		<1.00				<1.90															
03U113	03-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.30	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U114	23-Nov-87	F16		<44.00	150.00	29.00	<28.00			<75.00	860.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00	<3.09	<3.39	<1.17			
03U114	11-Apr-88	F18		<1.00	110.00	66.00	<0.50			<1.90	680.00	<1.00	<1.00	<0.50	<1.10	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U114	09-Aug-88	F19		<10.00	240.00	120.00	<5.00			<19.00	1100.00	<10.00	<1.00	<5.00	<1.10	<7.20	<10.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U114	16-Nov-88	F20		<20.00	260.00	95.00	<10.00			<38.00	1200.00	<20.00	<1.00	<10.00	<1.10	<14.00	<20.00	<1.00	<3.20	<0.41	20.00	<170.00			
03U114	01-May-90	F26		<50.00	350.00	100.00	<25.00			<95.00	1400.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<160.00	<21.00	<21.00	<44.00	<410.00			
03U114	18-Jul-90	F27		<1.00	210.00	81.00	<0.50			<1.90	980.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U114	21-Sep-90	F28		<1.00	230.00	<1.00	<0.50			<1.90															

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane T1CLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03U114	02-Sep-92	F36		<2.41	29.30	2.76		<0.89	<1.06	<4.10	>50.80	<1.52	<0.97	<4.63	3.16	1.57	<3.94	<4.47	<1.41						
03U114	02-Sep-92	F36									56									<3.09	<3.39	<1.17			
03U114	02-Sep-92	F36									58														
03U114	(6) 02-Sep-92	F36		<2.41	30.40	3.62		<0.89	<1.06	>50.80	<1.52	<0.97	<4.63	3.25	1.73	<3.94		<1.41							
03U114	(6) 02-Sep-92	F36																		<3.09	<3.39	<1.17			
03U114	05-Mar-93	F38	PC UG03	<1.00	20.60	1.68	<0.50		<1.90	47.30	<1.00	<0.78	<0.50	<1.30	1.96	<1.00	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U121	08-Dec-87	F16		<0.88	5.51	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80		<3.09	<3.39	<1.17			
03U121	08-Apr-88	F18		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U121	16-Aug-88	F19		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U121	18-Nov-88	F20		<1.00	12.20	1.63	<0.50		<1.90	61.60	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	1.88	<8.28			
03U121	01-May-90	F26		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	1.32	4.83	<8.28			
03U121	18-Jul-90	F27		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U121	17-Sep-90	F28		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U121	28-Mar-91	F30		<1.00	0.62	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U121	12-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.11						
03U121	12-Mar-92	F34																							
03U121	08-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U124	08-Apr-88	F18		<1.00	13.60	3.28	<0.50		<1.90	57.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	18-Aug-88	F19		<1.00	31.40	4.28	<0.50		<1.90	130.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	27-Apr-90	F26		<1.00	0.56	<1.00	<0.50		<1.90	11.40	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	19-Jul-90	F27		<1.00	0.84	<1.00	<0.50		<1.90	7.21	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	(6) 19-Jul-90	F27		<1.00	0.70	<1.00	<0.50		<1.90	10.50	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	25-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<1.90	4.54	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	25-Mar-91	M30		<0.20	0.30	<0.50		<0.20	<0.10	<1.00	3.40	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<3.20	<0.20	<0.20	<8.28	<0.20	<0.20	
03U124	04-Jun-91	F31		<1.00	1.29	<1.00	<0.50		<1.90	8.38	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U124	13-Mar-92	F34																							
03U124	13-Mar-92	F34		<2.41	1.64	<1.01		<0.89	<1.06	<4.10	4.98	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U124	03-Jun-92	F35																							
03U124	03-Jun-92	F35		<2.41	3.47	<1.01		<0.89	<1.06	<4.10	10.50	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	<3.39	<1.17			
03U124	02-Sep-92	F36		<2.41	4.03	<1.01		<0.89	<1.06	<4.10	8.71	<1.52	<0.97	<4.63	3.25	<1.08	<3.94	<4.47	<1.41						
03U124	02-Sep-92	F36																							
03U124	04-Mar-93	F38	PC UG03	<1.00	2.02	<1.00	<0.50		<1.90	5.24	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U129	08-Dec-87	F16		<0.88	2.49	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80		<3.09	<3.39	<1.17			
03U129	07-Apr-88	F18		<1.00	1.44	<1.00	<0.50		<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U129	11-Aug-88	F19		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20						
03U129	18-Nov-88	F20		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00	<1.00	<1.00	<3.20						
03U301	16-Mar-89	A21		<1.00	2755.00	11.00		225.00	4.70	<1.00	88.00	<1.00	7.60	<1.00	<5.00										
03U301	20-Apr-89	A22		0.60	1100.00	18.00		160.00	1.10	<1.00	25.00	0.30	4.00	<0.20	0.40										
03U301	19-Jul-89	A23		<5.00	1100.00	18.00		160.00	<5.00	<25.00	61.00	<5.00	4.00	<5.00	<5.00										
03U301	24-Oct-89	A24		<40.00	3000.00	<40.00		200.00	<40.00	<200.00	120.00	<40.00	<40.00	<40.00	<40.00										
03U301	18-Jan-90	A25		<10.00	1700.00	<10.00		160.00	<10.00	<50.00	99.00	<10.00	<10.00	<10.00	<10.00										
03U301	08-May-90	A26		<0.50	57.00	<0.50		4.60	<0.50	<0.50	2.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	0.90	<20.00						
03U301	13-Jul-90	A27		<20.00	1200.00	8.20		99.00	<6.00	<30.00	62.00	<20.00	<4.00	<4.00	<6.00	<10.00	<4.00	<4.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	
03U301	19-Dec-90	A29		<1.00	1276.82	<1.00	85.51		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20						
03U301	19-Dec-90	M29		<20.00	1200.00	<50.00		100.00	<10.00	<100.00	50.00	<20.00	<20.00	<20.00	<20.00	<10.00	<20.00	<20.00	<50.00	<20.00	<20.00	<20.00	<20.00	<20.00	
03U301	19-Mar-91	A30		<50.00	1100.00	<50.00	82.00		<15.00	<95.00	72.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00	<20.00	<20.00	<20.00	<20.00	<20.00	
03U301	04-Jun-91	A31		<5.00	1000.00	<5.00	93.00		<1.50	<9.50	57.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TClTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLE	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19		6.00			0.70	2000.00	440.00		
03U301	(6) 03-Mar-93	A38	PC UG03	<20.00	1600.00	<20.00	89.00		<6.00	<38.00	64.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
03U301	15-Sep-93	A40	PC UG03	<50.00	1400.00	<50.00	76.00		<15.00	<95.00	72.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03U314	05-Jan-89	A21		<1.00	37000.00	850.00		4700.00	12.00	16.00	10500.00	19.00	3600.00	59.00		10.00									
03U314	16-Mar-89	A21		12.00	12000.00	370.00		1000.00	<100.00	<10.00	6200.00	11.00	950.00	<10.00		<10.00									
03U314	20-Apr-89	A22		3.00	11000.00	630.00		610.00	2.40	3.50	3400.00	8.30	530.00	19.00		1.70									
03U314	19-Jul-89	A23		<40.00	8900.00	870.00		730.00	<40.00	<200.00	3500.00	<40.00	510.00	<40.00		<40.00									
03U314	24-Oct-89	A24		<100.00	8600.00	<100.00		<100.00	<100.00	<500.00	3500.00	<100.00	<100.00	<100.00		<100.00									
03U314	19-Jan-90	A25		<50.00	6500.00	190.00		540.00	<50.00	<250.00	2700.00	<50.00	410.00	<50.00		<50.00									
03U314	08-May-90	A26		1.60	6500.00	350.00		340.00	1.40	<0.50	2200.00	4.80	300.00	8.40	<0.50	3.30	<0.50		3.60						
03U314	19-Jul-90	A27		<100.00	6300.00	300.00		460.00	<30.00	<150.00	2500.00	<100.00	360.00	<20.00		<50.00									
03U314	19-Dec-90	A29		<1.00		<1.00	311.55		<1.00	<1.90	2080.33	<1.00	267.65	<0.50	<1.30	<0.72	<1.00	6180.26	<3.20						
03U314	19-Dec-90	M29		<20.00	5800.00	160.00		350.00	<10.00	<100.00	2300.00	<20.00	290.00	<20.00	<20.00	<10.00	<20.00	<20.00	<50.00	<20.00	<20.00	<20.00	<20.00	<20.00	
03U314	19-Mar-91	A30		<200.00	5800.00	<200.00	200.00		<60.00	<380.00	2300.00	<200.00	190.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00	<20.00	<20.00		<20.00	<20.00	
03U314	19-Mar-91	A30		<200.00	5800.00	<200.00	210.00		<60.00	<380.00	2300.00	<200.00	190.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U314	05-Jun-91	A31		<200.00	6000.00	<200.00	200.00		<60.00	<380.00	2300.00	<200.00	190.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U314	05-Sep-91	A32		<250.00	5400.00	<250.00	170.00		<75.00	<480.00	1900.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00	<250.00	<800.00						
03U314	04-Dec-91	A33		<100.00	7100.00	130.00	170.00		<30.00	<190.00	2300.00	<100.00	180.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03U314	(6) 04-Dec-91	A33		<100.00	7300.00	140.00	200.00		<30.00	<190.00	2600.00	<100.00	200.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
03U314	06-Mar-92	A34		<200.00	4700.00	<200.00	<100.00		<100.00	<380.00	1700.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U314	05-Jun-92	A35		<200.00	4300.00	<200.00	<100.00		<60.00	<380.00	1400.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U314	01-Sep-92	A36		<200.00	4900.00	<200.00		<100.00	<60.00	<380.00	2000.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00						
03U314	03-Mar-93	A38	PC UG03	<50.00	2600.00	86.00	54.00		<15.00	<95.00	1200.00	<50.00	95.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03U314	15-Sep-93	A40	PC UG03	<50.00	1600.00	<50.00	<25.00		<15.00	<95.00	670.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03U314	(6) 15-Sep-93	A40	PC UG03	<50.00	1500.00	<50.00	<25.00		<15.00	<95.00	670.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
03U315	05-Jan-89	A21		<1.00	58.00	5.60		<1.00	<1.00	<1.00	65.00	<1.00	5.60	<1.00	<1.00										
03U315	16-Mar-89	A21		<10.00	870.00	58.00		<10.00	<10.00	<10.00	610.00	<10.00	44.00	32.00		11.00									
03U315	20-Apr-89	A22		<0.20	1300.00	100.00		<0.20	<0.20	<1.00	490.00	<0.20	45.00	<0.20		0.90									
03U315	19-Jul-89	A23		<4.00	940.00	150.00		15.00	<4.00	<20.00	620.00	<4.00	51.00	<4.00		<4.00									
03U315	24-Oct-89	A24		<10.00	1700.00	160.00		<10.00	<10.00	<50.00	890.00	<10.00	58.00	<10.00		<10.00									
03U315	19-Jan-90	A25		<20.00	2100.00	75.00		37.00	<20.00	<100.00	1000.00	<20.00	95.00	<20.00		<20.00									
03U315	08-May-90	A26		<0.50	2100.00	65.00		30.00	<0.50	<0.50	850.00	<0.50	64.00	<0.50	<0.50	0.80	<0.50		1.30						
03U315	13-Jul-90	A27		<20.00	2100.00	130.00		39.00	<6.00	<30.00	1100.00	<20.00	94.00	<4.00	<6.00	<10.00	<4.00		29.00						
03U315	19-Dec-90	A29		<1.00	1298.28	<1.00	<0.50		<1.00	<1.90	487.13	<1.00	51.26	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U315	19-Mar-91	A30		<25.00	940.00	30.00	<13.00		<7.50	<48.00	390.00	<25.00	29.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00						
03U315	05-Jun-91	A31		<25.00	830.00	43.00	<13.00		<7.50	<48.00	330.00	<25.00	24.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00						
03U315	05-Sep-91	A32		<25.00	700.00	<25.00	<13.00		<7.50	<48.00	250.00	<25.00	<20.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00						
03U315	04-Dec-91	A33		<10.00	440.00	15.00	<5.00		<3.00	<19.00	220.00	<10.00	13.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03U315	06-Mar-92	A34		<10.00	330.00	<10.00	<5.00		<5.00	<19.00	130.00	<10.00	10.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03U315	05-Jun-92	A35		<10.00	310.00	13.00	<5.00		<3.00	<19.00	110.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03U315	01-Sep-92	A36		<10.00	250.00	11.00		<5.00	<3.00	<19.00	120.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03U315	(6) 01-Sep-92	A36		<10.00	210.00	<10.00		<5.00	<3.00	<19.00	110.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
03U315	03-Mar-93	A38	PC UG03	<2.00	150.00	5.20	<1.00		<0.60	<3.80	56.00	<2.00	3.80	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
03U315	15-Sep-93	A40	PC UG03	<2.00	88.00	3.50	<1.00		<0.60	<3.80	35.00	<2.00	1.90	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
03U316	05-Jan-89	A21		<1.00	<1.00	1.60		<1.00	<1.00	<1.00	14.00	<1.00	3.50	<1.00		1.30									
03U316	16-Mar-89	A21		<1.00	2.90	3.20		<1.00	<1.00	<1.00	31.00	<1.00	1.70	<1.00		<1.00									
03U316	20-Apr-89	A22		<0.20	4.90	4.90		<0.20	<0.20	<1.00	28.00	<0.20	2.50	<0.20		1.70									

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U316	05-Jun-92	A35		<1.00	17.70	2.76	<0.50		<0.30	<1.90	20.20	<1.00	2.66	<0.50	<1.30	3.53	<1.00	<1.00	<3.20					
03U316	(6) 05-Jun-92	A35		<1.00	18.10	2.85	<0.50		<0.30	<1.90	20.80	<1.00	2.78	<0.50	<1.30	3.61	<1.00	<1.00	<3.20					
03U316	01-Sep-92	A36		<1.00	20.80	3.97		<0.50	<0.30	<1.90	22.90	<1.00	3.12	<0.50	<1.30	4.47	<1.00	<1.00	<3.20					
03U316	03-Mar-93	A38	PC UG03	<1.00	17.80	2.27	<0.50		<0.30	<1.90	16.60	<1.00	2.99	<0.50	<1.30	3.84	<1.00	<1.00	<3.20					
03U316	15-Sep-93	A40	PC UG03	<1.00	22.70	1.66	<0.50		<0.30	<1.90	14.00	<1.00	2.31	<0.50	<1.30	3.77	<1.00	<1.00	<3.20					
03U317	05-Jan-89	A21		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00								
03U317	16-Mar-89	A21		<10.00	3200.00	66.00		19.00	<10.00	<10.00	1100.00	<10.00	19.00	24.00		<10.00								
03U317	20-Apr-89	A22		13.00	13000.00	660.00		27.00	<0.20	<1.00	2800.00	<0.20	27.00	4.20		1.30								
03U317	19-Jul-89	A23		<20.00	12000.00	1200.00		66.00	<20.00	<100.00	5800.00	<20.00	47.00	<20.00		<20.00								
03U317	25-Oct-89	A24		<200.00	19000.00	760.00		<200.00	<200.00	<1000.00	7000.00	<200.00	<200.00	<200.00		<200.00								
03U317	19-Jan-90	A25		<200.00	21000.00	<200.00		<200.00	<200.00	<1000.00	7300.00	<200.00	<200.00	<200.00		<200.00								
03U317	08-May-90	A26		18.00	18000.00	210.00		60.00	<0.50	<0.50	5200.00	9.80	53.00	10.00	<0.50	5.90	<0.50					15.00		
03U317	13-Jul-90	A27		<200.00	15000.00	720.00		100.00	<60.00	<300.00	7500.00	<200.00	70.00	<40.00	<60.00	<100.00	<40.00					720.00		
03U317	19-Dec-90	A29		<1.00	16738.20	<1.00	<0.50		<1.90	4974.25	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00					<1.00	<3.20	
03U317	19-Dec-90	A29		<1.00	18293.99	<1.00	<0.50		<1.90	5252.32	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00					<1.00	<3.20	
03U317	19-Mar-91	A30		<500.00	16000.00	<500.00	<250.00		<150.00	<950.00	5700.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00					<500.00	<1600.00	
03U317	04-Jun-91	A31		<100.00	16000.00	280.00	<50.00		<30.00	<190.00	6200.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00					<100.00	<320.00	
03U317	04-Jun-91	M31		<200.00	16000.00	<500.00		<200.00	<100.00	<1000.00	6400.00	<200.00	<200.00	<200.00	<200.00	<100.00	<200.00					<200.00	<500.00	
03U317	05-Sep-91	A32		<500.00	23000.00	<500.00	<250.00		<150.00	<950.00	5700.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00					<500.00	<1600.00	
03U317	04-Dec-91	A33		<500.00	18000.00	<500.00	<250.00		<150.00	<950.00	5700.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00					<500.00	<1600.00	
03U317	06-Mar-92	A34		<500.00	14000.00	<500.00	<250.00		<250.00	<950.00	4400.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00					<500.00	<1600.00	
03U317	05-Jun-92	A35		<500.00	15000.00	<500.00	<250.00		<150.00	<950.00	4000.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00					<500.00	<1600.00	
03U317	01-Sep-92	A36		<500.00	19000.00	<500.00		<250.00	<150.00	<950.00	6700.00	<500.00	<390.00	<250.00	<650.00	<360.00	<500.00					<500.00	<1600.00	
03U317	03-Mar-93	A38	PC UG03	<250.00	12000.00	<250.00	<130.00		<75.00	<480.00	4600.00	<250.00	<200.00	<130.00	<330.00	<180.00	<250.00					<250.00	<800.00	
03U317	15-Sep-93	A40	PC UG03	<200.00	14000.00	240.00	<100.00		<60.00	<380.00	4700.00	<200.00	<160.00	<100.00	<260.00	<140.00	<200.00					<200.00	<640.00	
03U521	20-Nov-87	F16		<0.88	2.70	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62					<4.50	<1.80	
03U521	11-Apr-88	F18		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00								
03U521	24-Aug-88	F19		<1.00	1.66	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00								
03U521	18-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<0.72	<1.00								
03U521	25-Apr-90	F26		<1.00	0.91	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00					<1.00	<3.20	
03U658	27-Jul-88	A19		<0.20	0.25	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03U658	13-Oct-89	A24		<0.20	7.20	<0.20		<0.20	<0.20	<1.00	0.90	<0.20	<0.20	<0.20		<0.20								
03U658	02-May-90	A26		<0.50	7.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50								
03U658	20-Mar-91	A30		<1.00	1.93	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00					<1.00	<3.20	
03U658	17-Mar-92	A34		<1.00	1.43	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00					<1.00	<3.20	
03U658	22-Mar-93	A38	PC UG03	<1.00	0.79	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00					<1.00	<3.20	
03U659	25-Oct-89	A24		<20.00	3600.00	43.00		370.00	<20.00	<100.00	280.00	<20.00	<20.00	<20.00		<20.00								
03U659	07-May-90	A26		<0.50	950.00	8.90		55.00	0.70	<0.50	65.00	<0.50	2.90	<0.50	<0.50	<0.50								
03U659	12-Mar-91	A30		<50.00	450.00	<50.00	54.00		<15.00	<95.00	<50.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00					<50.00	<160.00	
03U659	12-Mar-91	M30		<0.50	360.00	2.30		72.00	0.60	<2.50	14.00	<0.50	0.80	<0.50	<0.50	<0.30	<0.50					<0.50	<1.30	
03U659	20-Mar-92	A34		<50.00	750.00	<50.00	130.00		<25.00	<95.00	<50.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00					<50.00	<160.00	
03U659	23-Mar-93	A38	PC UG03	<1.00	730.00	2.82	68.00		<0.30	<1.90	32.60	<1.00	2.60	<0.50	<1.30	1.80	<1.00					<1.00	<3.20	
03U671	04-Dec-87	F16		15.00	280.00	<10.00	<11.00			<30.00	30.00	<20.00	<14.00	<10.00	<22.00	<8.20	<12.00					<90.00	<36.00	
03U671	22-Jan-88	A17		47.00	341.00	12.00		10.50	<0.20	<0.20	60.00	<0.20	2.10	<0.20		12.80								
03U671	13-May-88	A18		18.00	266.00	8.70		6.40	<0.20	<0.20	40.00	0.47	2.60	<0.20		4.00								
03U671	08-Aug-88	A19		40.00	540.00	12.00		11.00	<0.20	<0.20	82.00	0.25	2.80	<0.20		5.80								
03U671	22-Aug-88	F19		29.00	230.00	9.20	13.00		<9.50	<9.50	50.00	<5.00	<2											

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TClTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLE	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U672	14-Jan-88	A17		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03U672	18-May-88	A18		<0.20	92.00	<0.20		0.25	<0.20	<0.20	9.40	<0.20	<0.20	<0.20		<0.20								
03U672	27-Jul-88	A19		<0.20	5.70	<0.20		<0.20	<0.20	<0.20	0.52	<0.20	0.21	<0.20		<0.20								
03U672	28-Oct-88	A20		<0.50	0.91	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50		<1.00								
03U672	19-Apr-89	A22		<0.20	1.10	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20								
03U672	12-Jul-89	A23		<0.20	1.80	0.90		<0.20	<0.20	<1.00	0.30	<0.20	<0.20	<0.20		<0.20								
03U672	18-Oct-89	A24		<0.20	0.30	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20								
03U672	18-Jan-90	A25		<0.20	0.30	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20								
03U672	02-May-90	A26		<0.50	11.00	<0.50		0.60	<0.50	<0.50	2.90	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50							
03U672	18-Jul-90	A27		<1.00	2.10	<0.30		<0.50		<1.50	0.60	<1.00	<0.20	<0.20		<0.50								
03U672	22-Mar-91	A30		<1.00	1.88	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	06-Jun-91	A31		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	04-Sep-91	A32		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	16-Mar-92	A34		<1.00	4.11	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	03-Jun-92	A35		<1.00	4.38	<1.00	<0.50		<0.30	<1.90	1.17	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	08-Sep-92	A36		<1.00	1.09	<1.00		<0.50	<0.30	<1.90	1.18	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	(6) 08-Sep-92	A36		<1.00	0.55	<1.00		<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	10-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	13-Sep-93	A40	PC UG03	<1.00	1.60	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U672	(6) 13-Sep-93	A40	PC UG03	<1.00	1.65	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U673	13-Nov-87	A16		<0.20	0.30	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
03U673	11-Mar-91	A30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U673	11-Mar-91	M30		<0.20	1.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.50	<0.50
03U673	17-Jun-91	M31		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.50	<0.50
03U673	12-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U673	04-Jun-92	A35		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U673	08-Sep-92	A36		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	1.09	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U673	03-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U673	13-Sep-93	A40	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U676	03-Nov-87	A16		5.30	220.00	<1.50		160.00	<1.50	<2.50	74.00	<5.00	11.00	<1.00		<2.50								
03U701	20-Jan-88	A17		15.00	1200.00	86.20		20.00	<0.20	<0.20	258.00	0.67	90.20	0.49		258.00								
03U701	12-May-88	A18		13.00	635.00	15.00		6.60	<0.20	<0.20	334.00	0.31	10.00	0.72		0.48								
03U701	02-Aug-88	A19		20.00	1220.00	16.00		16.00	<0.20	<0.20	499.00	0.57	23.00	<0.20		<0.20								
03U701	21-Oct-88	A20		11.00	500.00	10.00		12.00	<0.50	<0.50	110.00	<0.50	20.00	<1.00		1.50								
03U701	17-Oct-89	A24		5.40	190.00	25.00		<2.00	<2.00	<10.00	130.00	<2.00	<2.00	<2.00		<2.00								
03U701	26-Apr-90	A26		<0.50	160.00	29.00		0.60	<0.50	<0.50	100.00	<0.50	0.70	<0.50	<0.50	<0.50	<0.50						<0.50	<0.50
03U701	13-Mar-91	A30		<5.00	80.00	9.20	<2.50		<1.50	<9.50	82.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<16.00	<16.00
03U701	05-Mar-92	A34		<1.00	51.20	2.40	1.28		<0.50	<1.90	20.40	<1.00	1.23	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	<3.20
03U701	08-Mar-93	A38	PC UG03	<2.00	58.00	2.60	2.20		<0.60	<3.80	16.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.40	<6.40
03U702	20-Jan-88	A17		0.80	170.00	20.00		0.40	<0.20	<0.20	143.00	<0.20	<0.20	<0.20		<0.20								
03U702	13-May-88	A18		0.54	120.00	6.90		<0.20	<0.20	<0.20	120.00	<0.20	<0.20	<0.20		<0.20								
03U702	08-Aug-88	A19		0.85	365.00	10.00		0.55	<0.20	<0.20	164.00	<0.20	<0.20	1.20		0.70								
03U702	25-Oct-88	A20		<0.50	80.00	5.70		<0.50	<0.50	<0.50	45.00	<0.50	0.86	<1.00		<0.50								
03U702	13-Oct-89	A24		<0.20	36.00	9.00		<0.20	<0.20	<1.00	27.00	<0.20	0.60	<0.20		<0.20								
03U702	26-Apr-90	A26		<0.50	28.00	<0.50		<0.50	<0.50	<0.50	7.60	<0.50	1.00	<0.50	<0.50	<0.50	<0.50						<0.50	<0.50
03U702	13-Mar-91	A30		<1.00	15.20	<1.00	<0.50		<0.30	<1.90	3.20	<1.00	<0.78	<0.50	<1.30	<0.72								



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03U708	22-Jan-88	A17		21.00	72.00	2.70		0.78	<0.20	<0.20	11.00	<0.20	0.51	<0.20		13.00									
03U708	10-May-88	A18		12.00	38.00	2.10		7.60	<0.20	<0.20	10.00	<0.20	2.00	<0.20		7.30									
03U708	04-Aug-88	A19		44.00	152.00	7.40		15.00	<0.20	<0.20	36.00	<0.20	0.94	<0.20		6.70									
03U708	24-Oct-88	A20		6.10	125.00	2.40		12.40	<0.50	<0.50	20.00	<0.50	1.40	<1.00		4.70									
03U708	31-Oct-88	A20		33.00	145.00	5.50		16.00	<0.50	<0.50	42.00	<0.50	0.98	<1.00		6.90									
03U708	12-Oct-89	A24		14.00	57.00	3.00		7.20	<0.40	<0.40	10.00	<0.40	1.30	<0.40		3.10									
03U708	24-Apr-90	A26		20.00	120.00	1.40		27.00	<0.50	<0.50	16.00	<0.50	<0.50	<0.50	<0.50	3.00	<0.50						<0.50		
03U708	08-Mar-91	A30		20.00	110.00	<5.00	<2.50		<1.50	<9.50	16.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00					<5.00	<16.00		
03U708	05-Mar-92	A34		15.00	110.00	<5.00	<2.50		<2.50	<9.50	22.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00					<5.00	<16.00		
03U708	12-Mar-93	A38	PC UG03	28.90	560.00	89.00	6.20		<0.30	<1.90	820.00	3.10	28.50	2.08	3.26	1.61	<1.00	<1.00					<3.20		
03U709	22-Jan-88	A17		11.80	420.00	<0.20		0.32	<0.20	<0.20	2.30	<0.20	<0.20	<0.20		1.60									
03U709	12-May-88	A18		7.30	270.00	<0.20		<0.20	<0.20	<0.20	3.40	2.00	<0.20	<0.20		1.50									
03U709	08-Aug-88	A19		9.40	440.00	<0.20		1.10	<0.20	<0.20	4.00	3.20	<0.20	<0.20		1.30									
03U709	26-Oct-88	A20		7.60	225.00	<0.50		<0.50	<0.50	<0.50	7.10	3.40	<1.00	<1.00		<1.70									
03U709	17-Oct-89	A24		5.80	140.00	4.40		<1.00	<1.00	<5.00	22.00	13.00	<1.00	<1.00		<1.00									
03U709	30-Apr-90	A26		2.90	120.00	3.50		<0.50	<0.50	<0.50	69.00	19.00	1.40	<0.50	<0.50	1.30	<0.50						<0.50		
03U709	15-Mar-91	A30		<50.00	100.00	<50.00	<25.00		<15.00	<95.00	370.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00					<50.00	<160.00		
03U709	(6) 15-Mar-91	A30		<50.00	110.00	<50.00	<25.00		<15.00	<95.00	380.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00					<50.00	<160.00		
03U709	13-Mar-92	A34		<50.00	2300.00	160.00	60.00		<25.00	<95.00	1200.00	<50.00	130.00	<25.00	<65.00	<3.60	<50.00					<50.00	<160.00		
03U709	(6) 13-Mar-92	A34		<50.00	2400.00	160.00	60.00		<25.00	<95.00	1300.00	<50.00	130.00	<25.00	<65.00	<3.60	<50.00					<50.00	<160.00		
03U709	17-Mar-93	A38	PC UG03	<80.00	1300.00	76.00	<25.00		<15.00	<95.00	510.00	<50.00	100.00	<25.00	<65.00	<3.60	<50.00					<50.00	<160.00		
03U709	(6) 17-Mar-93	A38	PC UG03	<50.00	1300.00	76.00	<25.00		<15.00	<95.00	500.00	<50.00	110.00	<25.00	<65.00	<3.60	<50.00					<50.00	<160.00		
03U710	14-Jan-88	A17		<0.20	1780.00	23.00		47.00	<0.20	<0.20	34.00	<0.20	26.00	<0.20		<0.20									
03U710	18-May-88	A18		<0.20	2920.00	50.00		66.00	0.36	<0.20	130.00	1.90	42.00	1.70		<0.20									
03U710	03-Aug-88	A19		<0.20	3340.00	18.00		68.00	0.62	<0.20	216.00	2.80	38.00	4.40		<0.20									
03U710	26-Oct-88	A20		<0.50	1440.00	25.00		48.00	3.60	<0.50	120.00	1.50	31.00	4.10		3.10									
03U710	25-Oct-89	A24		<10.00	1100.00	40.00		24.00	<10.00	<50.00	90.00	<10.00	21.00	<10.00		<10.00									
03U710	02-May-90	A26		<0.50	850.00	32.00		29.00	<0.50	<0.50	85.00	2.20	25.00	1.70	<0.50	1.00	<0.50						<0.50		
03U710	16-Apr-91	A30		<25.00	640.00	32.00	30.00		<7.50	<48.00	59.00	<25.00	40.00	<13.00	<33.00	<18.00	<25.00					<25.00	<80.00		
03U710	(6) 16-Apr-91	A30		<25.00	640.00	30.00	30.00		<190.00	<48.00	62.00	<25.00	37.00	<13.00	<33.00	<18.00	<25.00					<25.00	<80.00		
03U710	13-Mar-92	A34		<20.00	730.00	<20.00	24.00		<10.00	<38.00	150.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00					<20.00	<64.00		
03U710	22-Mar-93	A38	PC UG03	<20.00	800.00	<20.00	12.00		<6.00	<38.00	99.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00					<20.00	<64.00		
03U711	19-Apr-89	A22		17.00	23.00	<2.00		6.20	<0.20	<1.00	6.70	<0.20	0.50	<0.20		11.00									
03U711	12-Jul-89	A23		26.00	28.00	3.30		7.90	<0.20	<1.00	6.50	<0.20	0.90	<0.20		11.00									
03U711	18-Oct-89	A24		31.00	45.00	2.50		7.60	<0.20	<1.00	9.80	<0.20	0.50	<0.20		9.70									
03U711	17-Jan-90	A25		22.00	25.00	1.50		7.00	<0.20	<1.00	5.30	<0.20	0.70	<0.20		9.40									
03U711	01-May-90	A26		<0.50	26.00	1.50		5.30	<0.50	<0.50	4.50	<0.50	<0.50	<0.50	0.80	7.50	<0.50					<0.50			
03U711	20-Jul-90	A27		19.00	19.00	1.60		5.70	<0.30	<1.50	4.60	<1.00	0.70	<0.20		6.30									
03U711	20-Jul-90	A27		18.00	20.00	1.80		5.20	<0.30	<1.50	4.40	<1.00	0.60	<0.20		7.10									
03U711	14-Mar-91	A30		14.30	14.80	<1.00	3.65		<0.30	<1.90	3.40	<1.00	<0.78	<0.50	<1.30	4.96	<1.00					<1.00	<3.20		
03U711	07-Jun-91	A31		13.00	20.20	<1.00	2.47		<0.30	<1.90	4.23	<1.00	<0.78	<0.50	<1.30	3.60	<1.00					<1.00	<3.20		
03U711	04-Sep-91	A32		<1.00	0.96	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00					<1.00	<3.20		
03U711	04-Sep-91	A32			0.78																				
03U711	05-Mar-92	A34		<1.00	0.89	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	1.05	<0.50	<1.30	<0.72	<1.00					<1.00	<3.20		
03U711	04-Jun-92	A35		14.00	54.00	9.20	<2.50		<1.50	<9.50	110.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00					<5.00	<16.00		
03U711	03-Sep-92	A36		13.00	97.00	19.00		<2.50	<1.50	<9.50	190.00	<5.00	4.10	<2.50	<6.50	<3.60	<5.00					<5.00	<16.00		
03U711	04-Mar-93	A38	PC UG03	23.00	140.00	37.00	<5.00		<3.00	<19.00	370.00	<10.00	13.00	<5.00	<13.00	<7.20	<10.00					<10.00	<32.00		
03U711	14-Sep-93	A40	PC UG03	<20.00	490.00	78.00	11.00		<6.00	<38.00	600.00	<20.00	36.00	<10.00	<26.00	<14.00	<20.00					<20.00	<64.00		
03U711	14-Sep-93	M40	MH	20.00	370.00	120.00		11.00	<0.20	<1.00	520.00	3.30	43.00	1.40	3.20	3.10	<0.20					1.20	0.20	<0.20	<0.20
03U801	03-Dec-87	F16		<180.00</																					

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2- Dichloro ethene C12DCE	Trans 1,2- Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1- chloro ethane 111TCE	1,1,2- chloro ethane 112TCE	1,1- Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2- Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
03U803	01-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.11	<0.41	<0.62	<4.50	<1.80					
03U803	28-Oct-88	A20		<0.50	1.60	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<1.00	<0.50									
03U803	18-Sep-91	M32		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	
03U804	01-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03U804	21-Jan-88	A17		<0.20	2.40	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U804	13-May-88	A18		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U804	04-Aug-88	A19		<0.20	3.70	<0.20		<0.20	<0.20	<0.20	0.55	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U804	17-Oct-89	A24		<0.20	8.20	0.20		<0.20	<0.20	<1.00	1.40	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U804	04-May-90	A26		<0.50	0.80	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					
03U804	12-Mar-91	A30		<1.00	1.41	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U804	(6) 12-Mar-91	A30		<1.00	1.39	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U804	12-Mar-91	M30		<0.20	1.40	<0.50		<0.20	<0.10	<1.00	0.30	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.20	<0.50	<0.20	0.20	<0.20	<0.20	
03U804	16-Mar-92	A34		<1.00	<0.50	<1.00	<0.50	<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U804	(6) 16-Mar-92	A34		<1.00	1.51	<1.00	<0.50	<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U804	04-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U805	01-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03U805	21-Jan-88	A17		<0.20	0.30	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U805	13-May-88	A18		<0.20	0.65	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U805	09-Aug-88	A19		<0.20	1.40	<0.20		<0.20	<0.20	<0.20	0.36	<0.20	<0.20	<0.20	<0.20	0.32	<0.20	<0.20	<0.20					
03U805	01-Nov-88	A20		<0.50	1.60	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<0.50	<0.50	<0.50	<0.50	<0.50					
03U805	18-Oct-89	A24		<0.20	0.60	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20					
03U805	02-May-90	A26		<0.50	1.10	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					
03U805	21-Mar-91	A30		<1.00	1.12	<1.00	<0.50	<0.30	<1.90	1.15	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U805	(6) 21-Mar-91	A30		<1.00	1.37	<1.00	<0.50	<0.30	<1.90	1.19	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U805	16-Mar-92	A34		<1.00	<0.50	<1.00	0.63	<0.50	<1.90	1.05	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U805	10-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	0.62	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U806	02-Dec-87	F16		<0.88	<1.10	2.88	<0.56			<1.50	18.60	<0.99	15.50	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03U806	23-Apr-90	A26		<0.50	370.00	160.00		9.10	<0.50	<0.50	120.00	3.20	260.00	<0.50	<0.50	1.10	<0.50	<0.50	<0.50					
03U806	11-Mar-91	A30		<50.00	460.00	76.00	<25.00		<15.00	<95.00	72.00	<50.00	140.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00					
03U806	11-Mar-91	M30		<0.20	350.00	93.00			<0.10	<0.10	51.00	PP	200.00	<0.20	<0.20	0.90	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	
03U806	20-Jun-91	M31		<20.00	1200.00	<50.00		<20.00	<100.00	<100.00	310.00	<20.00	<20.00	<20.00	<20.00	<10.00	<20.00	<50.00	<20.00	<20.00	<20.00	<20.00	<20.00	
03U806	16-Mar-92	A34		<100.00	2900.00	<100.00	<50.00		<50.00	<190.00	220.00	<100.00	210.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U806	05-Jun-92	A35		<100.00	3100.00	<100.00	<50.00		<30.00	<190.00	110.00	<100.00	160.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U806	03-Sep-92	A36		<100.00	2600.00	<100.00	<50.00		<30.00	<190.00	130.00	<100.00	180.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U806	(6) 03-Sep-92	A36		<100.00	2800.00	<100.00	<50.00		<30.00	<190.00	290.00	<100.00	190.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
03U806	04-Mar-93	A38	PC UG03	<25.00	2700.00	95.00	22.00		<7.50	<48.00	80.00	<25.00	200.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00					
03U806	13-Sep-93	A40	PC UG03	<50.00	2500.00	81.00	<25.00		<15.00	<95.00	82.00	<50.00	180.00	<25.00	<63.00	<36.00	<50.00	<50.00	<160.00					
03U811	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
03U811	04-May-89	F22		<1.00	<0.50	5.50	<0.50		<1.90	<1.90	14.90	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
03U811	24-Jul-89	F23		<0.88	<1.10	<0.49	<0.56		<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<0.41	1.18	<8.28			
03U811	20-Oct-89	F24		<0.88	4.18	0.74	<0.56		<1.50	1.01	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17			
03U811	26-Apr-90	F26		<1.00	<0.50	<1.00	<0.50		<1.90	<1.90	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U811	20-Mar-91	F30		<1.00	0.80	<1.00	<0.50		<1.90	<1.90	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
03U811	19-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
03U811	10-Mar-93	F38	PC UG03	<1.00	0.95	<1.00	<0.50		<1.90	<1.90	<1.00	<0.78	<0.50	<1.30	<0.72	&								

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tr fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
03U822	01-Dec-87	F16		<0.88	1.65	0.62	<0.56			<1.50	19.70	<0.99	2.90	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03U822	05-May-89	F22		<1.00	<0.50	2.77	<0.50			<1.90	14.30	<1.00		<0.50	<1.10	<0.72	<1.00			0.48	3.10	<8.28			
03U822	24-Jul-89	F23		<0.88	<1.10	1.66	<0.56			<1.50	10.50	<0.99		<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17			
03U822	23-Oct-89	F24		<0.88	1.40	2.03	1.46			<1.50	6.29	<0.99		<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17			
03U822	25-Apr-90	F26		<1.00	<0.50	4.52	1.12			<1.90	17.70	<1.00	10.90	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U822	21-Mar-91	F30		<1.00	7.94	5.17	0.88			<1.90	10.50	<1.00	10.10	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
03U822	23-Mar-92	F34		<2.41	<1.04	13.30		1.61	<1.06	<4.10	26.20	<1.52	18.90	<4.63	<1.20	<1.08	<3.94	<4.47	7.30						
03U822	23-Mar-92	F34		<2.41	<1.04	13.30		1.61	<1.06	<4.10	26.20	<1.52	18.90	<4.63	<1.20	<1.08	<3.94	<4.47	7.30						
03U822	12-Mar-93	F38	PC UG03	<1.00	<0.50	11.20	1.99			<1.90	19.50	<1.00	18.10	0.76	<1.30	<0.72	<1.00	<1.00	<3.20	<3.09	<3.39	<1.17			
03U824	01-Dec-87	F16		<88.00	1300.00	<49.00	<56.00			<150.00	260.00	<99.00	<72.00	<51.00	<110.00	<41.00	<62.00	<450.00	<180.00						
03U824	28-Mar-91	F30		<1.00	43.00	<1.00	11.40			<1.90	7.21	<1.00	25.30	1.06	<1.30	<0.72	<1.00	<1.00	<3.20						
03U831	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03U831	10-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00			<0.41	<0.87	<8.28			
03U831	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.50	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17			
03U831	24-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.50	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17			
03U831	24-Oct-89	F24		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U831	25-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U831	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U831	23-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	3.06						
03U831	(6) 23-Mar-92	F34		<2.41	7.97	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.93						
03U831	12-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.30	<0.72	<1.00	<1.00	<3.20						
03U832	24-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
03U832	09-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.50	<0.50	<1.10	<0.72	<1.00			<0.41	<0.87	<8.28			
03U832	24-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.50	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17			
03U832	24-Oct-89	F24		<0.88	1.78	<0.49	<0.56			<1.50	<0.81	<0.99	<0.50	<0.51	<1.10	<0.41	<0.62			<3.09	<3.39	<1.17			
03U832	25-Apr-90	F26		<1.00	0.71	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U832	19-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
03U832	24-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.29						
03U832	(6) 24-Mar-92	F34		<2.41	<1.04	<1.01	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.69						
03U832	16-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50	<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.30	<0.72	<1.00	<1.00	<3.20						
04J077	11-Oct-89	A24		<2.00	220.00	19.00		<2.00	<2.00	<10.00	71.00	<2.00	18.00	<2.00		<2.00									
04J077	24-Apr-90	A26		<0.50	650.00	66.00		10.00	<0.50	<0.50	200.00	<0.50	82.00	<0.50	0.90	<0.50	<0.50		<0.50						
04J077	07-Mar-91	A30		<50.00	970.00	76.00	<25.00		<15.00	<95.00	300.00	<50.00	140.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
04J077	05-Mar-92	A34		<50.00	1100.00	59.00	<25.00		<25.00	<95.00	290.00	<50.00	84.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
04J077	09-Mar-93	A38	PC UG03	<20.00	1100.00	43.00	17.00		<6.00	<38.00	270.00	<20.00	76.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
04J702	13-Oct-89	A24		<0.20	30.00	2.90		<0.20	<0.20	<1.00	10.00	<0.20	2.80	<0.20		<0.20									
04J702	26-Apr-90	A26		<0.50	110.00	8.40		0.60	<0.50	<0.50	25.00	<0.50	3.20	<0.50	<0.50	<0.50	<0.50		<0.50						
04J702	13-Mar-91	A30		<10.00	180.00	<10.00	<5.00		<3.00	<19.00	49.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
04J702	(6) 13-Mar-91	A30		<10.00	190.00	<10.00	<5.00		<3.00	<19.00	51.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
04J702	09-Mar-92	A34		<5.00	190.00	<5.00	<2.50		<2.50	<9.50	35.00	<5.00	6.80	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04J702	08-Mar-93	A38	PC UG03	<5.00	180.00	<5.00	<2.50		<1.50	<9.50	28.00	<5.00	4.60	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04J708	04-Jan-89	A21		<1.00	3.30	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04J708	12-Oct-89	A24		<0.20	1.60	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20									
04J708	24-Apr-90	A26		<0.50	3.00	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50						
04J708	08-Mar-91	A30		<1.00	43.50	2.49	1.75		<0.30	<1.90	6.78	<1.00	7.73	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04J708	05-Mar-92	A34		<1.00	10.60	<1.00	<0.50		<0.50	<1.90	2.10	<1.00	1.86	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04J708	12-Mar-93	A38	PC UG03	<1.00	20.80	<1.00	0.77		<0.30	<1.90	2.14	<1.00	2.72	<											

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
04J714	04-Jan-89	A21		<1.00	6.10	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04J714	18-Apr-89	A22		<0.20	12.00	<1.00		<0.20	<0.20	<1.00	1.50	<0.20	0.40	<0.20		<0.20									
04J714	11-Jul-89	A23		<0.20	9.30	1.00		0.20	<0.20	<1.00	2.30	<0.20	1.10	<0.20		<0.20									
04J714	13-Oct-89	A24		<0.20	5.00	<0.20		<0.20	<0.20	<1.00	1.20	<0.20	0.50	<0.20		<0.20									
04J714	17-Jan-90	A25		<0.20	17.00	0.40		<0.20	<0.20	<1.00	3.70	<0.20	0.30	<0.20		<0.20									
04J714	30-Apr-90	A26		<0.50	11.00	<0.50		<0.50	<0.50	<0.50	2.80	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50							
04J714	19-Jul-90	A27		<1.00	12.00	0.50		<0.50	<0.30	<1.50	2.60	<1.00	0.40	<0.20		<0.50									
04J714	12-Mar-91	A30		<1.00	13.40	<1.00	<0.50		<0.30	<1.90	1.79	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	06-Jun-91	A31		<1.00	9.41	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	04-Sep-91	A32		<1.00	9.30	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	04-Mar-92	A34		<1.00	6.72	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	03-Jun-92	A35		<1.00	5.03	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	(6) 03-Jun-92	A35		<5.00	710.00	7.00	9.80		<1.50	<9.50	36.00	<5.00	4.60	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00				<16.00		
04J714	03-Sep-92	A36	(7)	<1.00	6.5	<1.00	<0.50			<1.90	1.36	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	11-Mar-93	A38	PC	UG03	<1.00	5.17	<1.00	<0.50		<0.30	<1.90	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J714	14-Sep-93	A40	PC	UG03	<1.00	4.61	<1.00	<0.50		<0.30	<1.90	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J815	09-Mar-93	M38	BI		<1.00	<0.50	<1.00		<0.20	<0.20	<1.00	<2.00	<1.20	<1.00	<0.30	<1.70	<1.50	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	
04J815	13-May-93	M39	MH		<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
04J834	08-Mar-93	F38	(7) PC		<1.00	11.60	<1.00	<0.50		<1.90	1.05	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J834	12-May-93	F39	PC	UG03	<1.00	11.10	<1.00	<0.50		<1.90	1.83	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J835	09-Mar-93	F38	(7) PC		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J835	12-May-93	F39	PC	UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J844	08-Mar-93	M38	BI		<1.00	9.70	<1.00	<0.20	<0.20	<1.00	<2.00	<1.20	<1.00	<0.30	<1.70	<1.50	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
04J844	13-May-93	M39	MH		<0.20	11.00	1.10	0.30	<0.20	<1.00	0.20	<0.20	1.00	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20	<0.20	<0.20	<0.20	
04J882	08-Mar-93	F38	(7) PC		<1.00	0.84	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J882	(6) 08-Mar-93	F38	(7) PC		<1.00	0.81	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04J882	08-Mar-93	M38	BI		<1.00	<0.50	<1.00	<0.20	<0.20	<1.00	<2.00	<1.20	<1.00	<0.30	<1.70	<1.50	<1.00	<5.00	<5.00	<1.00	<1.00	<1.00	<1.00	<1.00	
04J882	11-May-93	F39	PC	UG03	<1.00	<2.50	<1.00	<2.50		<9.50	<5.00	<5.00	<3.90	<2.50	<6.30	<3.60	<5.00	<5.00	<16.00	<1.00	<1.00	<1.00	<1.00	<1.00	
04J882	13-May-93	M39	MH		<0.20	0.30	<0.50	<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	0.40	<0.20	0.20	<0.20	
04U001	16-Nov-87	F16																		<3.09	<3.39	<1.17			
04U001	13-Jan-88	A17		<0.20	6.90	<0.20		<0.20	<0.20	<0.20	2.80	<0.20	<0.20	<0.20		<0.20									
04U001	11-May-88	A18		<0.20	11.00	<0.20		<0.20	<0.20	<0.20	5.80	<0.20	<0.20	<0.20		<0.20									
04U001	29-Jul-88	A19		<0.20	9.30	<0.20		<0.20	<0.20	<0.20	5.40	<0.20	<0.20	<0.20		<0.20									
04U001	23-Aug-88	F19		<1.00	13.20	<1.00	<0.50		<0.20	<1.90	5.63	<1.00	<0.20	<0.20		<0.50	<1.00								
04U001	20-Oct-88	A20		<0.50	9.40	<0.50		<0.50	<1.00	<0.50	3.90	<0.50	<1.00	<1.00		<0.50									
04U001	18-Apr-89	A22		<0.20	4.20	<0.20		<0.20	<0.20	<1.00	0.50	<0.20	0.20	<0.20		<0.20									
04U001	11-Jul-89	A23		<0.20	11.00	1.40		<0.20	<0.20	<1.00	4.00	<0.20	0.40	<0.20		<0.20									
04U001	11-Oct-89	A24		<0.20	2.50	<0.20		<0.20	<0.20	<1.00	0.70	<0.20	<0.20	<0.20		<0.20									
04U001	16-Jan-90	A25		<0.20	1.20	<0.20		<0.20	<0.20	<1.00	0.30	<0.20	<0.20	<0.20		<0.20									
04U001	27-Apr-90	A26		<0.50	6.70	<0.50		<0.50	<0.50	<0.50	1.60	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50						<0.50	
04U001	19-Jul-90	A27		<1.00	6.50	0.30		<0.50	<0.30	<1.50	1.90	<1.00	0.20	<0.20		<0.50									
04U001	07-Mar-91	A30		<1.00	4.79	<1.00	<0.50		<0.30	<1.90	1.35	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04U001	05-Jun-91	A31		<1.00	5.20	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04U001	04-Sep-91	A32		<1.00	5.87	<1.00	<0.50		<0.30	<1.90	1.39	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04U001	04-Mar-92	A34		<1.00	9.08	<1.00	<0.50		<0.50	<1.90	1.68	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04U001	03-Jun-92	A35		<1.00	3.71	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04U001	02-Sep-92	A36		<1.00	21.90	<1.00		<0.50	<0.30	<1.90	4.18	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00				<3.20		
04U001	11-Mar-93	A38																							



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
04U002	12-Oct-89	A24		<1.00	110.00	5.10		28.00	<1.00	<5.00	31.00	<1.00	4.20	<1.00		<1.00								
04U002	27-Apr-90	A26		<0.50	180.00	3.60		12.00	<0.50	<0.50	34.00	<0.50	3.50	<0.50	<0.50	<0.50	<0.50		<0.50					
04U002	08-Mar-91	A30		<1.00	91.00	2.70	1.39		<0.30	<1.90	18.30	<1.00	4.34	<0.50	<1.30	<0.72	<1.00		<1.00					
04U002	09-Mar-92	A34		<2.00	47.00	<2.00	<1.00		<1.00	<3.80	9.50	<2.00	2.70	<1.00	<2.60	<1.40	<2.00		<2.00					
04U002	09-Mar-93	A38	PC UG03	<1.00	51.10	1.14	<0.50		<0.30	<1.90	8.62	<1.00	2.90	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	19-Nov-87	F16		<0.88	1.66	<0.49	<0.56			<1.50	1.11	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62		<1.80	<3.09	<3.39	<1.17		
04U003	21-Jan-88	A17		<0.20	0.81	<0.20		<0.20	<0.20	<0.20	0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
04U003	16-May-88	A18		<0.20	2.90	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
04U003	27-Jul-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
04U003	26-Oct-88	A20		<0.50	4.70	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<1.00	<0.50	<0.50								
04U003	12-Jul-89	A23		<0.20	0.40	0.30		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
04U003	17-Oct-89	A24		<0.20	0.70	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20								
04U003	17-Jan-90	A25		<0.20	2.80	<0.20		<0.20	<0.20	<1.00	0.70	<0.20	<0.20	<0.20	<0.20	<0.20								
04U003	23-Apr-90	A26		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50								
04U003	18-Jul-90	A27		<1.00	<0.50	<0.30		<0.50	<0.30	<1.50	<0.50	<1.00	<0.20	<0.20	<0.20	<0.20								
04U003	08-Mar-91	A30		<1.00	0.91	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	08-Mar-91	A30		<1.00	2.21	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	06-Jun-91	A31		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	04-Sep-91	A32		<1.00	1400.00	26.50	38.50		<0.30	<1.90	190.00	36.70	19.60	1.35	<1.30	3.03	<1.00		<1.00					
04U003	10-Mar-92	A34		<1.00	<0.50	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	03-Jun-92	A35		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	02-Sep-92	A36		<1.00	<0.50	<1.00		<0.50	<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	17-Mar-93	A38	PC UG03	<1.00	4.23	<1.00	<0.50		<0.30	<1.90	1.27	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	15-Sep-93	A40	PC UG03	<1.00	1.22	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U003	(6) 15-Sep-93	A40	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U007	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62		<1.80	<3.09	<3.39	<1.17		
04U007	10-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U007	23-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U007	28-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U007	10-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94		<1.41					
04U012	09-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62		<1.80	<3.09	<3.39	<1.17		
04U012	11-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00					
04U020	07-Dec-87	F16		<88.00	1500.00	<49.00	<56.00			<150.00	210.00	<99.00	130.00	<51.00	<110.00	<41.00	<62.00		<180.00	<150.00	<170.00	<58.00		
04U020	19-Jan-88	A17		<0.20	1525.00	100.00		45.00	<0.20	0.90	295.00	0.51	203.00	1.80		<0.20								
04U020	11-May-88	A18		<0.20	946.00	30.00		19.00	<0.20	<0.20	294.00	0.34	193.00	1.60		<0.20								
04U020	01-Aug-88	A19		<0.20	1235.00	32.00		42.00	<0.20	<0.20	314.00	<0.20	190.00	1.20		<0.20								
04U020	17-Aug-88	F19		<10.00	710.00	67.00	84.00			<19.00	130.00	<10.00		<5.00		<7.20	<10.00			<0.41	<0.87	<8.28		
04U020	25-Oct-88	A20		<0.50	460.00	29.00		19.00	<0.50	<0.50	240.00	<0.50	13.00	1.10		<0.50								
04U020	11-Oct-89	A24		<4.00	550.00	26.00		13.00	<4.00	<20.00	81.00	<4.00	88.00	<4.00		<4.00								
04U020	25-Apr-90	A26		<0.50	360.00	21.00		11.00	<0.50	<0.50	63.00	<0.50	48.00	<0.50	<0.50	<0.50	<0.50		<0.50					
04U020	14-Mar-91	A30		<10.00	120.00	<10.00	<5.00		<3.00	<19.00	18.00	<10.00	14.00	<5.00	<13.00	<7.20	<10.00		<10.00					
04U020	10-Mar-92	A34		<2.00	43.00	<2.00	1.40		<1.00	<3.80	4.10	<2.00	4.80	<1.00	<2.60	<1.40	<2.00		<2.00					
04U020	16-Mar-93	A38	PC UG03	<1.00	56.00	<1.00	1.50		<0.60	<3.80	4.90	<2.00	5.90	<1.00	<2.60	<1.40	<2.00		<2.00					
04U027	15-Jan-88	A17		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
04U027	10-May-88	A18		<0.20	0.29	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
04U027	08-Aug-88	A19		<0.20	0.34	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
04U027	25-Oct-88	A20		<0.50	1.40	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<1.00	<1.00		<0.50								
04U027	11-Oct-89	A24		<0.20	<0.20	<0.20		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20		<0.20								
04U027	25-Apr-90	A26		<0.50	7.30	<0.50		<0.50	<0.50	<0.50	2.00	<0.50	<0.50	<0.50	<0.50	&								

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW	Action Criteria - ug/l (5)			0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
04U077	03-Aug-88	A19		<0.20	1400.00	40.00		23.00	0.25	<0.20	526.00	0.51	121.00	13.00										
04U077	21-Oct-88	A20		<0.50	2600.00	130.00		29.00	<0.50	<0.50	1070.00	<0.50	390.00	11.00										
04U077	11-Oct-89	A24		<20.00	2400.00	200.00		<20.00	<20.00	<100.00	710.00	<20.00	73.00	<20.00										
04U077	24-Apr-90	A26		1.40	3600.00	80.00		21.00	<0.50	<0.50	800.00	2.60	70.00	<0.50	3.30	1.90	<0.50							<0.50
04U077	07-Mar-91	A30		<5.00	2400.00	<5.00	20.00		<1.50	<9.50	610.00	<5.00	49.00	4.10	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<320.00	
04U077	05-Mar-92	A34		<50.00	970.00	<50.00	<25.00		<25.00	<95.00	210.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<50.00	<50.00	<50.00	<50.00	<160.00	
04U077	09-Mar-93	A38	PC UG03	<25.00	1700.00	30.00	<13.00		<7.50	<48.00	440.00	<25.00	21.00	<13.00	<33.00	<18.00	<23.00	<25.00	<25.00	<25.00	<25.00	<25.00	<80.00	
04U510	18-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
04U510	15-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.72	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
04U510	23-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
04U510	28-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
04U510	25-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U673	24-Nov-87	A16		<0.20	145.00	4.61		<0.20	<0.20	<0.20	<0.20	0.65	6.30	<0.20	15.30		<0.20	<0.20	0.65	43.10	1.10	0.97		
04U673	21-Jan-88	A17		<4.00	580.00	5.10		105.00	<4.00	<4.00	<4.00	<4.00	4.30	<4.00	38.00	<4.00	<4.00	<4.00	<4.00	<4.00	24.00			
04U673	16-May-88	A18		<0.20	560.00	3.30		82.00	<0.20	<0.20	0.33	0.50	5.60	<0.20	0.73		<0.20	<0.20	<0.20					
04U673	04-Aug-88	A19		<0.20	253.00	2.10		70.00	<0.20	<0.20	1.70	0.31	5.20	<0.20	<0.20		<0.20	<0.20	<0.20					
04U673	01-Nov-88	A20		<0.50	1700.00	<0.50		220.00	<0.50	<0.50	2.00	<0.50	13.00	<1.00	<0.50		<0.50	<0.50	<0.50					
04U673	03-May-89	F22		<2.00	700.00	5.80	170.00			<3.80	<2.00	<2.00	<1.00	<1.00	<1.40	<2.00	<2.00	<2.00	<1.40	<1.70	<17.00			
04U673	21-Jul-89	F23		<44.00	1200.00	<24.00	86.00			<75.00	<40.00	<50.00	<26.00	<20.00	<20.00	<31.00	<31.00	<31.00	<150.00	<170.00	<58.00			
04U673	19-Oct-89	A24		<10.00	1100.00	<10.00		62.00	<10.00	<50.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00	<10.00					
04U673	01-May-90	A26		<0.50	3100.00	6.90		53.00	<0.50	<0.50	8.10	<0.50	6.40	<0.50	0.90	<0.50	<0.50	<0.50	<0.50					
04U673	11-Mar-91	A30		<100.00	990.00	<100.00	<50.00			<30.00	<190.00	<100.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<100.00	<100.00	<100.00	<320.00	
04U673	11-Mar-91	M30		<20.00	940.00	<50.00		39.00	<10.00	<100.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<50.00	
04U673	17-Jun-91	M31		<4.00	410.00	<10.00		<4.00	<2.00	<20.00	<4.00	<4.00	<4.00	<4.00	<4.00	<2.00	<4.00	<4.00	<4.00	<4.00	<4.00	<4.00	<10.00	<20.00
04U673	12-Mar-92	A34		<25.00	460.00	<25.00	15.00			<12.00	<48.00	<25.00	<20.00	<12.00	<32.00	<18.00	<25.00	<25.00	<25.00	<25.00	<25.00	<25.00	<80.00	
04U673	04-Jun-92	A35		<1.00	430.00	1.12	16.20			<0.30	<1.90	1.90	1.85	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<3.20	
04U673	08-Sep-92	A36		<20.00	540.00	<20.00		15.00	<6.00	<38.00	23.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<64.00	
04U673	03-Mar-93	A38	PC UG03	<20.00	280.00	<20.00	11.00		<6.00	<38.00	<20.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<20.00	<20.00	<20.00	<20.00	<64.00	
04U673	13-Sep-93	A40	PC UG03	<5.00	190.00	<5.00	7.60		<1.50	<9.50	6.70	<5.00	<3.90	<2.50	<6.50	<3.60	7.40	<5.00	<16.00					
04U701	20-Jan-88	A17		<0.20	155.00	8.40		1.10	<0.20	<0.20	51.00	<0.20	5.00	<0.20	0.67									
04U701	12-May-88	A18		<0.20	411.00	6.80		<0.20	<0.20	<0.20	38.00	<0.20	5.00	<0.20	0.49									
04U701	02-Aug-88	A19		<0.20	160.00	3.00		2.00	<0.20	<0.20	42.00	<0.20	6.80	<0.20	<0.20									
04U701	21-Oct-88	A20		<0.50	80.00	5.00		4.40	<0.50	<0.50	19.00	<0.50	13.00	<1.00	<0.50									
04U701	17-Oct-89	A24		<1.00	130.00	7.80		<1.00	<1.00	<5.00	37.00	<1.00	2.30	<1.00	<1.00									
04U701	26-Apr-90	A26		<0.50	110.00	6.40		0.60	<0.50	<0.50	22.00	<0.50	2.60	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					<0.50
04U701	13-Mar-91	A30		<10.00	230.00	<10.00	<5.00			<3.00	<19.00	54.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<10.00	<10.00	<10.00	<32.00	
04U701	05-Mar-92	A34		<2.00	86.00	<2.00	<1.00		<1.00	<3.80	18.00	<2.00	1.80	<1.00	<2.60	<1.40	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.40	
04U701	05-Mar-92	A34	(6)	<2.00	97.00	3.70	1.20		<1.00	<3.80	27.00	<2.00	4.40	<1.00	<2.60	<1.40	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<6.40	
04U701	08-Mar-93	A38	PC UG03	<5.00	80.00	<5.00	<2.50		<1.50	<9.50	15.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<5.00	<5.00	<5.00	<5.00	<16.00	
04U702	20-Jan-88	A17		<0.20	97.70	4.00		0.90	<0.20	<0.20	31.60	<0.20	2.20	<0.20										
04U702	13-May-88	A18		<0.20	200.00	5.40		1.30	<0.20	<0.20	33.00	<0.20	5.00	<0.20	<0.20									
04U702	02-Aug-88	A19		<0.20	133.00	1.60		1.40	<0.20	<0.20	38.00	<0.20	4.10	<0.20	<0.20									
04U702	25-Oct-88	A20		<0.50	100.00	2.60		1.60	<0.50	<0.50	27.00	<0.50	4.30	<1.00	<0.50									
04U702	13-Oct-89	A24		<0.20	38.00	2.20		0.30	<0.20	<1.00	11.00	<0.20	1.70	<0.20	<0.20									
04U702	26-Apr-90	A26		<0.50	69.00	1.60		0.50	<0.50	<0.50	17.00	<0.50	1.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					<0.50
04U702	13-Mar-91	A30		<2.00	58.00	<2.00	<1.00			<0.60	<3.80	12.00	<2.00	3.20	<1.00	<2.60	<1.40	<2.00						

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
04U708	05-Mar-92	A34		<1.00	28.60	<1.00	0.99		<0.50	<1.90	2.50	<1.00	3.76	<0.50	<1.30	<0.72	<1.00	<1.00						
04U708	12-Mar-93	A38	PC UG03	<1.00	22.50	<1.00	0.63		<0.30	<1.90	2.26	<1.00	1.76	<0.50	<1.30	<0.72	<1.00	<1.00						
04U709	22-Jan-88	A17		<0.20	275.00	19.40		6.00	<0.20	<0.20	73.00	<0.20	32.00	0.32		7.90								
04U709	12-May-88	A18		<0.20	117.00	7.60		4.70	<0.20	<0.20	16.00	<0.20	22.00	0.47		<0.20								
04U709	08-Aug-88	A19		<0.20	100.00	7.50		7.80	<0.20	<0.20	14.00	<0.20	28.00	1.00		0.38								
04U709	26-Oct-88	A20		<0.50	95.00	5.10		7.50	<0.50	<0.50	19.00	<0.50	25.00	0.79		<0.50								
04U709	17-Oct-89	A24		<4.00	370.00	29.00		7.70	<4.00	<20.00	80.00	<4.00	51.00	<4.00		<4.00								
04U709	30-Apr-90	A26		3.00	750.00	52.00		13.00	<0.50	<0.50	140.00	<0.50	78.00	<0.50	1.00	<0.50	<0.50						<0.50	
04U709	15-Mar-91	A30		<20.00	450.00	<20.00	<10.00		<6.00	<38.00	95.00	<20.00	23.00	<10.00	<26.00	<14.00	<20.00	<20.00				<20.00	<64.00	
04U709	13-Mar-92	A34		<10.00	480.00	<10.00	<5.00		<5.00	<19.00	72.00	<10.00	13.00	<5.00	<13.00	<7.20	<10.00	<10.00				<10.00	<32.00	
04U709	17-Mar-93	A38	PC UG03	<10.00	270.00	<10.00	<5.00		<3.00	<19.00	20.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00				<10.00	<32.00	
04U709	18-Mar-93	M38	MH	<0.20	150.00	9.50		2.30	<0.20	<1.00	19.00	<0.20	7.50	<0.20	<0.20	<0.10	<0.20	<0.20				<0.20	<0.20	
04U711	19-Apr-89	A22		<0.20	<2.00	<0.50		0.30	<0.20	<1.00	1.40	<0.20	0.70	<0.20		<0.20								
04U711	12-Jul-89	A23		<0.20	4.40	1.10		<0.20	<0.20	<1.00	5.00	<0.20	1.40	<0.20		<0.20								
04U711	18-Oct-89	A24		<0.20	2.00	0.50		<0.20	<0.20	<1.00	2.70	<0.20	2.20	<0.20		<0.20								
04U711	17-Jan-90	A25		<0.20	2.20	0.30		<0.20	<0.20	<1.00	1.50	<0.20	1.90	<0.20		<0.20								
04U711	01-May-90	A26		<0.50	2.60	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50						<0.50	
04U711	20-Jul-90	A27		<1.00	2.00	<0.30		<0.50	<0.30	<1.50	0.60	<1.00	0.30	<0.20		<0.50								
04U711	14-Mar-91	A30		<1.00	0.97	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	07-Jun-91	A31		<1.00	0.61	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	04-Sep-91	A32		10.70	24.50	2.64		<0.30	<1.90	5.07	<1.00	<0.78	<0.50	<1.30	4.10	<1.00	<1.00	<1.00				<1.00	<3.20	
04U711	05-Mar-92	A34		8.87	32.20	2.05	2.20		<0.50	<1.90	34.10	<1.00	1.23	<0.50	<1.30	3.20	<1.00	<1.00				<1.00	<3.20	
04U711	04-Jun-92	A35		<1.00	0.80	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	1.42	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	04-Jun-92	A35	(6)	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	1.36	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	03-Sep-92	A36		<1.00	2.65	<1.00		<0.50	<0.30	<1.90	2.19	<1.00	1.64	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	04-Mar-93	A38	PC UG03	<1.00	1.95	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	1.94	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	14-Sep-93	A40	PC UG03	<1.00	2.78	<1.00	<0.50		<0.30	<1.90	1.09	<1.00	2.12	<0.30	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U711	14-Sep-93	M40	MH	<0.20	3.50	<0.50		<0.20	<0.20	<1.00	1.20	<0.20	2.80	<0.20	<0.20	<0.10	<0.20	<0.20				<0.20	<0.20	
04U713	06-Jan-89	A21		<1.00	27.00	<1.00		<1.00	<1.00	<1.00	7.50	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00				<1.00	<1.00	
04U713	23-Oct-89	A24		<2.00	15.00	0.70		0.30	<2.00	<10.00	3.50	<2.00	2.20	<2.00	<1.00	<2.00	<1.00	<1.00				<1.00	<1.00	
04U713	30-Apr-90	A26		<0.50	5.30	<0.50		<0.50	<0.50	<0.50	1.10	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50				<0.50	<0.50	
04U713	12-Mar-91	A30		<1.00	3.70	<1.00	<0.50		<0.30	<1.90	1.35	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U713	09-Mar-92	A34		<1.00	3.19	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U713	08-Mar-93	A38	PC UG03	<1.00	1.48	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	04-Jan-89	A21		<1.00	13.00	<1.00		<1.00	<1.00	<1.00	4.90	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00						
04U714	18-Apr-89	A22		<0.20	19.00	<0.80		<0.20	<0.20	<1.00	2.70	<0.20	1.00	<0.20		<0.20								
04U714	12-Jul-89	A23		<0.20	13.00	1.00		0.20	<0.20	<1.00	3.10	<0.20	1.00	<0.20		<0.20								
04U714	13-Oct-89	A24		<0.20	26.00	1.10		<0.20	<0.20	<1.00	4.90	<0.20	0.60	<0.20		<0.20								
04U714	17-Jan-90	A25		<0.20	4.40	0.20		0.20	<0.20	<1.00	0.70	<0.20	1.10	<0.20		<0.20								
04U714	30-Apr-90	A26		<0.50	17.00	<0.50		<0.50	<0.50	<0.50	1.90	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					<0.50	
04U714	19-Jul-90	A27		<1.00	8.50	0.30		<0.50	<0.30	<1.50	1.10	<1.00	0.50	<0.20		<0.50								
04U714	12-Mar-91	A30		<1.00	19.30	<1.00	<0.50		<0.30	<1.90	1.59	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	06-Jun-91	A31		<1.00	14.60	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	04-Sep-91	A32		<1.00	15.90	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	04-Mar-92	A34		<1.00	21.40	<1.00	<0.50		<0.50	<1.90	1.56	<1.00	0.96	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	03-Jun-92	A35		<1.00	14.30	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	02-Sep-92	A36		<1.00	14.30	<1.00		<0.50	<0.30	<1.90	1.39	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00				<1.00	<3.20	
04U714	11-Mar-93	A38	PC UG03	<1.00	12.70	<1.00	<0.50		<0.30	<1.90	1.39	<1.00	<0.78	<0.50										

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 1DCE	1,2-Di chloro ethene 12DCE	Cis-1,2- Dichloro ethene C12DCE	Trans 1,2- Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1- Tr chloro ethane 111TCE	1,1,2- Tr chloro ethane 112TCE	1,1- Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2- Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
04U802	18-Oct-89	A24		<0.20	1.40	<0.20		<0.20	<0.20	<1.00	0.60	<0.20	<0.20	<0.20		<0.20								
04U802	01-May-90	A26		<0.50	2.70	<0.50		<0.50	<0.50	<0.50	0.90	<0.50	<0.50	<0.50		<0.50								
04U802	20-Mar-91	A30		<1.00	3.06	<1.00	<0.50	<0.30	<1.90	1.75	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00						
04U802	12-Mar-92	A34		<1.00	2.52	<1.00	<0.50	<0.50	<1.90	1.77	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00						
04U802	17-Mar-93	A38	PC UG03	<1.00	1.05	<1.00	<0.50	<0.30	<1.90	1.47	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00		<1.00						
04U806	02-Dec-87	F16		<88.00	2500.00	110.00	<56.00			<150.00	820.00	<99.00	160.00	<51.00	<110.00	<41.00	<62.00	<450.00	<180.00					
04U806	12-May-88	A18		<0.20	1720.00	246.00		23.00	0.22	<0.20	790.00	0.52	209.00	4.00		1.50								
04U806	04-Aug-88	A19		<0.20	1720.00	105.00		32.00	<0.20	0.55	608.00	0.41	169.00	3.60		4.10								
04U806	21-Oct-88	A20		<0.50	1500.00	73.00		35.00	<0.50	<0.50	540.00	<0.50	92.00	3.50		3.70								
04U806	19-Apr-89	A22		<0.20	690.00	89.00		37.00	0.20	<1.00	130.00	<0.20	150.00	3.10		0.70								
04U806	11-Jul-89	A23		<10.00	2200.00	290.00		40.00	<10.00	<50.00	760.00		210.00	<10.00		<10.00								
04U806	16-Oct-89	A24		15.00	1400.00	170.00		17.00	<10.00	<50.00	440.00	<10.00	110.00	<10.00		24.00								
04U806	17-Jan-90	A25		<10.00	1100.00	72.00		17.00	<10.00	<50.00	300.00	<10.00	86.00	<10.00		<10.00								
04U806	23-Apr-90	A26		<0.50	2400.00	180.00		1.50	<0.50	<0.50	550.00	<0.50	120.00	<0.50	2.20	<0.50	<0.50							
04U806	18-Jul-90	A27		<25.00	2000.00	270.00		46.00	<7.50	<38.00	680.00	<25.00	220.00	<5.00		<12.00								
04U806	11-Mar-91	A30		<200.00	3400.00	280.00	<100.00		<60.00	<380.00	1300.00	<200.00	230.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00					
04U806	07-Jun-91	A31		<100.00	3900.00	280.00	64.00		<3000.00	<190.00	1300.00	<100.00	300.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
04U806	04-Sep-91	A32		<250.00	5600.00	<250.00	<130.00		<75.00	<480.00	1600.00	<250.00	320.00	<250.00	<650.00	<180.00	<250.00	<250.00	<800.00					
04U806	(6) 04-Sep-91	A32		<500.00	4700.00	<500.00	<250.00		<150.00	<950.00	1500.00	<500.00	<390.00	<130.00	<330.00	<360.00	<500.00	<500.00	<1600.00					
04U806	05-Sep-91	M32		<10.00	1200.00	210.00		16.00	<5.00	<50.00	1300.00	<10.00	<10.00	<10.00	<10.00	<5.00	<10.00	<10.00	<25.00	<10.00				
04U806	(6) 05-Sep-91	M32		1.40	>3500	310.00		72.00	1.90	<0.50	1200.00	1.70	290.00	20.00	<0.50	5.10	<1.00	<5.00	<10.00	<1.50	<10.00	<1.80	<10.00	<1.10
04U806	(6) 05-Sep-91	M32		1.30	>3500	310.00		73.00	2.30	<0.50	1100.00	<1.20	81.00	19.00	<0.50	5.50	<1.00	<5.00	<1.40	<1.40	<1.00	<1.00	<1.00	<1.00
04U806	04-Mar-92	A34		<100.00	5400.00	260.00	74.00		<50.00	<190.00	1400.00	<100.00	350.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
04U806	05-Jun-92	A35		<25.00	620.00	49.00	<12.00		<7.50	<48.00	150.00	<25.00	45.00	<12.00	<32.00	<18.00	<25.00	<25.00	<80.00					
04U806	03-Sep-92	A36		<50.00	6900.00	380.00		82.00	<15.00	<95.00	1400.00	<50.00	420.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00					
04U806	03-Mar-93	A38	PC UG03	<200.00	3200.00	300.00	120.00		<60.00	<380.00	720.00	<200.00	420.00	<100.00	<260.00	<140.00	<200.00	<200.00	<640.00					
04U806	13-Sep-93	A40	PC UG03	<100.00	3300.00	210.00	76.00		<30.00	<190.00	700.00	<100.00	380.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
04U821	30-Nov-87	F16		<44.00	950.00	<24.00	<28.00			<75.00	170.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00					
04U821	19-Apr-90	F26		<20.00	470.00	30.00	18.00		<38.00	60.00	<20.00	43.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
04U821	23-Jul-90	F27		<1.00	760.00	26.00	5.30		<1.90	130.00	<1.00	20.00	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U821	18-Sep-90	F28		<1.00	590.00	24.00	<0.50		<1.90	13.00	<1.00	19.00	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U821	21-Mar-91	F30		<1.00	490.00	<1.00	<0.50		<1.90	97.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U821	04-Jun-91	F31		<2.00	490.00	16.00	3.30		<3.80	89.00	<2.00	12.00	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
04U821	03-Sep-91	F32		<10.00	410.00	<10.00	<5.00		<19.00	59.00	<10.00	9.90	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
04U821	20-Mar-92	F34		<2.41		5.71		1.36	<1.06	<4.10	61.30	<1.52	8.12	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U821	20-Mar-92	F34			340.00																			
04U821	03-Jun-92	F35		<2.41	>50.10	9.33		<0.89	<1.06	<4.10	54.20	<1.52	6.07	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U821	03-Jun-92	F35			330.00																			
04U821	03-Sep-92	F36			300																			
04U821	03-Sep-92	F36			280																			
04U821	03-Sep-92	F36		<2.41	>50.10	7.61		1.14	<1.06	<4.10	41.00	<1.52	3.80	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U821	(6) 03-Sep-92	F36		<2.41	>50.10	8.82		1.11	<1.06	<4.10	43.80	<1.52	3.49	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U821	11-Mar-93	F38	PC UG03	<10.00	190.00	<10.00	<5.00			<19.00	34.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
04U821	(6) 11-Mar-93	F38	PC UG03	<10.00	280.00	<10.00	<5.00			<19.00	42.00	<10.00	<7.80	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
04U832	24-Nov-87	F16		<4.40	100.00	2.80	<2.80			<7.50	25.00	<5.00	<3.60	<2.60	<5.50	<2.00	<3.10	<22.00	<9.00					
04U832	16-Dec-88	A20		<1.00	65.00	<1.00		<1.00	<1.00	<1.00	18.00	<1.00	5.60	<1.00	<1.00	<1.00	<1.00	<3.20						
04U832	25-Apr-90	F26		<1.00	69.53	3.05	<0.50		<1.90	14.73	<1.00	2.41	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U832	19-Mar-91	F30		<1.00	47.60	2.10	<0.50		<1.90	7.10	<1.00	2.13	<0.50											

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TClTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
04U841	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
04U841	20-Mar-91	F30		<1.00	1.49	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U841	19-Mar-92	F34		<2.41	8.02	<1.01		<0.89	<1.06	<4.10	1.57	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U841	(6) 19-Mar-92	F34		<2.41	8.47	<1.01		<0.89	<1.06	<4.10	1.80	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U841	10-Mar-93	F38	PC UG03	<1.00	8.13	<1.00	<0.50			<1.90	1.86	<1.00	0.92	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U841	(6) 10-Mar-93	F38	PC UG03	<1.00	9.66	<1.00	<0.50			<1.90	2.38	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U843	24-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	1.85	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
04U843	24-Aug-88	F19		<1.00	2.34	<1.00	<0.50			<1.90	4.87	<1.00	<0.50	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U843	25-Apr-90	F26		<1.00	2.26	<1.00	<0.50			<1.90	6.37	<1.00	1.91	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U843	21-Mar-91	F30		<1.00	3.45	1.11	<0.50			<1.90	5.98	<1.00	1.62	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U843	20-Mar-92	F34		<2.41	9.50	<1.01		<0.89	<1.06	<4.10	10.70	<1.52	4.01	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U843	(6) 12-Mar-93	F38	PC UG03	<1.00	15.00	4.16	<0.50			<1.90	11.80	<1.00	4.33	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U844	03-Dec-87	F16		<44.00	950.00	<24.00	<28.00			<75.00	170.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00						
04U844	04-May-89	F22		<10.00	310.00	19.00	<5.00			<19.00	81.00	<10.00	<5.00	<5.00	<10.00	<7.20	<10.00	<10.00	<3.00	<3.09	<8.70	<83.00			
04U844	18-Oct-89	F24		1.05	600.00	41.00	4.76			<1.50	96.00	<0.99	1.65	0.50	0.50	0.62									
04U844	25-Apr-90	F26		<50.00	690.00	<50.00	<25.00			<95.00	130.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
04U844	23-Jul-90	F27		1.79	930.00	35.00	4.84			<1.90	160.00	1.40	27.00	1.53	<1.30	1.10	<1.00	<1.00	<3.20						
04U844	17-Sep-90	F28		<1.00	1000.00	47.00	6.10			<1.90	220.00	<1.00	35.00	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U844	19-Mar-91	F30		<20.00	900.00	35.00	<10.00			<38.00	1500.00	<20.00	30.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
04U844	(6) 19-Mar-91	F30		<20.00	940.00	37.00	<10.00			<38.00	160.00	<20.00	32.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
04U844	23-Mar-92	F34		<2.41	>50.10	37.30		4.01	<1.06	<4.10	>50.80	<1.52	27.00	<4.63	<1.20	<1.08	<3.94	<4.47	7.41						
04U844	23-Mar-92	F34			860.00						130.00														
04U844	15-Mar-93	F38	PC UG03	<20.00	1100.00	30.00	<10.00			<38.00	130.00	<20.00	27.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
04U844	(6) 15-Mar-93	F38	PC UG03	<20.00	1100.00	32.00	<10.00			<38.00	140.00	<20.00	23.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00						
04U844	12-May-93	F39	PC UG03	<1.00	22.60	<1.00	<0.50			<1.90	1.78	<1.00	1.50	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U844	(6) 13-May-93	M39	MH	<0.20	22.00	1.30		0.60	<0.20	<1.00	1.70	<1.00	1.90	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	0.30	0.70		<0.20	0.40	
04U845	01-Dec-87	F16		<4.40	59.00	<2.40	<2.80			<7.50	<4.00	<5.00	<3.60	<2.60	<5.50	<2.00	<3.10	<22.00	<9.00						
04U845	16-Dec-88	A20		<1.00	155.00	<1.00		4.30	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00									
04U845	04-May-89	F22		<1.00	100.00	<1.00	7.57			<1.90	<1.00	<1.00	<1.00	<0.50	<0.72	<1.00				<0.41	1.24	<8.28			
04U845	20-Jul-89	F23		<8.80	160.00	<4.90	<5.60			<15.00	<8.10	<9.90	<5.10	<5.10	<4.10	<6.20				<30.90	<33.90	<11.70			
04U845	20-Oct-89	F24		<8.80	62.00	<4.90	15.00			<15.00	<8.10	<9.90	<5.10	<5.10	<4.10	<6.20				<31.00	<34.00	<12.00			
04U845	26-Apr-90	F26		<5.00	38.00	<5.00	10.00			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04U845	20-Mar-91	F30		<1.00	100.00	1.08	7.20			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U845	23-Mar-92	F34		<2.41	>50.10	<1.01		3.81	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	5.41						
04U845	23-Mar-92	F34			100.00																				
04U845	(6) 15-Mar-93	F38	PC UG03	<2.00	84.00	<2.00	2.40			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
04U846	25-Nov-87	F16		<0.88	22.50	1.03	<0.56			<1.50	8.54	<0.99	1.23	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
04U846	23-Aug-88	F19		<1.00	120.00	10.00	<0.50			<1.90	30.00	<1.00	<0.50	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U846	28-Apr-89	F22		<1.00	4.27	<1.00	<0.50			<1.90	1.06	<1.00	<0.50	<0.50	<0.72	<1.00				<0.41	<0.87	<8.28			
04U846	18-Jul-89	F23		<0.88	9.00	<0.49	<0.56			<1.50	1.21	<0.99	<0.51	<0.51	<0.41	<0.62				<3.09	<3.39	<11.70			
04U846	19-Oct-89	F24		<0.88	13.70	0.82	<0.56			<1.50	1.93	<0.99	<0.51	<0.51	<0.41	<0.62				<3.09	<3.39	<11.70			
04U846	18-Mar-91	F30		<1.00	4.05	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U846	25-Mar-92	F34		<2.41	57.40	<1.01		<0.89	<1.06	<4.10	9.05	<1.52	1.60	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U846	(6) 25-Mar-92	F34		<2.41	>50.10	1.41		<0.89	<1.06	<4.10	10.30	<1.52	1.88	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U846	(6) 26-Mar-92	F34		<4.80	44.00	<2.00		<1.80	<2.10	<8.20	7.20	<3.00	<1.90	<9.30	<2.40	<2.20	<7.90	<8.90	<2.80						
04U846	16-Mar-93	F38	PC UG03	<1.00	2.70	<1.00	<0.50			<1.90	1.75	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U847	30-Nov-87	F16		<44.00	700.00	160.00	<28.00			<75.00	1000.00	<50.00	96.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00						
04U847	23-Aug-88	F19		<20.00	970.00	300.00	63.00			<38.00	1100.00	<20.00</													

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLE	Tri chloro ethene TRCLE	1,1-Di chloro ethene HDCE	1,2-Di chloro ethene D2DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane T11TCE	1,1,2-Tri chloro ethane T12TCE	1,1-Di chloro ethane D1DCE	1,2-Di chloro ethane D2DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane D2DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
04U847	04-Jun-91	F31		<5.00	1800.00	25.00	32.00			<9.50	880.00	<5.00	180.00	5.90	<6.50	6.30	<5.00	<5.00	<16.00					
04U847	03-Sep-91	F32		<5.00	180.00	24.00	3.15			<9.50	200.00	<5.00	38.00	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
04U847	19-Mar-92	F34		<2.41	>50.10	>50.20				<4.10	>50.80	<1.52	>49.90	12.70	<1.20	5.92	<3.94	<4.47	3.21					
04U847	20-Mar-92	F34		<120.00	2100.00	150.00		<45.00	<53.00	<210.00	810.00	<76.00	180.00	<230.00	<60.00	<54.00	<200.00	<220.00	270.00					
04U847	04-Jun-92	F35			1800.00	160.00				750.00		1300.00												
04U847	04-Jun-92	F35		<2.41	>50.10	>50.20		26.40	<1.06	<4.10	>50.80	<1.52	>49.90	11.80	<1.20	5.30	<3.94	<4.47	<1.41					
04U847	(6) 04-Jun-92	F35			2000.00	170.00				870.00		140.00												
04U847	(6) 04-Jun-92	F35		<2.41	>50.10	>50.20		27.80	<1.06	<4.10	>50.80	<1.52	>49.90	12.80	<1.20	5.61	<3.94	<4.47	2.13					
04U847	03-Sep-92	F36			1650																			
04U847	03-Sep-92	F36		<2.41	>50.10	>50.20		19.60	<1.06	<4.10	>50.80	<1.52	>49.90	8.57	<1.20	3.08	<3.94	<4.47	<1.41					
04U847	03-Sep-92	F36			>1250.00	210				600		108												
04U847	10-Mar-93	F38	PC UG03	<25.00	1300.00	62.00	16.00			<48.00	440.00	<25.00	120.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00					
04U847	10-Sep-93	F40	PC UG03	<100.00	1800.00	130.00	<50.00			<190.00	610.00	<100.00	130.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00					
04U848	02-Dec-87	F16		<44.00	700.00	<24.00	<28.00			<75.00	<40.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00					
04U848	24-Aug-88	F19		<20.00	470.00	<20.00	26.00			<38.00	<20.00	<20.00	<10.00	<10.00	<14.00	<14.00	<20.00	<20.00	<64.00					
04U848	03-May-89	F22		<1.00	150.00	1.79	21.90			<1.90	<1.00	<1.00	<0.50	<0.72	<1.00	<1.00	<1.00	<1.00	<3.20	<0.41	2.11	<8.28		
04U848	20-Jul-89	F23		<44.00	700.00	<24.00	<28.00			<75.00	<40.00	<50.00	<26.00	<26.00	<31.00	<31.00	<31.00	<31.00	<10.00	<150.00	<170.00	<58.00		
04U848	19-Oct-89	F24		<0.88	280.00	0.92	13.10			<1.50	0.85	<0.99	<0.51	<0.41	<0.62	<0.62	<0.62	<0.62	<1.17	<3.09	<3.39	<1.17		
04U848	19-Apr-90	F26		<20.00	240.00	<20.00	14.00			<38.00	<20.00	<20.00	<16.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00					
04U848	19-Jul-90	F27		55.00	140.00	<1.00	7.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U848	17-Sep-90	F28		<1.00	150.00	<1.00	5.40			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U848	18-Mar-91	F30		<2.00	64.00	<2.00	2.80			<3.80	<2.00	<2.00	<1.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
04U848	18-Mar-92	F34		<2.41	22.50	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	1.87					
04U848	(6) 18-Mar-92	F34		<2.41	23.40	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U848	10-Mar-93	F38	PC UG03	<1.00	26.00	<1.00	0.58			<1.90	1.52	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U849	01-Dec-87	F16		<18.00	460.00	8.20	<11.00			<30.00	85.00	<20.00	<14.00	<10.00	<22.00	<8.20	<12.00	<90.00	<36.00					
04U849	24-Aug-88	F19		<1.00	41.40	2.46	3.93			<1.90	13.90	<1.00	<0.50	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U849	18-Apr-90	F26		<1.00	18.10	1.20	0.77			<1.90	4.69	<1.00	2.32	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U849	18-Mar-91	F30		<1.00	31.80	2.28	1.23			<1.90	7.50	<1.00	3.86	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U849	25-Mar-92	F34		<2.41	>50.10	4.09		<0.89	<1.06	<4.10	37.70	<1.52	7.74	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U849	26-Mar-92	F34		<12.00	120.00	<5.10		<4.50	<5.30	<21.00	24.00	<7.60	<4.90	<23.00	<6.00	<5.40	<20.00	<22.00	10.00					
04U849	17-Mar-93	F38	PC UG03	<1.00	50.90	2.23	<0.50			<1.90	13.00	<1.00	3.65	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U850	01-Dec-87	F16		<22.00	480.00	<12.00	<14.00			<38.00	71.00	<25.00	<18.00	<13.00	<28.00	<10.00	<16.00	<110.00	<45.00					
04U850	02-May-89	F22		<2.50	110.00	12.00	5.00			<4.80	10.00	<2.50	<1.30	<1.80	<2.50	<2.50	<2.50	<3.20	<1.00	<1.00	<2.00	<1.00	<1.80	
04U850	19-Jul-89	F23		<8.80	190.00	<4.90	<5.60			<15.00	17.00	<9.90	<5.10	<4.10	<6.20	<6.20	<6.20	<6.20	<3.20	<15.00	<17.00	<5.80		
04U850	19-Oct-89	F24		<0.88	180.00	3.69	2.29			<1.50	15.60	<0.99	0.98	0.27	<0.62	<0.62	<0.62	<0.62	<3.20	<3.09	<3.39	<1.17		
04U850	17-Apr-90	F26		<1.00	170.00	6.31	2.15			<1.90	23.70	<1.00	10.00	0.62	<1.30	<0.72	<1.00	<1.00	<3.20					
04U850	15-Mar-91	F30		<20.00	640.00	24.00	<10.00			<38.00	120.00	<20.00	19.00	<10.00	<26.00	<14.00	<20.00	<20.00	<64.00					
04U850	26-Mar-92	F34		<2.41	>50.10	14.00		2.53	<1.06	<4.10	>50.80	<1.52	18.80	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U850	27-Mar-92	F34			490.00	<20.00				<82.00	67.00							<89.00	<89.00					
04U850	18-Mar-93	F38	PC UG03	<20.00	560.00	<20.00	<10.00			<38.00	58.00	<20.00	<16.00	<16.00	<26.00	<14.00	<20.00	<20.00	<64.00					
04U851	24-Nov-87	F16		<0.88	2.72	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
04U851	17-Apr-90	F26		<1.00	0.96	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U851	18-Mar-91	F30		<1.00	1.08	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U851	27-Mar-92	F34		<2.41	2.47	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
04U851	18-Mar-93	F38	PC UG03	<1.00	2.48	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
04U852	24-Nov-87	F16		<0.88	3.41	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80					
04U852	24-Aug-88	F19		<1.00	1.18	<1.00	<0.50			<1.90	<1.00	<1.00												

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1-Tri chloro ethane 11T1CE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11D1CLE	1,2-Di chloro ethane 12D2CLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane T1C1TFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
04U854	16-Dec-88	A20		<1.00	140.00	<1.00		3.70	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04U854	04-May-89	F22		<1.00	27.30	<1.00	4.68			<1.90	<1.00	<1.00	<0.50		<0.72	<1.00				<0.41	1.54	<8.28			
04U854	20-Jul-89	F23		<18.00	360.00	<9.80	<11.00			<30.00	<16.00	<20.00	<10.00		<8.20	<12.00				<62.00	<68.00	<23.00			
04U854	17-Oct-89	F24		<0.88	89.00	0.75	3.70			<1.50	<0.81	<0.99	<0.51		<0.41	<0.62				<3.09	<3.39	1.18			
04U854	30-Apr-90	F26		<1.00	67.00	<1.00	3.22			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00					<0.40	<0.40	
04U854	13-Mar-92	M34		<0.40	83.00	<1.00		5.40	<0.20	<0.40	<0.40	<0.40	<0.40	<0.40	<0.40	<0.20	<0.40	<1.00					<0.40	<0.40	
04U854	15-Mar-93	F38	PC UG03	<5.00	70.00	<5.00	3.20			<9.50	<5.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04U855	25-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
04U855	18-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U855	25-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U855	08-Mar-93	M38	BI	<1.00	130.00	1.80		0.30	<0.20	<1.00	23.00	<1.20	1.30	<0.30	<1.70	<1.50	<1.00	<5.00	<5.00	<1.00	<1.00		<1.00	<1.00	
04U855	16-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U855	11-May-93	F39	PC UG03	<5.00	110.00	<5.00	<2.50			<9.50	14.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04U855	13-May-93	M39	MH	<0.20	110.00	5.40		1.40	<0.20	<1.00	13.00	<0.20	4.10	<0.20	<0.20	0.10	<0.20	<0.20	<0.50	<0.20	0.40		<0.20	0.30	
04U859	13-Nov-87	A16		<0.20	0.30	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
04U859	15-Dec-88	A20		<1.00	8.50	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04U859	30-Apr-90	F26		<1.00	5.59	<1.00	1.71			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U859	19-Mar-91	F30		<1.00	5.24	<1.00	0.57			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U859	20-Mar-92	F34		<2.41	9.29	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U859	11-Mar-93	F38	PC UG03	<1.00	40.50	2.14	2.28			<1.90	9.31	<1.00	3.17	<0.50	<1.30	<0.72	1.73	<1.00	<3.20						
04U860	13-Nov-87	A16		<0.20	0.50	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
04U860	15-Dec-88	A20		<1.00	1.80	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04U860	19-Apr-90	F26		<1.00	2.71	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
04U860	20-Mar-91	F30		<1.00	1.94	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U860	24-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.05						
04U860	24-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	6.11						
04U860	(6) 10-Mar-93	F38	PC UG03	<1.00	1.64	<1.00	<0.50			<1.90	1.75	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U861	12-Nov-87	A16		<0.20	1.50	<0.20		<0.20	<0.20	<0.20	0.30	<0.20	1.00	<0.20		<0.20									
04U861	16-Dec-88	A20		<1.00	9.80	<1.00		<1.00	<1.00	<1.00	3.40	<1.00	<1.00	<1.00		<1.00									
04U861	30-Apr-90	F26		<1.00	2.74	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U861	25-Mar-91	F30		<1.00	8.49	<1.00	2.56			<1.90	<1.00	<1.00	<0.78	<0.50	31.70	9.67	1.08	<1.00	<3.20						
04U861	23-Mar-92	F34		<2.41	7.97	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.88						
04U861	12-Mar-93	F38	PC UG03	<1.00	7.22	<1.00	<0.50			<1.90	1.26	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
04U871	20-Jun-88	A18		0.58	330.00	8.40		1.80	<0.20	<0.20	84.00	0.42	8.60	1.20		<0.20									
04U871	07-Jul-88	A19		0.29	272.00	7.80		1.60	<0.20	<0.20	70.00	<0.20	9.00	<0.20		<0.20									
04U871	23-Aug-88	F19		<10.00	420.00	32.00	<5.00			<19.00	110.00	<10.00	<5.00		<7.20	<10.00				<4.10	<8.70	<83.00			
04U871	08-Nov-88	F20		<10.00	380.00	14.00	<5.00			<19.00	110.00	<10.00	<5.00		<7.20	<10.00									
04U871	31-Jan-89	A21		<1.00	31.00	<1.00		<1.00	<1.00	<1.00	4.80	<1.00	4.50	<1.00		<1.00									
04U871	05-May-89	F22										<2.00													
04U871	08-May-89	F22		<2.00	33.00	2.50	<1.00			<3.80	5.20		<1.00		<1.40	<2.00				<0.82	<1.70	<17.00			
04U871	19-Jul-89	F23		<1.80	24.00	<0.98	<1.10			<3.00	<1.60	<2.00	<1.00		<0.82	<1.20				<6.20	10.00	2.50			
04U871	23-Oct-89	F24		<1.80	23.00	1.60	2.60			<3.00	3.20	<2.00	<1.00		<0.82	<1.20				<6.20	<6.80	<2.30			
04U871	18-Apr-90	F26		<1.00	3.37	1.69	2.36			<1.90	<1.00	<1.00	8.04	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
04U871	15-Mar-91	F30		<1.00	5.47	<1.00	1.26			<1.90	1.12	<1.00	5.88	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
04U871	27-Mar-92	F34		<2.41		<1.01		<0.89	<1.06	<4.10	23.80	<1.52	5.40	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
04U871	27-Mar-92	F34			150.00															<3.09	<3.39	<1.17			
04U871	18-Mar-93	F38	PC UG03	<5.00	100.00	<5.00	<2.50			<9.50	11.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04U871	(6) 18-Mar-93	F38	PC UG03	<5.00	91.00	<5.00	<2.50			<9.50	9.30	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
04U872	13-Jul-88	A19		<0.20	102.00	3.00		0.68	<0.20	<0.20	19.00	<0.20	4.30</												

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Trn chloro ethane 111TCE	1,1,2-Trn chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYLE	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00			
04U872	23-Oct-89	F24		<0.88	25.40	0.92	1.17			<1.50	2.09	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
04U872	18-Apr-90	F26		<1.00	14.90	<1.00	<0.50			<1.90	2.10	<1.00	0.90	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	1.14	<8.28			
04U872	14-Mar-91	F30		<1.00	27.20	0.82	<0.50			<1.90	2.73	<1.00	<0.78	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	1.22	<8.28			
04U872	16-Sep-91	M32		<0.20	57.00	1.30		<0.20	<0.10	<1.00	7.00	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50		<0.20	0.30		<0.20	0.30	
04U872	27-Mar-92	F34		<2.41	10.70	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41				<0.20	0.30	
04U872	27-Mar-92	F34																		<3.09	<3.39	<1.17			
04U872	18-Mar-93	F38	PC UG03	<1.00	14.20	<1.00	<0.50			<1.90	1.07	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<3.09	<3.39	<1.17		
04U875	20-Jun-88	A18		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
04U875	23-Aug-88	F19		<1.00	0.90	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			0.98	<0.87	<8.28			
04U875	09-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
04U875	07-Feb-89	A21		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04U875	19-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	1.22			
04U875	19-Oct-89	F24		<0.88	1.45	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		0.28	<0.62			<3.09	<3.39	<1.17			
04U875	18-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28		
04U875	15-Mar-91	F30		<1.00	1.06	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28		
04U875	27-Mar-92	F34																		<3.09	<3.39	<1.17			
04U875	27-Mar-92	F34		<2.41	6.59	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41				<0.20	0.30	
04U875	27-Mar-92	F34	(6)																	<3.09	<3.39	<1.17			
04U875	19-Mar-93	F38	PC UG03	<1.00	22.30	<1.00	<0.50			<1.90	4.25	<1.00	0.94	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<3.09	<3.39	<1.17		
04U877	23-Aug-88	F19		<5.00	380.00	24.00	<2.50			<9.50	93.00	<5.00		<2.50		<3.60	<5.00			<2.10	13.00	<41.00			
04U877	10-Nov-88	F20		<10.00	180.00	<10.00	<5.00			<19.00	32.00	<10.00		<5.00		<7.20	<10.00								
04U877	08-Feb-89	A21		<1.00	38.00	1.50		<1.00	<1.00	<1.00	6.30	<1.00	2.60	<1.00		<1.00									
04U877	02-May-89	F22		<1.00	81.00	4.83	0.67			<1.90	11.10	<1.00		<0.50		<0.72	<1.00			<0.41	1.87	<8.28			
04U877	18-Jul-89	F23		<4.40	89.00	<2.40	<2.80			<7.50	8.10	<5.00		<2.60		<2.00	<3.10			<15.00	<17.00	<5.80			
04U877	19-Oct-89	F24		<0.88	95.00	2.01	1.38			<1.50	7.55	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
04U877	17-Apr-90	F26		<1.00	73.00	2.97	0.73			<1.90	10.90	<1.00	3.98	<1.30	<0.72	<1.00	<1.00	<3.20							
04U877	15-Mar-91	F30		<2.00	52.00	<2.00	<1.00			<3.80	7.20	<2.00	3.00	<2.60	<1.40	<2.00	<2.00	<6.40							
04U877	26-Mar-92	F34		<2.41	51.80	<1.01		<0.89	<1.06	<4.10	3.45	<1.52	1.72	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41				<0.20	0.30	
04U877	17-Mar-93	F38	PC UG03	<1.00	30.80	<1.00	0.84			<1.90	2.45	<1.00	0.99	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<3.09	<3.39	<1.17		
04U879	29-Jul-88	A19		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20				<0.20	0.39	0.24	<0.20		
04U879	01-Sep-88	F19		<1.00	1.09	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	26.60	<8.28			
04U879	08-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
04U879	08-Feb-89	A21		<1.00	<1.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04U879	19-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	1.50			
04U879	17-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	1.17			
04U879	18-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28		
04U879	15-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28		
04U879	26-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41				<0.20	0.30	
04U879	26-Mar-92	F34																		<3.09	<3.39	<1.17			
04U879	18-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<3.09	<3.39	<1.17		
04U879	18-Mar-93	M38	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50		<0.20	<0.20	<0.20	<0.20	
04U880	01-Sep-88	F19		<1.00	8.06	<1.00	<0.50			<1.90	1.43	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
04U880	10-Nov-88	F20		<1.00	16.40	<1.00	<0.50			<1.90	3.35	<1.00		<0.50		<0.72	<1.00								
04U880	06-Feb-89	A21		<1.00	4.00	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00		<1.00									
04U880	18-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	9.07	12.90			
04U880	19-Oct-89	F24		<0.88	1.47	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
04U880	18-Apr-90	F26		<1.00	0.77	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28		
04U880	14-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20		<0.41	<0.87	<8.28		
04U880	26-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.1															





TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane T1T2TCE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
200812	24-Sep-90	F28		<1.00	79.00	3.06	<0.50			<1.90	12.50	<1.00	2.53	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		<2.00	
200812	18-Oct-90	M29		<0.20	94.00	<5.00	<0.50	<2.00	<1.00	<10.00	18.00	<2.00	<2.00	<2.00	<2.00	<1.00	<2.00	<2.00	<5.00	<2.00	<2.00	<8.28	<2.00	<2.00	
200812	07-Jun-91	F31		<2.00	10.00	4.30	<1.00		<0.60	<3.80	19.00	<2.00	3.80	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<0.82	<1.70	<17.00		<8.28	
200812	07-Jun-91	F31		<2.00	120.00	5.20	<1.00		<0.60	<3.80	18.00	<2.00	3.80	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<0.82	<1.70	<17.00		<8.28	
200812	07-Jun-91	F31	(6)	<2.00	120.00	5.20	<1.00		<0.60	<3.80	18.00	<2.00	3.80	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<0.82	<1.70	<17.00		<8.28	
200812	07-Jun-91	F31	(6)	<2.00	120.00	5.20	<1.00		<0.60	<3.80	18.00	<2.00	3.80	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<0.82	<1.70	<17.00		<8.28	
200812	25-Jul-91	M32		<0.50	77.00	PP		<0.50	<0.30	<2.50	14.00	<0.50	<0.50	<0.50	<0.30	<0.50	<0.50	<0.50	<1.30	<0.50	<0.50	<8.28	<0.50	<0.50	
200812	04-Sep-91	F32		<1.00	110.00	2.83	0.54		<0.50	<1.90	12.40	<1.00	2.67	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		<0.20	
200812	28-May-92	M35		0.50	120.00	<0.50		<0.20	<0.10	<1.00	21.00	0.40	<0.20	0.50	<0.20	0.40	<0.20	<0.20	<0.50	<0.20	<0.20	<8.28	<0.20	<0.20	
200812	04-Jun-92	F35																		<3.09	<3.39	<1.17			
200812	04-Jun-92	F35			140.00																				
200812	04-Jun-92	F35		<2.41	>50.10	5.15		<0.89	<1.06	<4.10	20.90	<1.52	3.25	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
200812	04-Sep-92	F36		<2.41	>50.10	4.11		<0.89	<1.06	<4.10	13.80	<1.52	1.19	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
200812	04-Sep-92	F36			100																				
200812	02-Jun-93	F39	PC UG03	<2.00	140.00	3.90	<1.00			<3.80	17.00	<2.00	4.20	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40	<3.09	<3.39	<1.17			
200812	10-Sep-93	F40	PC UG03	<5.00	80.00	<5.00	<2.50			<9.50	13.00	<3.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00						
200814	31-Jul-89	F23		<1.80	38.00	<0.98	<1.10			<3.00	2.80	<2.00		<1.00	<0.82	<1.20				<3.09	<3.39	<1.17			
200814	30-Oct-89	F24		<1.80	46.00	2.00	2.40			<3.00	3.80	<2.00		<1.00	<0.82	<1.20				<6.20	<6.80	<2.30			
206688	23-Oct-89	F24		<0.88	8.68	0.80	<0.56			<1.50	1.72	<0.99		<0.51	<0.41	<0.62				<3.09	<3.39	<1.17			
206787	24-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51	<0.41	<0.62				<3.09	39.00	<1.17			
206787	02-May-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
206787	23-Jul-90	F27		<1.00	0.99	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
206787	20-Sep-90	F28		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
206787	04-Sep-91	F32		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
206787	04-Jun-92	F35																		<3.09	<3.39	<1.17			
206787	04-Jun-92	F35		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.57						
206787	02-Jun-93	F39	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
206787	10-Sep-93	F40	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
206791	23-Jul-90	F27		<1.00	3.84	<1.00	<0.50				<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
206793	23-Jul-90	F27		<1.00	490.00	16.00	2.23			<1.90	68.00	<1.00	14.00	0.70	<1.30	<0.72	<1.00	<1.00	<3.20						
206793	07-Jun-91	F31		<10.00	410.00	21.00	<5.00		<3.00	<19.00	94.00	<10.00	17.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00						
206793	04-Jun-92	F35			540.00						70.00														
206793	04-Jun-92	F35		<2.41	>50.10	25.70		1.75	<1.06	<4.10	>50.80	<1.52	14.30	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
206793	08-Mar-93	F38	PC UG03	<3.00	560.00	13.00	2.90			<9.50	77.00	<5.00	13.00	<2.50	<6.30	<3.60	<5.00	<5.00	<16.00						
206797	23-Jul-90	F27		<1.00	85.00	3.51	0.63			<1.90	15.00	<1.00	2.64	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
206797	25-Mar-91	F30		<2.50	120.00	<2.50	<1.30			<4.80	22.00	<2.50	3.20	<1.30	<3.30	<1.80	<2.50	<2.50	<8.00						
206797	25-Mar-91	M30		<0.20	56.00	6.20		1.10	<0.10	<0.10	15.00	<0.20	3.20	<0.20	0.10	<0.20	0.30	<0.50	<0.20	<0.20	<0.20	<8.28	<0.20	0.20	
206797	26-Mar-92	F34		<2.41	>50.10	5.61		<0.89	<1.06	<4.10	25.10	<1.52	3.80	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
206797	27-Mar-92	F34			120.00																				
206797	08-Mar-93	F38	PC UG03	<2.00	270.00	8.00	1.40			<3.80	47.00	<2.00	6.30	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40						
231878	23-Oct-87	A16		<0.20	49.90	<0.20		4.70	<0.20	<0.20	0.60	<0.20	<0.20	<0.20	<0.20										
233221	11-May-89	F22		<1.00	29.20	2.03	1.56			<1.90	2.17	<1.00		<0.50	<0.72	<1.00				<0.41	<0.87	<8.28			
233221	31-Jul-89	F23		<4.40	120.00	2.20	<2.80			<7.50	4.50	<5.00		<2.60	<2.00	<3.10				<15.00	<17.00	<5.80			
233221	30-Oct-89	F24		<4.40	46.00	4.00	5.90			<7.50	4.20	<5.00		<2.60	<2.00	<3.10				<15.00	<17.00	<5.80			
233221	02-May-90	F26		<2.00	20.00	<2.00	<1.00			<3.80	<2.00	<2.00	2.00	<1.00	<2.60	<1.40	<2.00	<2.00	6.60						
233221	01-Apr-91	F30		<1.00	8.07	<1.00	1.29			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
233222	25-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50	<0.72	<1.00									
233222	18-May-92	M35		<0.20	5.90	<0.50		<0.20	<0.10	<2.00	1.20	<0.20	1.00	<0.20	<0.10	<0.20	<0.20	<0.20	<0.50	<0.20	<0.20	<8.28	<0.20</		

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
233222	06-Aug-92	F36						24.30																
233533	30-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234319	26-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
234335	13-Nov-87	A16		<0.20	52.30	0.50		5.00	<0.20	<0.20	0.30	<0.20	0.70	<0.20		0.50								
234335	26-Aug-88	F19		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
234335	02-May-90	F26		<1.00	140.00	<1.00	7.61			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
234335	23-Jul-90	F27		<1.00	150.00	<1.00	7.30			<1.90	<1.00	<1.00	1.00	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234337	23-Oct-87	A16		<0.20	<0.20	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20								
234352	23-Sep-92	F36		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	0.93	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234352	(6) 23-Sep-92	F36		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	0.91	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234352	23-Sep-92	M36		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	2.8	<0.20	<0.20	<0.10	<0.20	<0.20	3.8	<0.20	<0.20		<0.20	<0.20
234353	12-May-89	F22		1.34	4.10	<1.00	0.66			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
234353	31-Jul-89	F23		<0.88	4.47	<0.49	0.82			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234356	25-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234356	26-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234356	20-Aug-92	M36		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20
234357	10-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	1.38	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
234357	20-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	1.05	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234357	20-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	1.35	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234425	10-May-89	F22																	<21.00	<44.00	<410.00			
234425	11-May-89	F22		<50.00	3100.00	140.00	<25.00			<95.00	810.00	<50.00		<25.00		<36.00	<50.00							
234425	10-Sep-91	M32		Dry																				
234425	12-Mar-92	M34		PP	470.00	15.00		<2.00	<1.00	<10.00	90.00	<2.00	4.50	<2.00	<2.00	<1.00	<2.00	<2.00	<5.00	<2.00	<2.00		<2.00	<2.00
234430	09-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00		<0.41	3.21	<8.28			
234430	27-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234430	26-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234430	13-May-92	M35		0.50	0.2	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20
234463	08-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		0.87		<0.72	<1.00		2.00	<0.87	<8.28			
234463	03-Aug-89	F23		<0.88	1.69	<0.49	<0.56			<1.50	<0.81	<0.99		0.86		<0.41	<0.62		3.45	<3.39	<1.17			
234463	31-Oct-89	F24		<0.88	2.00	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234546	02-May-90	F26		<1.00	50.00	<1.00	<0.50			<1.90	5.84	<1.00	2.19	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234546	01-Apr-91	F30		<1.00	7.23	<1.00	<0.50			<1.90	1.12	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234546	04-Jun-92	F35			54.00																			
234546	04-Jun-92	F35		<2.41	>50.10	1.94		<0.89	<1.06	<4.10	6.53	<1.52	1.43	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
234546	09-Mar-93	F38	PC UG03	<1.00	33.70	0.96	<0.50			<1.90	3.49	<1.00	1.02	<4.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234546	02-Jun-93	F39	PC UG03	<2.00	99.00	2.80	<1.00			<3.80	12.00	<2.00	3.60	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
234547	10-May-89	F22		<1.00	12.20	<1.00	<0.50			<1.90	2.34	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
234547	31-Jul-89	F23		<0.88	16.10	<0.49	<0.56			<1.50	3.26	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234547	30-Oct-89	F24		<0.88	12.00	0.78	1.24			<1.50	1.54	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
234547	02-May-90	F26		<1.00	17.60	<1.00	<0.50			<1.90	3.07	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234547	01-Apr-91	F30		<1.00	8.11	<1.00	<0.50			<1.90	1.65	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234547	26-Mar-92	F34		<2.41	8.50	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
234547	09-Mar-93	F38	PC UG03	<1.00	13.80	<1.00	<0.50			<1.90	2.05	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
234547	02-Jun-93	F39	PC UG03	<1.00	27.80	<1.00	<0.50			<1.90	2.90	<1.00	1.31	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
235539	26-Aug-88	F19		<1.00	1.49	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00							
235619	31-Jul-89	F23		<0.88	<1.10	<0.49	1.27			<1.50	<0.81	<0.99		4.34		0.27	<0.62		<3.09	<3.39	<1.17			

TABLE IV - 2  
TCAAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCTLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
235619	31-Oct-89	F24		<0.88	1.90	1.31	<0.56			<1.50	<0.81	1.87		<0.51		14.00	<0.62		<3.09	<3.39	<1.17			
236122	12-Jul-88	A19		2.40	1465.00	31.00		7.70	<0.20	<0.20	400.00	1.50	33.00	2.50		0.23								
324J	26-Feb-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
324U4	26-Feb-93	A38	PC UG03	<1.00	2.56	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
325U4	13-Apr-93	A39	PC UG03	<1.00	11.40	<1.00	0.60		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
325U4	(6) 13-Apr-93	A39	PC UG03	<1.00	10.20	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
326J	13-Apr-93	A39	PC UG03	<1.00	6.49	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
326U4	13-Apr-93	A39	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
405651	31-Jul-89	F23		<0.88	16.60	0.55	8.57			<1.50	1.98	<0.99		<0.51		<0.41	<0.62		<3.09	7.22	<1.17			
405651	31-Oct-89	F24		<0.88	11.30	0.89	8.60			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
405651	02-May-90	F26		<1.00	6.09	1.44	17.80			<1.90	<1.00	<1.00	4.51	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
405651	01-Apr-91	F30		<1.00	6.64	1.45	16.10		<0.40	<1.90	<1.00	<1.00	3.94	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
405651	27-Mar-92	F34		<2.41	5.24	<1.01		13.60	<1.06	<4.10	<1.16	<1.52	3.07	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
405651	09-Mar-93	F38	PC UG03	<1.00	3.49	<0.79	15.40			<1.90	<1.00	<1.00	2.76	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
405651	02-Jun-93	F39	PC UG03	<1.00	3.05	<1.00	12.90			<1.90	<1.00	<1.00	3.10	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409546	10-May-89	F22		<1.00	0.62	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
409546	20-Jul-89	F23		<0.88	<1.10	<0.49	1.01			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	2.23			
409546	18-Oct-89	F24		<0.88	<1.10	0.77	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	<1.17			
409546	17-Apr-90	F26		<1.00	1.20	<1.00	<0.50			<1.90	<1.00	<1.00	1.49	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409546	18-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	1.73	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
409546	25-Mar-92	F34		<2.41	>50.10	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	1.24	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	5.42	<1.17		
409546	16-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	1.64	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409547	13-Nov-87	A16		<0.20	0.90	<0.20		<0.20	<0.20	<0.20	0.50	<0.20	<0.20	<0.20		<0.20								
409547	26-Apr-90	F26		<1.00	4.62	<1.00	<0.50			<1.90	1.05	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409547	20-Jul-90	F27		<1.00	4.17	<1.00	<0.50			<1.90	1.10	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409547	18-Sep-90	F28		<1.00	2.93	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409547	20-Mar-91	F30		<1.00	1.70	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409547	23-Mar-92	F34		<2.41	4.45	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
409547	12-Mar-93	F38	PC UG03	<1.00	4.46	<1.00	<0.50			<1.90	1.68	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409548	10-May-89	F22		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00	<1.00	<3.20	<0.41	1.05	<8.28		
409548	20-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	2.71			
409548	18-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62		<3.09	<3.39	1.48			
409548	17-Apr-90	F26		<1.00	1.17	<1.00	<0.50			<1.90	<1.00	<1.00	1.52	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409548	18-Mar-91	F30		<1.00	0.88	<1.00	<0.50			<1.90	<1.00	<1.00	1.54	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
409548	25-Mar-92	F34		<2.41	>50.10	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	1.91	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41	<3.09	6.80	<1.17		
409548	18-Mar-93	F38	PC UG03	<1.00	1.05	<1.00	<0.50			<1.90	<1.00	<1.00	2.43	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409548	18-Mar-93	M38	MH	<0.20	2.00	1.50		0.20	<0.20	<1.00	0.60	<0.20	2.40	<0.20	<0.10	<0.20			<0.20	<0.20	<0.20	<0.20	<0.20	
409549	17-Aug-88	F19		<1.00	220.00	10.30	7.42			<1.90	22.20	<1.00		1.12		<0.72	<1.00	<1.00	<3.20					
409549	18-Apr-90	F26		<5.00	200.00	8.50	<2.50			<9.50	15.00	<5.00	18.00	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
409549	23-Jul-90	F27		<1.00	150.00	5.60	<0.50			<1.90	25.00	<1.00	8.10	<0.50	<1.30	<0.72	<1.00	<1.00	<20.00					
409549	18-Sep-90	F28		<1.00	180.00	6.70	<0.50			<1.90	37.00	<1.00	5.60	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409549	18-Mar-91	F30		<5.00	120.00	<5.00	<2.50		<1.50	<9.50	21.00	<5.00	6.80	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
409549	05-Jun-91	F31		<1.00	190.00	7.49	1.24			<1.90	41.10	<1.00	6.64	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
409549	(6) 05-Jun-91	F31		<5.00	190.00	9.20	<2.50			<9.50	42.00	<5.00	6.80	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
409549	18-Jun-91	F31		<5.00	120.00	<5.00	<2.50		<1.50	<9.50	21.00	<5.00	6.80	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
409549	03-Sep-91	F32		<2.00	84.00	<2.00	<1.00			<3.80	15.60	<2.00	2.40	<1.00	<2.60	<1.44	<2.00	<2.00	<6.40					
409549	26-Mar-92	F34		<2.41	>50.10	5.34		<0.89	<1.06	<4.10	42.40	<1.52	5.59	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
409549	(6) 26-Mar-92	F34		<2.41	>50.10	6.21		<0.89	<1.06	<4.10	43.90	<1.52	6.06	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCELE	1,2-Di chloro ethane 12DCELE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
409549	27-Mar-92	F34			170.00									<46.00		<11.00									
409549	27-Mar-92	F34			180.00	<10.00				<41.00								<45.00							
409549	04-Jun-92	F35		<2.41	>50.10	6.26		<0.89	<1.06	<4.10	42.70	<1.52	5.24	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
409549	04-Jun-92	F35			180.00																				
409549	(6) 04-Sep-92	F36		<2.41	>50.10	4.65		<0.89	<1.06	<4.10	27.20	<1.52	1.95	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
409549	17-Mar-93	F38	PC UG03	<1.00	120.00	2.85	0.77			<1.90	21.70	<1.00	3.92	0.51	<1.30	0.72	<1.00	<1.00	<3.20						
409550	10-May-89	F22		<2.00	78.00	11.00	2.00			<3.80	47.00	5.60		<1.00		<1.40	<2.00			<0.82	<1.70	<17.00			
409550	20-Oct-89	F24		<4.40	110.00	8.60	6.40			<7.50	35.00	12.00		<2.60		<2.00	<3.10			<15.00	<17.00	18.00			
409550	24-Apr-90	F26		<1.00	220.00	18.00	4.10			<1.90	83.00	7.30	23.00	1.50	<1.30	<0.72	<1.00		8.20						
409550	20-Jul-90	F27		<1.00	260.00	19.00	<0.50			<1.90	86.00	3.55	23.00	0.71	<1.30	<0.72	<1.00	<1.00	<3.20						
409550	18-Sep-90	F28		2.91	940.00	55.80	6.63			<1.90	400.00	3.15	34.60	1.15	<1.30	1.90	<1.00	2.50	3.40						
409550	21-Mar-91	F30		<50.00	1600.00	76.00	<25.00			<95.00	620.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
409550	12-Sep-91	M32		<40.00	3200.00	<100.00		<40.00	<20.00	<200.00	1200.00	<40.00	<40.00	<40.00	<40.00	<20.00	<40.00	<40.00	<100.00	<40.00	<40.00	<40.00	<40.00	<40.00	
409550	19-Mar-92	F34		<2.41	>50.10	1.62		<0.89	<1.06	<4.10	19.90	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	2.17						
409550	20-Mar-92	F34		<120.00	2400.00	<51.00		<45.00	<53.00	<210.00	530.00	<76.00	<49.00	<230.00	<60.00	<54.00	<200.00	<220.00	240.00						
409550	10-Mar-93	F38	PC UG03	<50.00	2300.00	<50.00	<25.00			<95.00	570.00	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
409550	10-Sep-93	F40	PC UG03	<100.00	2800.00	<100.00	<50.00			<190.00	690.00	<100.00	<78.00	<50.00	<130.00	<72.00	<100.00	<100.00	<320.00						
409550	(6) 10-Sep-93	F40	PC UG03	26.30	2800.00	68.80	8.15			<1.90	750.00	2.03	33.10	3.05	2.70	1.17	<1.00	6.40	<3.20						
409555	17-Aug-88	F19		<1.00	1.04	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00								
409555	19-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	0.72	<1.00	<1.00	<3.20						
409556	10-May-89	F22		<1.00	1.53	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			2.28	3.07	<8.28			
409556	21-Jul-89	F23		<0.88	1.42	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
409556	17-Oct-89	F24		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
409556	17-Apr-90	F26		<1.00	0.98	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409556	18-Mar-91	F30		<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409556	(6) 18-Mar-91	F30		<1.00	0.58	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409556	26-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41						
409557	13-Nov-87	A16		<0.20	0.50	<0.20		<0.20	<0.20	<0.20	<0.20	<0.20	<0.20	<0.20		<0.20									
409557	04-May-89	F22		<1.00	0.62	<1.00	<0.50			<1.90	<1.00	<1.00		<0.50		<0.72	<1.00			<0.41	<0.87	<8.28			
409557	21-Jul-89	F23		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	3.21			
409557	27-Oct-89	F24		<0.88	1.40	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17			
409557	26-Apr-90	F26		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409557	20-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409557	20-Mar-92	F34		<2.41	9.29	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	1.83						
409557	12-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	0.72	<1.00	<1.00	<3.20						
409595	30-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
409596	30-Nov-87	F16		<0.88	2.30	0.61	<0.56			<1.50	6.49	<0.99	2.07	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
409596	25-Apr-90	F26		<1.00	0.56	1.21	<0.50			<1.90	<1.00	<1.00	3.41	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409596	29-Mar-91	F30		<1.00	4.43	1.71	<0.50		<0.30	<1.90	3.79	<1.00	2.99	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409596	(6) 29-Mar-91	F30		<1.00	6.61	2.35	<0.50		<0.30	<1.90	5.83	<1.00	3.46	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
409596	23-Mar-92	F34		<2.41	10.20	2.62		<0.89	<1.06	<4.10	5.85	<1.52	2.89	<4.63	<1.20	<1.08	<3.94	<4.47	3.11						
409596	15-Mar-93	F38	PC UG03	<1.00	14.40	1.82	0.58			<1.90	5.77	<1.00	2.76	0.50	<1.30	0.72	<1.00	<1.00	<3.20						
409597	30-Nov-87	F16		<18.00	250.00	<10.00	<11.00			<30.00	58.00	<20.00	<14.00	<10.00	<22.00	<8.20	<12.00	<90.00	<36.00						
409597	25-Apr-90	F26		<1.00	123.93	9.05	3.25			<1.90	8.19	<1.00	17.49	0.74	<1.30	<0.72	<1.00	<1.00	<3.20						
409597	29-Mar-91	F30		<5.00	200.00	12.00	<2.50		<7.50	<9.50	33.00	<5.00	14.00	<2.50	<6.50	<3.60	<5.00	<5.00	23.00						
409597	(6) 29-Mar-91	F30		<5.00	200.00	11.00	<2.50		<7.50	<9.50	29.00	<5.00	14.00	<2.50	<6.50	<3.60	<5.00	<5.00	16.00						
409597	23-Mar-92	F34		<2.41		7.49		<0.89	<1.06	<4.10	28.20	<1.52	7.61	<4.63	<1.20	<1.08	<3.94	<4.47	3.29						
409597	23-Mar-92	F34			1200.00																				
409597	15-Mar-93	F38	PC UG03	<1.00	200.00	11.00	<2.50																		

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
500691	17-Oct-89	F24		<0.88	2.13	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	1.82		
500691	19-Apr-90	F26		<1.00	2.91	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
500691	20-Jul-90	F27		<1.00	1.64	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
500691	18-Sep-90	F28		<1.00	4.29	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
500691	18-Mar-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
500691	28-Mar-92	F34		<2.41	<1.04	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
500691	23-Mar-93	F38	PC UG03	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
508115	18-Oct-89	F24		<0.88	1.57	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62			<3.09	<3.39	<1.17		
508115	19-Apr-90	F26		<1.00	1.35	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
508115	20-Jul-90	F27		<1.00	5.48	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
508115	18-Sep-90	F28		<1.00	3.74	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28		
508115	18-Mar-91	F30		<1.00	1.05	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
508115	28-Mar-92	F34		<2.41	6.08	<1.01		<0.89	<1.06	<4.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					
508115	17-Mar-93	F38	PC UG03	<1.00	4.13	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
512761	09-Sep-93	F40	PC UG03	<5.00	140.00	<5.00	<2.50			<9.50	20.00	<5.00	<3.90	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
PJ#003	19-Nov-87	F16		<0.88	6.83	<0.49	<0.56			<1.50	0.85	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
PJ#003	19-Mar-91	A30		<1.00	0.70	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
PJ#003	10-Mar-92	A34		<1.00	0.83	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
PJ#003	17-Mar-93	A38	PC UG03	<1.00	<0.50	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
PJ#027	20-Nov-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
PJ#074	03-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80	<3.09	<3.39	<1.17		
PJ#074	19-Aug-88	F19		<1.00	7.99	<1.00	<0.50			<1.90	1.99	<1.00		<0.50		<0.72	<1.00		<0.41	<0.87	<8.28			
PJ#309	18-Nov-88	A20		<0.50	337.00	6.70		3.70	<0.50	<0.50	138.00	<0.50	18.00	3.00		<0.50								
PJ#309	16-Mar-89	A21		<1.00	200.00	13.00		6.30	<1.00	<1.00	63.00	<1.00	22.00	<1.00		<1.00								
PJ#309	20-Apr-89	A22		<0.20	320.00	13.00		4.00	<0.20	<1.00	45.00	<0.20	19.00	<0.20		0.50								
PJ#309	19-Jul-89	A23		<1.00	190.00	22.00		5.30	<1.00	<5.00	48.00	<1.00	20.00	<1.00		<1.00								
PJ#309	23-Oct-89	A24		<2.00	270.00	21.00		4.10	<2.00	<10.00	68.00	<2.00	28.00	<2.00		<2.00								
PJ#309	18-Jan-90	A25		<2.00	260.00	21.00		7.70	<2.00	<10.00	68.00	<2.00	37.00	<2.00		<2.00								
PJ#309	08-May-90	A26		<0.50	280.00	15.00		5.30	<0.50	<0.50	52.00	<0.50	18.00	<0.50	<0.50	<0.50	<0.50							2.90
PJ#309	13-Jul-90	A27		<2.50	250.00	23.00		8.40	<3.80	<3.80	57.00	<2.50	30.00	<0.50	<0.80	<1.20	<0.50							4.00
PJ#309	19-Dec-90	A29		<1.00	223.18	<1.00	<0.50		<1.90	36.46	<1.00	18.12	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
PJ#309	19-Mar-91	A30		<5.00	260.00	12.00	4.20		<1.50	<9.50	51.00	<5.00	19.00	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
PJ#309	05-Jun-91	A31		<10.00	300.00	18.00	5.40		<3.00	<19.00	61.00	<10.00	22.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
PJ#309	05-Sep-91	A32		<10.00	260.00	<10.00	<5.00		<3.00	<19.00	47.00	<10.00	15.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
PJ#309	04-Dec-91	A33		<10.00	210.00	<10.00	<5.00		<3.00	<19.00	48.00	<10.00	14.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
PJ#309	06-Mar-92	A34		<5.00	160.00	<5.00	<2.50		<2.50	<9.50	28.00	<5.00	10.00	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
PJ#309	05-Jun-92	A35		<5.00	140.00	5.90	<2.50		<1.50	<9.50	24.00	<5.00	8.40	<2.50	<6.50	<3.60	<5.00	<5.00	<16.00					
PJ#309	01-Sep-92	A36	(7)	<1.00	150	5.69	2.04		<1.90	<1.90	27.3	<1.00	9.73	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20					
PJ#309	03-Mar-93	A38	PC UG03	<2.00	130.00	4.30	2.10		<0.60	<3.80	18.00	<2.00	7.40	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
PJ#309	15-Sep-93	A40	PC UG03	<2.00	110.00	3.00	1.40		<0.60	<3.80	17.00	<2.00	6.30	<1.00	<2.60	<1.40	<2.00	<2.00	<6.40					
PJ#310	16-Mar-89	A21		<1.00	470.00	38.00		10.00	<1.00	<1.00	180.00	<1.00	48.00	5.40		<1.00								
PJ#310	20-Apr-89	A22		<0.20	700.00	47.00		8.20	<0.20	<1.00	150.00	0.20	30.00	0.60		0.40								
PJ#310	19-Jul-89	A23		<2.00	480.00	74.00		11.00	<2.00	<10.00	240.00	<2.00	46.00	<2.00		<2.00								
PJ#310	11-Oct-89	A24		<2.00	560.00	63.00		5.60	<2.00	<10.00	220.00	<2.00	35.00	<2.00		<2.00								
PJ#310	19-Jan-90	A25		<0.20	630.00	46.00		9.80	<0.20	<1.00	230.00	<0.20	47.00	<0.20		<0.20								
PJ#310	08-May-90	A26		<0.50	500.00	36.00		6.70	<0.50	<0.50	140.00	<0.50	24.00	0.60	<0.50	<0.50	<0.50							3.40
PJ#310	13-Jul-90	A27		<10.00	690.00	65.00		10.00	<15.00	<15.00	240.00	<10.00	54.00	<2.00	<3.00	<5.00	<2.00	<2.00	<6.40					
PJ#310	19-Dec-90	A29		<1.00	606.22	27.30	<0.50		<1.90	160.66	<1.0													

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCE	1,2-Di chloro ethane 12DCE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXLYL
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00			0.70	2000.00	440.00		
PJ#310	01-Sep-92	A36	(7)	<50.00	650	<50.00	<25.00		<5.00	<5.00	220	<50.00	<39.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00					
PJ#310	03-Mar-93	A38	PC UG03	<10.00	580.00	26.00	9.20		<3.00	<19.00	150.00	<10.00	31.00	<3.00	<13.00	<7.20	<10.00	<10.00	<32.00					
PJ#310	15-Sep-93	A40	PC UG03	<10.00	480.00	21.00	6.00		<3.00	<19.00	130.00	<10.00	22.00	<5.00	<13.00	<7.20	<10.00	<10.00	<32.00					
PJ#311	16-Mar-89	A21		<5.00	150.00	<5.00		<5.00	<5.00	<5.00	36.00	<5.00	<5.00	<5.00	<5.00									
PJ#311	20-Apr-89	A22		<0.20	82.00	3.30		<0.40	<0.20	<1.00	16.00	<0.20	1.10	<0.20	<0.20									
PJ#311	19-Jul-89	A23		<0.40	67.00	5.00		0.60	<0.40	<2.00	21.00	<0.40	1.10	<0.40	<0.40									
PJ#311	24-Oct-89	A24		<0.40	52.00	3.20		<0.40	<0.40	<2.00	15.00	<0.40	<0.40	<0.40	<0.40									
PJ#311	19-Jan-90	A25		<0.40	47.00	1.40		<0.40	<0.40	<2.00	13.00	<0.40	0.90	<0.40	<0.40									
PJ#311	08-May-90	A26		<0.50	17.00	<0.50		<0.50	<0.50	<0.50	4.00	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50					
PJ#311	13-Jul-90	A27		<1.00	30.00	1.90		<0.50	<0.50	<1.50	8.40	<1.00	0.60	<0.20	<0.50	<0.50	<0.50	<0.50	<1.00					
PJ#311	19-Dec-90	A29		<1.00	30.90	<1.00	<0.50		<1.00	<1.90	5.81	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	19-Mar-91	A30		<1.00	24.80	<1.00	<0.50		<0.30	<1.90	58.70	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	06-Jun-91	A31		<1.00	24.80	<1.00	<0.50		<0.30	<1.90	4.88	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	(6) 06-Jun-91	A31		<1.00	25.00	<1.00	<0.50		<0.30	<1.90	4.96	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	05-Sep-91	A32		<1.00	25.10	<1.00	<0.50		<0.30	<1.90	4.68	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	04-Dec-91	A33		<1.00	25.40	<1.00	1.02		<0.30	<1.90	6.69	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	06-Mar-92	A34		<1.00	25.20	<1.00	<0.50		<0.50	<1.90	4.97	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	05-Jun-92	A35		<1.00	23.60	<1.00	<0.50		<0.30	<1.90	4.14	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	01-Sep-92	A36	(7)	<1.00	19.5	<1.00	<0.50		<0.30	<1.90	5.43	<1.00	<0.78	<0.50	<1.30	<0.72	1.33	<1.00	<1.00					
PJ#311	03-Mar-93	A38	PC UG03	<1.00	19.60	<1.00	<0.50		<0.30	<1.90	4.24	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#311	15-Sep-93	A40	PC UG03	<1.00	21.70	<1.00	<0.50		<0.30	<1.90	4.47	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	16-Mar-89	A21		<1.00	18.00	<1.00		<1.00	<1.00	<1.00	3.30	<1.00	<1.00	<1.00	<1.00									
PJ#313	20-Apr-89	A22		<0.20	27.00	<1.00		<0.20	<0.20	<1.00	2.90	<0.20	0.90	<0.20	<0.20									
PJ#313	19-Jul-89	A23		<0.20	25.00	2.10		<0.20	<0.20	<1.00	7.70	<0.20	0.50	<0.20	0.40									
PJ#313	23-Oct-89	A24		<0.20	15.00	0.60		<0.20	<0.20	<1.00	3.00	<0.20	0.40	<0.20	<0.20									
PJ#313	19-Jan-90	A25		<0.20	14.00	0.30		<0.20	<0.20	<1.00	2.50	<0.20	0.40	<0.20	<0.20									
PJ#313	08-May-90	A26		<0.50	17.00	<0.50		<0.50	<0.50	<0.50	1.20	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	2.70					
PJ#313	13-Jul-90	A27		<1.00	30.00	1.90		<0.50	<0.50	<1.50	1.90	<1.00	<0.20	<0.30	<0.50	<0.50	<0.50	<0.50	<1.00					
PJ#313	19-Dec-90	A29		<1.00	10.30	<1.00	<0.50		<1.00	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	19-Mar-91	A30		<1.00	9.12	<1.00	<0.50		<0.30	<1.90	1.18	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	05-Jun-91	A31		<1.00	6.97	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	05-Sep-91	A32		<1.00	20.30	<1.00	1.33		<0.30	<1.90	<1.00	<1.00	2.20	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	04-Dec-91	A33		<1.00	7.55	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	(6) 04-Dec-91	A33		<1.00	7.64	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	06-Mar-92	A34		<1.00	5.76	<1.00	<0.50		<0.50	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	05-Jun-92	A35		<1.00	5.78	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	01-Sep-92	A36	(7)	<1.00	5.69	<1.00	<0.50		<0.30	<1.90	1.86	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	03-Mar-93	A38	PC UG03	<1.00	4.95	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#313	15-Sep-93	A40	PC UG03	<1.00	4.17	<1.00	<0.50		<0.30	<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00					
PJ#318	24-Aug-88	F19		<1.00	4.26	<1.00	<0.50		<1.50	<1.00	<1.00	<1.00	<0.50	<0.72	<1.00				<0.41	<0.87	<8.28			
PJ#318	09-Nov-88	F20		<1.00	3.20	<1.00	<0.50		<1.90	<1.00	<1.00	<1.00	<0.50	<0.72	<1.00									
PJ#318	06-Feb-89	A21		<1.00	5.90	<1.00		<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00									
PJ#318	02-May-89	F22		<1.00	1.85	<1.00	<0.50		<1.90	<1.00	<1.00	<1.00	<0.50	<0.72	<1.00									
PJ#318	19-Jul-89	F23		<0.88	2.70	<0.49	<0.56		<1.50	<0.81	<0.99	<0.51	<0.41	<0.62	<1.00				<3.09	12.80	19.00			
PJ#318	18-Oct-89	F24		<0.88	4.47	0.73	1.14		<1.50	<0.81	<0.99	<0.51	<0.41	<0.62	<1.00				<3.09	<3.39	<1.61			
PJ#318	17-Apr-90	F26		<1.00	4.68	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
PJ#318	14-Mar-91	F30		<1.00	3.23	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<1.00	<3.20					
PJ#318	27-Mar-92	F34		<2.41	5.99	<1.01		<0.89	<1.06	<1.10	<1.16	<1.52	<0.97	<4.63	<1.20	<1.08	<3.94	<4.47	<1.41					

TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
PJ#508	23-Aug-88	F19		<20.00	790.00	45.00	61.00			<38.00	250.00	<20.00		<10.00		<14.00	<20.00			<8.20	<17.00	<170.00			
PJ#802	02-Dec-87	F16		<0.88	<1.10	<0.49	<0.56			<1.50	<0.81	<0.99	<0.72	<0.51	<1.10	<0.41	<0.62	<4.50	<1.80						
PJ#802	17-Sep-91	M32		<0.20	0.10	<0.50		<0.20	<0.10	<1.50	<0.81	<0.20	<0.20	<0.20	<1.10	<0.10	<0.20	<0.20	<0.50	0.40	0.90		0.30	0.50	
PJ#806	02-Dec-87	F16		<44.00	490.00	<24.00	<28.00			<75.00	130.00	<50.00	<36.00	<26.00	<55.00	<20.00	<31.00	<220.00	<90.00						
PJ#806	19-Jan-88	A17		<0.20	1870.00	190.00		35.00	<0.20	0.70	685.00	0.54	121.00	3.40	0.81										
PJ#806	12-May-88	A18		<0.20	356.00	24.00		6.10	<0.20	<0.20	209.00	<0.20	29.00	0.75	0.22										
PJ#806	04-Aug-88	A19		<0.20	103.00	9.70		4.80	<0.20	<0.20	28.00	<0.20	16.00	<0.20											
PJ#806	21-Oct-88	A20		<0.50	110.00	7.70		7.10	<0.50	<0.50	39.00	<0.50	23.00	<1.00	<0.50										
PJ#806	16-Oct-89	A24		<2.00	250.00	34.00		6.90	<2.00	<10.00	71.00	<2.00	37.00	<2.00	<2.00										
PJ#806	23-Apr-90	A26		<0.50	770.00	77.00		9.30	<0.50	<0.50	50.00	<0.50	82.00	<0.50	0.90	<0.50	<0.50	<0.50	<0.50						
PJ#806	11-Mar-91	A30		<50.00	910.00	65.00	<25.00		<15.00	<95.00	260.00	<50.00	79.00	<25.00	<65.00	<36.00	<50.00	<50.00	<160.00						
PJ#806	04-Mar-92	A34		<1.00	1600.00	92.00	22.40		<0.50	<1.90	370.00	1.50	120.00	2.96	<1.30	2.06	<1.00	<1.00	<3.20						
PJ#806	03-Mar-93	A38	PC	UG03	<25.00	1300.00	92.00	30.00	<7.50	<48.00	240.00	<25.00	158.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00						
PJ#806	03-Mar-93	A38	PC	UG03	<25.00	1600.00	97.00	33.00	<7.50	<48.00	2500.00	<25.00	160.00	<13.00	<33.00	<18.00	<25.00	<25.00	<80.00						
1705TERRAC	22-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	11.20						
1715HILLV	25-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	0.96	<1.00	<1.00	<3.20						
1725OAKWD	08-Sep-93	F40	PC	UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1740PINEW	12-Nov-92	M37	MH		<0.20	<0.10	<0.50		<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
1740PINEW	22-Jan-91	F30		<1.00	<0.50	<1.00	1.29			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1746PINEW	22-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1746PINEW	22-Jan-91	M30		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20		
1747HILLV	22-Jan-91	F30		<1.00	<0.50	<1.00	24.60			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.87	<8.28				
1754PINEWD	10-Sep-93	F40	PC	UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1758HILLVW	08-Sep-93	F40	PC	UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1783PINEW	22-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1800LOIS	22-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
1831CORDI	22-Jan-91	M30		<0.20	1.70	<0.50		2.20	0.90	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
1831CTYRDI	08-Sep-93	F40	PC	UG03	<1.00	1.21	<1.00	2.85		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
5553SCHUT	22-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
5567FAIRV	22-Jan-91	F30		<1.00	0.54	<1.00	1.37			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
5567FAIRV	22-Jan-91	M30		<0.20	<0.10	<0.50		1.20	<0.10	<0.10	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20		
5567FAIRVW	08-Sep-93	F40	PC	UG03	<1.00	<0.50	<1.00	1.47		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
5589FAIRV	1-Aug-91	M32		<0.20	<0.10	<0.50		<0.20	<0.10	<1.00	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20		
5589FAIRV	25-Jan-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	1.01	<1.00	<1.00	<3.20						
5592SCHUT	12-Nov-92	M37	MH		<0.20	<0.10	<0.50		<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
5592SCHUT	08-Sep-93	F40	PC	UG03	<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
5592SCHUT	08-Sep-93	M40	PC		<1.00	<0.50	<1.00	<0.50		<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20						
BEAULIEU	29-Jun-93	M39	MH		<0.20	<0.10	<0.50		<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	



TABLE IV - 2  
TCAAP Groundwater Quality Data (Organics) - ug/l (1)

Well	Date	Qtr (2)	Lab Method (3) (4)	Tetra chloro ethene TCLEE	Tri chloro ethene TRCLE	1,1-Di chloro ethene 11DCE	1,2-Di chloro ethene 12DCE	Cis-1,2-Dichloro ethene C12DCE	Trans 1,2-Dichloro ethene T12DCE	Vinyl Chloride C2H3CL	1,1,1-Tri chloro ethane 111TCE	1,1,2-Tri chloro ethane 112TCE	1,1-Di chloro ethane 11DCLE	1,2-Di chloro ethane 12DCLE	Carbon Tetra chloride CCL4	Chloro form CHCL3	1,2-Di chloro propane 12DCLP	1,1,2-Trichloro 2,2,1-tri fluoroethane T1,1,2TCLTFE	Methylene Chloride CH2CL2	Benzene C6H6	Toluene MEC6H5	Total Xylenes TXYLEN	Ortho Xylene OXYLEN	Meta& Para Xylene M&PXYL	
TCAAP GW Action Criteria - ug/l (5)				0.70	2.80	0.24		70.00	70.00	0.02	22.00	3.00	70.00	0.40	3.00	0.19	6.00				0.70	2000.00	440.00		
BIG TEN	16-Apr-93	M39	MH	<0.20	2.50	0.60		<0.20	<0.20	<1.00	0.80	<0.20	1.10	<0.20	<0.20	<0.20	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
BIG TEN	20-May-93	M39	MH	<0.20	3.00	<0.50		<0.20	<0.20	<1.00	1.00	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
BIG TEN	14-Sep-93	M40	MH	<0.20	2.20	<0.50		<0.20	<0.20	<1.00	1.90	<0.20	2.40	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
BOCH.IN	08-Sep-93	M40	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
BOCH.OUT	08-Sep-93	M40	MH	<0.20	10.00	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
BOYLE	18-Oct-89	F24		<0.88	1.43	<0.49	<0.56			<1.50	<0.81	<0.99		<0.51		<0.41	<0.62								
BOYLE	20-Oct-89	F24																		<3.09	<3.39	<1.17			
GAFFY	20-Oct-92	M37	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
GAFFY	08-Sep-93	M40	PC	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.20	<0.20		<0.20	<0.20	
GAMRADT	20-Oct-92	M37	MH	<0.20	<0.10	<0.50		1.40	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
GAMRADT	08-Sep-93	M40	PC	<1.00	<0.50	<1.00	1.35			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.20	<0.20		<0.20	<0.20	
GROS.NEW	20-Jul-93	M40	MH	<0.20	100.00	8.90		1.00	<0.20	<1.00	18.00	<0.20	4.60	0.30	<0.20	0.20	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
GROS.OLD	20-Jul-93	M40	MH	<0.20	92.00	8.20		0.80	<0.20	<1.00	15.00	<0.20	3.80	0.20	<0.20	0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
JNSN FILT	23-Jun-93	M39	MH	<0.20	28.00	1.60		0.30	<0.20	<1.00	1.00	<0.20	1.60	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
J.GRUNDN	29-Jun-93	M39	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
L.GRUNDN	29-Jun-93	M39	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
MARTIN	20-Oct-92	M37	MH	<0.20	1.40	<0.50		3.20	0.90	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	1.20	<0.20		<0.20	<0.20	
MARTIN	08-Sep-93	M40	PC	<1.00	1.13	<1.00	2.62			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20				<0.20	<0.20	
MEYER	20-Oct-92	M37	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
MEYER	08-Sep-93	M40	PC	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20				<0.20	<0.20	
MNDOT	07-Nov-88	F20		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00							
MNDOT	01-Apr-91	F30		<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.41	<0.87	<8.28			
PECK	29-Jun-93	M39	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
SIGSTAD	20-Oct-92	M37	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
SIGSTAD	08-Sep-93	M40	PC	<1.00	<0.50	<1.00	<0.50			<1.90	<1.00	<1.00	<0.78	<0.50	<1.30	<0.72	<1.00	<1.00	<3.20	<0.20	<0.20		<0.20	<0.20	
TRAN	29-Jun-93	M39	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	
WINIECK	20-Jul-93	M40	MH	<0.20	<0.10	<0.50		<0.20	<0.20	<1.00	<0.20	<0.20	<0.20	<0.20	<0.20	<0.10	<0.20	<0.20	<0.50	<0.20	<0.20		<0.20	<0.20	

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## Table IV-3

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### TCAAP Groundwater Quality Data (Inorganics)

Notes:

- (1) The parameters are grouped by the following chemical categories as separated by vertical lines: Category 2, Category 3, Category 4, Category 8, Category 9, and Category 10.
- (2) Qtr = Quarter. Under this heading, F = FCC; A = Alliant Techsystems, Inc.; and M = MPCA.
- (3) TCAAP GW Action Criteria = groundwater action criteria set forth in Table 3.7A of the Federal Facilities Agreement.
- (4) Duplicate sample collected for QA/QC purposes.

Shading denotes exceedances or potential exceedances of TCAAP action criteria. Exceedances are concentrations greater than the TCAAP action criteria. Potential exceedances are values reported as "less than the method detection limit," where the method detection limit is greater than the TCAAP action criteria.

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TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)	
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00				
01L811	25-Nov-87	F16														<0.70					
01L813	25-Nov-87	F16														<0.70					
01L816 01L816	25-Nov-87 Well Abandoned	F16														<0.70					
01L821	30-Nov-87	F16														<0.70					
01L822	01-Dec-87	F16														<0.70					
01L823	01-Dec-87	F16														<0.70					
01U022	05-Apr-88	F18		<6.01	570.00		<0.37	<2.50			5.02	<1.26									
01U034 01U034	11-Nov-87 14-Nov-88	F16 F20	<1.93	<4.81 <6.01	<220.00 177.00	<1.47	0.19 <0.37	<2.18 <2.50	1.49	910.00	<5.94 8.66	<2.65 <1.26	<10.00	<3.06	<2.70	<0.70					
01U035	14-Nov-88	F20		<6.01	78.90		<0.37	<2.50			<5.32	<1.26									
01U036 01U036	11-Nov-87 14-Nov-88	F16 F20	<1.93	<4.81 <6.01	24.50 26.80	<1.47	0.53 0.67	<2.18 <2.50	1.53	47.00	<5.94 <5.32	<2.65 <1.26	<10.00	<3.06	<2.70	<0.70					
01U037 01U037	07-Apr-88 21-Jun-92	F18 F35		<6.01	80.10		<0.37	<2.50			<5.32	<1.26									
01U038 01U038	06-Apr-88 21-Jun-92	F18 F35		<6.01	148.00		<0.37	<2.50			<5.32	<1.26									
01U039	06-Apr-88	F18		<6.01	41.50		<0.37	<2.50			<5.32	<1.26									
01U040	05-Apr-88	F18		<6.01	142.00		<0.37	<2.50			5.07	<1.26									
01U041	05-Apr-88	F18		<6.01	49.10		0.66	<2.50			<5.32	<1.26									
01U045 01U045 01U045 01U045 01U045	08-Aug-88 13-Mar-91 16-Mar-92 08-Mar-93 08-Mar-93	F19 F30 F34 F38 F38		<6.01	160.00		0.36	<2.50			<5.32	<1.26									
		(4)																<8.17 <8.35 <8.17	<10.00 120.00 <10.00	20.60 <12.10 <10.30	22.90 40.50 100.00 100.00
01U050 01U050 01U050	16-Nov-87 07-Apr-88 15-Aug-88	F16 F18 F19	2.13	8.25 <6.01 <6.01	<220.00 200.00 190.00	<1.47	0.34 <0.37 <0.37	<2.18 <2.50 <2.50	1.49	8500.00	<5.94 <5.32 <5.32	<2.65 <1.26 <1.26	<10.00	<3.06	<2.70	<0.70 <0.74	<8.35 <8.17				
01U051 01U051 01U051	16-Nov-87 07-Apr-88 15-Aug-88	F16 F18 F19	2.57	<4.81 <6.01 <6.01	<220.00 112.00 69.50	<1.47	0.68 <0.37 <0.37	3.54 <2.50 <2.50	1.39	12.70	<5.94 <5.32 <5.32	4.18 <1.26 <1.26	<10.00	<3.06	3.94	<0.70 <0.74					
01U053 01U053	16-Nov-87 15-Aug-88	F16 F19	2.38	6.19 <6.01	<220.00 99.00	<1.47	0.53 0.36	2.78 <2.50	1.93	1800.00	<5.94 <5.32	3.06 <1.26	<10.00	<3.06	<2.70	<0.74	<8.35 <8.17				
01U054 01U054	16-Nov-87 15-Aug-88	F16 F19	<1.93	5.67 <6.01	<220.00 53.50	<1.47	0.92 <0.37	2.88 <2.50	3.12	4000.00	<5.94 <5.32	<2.65 <1.26	<10.00	<3.06	<2.70	<0.74	<8.17				

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross	Gross	Gross	Zinc Zn (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
			Radiation ALPHAG (pC/l)	Radiation BETAG (pC/l)	Radiation GAMMAS (pC/l)										
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
01L811	25-Nov-87	F16													
01L813	25-Nov-87	F16													
01L816	25-Nov-87	F16													
01L816	Well Abandoned														
01L821	30-Nov-87	F16													
01L822	01-Dec-87	F16													
01L823	01-Dec-87	F16													
01U022	05-Apr-88	F18													
01U034	11-Nov-87	F16				<29.40									
01U034	14-Nov-88	F20													
01U035	14-Nov-88	F20													
01U036	11-Nov-87	F16				<29.40									
01U036	14-Nov-88	F20													
01U037	07-Apr-88	F18													
01U037	21-Jun-92	F35							<1.00						
01U038	06-Apr-88	F18													
01U038	21-Jun-92	F35							2.90						
01U039	06-Apr-88	F18													
01U040	05-Apr-88	F18													
01U041	05-Apr-88	F18													
01U045	08-Aug-88	F19				<25.00									
01U045	13-Mar-91	F30													
01U045	16-Mar-92	F34													
01U045	08-Mar-93	F38													
01U045	(4) 08-Mar-93	F38													
01U050	16-Nov-87	F16	<1.00	6.00											
01U050	07-Apr-88	F18													
01U050	15-Aug-88	F19				<25.00									
01U051	16-Nov-87	F16				<29.40									
01U051	07-Apr-88	F18													
01U051	15-Aug-88	F19				<25.00									
01U053	16-Nov-87	F16				<29.40									
01U053	15-Aug-88	F19				<25.00									
01U054	16-Nov-87	F16	<1.00	<1.00											
01U054	15-Aug-88	F19				<25.00									

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
01U060	19-Nov-87	F16	<1.93	10.30	270.00	<1.47	0.63	<2.18	1.44	6000.00	14.00	<2.65	<10.00	<3.06	<2.70	<0.70				
01U060	11-Apr-88	F18		<6.01	300.00		1.12	<2.50			9.44	<1.26								
01U062	16-Nov-87	F16	2.38	<4.81	<220.00	<1.47	0.68	3.74	2.62	16.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
01U062	07-Apr-88	F18		<6.01	130.00		<0.37	<2.50			<5.32	<1.26								
01U062	16-Aug-88	F19		<6.01	150.00		0.38	<2.50			<5.32	<1.26				<0.74	<8.17			
01U063	05-Apr-88	F18		<6.01	82.50		<0.37	<2.50			<5.32	<1.26						<8.17		
01U067	05-Apr-88	F18		<6.01	60.50		<0.37	<2.50			<5.32	<1.26								
01U067	19-Jun-92	M35	<1.00	0.40		<0.02	<0.20		1.00			<2.00	<0.60	<5.00	0.60	<0.40	<0.01			
01U067	19-Jun-92	F35	<0.50	0.25		<0.10	<0.10		<0.50			<0.80	<1.00	<1.00	<1.00	<0.20				
01U072	07-Apr-88	F18		<6.01	60.00		<0.37	<2.50			14.50	<1.26						<8.17		
01U085	11-Nov-87	F16	3.12	16.50	530.00	<1.47	0.19	2.73	2.08	2000.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
01U085	10-Aug-88	F19		43.90	500.00		<0.37	<2.50			<5.32	<1.26								
01U098	19-Nov-87	F16	4.01	<4.81	<220.00	<1.47	0.34	6.67	3.32	140.00	12.90	3.47	<10.00	<3.06	<2.70	<0.70				
01U098	11-Apr-88	F18		<6.01	190.00		0.71	<2.50			<5.32	<1.26								
01U100	07-Apr-88	F18		<6.01	290.00		<0.37	<2.50			9.05	<1.26								
01U101	14-Nov-88	F20		<6.01	177.00		0.40	<2.50			<5.32	<1.26								
01U101	22-Feb-93	M38	<10.00			<0.20					<2.00	<6.00	<5.00	<2.00						
01U102	30-Jul-91	M32				<2.00						<0.20	<2.00	<1.00	<3.00					
01U102	09-Mar-92	M34	<0.10	2.00	150.00	<0.40	0.28	22.00	10.00		16.00	8.10	<2.00	<1.00	<0.50	0.10				
01U102	21-Jun-92	F35				<0.10								<1.00						
01U103	11-Nov-87	F16	3.91	<4.81	<220.00	<1.47	0.34	3.79	2.92	62.00	14.50	2.86	14.60	6.38	<2.70	<0.70				
01U103	19-Jun-92	M35	<1.00										13.00	<5.00	0.70			<0.01		
01U103	19-Jun-92	F35										<0.80	54.80	8.10						
01U104	06-Mar-92	F34		<4.81	123.00		<0.10	<2.18			<5.940	<2.65								
01U104	21-Jun-92	F35										0.80	<1.00							
01U105	06-Mar-92	F34		<4.81	41.20		0.31	<2.18			<5.940	<2.65								
01U105	21-Jun-92	F35										<0.80	<1.00							
01U106	19-Jun-92	M35										<2.00								
01U106	19-Jun-92	F35										1.60	3.20							
01U107	08-Apr-88	F18		<6.01	170.00		0.58	<2.50			<5.32	<1.26								
01U108	16-Nov-87	F16																		
01U108	17-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.98	2000.00	8.28	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
01U108	11-Apr-88	F18		<6.01	121.00		<0.37	<2.50			5.72	<1.26					<8.17			
01U108	19-Mar-91	M30			89.00		0.59	<0.50	1.80		10.00	<0.20				<0.10				
01U108	19-Jun-92	F35																		
01U108	19-Jun-92	F35																		
01U108	20-Jun-92	F35	<0.50			<0.10				1340.00			<1.00	<1.00	<1.00					
01U108	20-Jun-92	F35																		

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
01U060	19-Nov-87	F16				67.10									
01U060	11-Apr-88	F18													
01U062	16-Nov-87	F16				<29.40									
01U062	07-Apr-88	F18													
01U062	16-Aug-88	F19				<25.00									
01U063	05-Apr-88	F18													
01U067	05-Apr-88	F18													
01U067	19-Jun-92	M35					<0.03	75.00	1.00			20.00			
01U067	19-Jun-92	F35						3870.00	<1.00			20800.00			<0.60
01U072	07-Apr-88	F18													
01U085	11-Nov-87	F16				<29.40									
01U085	10-Aug-88	F19				25.00									
01U098	19-Nov-87	F16				<29.40									
01U098	11-Apr-88	F18													
01U100	07-Apr-88	F18													
01U101	14-Nov-88	F20													
01U101	22-Feb-93	M38							2.00						
01U102	30-Jul-91	M32							<0.40						<2.00
01U102	09-Mar-92	M34				40.00	6100.00		5.40						24.00
01U102	21-Jun-92	F35													
01U103	11-Nov-87	F16				<29.40									
01U103	19-Jun-92	M35													
01U103	19-Jun-92	F35							2.20						
01U104	06-Mar-92	F34				69.10									
01U104	21-Jun-92	F35							<1.00						
01U105	06-Mar-92	F34				67.10									
01U105	21-Jun-92	F35							<1.00						
01U106	19-Jun-92	M35													
01U106	19-Jun-92	F35							<1.00						
01U107	08-Apr-88	F18													
01U108	16-Nov-87	F16				<29.40									
01U108	17-Nov-87	F16													
01U108	11-Apr-88	F18													
01U108	19-Mar-91	M30				9.90	<5.00								
01U108	19-Jun-92	F35													
01U108	20-Jun-92	F35							<1.00	15300.00					<0.60
01U108	(4) 20-Jun-92	F35								7760.00					





TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
01U109	08-Apr-88	F18													
01U109	21-Jun-92	F35							<1.00						
01U109	(4) 21-Jun-92	F35							<1.00						
01U110	08-Apr-88	F18													
01U110	21-Jun-92	F35							<1.00						
01U115	11-Nov-87	F16				<29.40									
01U115	11-Apr-88	F18													
01U115	15-Nov-88	F20													
01U115	19-Mar-91	M30				3.90	<5.00								
01U115	09-Mar-92	M34				60.00	150.00		<0.50						3.00
01U115	19-Jun-92	F35							<1.00	<100.00					<0.60
01U115	19-Jun-92	M35													
01U115	(4) 19-Jun-92	F35								6680.00					
01U116	11-Nov-87	F16				<29.40									
01U116	06-Apr-88	F18													
01U116	15-Nov-88	F20													
01U116	19-Jun-92	F35							<1.00	5360.00					
01U116	19-Jun-92	M35													
01U116	(4) 19-Jun-92	F35								<100.00					
01U117	11-Nov-87	F16				<29.40									
01U117	06-Apr-88	F18													
01U117	15-Nov-88	F20													
01U117	09-Mar-92	M34				60.00	110.00		1.20						<2.00
01U117	19-Jun-92	M35							2.00						
01U117	19-Jun-92	F35							<1.00						<0.60
01U118	11-Nov-87	F16				<29.40									
01U118	07-Apr-88	F18													
01U118	15-Nov-88	F20													
01U118	20-Jun-92	F35							<1.00						
01U119	11-Nov-87	F16				<29.40									
01U119	07-Apr-88	F18													
01U119	15-Nov-88	F20													
01U119	06-Mar-92	F34				140.00									
01U119	20-Jun-92	F35							<1.00						
01U120	11-Nov-87	F16				<29.40									
01U120	07-Apr-88	F18													
01U120	15-Nov-88	F20													
01U120	20-Jun-92	F35							<1.00						
01U120	(4) 20-Jun-92	F35							<1.00						
01U122	09-Dec-87	F16				<29.40									
01U122	05-Apr-88	F18													
01U125	08-Dec-87	F16				<29.40									
01U125	11-Apr-88	F18													
01U125	17-Nov-88	F20													
01U125	21-Jun-92	F35							<1.00						

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
01U126	08-Dec-87	F16	<1.93	<4.81	98.00	<1.47	0.18	<2.18	2.62	390.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
01U126	06-Apr-88	F18		<6.01	60.30		<0.37	<2.50			<5.32	<1.26								
01U126	17-Nov-88	F20																		
01U126	09-Mar-92	M34	<0.10	<1.00	80.00	<0.40	0.25	7.10	7.00		12.00	3.80	<2.00	<1.00	<0.50	<0.10				<8.17
01U126	20-Jun-92	F35											<1.00							
01U126	(4) 20-Jun-92	F35											<1.00							
01U127	11-Dec-87	F16	<1.93	5.67	99.00	<1.47	0.23	2.53	1.98	9.50	<5.94	<2.65	10.80	<3.06	<2.70	<0.70				
01U127	06-Apr-88	F18		<6.01	56.90		<0.37	<2.50			<5.32	<1.26								
01U127	14-Nov-88	F20																		
01U127	19-Jun-92	M35		0.50									<0.60							
01U127	19-Jun-92	F35		<0.20									1.10							
01U128	09-Dec-87	F16	<1.93	20.60	280.00	<1.47	0.38	2.53	1.53	4500.00	<5.94	3.57	<10.00	<3.06	<2.70	<0.70				
01U128	05-Apr-88	F18		15.10	330.00		<0.37	<2.50			<5.32	<1.26								
01U128	08-Aug-88	F19		19.90	290.00		<0.37	6.01			<5.32	<1.26								<8.17
01U128	16-Nov-88	F20																		
01U130	07-Dec-87	F16	<1.93	5.15	500.00	<1.47	0.29	3.03	3.22	7500.00	7.76	<2.65	<10.00	<3.06	<2.70					
01U130	15-Aug-88	F19		<6.01	240.00		0.58	<2.50			<5.32	<1.26								<8.17
01U133	11-Dec-87	F16	<1.93	5.67	320.00	<1.47	1.17	<2.18	5.94	600.00	13.50	<2.65	12.30	<3.06	<2.70	<0.70				
01U133	12-Aug-88	F19		<6.01	240.00		<0.37	<2.50			<5.32	<1.26								
01U133	14-Nov-88	F20																		
01U133	19-Jun-92	M35		0.30		<0.02	<0.20						<0.60		2.10	<0.40				
01U133	19-Jun-92	F35		0.87		<0.10	<0.10						<1.00	1.30	<1.00					<8.17
01U135	21-Nov-88	F20		<6.01	91.00		<0.37	<2.50			<5.32	<1.26								<8.17
01U136	21-Nov-88	F20		<6.01	490.00		1.00	<2.50			<27.00	1.92								<8.17
01U137	06-Mar-92	F34		<4.81	22.50		<0.10	<2.18			<5.94	<2.65								
01U138	06-Mar-92	F34		<4.81	45.10		<0.10	<2.18			<5.94	<2.65								
01U139	06-Mar-92	F34		<4.810	91.20		<0.10	<2.18			<5.94	<2.65								
01U140	06-Mar-92	F34		<4.810	76.50		<0.10	<2.18			<5.94	<2.65								
01U141	06-Mar-92	F34		<4.81	<20.00		<0.10	<2.18			<5.94	<2.65								
01U141	06-Mar-92	F34		<4.81	<20.00		<0.10	<2.18			<5.94	<2.65								
01U350	13-Sep-88	F19		<6.01	240.00		<0.37	<2.50			9.79	<1.26								
01U350	21-Sep-88	F19		<6.01	103.00		<0.37	<2.50			5.49	<1.26								
01U350	27-Sep-88	F19		<6.01	108.00		<0.37	<2.50			6.88	3.70								
01U350	04-Oct-88	F20		<6.01	100.00		<0.37	<2.50			8.88	6.79								
01U350	19-Oct-88	F20		<6.01	96.50		<0.37	<2.50			<5.32	<1.26								
01U350	25-Oct-88	F20		<6.01	96.80		<0.37	<2.50			<5.32	21.00								
01U350	08-Nov-88	F20		<6.01	123.00		<0.37	<2.50			<5.32	<1.26								
01U350	29-Nov-88	F20		<6.01	137.00		<0.37	<2.50			<5.32	<1.26								
01U350	06-Dec-88	F20		<6.01	125.00		<0.37	<2.50			<5.32	<1.26								
01U350	20-Dec-88	F20		<6.01	131.00		<0.37	<2.50			<5.32	<1.26								
01U350	17-Jan-89	F21		<6.01	101.00		<0.37	<2.50			<5.32	<1.26								

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
01U126	08-Dec-87	F16				<29.40									
01U126	06-Apr-88	F18													
01U126	17-Nov-88	F20													
01U126	09-Mar-92	M34				18.00	2800.00		3.30						7.80
01U126	20-Jun-92	F35							<1.00						
01U126	(4) 20-Jun-92	F35							<1.00						
01U127	11-Dec-87	F16				<29.40									
01U127	06-Apr-88	F18													
01U127	14-Nov-88	F20													
01U127	19-Jun-92	M35													
01U127	19-Jun-92	F35							7.10						
01U128	09-Dec-87	F16				<29.40									
01U128	05-Apr-88	F18				25.80									
01U128	08-Aug-88	F19				<25.00									
01U128	16-Nov-88	F20				41.40									
01U130	07-Dec-87	F16	1.60	1.50		<29.40									
01U130	15-Aug-88	F19				<25.00									
01U133	11-Dec-87	F16				85.20									
01U133	12-Aug-88	F19													
01U133	14-Nov-88	F20													
01U133	19-Jun-92	M35							2.00						
01U133	19-Jun-92	F35							1.40						<0.60
01U135	21-Nov-88	F20													
01U136	21-Nov-88	F20													
01U137	06-Mar-92	F34				<29.40									
01U138	06-Mar-92	F34				<29.40									
01U139	06-Mar-92	F34				<29.40									
01U140	06-Mar-92	F34				<29.40									
01U141	06-Mar-92	F34				<29.40									
01U141	06-Mar-92	F34				46.10									
01U350	13-Sep-88	F19													
01U350	21-Sep-88	F19													
01U350	27-Sep-88	F19													
01U350	04-Oct-88	F20													
01U350	19-Oct-88	F20													
01U350	25-Oct-88	F20													
01U350	08-Nov-88	F20													
01U350	29-Nov-88	F20													
01U350	06-Dec-88	F20													
01U350	20-Dec-88	F20													
01U350	17-Jan-89	F21													

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
01U350	21-Feb-89	F21					<0.37													
01U350	17-Jul-90	F27		<6.01	184.00		<0.37	<2.50			4.99	1.61						950.00		91.00
01U350	18-Sep-90	F27		<6.01	150.00		<0.37	<2.50			5.67	1.40						890.00	23.50	72.90
01U350	22-Oct-90	F29		<6.01	111.00		<0.37	<2.50			7.88	<1.26						1008.00	62.89	535.97
01U350	20-Nov-90	F29		<6.01	193.00		<0.37	<2.50			<5.32	4.40						784.00	54.04	83.56
01U350	18-Dec-90	F29		<6.01	183.40		<0.37	<2.50			5.54	<1.26						770.00	36.54	111.51
01U350	22-Jan-91	F30		<6.01	119.96		<5.00	<15.00	<20.00		7.79	1.66						714.00	37.31	169.78
01U350	19-Feb-91	F30		<6.01	103.83		<5.00	<15.00	<20.00		<5.32	2.51						840.00	28.10	170.00
01U350	19-Mar-91	F30									<63.10	<100.00								
01U350	19-Mar-91	F30		<6.01	124.00	<2.50	<5.00	<15.00	<20.00	1020.00	5.30	3.09	<37.10	<75.00	<100.00			800.00	18.90	140.00
01U350	16-Apr-91	F31		<6.01	131.00		<5.00	<15.00	<20.00		<5.32	<1.26					<8.17	610.00	28.60	91.30
01U350	18-May-91	F31									5.81	3.67					<8.17	2000.00	27.10	48.40
01U350	21-May-91	F31		<6.01																
01U350	18-Jun-91	F31		<6.01	97.80	<2.50	<5.00	<15.00	<20.00	926.00	6.29	<1.26	<37.10	<75.00	<100.00					
01U350	(4) 18-Jun-91	F31		<6.01	96.80	<2.50	<5.00	<15.00	<20.00	948.00	6.98	<1.26	<37.10	<75.00	<100.00			1100.00	31.10	39.50
01U350	23-Jul-91	F32		<6.01	117.00	<2.50	<5.00	<15.00	<20.00	1310.00	6.48	3.77	<37.10	<75.00	<100.00			980.00		
01U350	30-Jul-91	F32																	35.50	370.00
01U350	19-Aug-91	F32		<6.01	140.00		<5.00	<15.00			6.20	8.46						910.00	14.70	99.30
01U350	17-Sep-91	F32		<6.01	137.00	<2.50	<5.00	<15.00	<20.00		7.99	4.93	<37.10	<75.00	<100.00			980.00	32.70	55.10
01U350	22-Oct-91	F33		<6.01	125.00		<5.00	<15.00			<63.10	<1.26						980.00	20.80	890.00
01U350	(4) 22-Oct-91	F33									<5.32									
01U350	19-Nov-91	F33		<6.01	154.00		<5.00	<15.00			6.02	<1.26						1300.00	130.00	160.00
01U350	17-Dec-91	F33		<6.01	147.00		<5.00	<15.00			6.07	<1.26						1400.00	28.60	43.30
01U350	21-Jan-92	F34		<6.01	140.00		<5.00	<15.00			<5.32	<1.26						1100.00	30.70	48.90
01U350	(4) 21-Jan-92	F34									<5.32									
01U350	18-Feb-92	F34		<6.01	137.00		<5.00	<15.00			6.18	1.27						1300.00	20.80	63.30
01U350	17-Mar-92	F34		<6.01	114.00		<5.00	<15.00			5.37	<1.26						11000.00	16.30	31.40
01U350	(4) 17-Mar-92	F34									5.49									
01U350	13-Apr-92	F35		<6.01	124.00		<5.00	<15.00			4.98	<1.26						1100.00	27.10	29.80
01U350	18-May-92	F35		<6.01	143.00		<5.00	<15.00			<5.32	1.28						1100.00	71.90	61.90
01U350	16-Jun-92	F35		<6.01	135.00		<5.00	<15.00			6.61	<1.26						1500.00	20.60	76.40
01U350	(4) 16-Jun-92	F35		<6.01							6.76	<1.26								
01U350	19-Jun-92	F35																		
01U350	20-Jun-92	F35	<0.50			<0.10			1.60			<0.80	<1.00	<1.00	<1.00	<0.20				
01U350	21-Jul-92	F36		<6.01							<5.32	<1.26						1300.00	10.30	39.90
01U350	18-Aug-92	F36		<6.01							5.21	2.25						1100.00	21.80	55.00
01U350	(4) 18-Aug-92	F36			143.00		<5.00	<15.00			<5.32	1.75						1200		
01U350	15-Sep-92	F36		<6.01	148.00		<5.00	<15.00			<5.32	<1.26						1100	42.50	218.00
01U350	20-Oct-92	F37		<6.01	131.00		<5.00	<15.00			<5.32	<1.26						1000.00	14.30	51.40
01U350	03-Nov-92	F37		<6.01	138.00		<5.00	<15.00			<5.32							1200.00	19.30	76.20
01U350	01-Dec-92	F37		<6.01	161.00		<5.00	<15.00			6.08	<1.26						1300.00	82.50	100.00
01U350	05-Jan-93	F38		<6.01	125.00		<5.00	<15.00			<5.32	<1.26						1500.00	16.50	33.20
01U350	02-Feb-93	F38		<6.01	111.00		<5.00	<15.00			<5.32	<1.26						1200.00	32.40	33.20
01U350	02-Mar-93	F38		<6.01	106.00		<5.00	<15.00			<5.32	<1.26						1100.00	15.50	17.50
01U350	19-Apr-93	F39		<6.01	98.80		<5.00	<15.00			<5.32	2.64						1200.00	11.00	24.50
01U350	07-May-93	F39		<6.01	95.80		<5.00	<15.00			<5.32	<1.26							<10.30	24.50
01U350	01-Jun-93	F39		<6.01	91.70		<5.00	<15.00			<5.32	<1.26					<8.17	1200.00	<10.30	31.20
01U350	(4) 01-Jun-93	F39															<8.17			
01U350	22-Jul-93	F40		<6.01	117.00		<5.00	<15.00			<5.32	9.10						1200.00	14.20	10.90
01U350	16-Aug-93	F40		<6.01	130.00		<5.00	<15.00			<5.32	<1.26						1100.00	21.30	19.90
01U350	14-Sep-93	F40		<6.01	143.00		<5.00	<15.00			<5.32	1.44						1100.00	46.50	81.20
01U524	16-Nov-87	F16		<4.81																
01U524	17-Nov-87	F16	3.22		<220.00	<1.47	0.68	4.45	2.48		<5.94	2.86	<10.00	<3.06	3.83	<0.70	<8.35			

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHA (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
01U350	21-Feb-89	F21													
01U350	17-Jul-90	F27													
01U350	18-Sep-90	F27													
01U350	22-Oct-90	F29				269.90									
01U350	20-Nov-90	F29				107.77									
01U350	18-Dec-90	F29				62.62									
01U350	22-Jan-91	F30				199.39									
01U350	19-Feb-91	F30				94.61									
01U350	19-Mar-91	F30													
01U350	19-Mar-91	F30				130.00	<107.00	98000.00	<25.00	7990.00	7630.00	27900.00	<30.90	9740.00	<20.00
01U350	16-Apr-91	F31				127.00									
01U350	18-May-91	F31													
01U350	21-May-91	F31													
01U350	18-Jun-91	F31				43.70	<107.00	90000.00	<25.00	4190.00	6900.00	25800.00	<30.90	9990.00	<20.00
01U350	(4) 18-Jun-91	F31				63.10	<107.00	90000.00	<25.00	4250.00	6630.00	25600.00	<30.90	9670.00	<20.00
01U350	23-Jul-91	F32				38.70	501.00	140000.00	<25.00	5610.00	6660.00	41200.00	<30.90	11600.00	<20.00
01U350	30-Jul-91	F32													
01U350	19-Aug-91	F32				43.70									
01U350	17-Sep-91	F32				72.20			<25.00						
01U350	22-Oct-91	F33				17.30									
01U350	(4) 22-Oct-91	F33													
01U350	19-Nov-91	F33				28.50									
01U350	17-Dec-91	F33				172.00									
01U350	21-Jan-92	F34				98.70									
01U350	(4) 21-Jan-92	F34													
01U350	18-Feb-92	F34				83.40									
01U350	17-Mar-92	F34				58.00									
01U350	(4) 17-Mar-92	F34													
01U350	13-Apr-92	F35													
01U350	18-May-92	F35				50.90									
01U350	16-Jun-92	F35				28.50									
01U350	(4) 16-Jun-92	F35													
01U350	19-Jun-92	F35										8000.00			
01U350	20-Jun-92	F35													
01U350	21-Jul-92	F36					2480.00		<1.00						
01U350	18-Aug-92	F36													
01U350	(4) 18-Aug-92	F36				233.00									
01U350	15-Sep-92	F36				36.60									
01U350	20-Oct-92	F37				25.40									
01U350	03-Nov-92	F37				19.30									
01U350	01-Dec-92	F37				24.40									
01U350	05-Jan-93	F38				37.60									
01U350	02-Feb-93	F38				32.60									
01U350	02-Mar-93	F38				40.70									
01U350	19-Apr-93	F39				47.80									
01U350	07-May-93	F39				46.80									
01U350	01-Jun-93	F39				25.40									
01U350	(4) 01-Jun-93	F39													
01U350	22-Jul-93	F40				433.00									
01U350	16-Aug-93	F40				37.60									
01U350	14-Sep-93	F40				99.70									
01U524	16-Nov-87	F16													
01U524	17-Nov-87	F16	3.50	4.40		<29.40									

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
01U524	07-Apr-88	F18		<6.01	130.00		<0.37	<2.50			<5.32	<1.26								
01U524	16-Aug-88	F19		<6.01	200.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U525	16-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	0.44	2.33	3.22	35.00	<5.94	3.06	<10.00	<3.06	<2.70	<0.70				
01U525	07-Apr-88	F18		<6.01	81.00		<0.37	<2.50			<5.32	<1.26								
01U525	15-Aug-88	F19		<6.01	200.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U526	17-Nov-87	F16	2.92	<4.81	<220.00	<1.47	0.92	5.46	2.57	20.00	6.21	<2.65	<10.00	4.32	<2.70	<0.70	10.50			
01U526	07-Apr-88	F18		<6.01	84.00		<0.37	<2.50			<5.32	<1.26								
01U526	15-Aug-88	F19		<6.01	69.90		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U527	17-Nov-87	F16	<1.93	<4.81	270.00	<1.47	0.19	3.29	1.63	42.00	<5.94	<2.65	<10.00	<3.06	5.11					
01U527	11-Apr-88	F18		<6.01	420.00		<0.37	<2.50			<5.32	<1.26								
01U527	25-Aug-88	F19		<6.01	260.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U601	07-Dec-87	F16	<1.93	9.28	120.00	<1.47	0.20	<2.18	14.90	150.00	6.73	<2.65	<10.00	<3.06	<2.70	<0.70				
01U604	07-Dec-87	F16	<1.93	<4.81	310.00	<1.47	0.46	5.06	3.37	4500.00	98.00	5.10	<10.00	<3.06	<2.70	<0.70	<8.35			
01U611	08-Dec-87	F16	<1.93	7.73	250.00	<1.47	0.28	2.53	2.67	290.00	9.32	<2.65	<10.00	<3.06	<2.70	<0.70				
01U615	07-Dec-87	F16	<1.93	<4.81	193.00	<1.47	<0.10	<2.18	2.87	960.00	7.25	<2.65	<10.00	<3.06	<2.70	<0.70				
01U617	19-Aug-88	F19		<6.01	134.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U618	19-Aug-88	F19		<6.01	106.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U619	19-Aug-88	F19		<6.01	49.40		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
01U902	19-Mar-91	F30		<6.01	51.40	<2.50	<5.00	<15.00	<20.00	369.00	<5.32	<1.26	<37.10	<75.00	<100.00					
01U902	09-Mar-92	M34	<0.10	6.20	100.00	<0.40	0.15	2.30	10.00		<1.00	1.30	<2.00	<1.00	<0.50	<0.10				
01U902	09-Mar-92	F34		8.87	140.00		<0.10	<2.18			<5.94	<2.65								
01U902	21-Jun-92	F35		7.95																
03F302	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<5.00	8.00				<0.20	<10.00			
03F302	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	<10.00		<5.00	7.00				<0.20	<10.00	30.00	50.00	
03F302	24-Oct-89	A24		<5.00	70.00		<8.00	<9.00	<4.00		<16.00	2.00				<0.20	<10.00	40.00	50.00	
03F302	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	40.00	60.00	
03F303	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	710.00		<5.00	91.00				<0.20	<10.00			
03F303	19-Jul-89	A23		3.00	<200.00		1.10	1.00	<10.00		<5.00	12.00				<0.20	<10.00	40.00	280.00	
03F303	24-Oct-89	A24		<5.00	57.00		<8.00	<9.00	<4.00		<16.00	2.00				<0.20	<10.00	40.00	60.00	
03F303	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	2.00				<0.20	<10.00	40.00	70.00	
03F304	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<5.00	<1.00				<0.20	<10.00			
03F304	19-Jul-89	A23		<2.00	<200.00		0.10	<1.00	30.00		<5.00	2.00				<0.20	<10.00	70.00	140.00	
03F304	24-Oct-89	A24		<5.00	92.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	70.00	100.00	
03F304	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	80.00	100.00	
03F305	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	10.00		<5.00	12.00				<0.20	<10.00			
03F305	19-Jul-89	A23		<2.00	<200.00		0.20	<1.00	100.00		<5.00	32.00				<0.20	<10.00	60.00	160.00	
03F305	23-Oct-89	A24		<5.00	100.00		<8.00	<9.00	<4.00		<16.00	16.00				<0.20	<10.00	70.00	80.00	
03F305	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	70.00	90.00	

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
01U524	07-Apr-88	F18													
01U524	16-Aug-88	F19				<25.00									
01U525	16-Nov-87	F16				<29.40									
01U525	07-Apr-88	F18													
01U525	15-Aug-88	F19				<25.00									
01U526	17-Nov-87	F16	2.50	6.80		<29.40									
01U526	07-Apr-88	F18													
01U526	15-Aug-88	F19				<25.00									
01U527	17-Nov-87	F16				<29.40									
01U527	11-Apr-88	F18													
01U527	25-Aug-88	F19				<25.00									
01U601	07-Dec-87	F16				1010.00									
01U604	07-Dec-87	F16				1440.00									
01U611	08-Dec-87	F16				50.10									
01U615	07-Dec-87	F16				50.10									
01U617	19-Aug-88	F19				<25.00									
01U618	19-Aug-88	F19				<25.00									
01U619	19-Aug-88	F19				<25.00									
01U902	19-Mar-91	F30				36.60	<107.00	59000.00	<25.00	630.00	1880.00	11900.00	<30.90	7220.00	<20.00
01U902	09-Mar-92	M34				25.00	37.00		<0.50						<2.00
01U902	09-Mar-92	F34													
01U902	21-Jun-92	F35													
03F302	20-Apr-89	A22				<0.01									
03F302	19-Jul-89	A23				<10.00									
03F302	24-Oct-89	A24				29.00									
03F302	18-Jan-90	A25				<4.00									
03F303	20-Apr-89	A22				70.00									
03F303	19-Jul-89	A23				720.00									
03F303	24-Oct-89	A24				<20.00									
03F303	18-Jan-90	A25				<4.00									
03F304	20-Apr-89	A22				<0.01									
03F304	19-Jul-89	A23				50.00									
03F304	24-Oct-89	A24				20.00									
03F304	18-Jan-90	A25				<4.00									
03F305	20-Apr-89	A22				20.00									
03F305	19-Jul-89	A23				120.00									
03F305	23-Oct-89	A24				60.00									
03F305	18-Jan-90	A25				<4.00									

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03F306	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<50.00	12.00				<0.20	<10.00			
03F306	19-Jul-89	A23		<2.00	<200.00		0.20	<1.00	40.00		<50.00	24.00				<0.20	<10.00	80.00	210.00	
03F306	23-Oct-89	A24		<5.00	45.00		<8.00	<9.00	<4.00		<16.00	3.00				<0.20	<10.00	90.00	110.00	
03F306	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	5.00				<0.20	<10.00	90.00	100.00	
03F307	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<50.00	57.00				<0.20	<10.00			
03F307	19-Jul-89	A23		<2.00	<200.00		0.40	<1.00	10.00		<50.00	31.00				<0.20	<10.00	20.00	100.00	
03F307	23-Oct-89	A24		<5.00	81.00		<8.00	<9.00	<4.00		<16.00	5.00				<0.20	<10.00	30.00	<50.00	
03F307	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	4.00				<0.20	<10.00	30.00	<50.00	
03F308	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	10.00		<50.00	4.00				<0.20	<10.00			
03F308	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	50.00		<50.00	4.00				<0.20	<10.00	20.00	80.00	
03F308	23-Oct-89	A24		<5.00	81.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	20.00	100.00	
03F308	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	30.00	<50.00	
03F312	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<50.00	7.00				<0.20	<10.00			
03F312	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	<10.00		<50.00	<1.00				<0.20	<10.00	40.00	60.00	
03F312	24-Oct-89	A24		<5.00	130.00		<8.00	<9.00	92.00		<16.00	110.00				<0.20	<10.00	40.00	60.00	
03F312	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	40.00	60.00	
03L001	16-Nov-87	F16	<1.93	<4.81	<40.00	<1.47	<0.10	<2.18	1.14	280.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L002	17-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.39	1800.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L003	19-Nov-87	F16	<1.93	<4.81	170.00	<1.47	<0.10	<2.18	1.14	520.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L003	11-Aug-88	F19		<6.01	101.00		<0.37	<2.50			<5.32	<1.26								
03L004	18-Nov-87	F16	<1.93	<4.81	86.00	<1.47	<0.10	<2.18	1.14	580.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L004	09-Aug-88	F19		<6.01	78.80		<0.37	<2.50			<5.32	<1.26								
03L005	23-Nov-87	F16	<1.93	<4.81	160.00	<1.47	<0.10	<2.18	1.49	700.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L005	10-Aug-88	F19		<6.01	73.40		<0.37	<2.50			<5.32	<1.26								
03L007	09-Nov-87	F16	<1.93	6.19	240.00	<1.47	<0.10	<2.18	2.08	380.00	<5.94	<2.65	<10.00	<3.06	5.32	<0.70				
03L010	09-Nov-87	F16	<1.93	<4.81	31.40	<1.47	<0.10	<2.18	1.09	2.65	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L012	09-Nov-87	F16	<1.93	<4.81	164.00	<1.47	<0.10	<2.18	1.34	800.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L013	10-Nov-87	F16	<1.93	<4.81	190.00	<1.47	<0.10	<2.18	1.49	960.00	<5.94	3.47	<10.00	<3.06	<2.70	<0.70				
03L014	23-Nov-87	F16	<1.93	<4.81	180.00	<1.47	0.12	<2.18	15.80	900.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03L014	10-Aug-88	F19		<6.01	111.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03L017	10-Nov-87	F16	<1.93	<4.81	124.00	<1.47	<0.10	<2.18	1.49	360.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L018	23-Nov-87	F16	<1.93	<4.81	130.00	<1.47	<0.10	<2.18	2.08	470.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03L018	08-Apr-88	F18		<6.01	67.00		<0.37	<2.50			<5.32	<1.26					<8.17			
03L018	22-Aug-88	F19		<6.01	91.10		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03L020	07-Dec-87	F16	<1.93	33.50	440.00	<1.47	<0.10	3.03	1.29	2250.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L020	17-Aug-88	F19		29.30	320.00		<0.37	<2.50			<5.32	<1.26								
03L029	03-Dec-87	F16	<1.93	<4.81	270.00	<1.47	<0.10	<2.18	1.44	380.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				



TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation	Gross Beta Radiation	Gross Gamma Radiation	Zinc ZN	Aluminum AL	Calcium CA	Cobalt CO	Iron FE	Potassium K	Magnesium MG	Molybdenum MO	Sodium NA	Vanadium V
			ALPHAG (pC/l)	BETAG (pC/l)	GAMMAS (pC/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03F306	20-Apr-89	A22				<0.01									
03F306	19-Jul-89	A23				120.00									
03F306	23-Oct-89	A24				<4.00									
03F306	18-Jan-90	A25				<4.00									
03F307	20-Apr-89	A22				<0.01									
03F307	19-Jul-89	A23				30.00									
03F307	23-Oct-89	A24				11.00									
03F307	19-Jan-90	A25				<4.00									
03F308	20-Apr-89	A22				10.00									
03F308	19-Jul-89	A23				80.00									
03F308	23-Oct-89	A24				25.00									
03F308	19-Jan-90	A25				<4.00									
03F312	20-Apr-89	A22				<0.01									
03F312	19-Jul-89	A23				20.00									
03F312	24-Oct-89	A24				210.00									
03F312	18-Jan-90	A25				<4.00									
03L001	16-Nov-87	F16				<29.40									
03L002	17-Nov-87	F16				<29.40									
03L003	19-Nov-87	F16				<29.40									
03L003	11-Aug-88	F19													
03L004	18-Nov-87	F16				<29.40									
03L004	09-Aug-88	F19													
03L005	23-Nov-87	F16				<29.40									
03L005	10-Aug-88	F19													
03L007	09-Nov-87	F16				<29.40									
03L010	09-Nov-87	F16				<29.40									
03L012	09-Nov-87	F16				<29.40									
03L013	10-Nov-87	F16				<29.40									
03L014	23-Nov-87	F16				<29.40									
03L014	10-Aug-88	F19				<25.00									
03L017	10-Nov-87	F16				<29.40									
03L018	23-Nov-87	F16				30.10									
03L018	08-Apr-88	F18													
03L018	22-Aug-88	F19				<25.00									
03L020	07-Dec-87	F16				<29.40									
03L020	17-Aug-88	F19													
03L029	03-Dec-87	F16				<29.40									

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03L077	04-Dec-87	F16	<1.93	<4.81	220.00	<1.47	<0.10	<2.18	1.40	160.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L078	23-Nov-87	F16	<1.93	<4.81	150.00	<1.47	<0.10	<2.18	13.40	500.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L078	18-Aug-88	F19		<6.01	93.90		<0.37	<2.50			<5.32	<1.26								
03L079	04-Dec-87	F16	<1.93	<4.81	220.00	<1.47	<0.10	<2.18	1.59	430.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L079	18-Aug-88	F19		<6.01	93.90		<0.37	<2.50			<5.32	<1.26								
03L084	08-Dec-87	F16	<1.93	<4.81	250.00	<1.47	<0.10	2.53	1.40	200.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03L086	11-Aug-88	F19		<6.01	81.00		<0.37	<2.50			<5.32	<1.26								
03L091	03-Dec-87	F16	<1.93	<4.81	175.00	<1.47	0.14	<2.18	1.34	230.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03L091	25-Aug-88	F19		<6.01	75.30		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03L113	18-Nov-87	F16	<1.93	<4.81	67.60	<1.47	<0.10	<2.18	0.94	350.00	<5.94	<2.65	<10.00	<3.06	<0.70	<0.70	<8.35			
03L113	06-Apr-88	F18		<6.01	39.70		<0.37	<2.50			<5.32	<1.26					<8.17			
03L113	09-Aug-88	F19		<6.01	41.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03L113	19-Jul-90	F27	<0.50	<6.01	54.00		<0.37	<2.50	<1.56	290.00	<5.32	<1.26	<25.50							
03L137	17-Oct-89	F24		<4.81	98.00		1.27	17.60			7.58	4.45								
03L137	24-Apr-90	F26																		
03L137	18-Jul-90	F27	<0.50	<6.01	80.40		<0.37	<2.50	<1.56	360.00	<5.32	<1.26	<25.50				<8.17			
03L138	17-Oct-89	F24		9.28	240.00		0.13	11.60			<5.94	8.37								
03L138	24-Apr-90	F26																		
03L138	18-Jul-90	F27	<0.50	6.62	170.00		1.12	<2.50	2.79	570.00	<5.32	4.74	<25.50				<8.17			
03L806	02-Dec-87	F16														<0.70				
03L811	25-Nov-87	F16														<0.70				
03L813	25-Nov-87	F16														<0.70				
03L822	01-Dec-87	F16														<0.70				
03L832	24-Nov-87	F16														<0.70				
03L846	23-Aug-88	F19																		
03L846	18-Jul-89	F23																	34.00	
03L846	19-Oct-89	F24																	<12.10	63.10
																			<12.10	52.00
03L853	19-Apr-90	F26															<8.17			
03L853	20-Jul-90	F27															<8.17	810.00	22.80	19.50
03M001	16-Nov-87	F16	<1.93	<4.81	26.50	<1.47	0.15	<2.18	0.57		<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03M002	17-Nov-87	F16	<1.93	<4.81	111.00	<1.47	0.15	4.15	2.08	2.55	7.25	<2.65	<10.00	3.86	<2.70	<0.70				
03M003	19-Nov-87	F16	<1.93	<4.81	100.00	<1.47	<0.10	<2.18	1.73	200.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03M003	11-Aug-88	F19		<6.01	81.60		<0.37	<2.50			<5.32	<1.26								
03M004	18-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.44	540.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation	Gross Beta Radiation	Gross Gamma Radiation	Zinc Zn	Aluminum AL	Calcium CA	Cobalt CO	Iron FE	Potassium K	Magnesium MG	Molybdenum MO	Sodium NA	Vanadium V
			ALPHAG (pCi/l)	BETAG (pCi/l)	GAMMAS (pCi/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)	(ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03L077	04-Dec-87	F16				<29.40									
03L078	23-Nov-87	F16				<29.40									
03L078	18-Aug-88	F19													
03L079	04-Dec-87	F16				<29.40									
03L079	18-Aug-88	F19													
03L084	08-Dec-87	F16				<29.40									
03L086	11-Aug-88	F19													
03L091	03-Dec-87	F16				<29.40									
03L091	25-Aug-88	F19				<25.00									
03L113	18-Nov-87	F16				<29.40									
03L113	06-Apr-88	F18													
03L113	09-Aug-88	F19				<25.00									
03L113	19-Jul-90	F27													
03L137	17-Oct-89	F24													
03L137	24-Apr-90	F26													
03L137	18-Jul-90	F27													
03L138	17-Oct-89	F24													
03L138	24-Apr-90	F26													
03L138	18-Jul-90	F27													
03L806	02-Dec-87	F16													
03L811	25-Nov-87	F16													
03L813	25-Nov-87	F16													
03L822	01-Dec-87	F16													
03L832	24-Nov-87	F16													
03L846	23-Aug-88	F19													
03L846	18-Jul-89	F23													
03L846	19-Oct-89	F24													
03L853	19-Apr-90	F26													
03L853	20-Jul-90	F27													
03M001	16-Nov-87	F16				<29.40									
03M002	17-Nov-87	F16				<29.40									
03M003	19-Nov-87	F16				<29.40									
03M003	11-Aug-88	F19													
03M004	18-Nov-87	F16				<29.40									

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03M004	09-Aug-88	F19		<6.01	120.00		<0.37	<2.50			<5.32	<1.26								
03M005	08-Dec-87	F16	<1.93	<4.81	250.00	<1.47	<0.10	3.03	2.03	410.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03M005	06-Apr-88	F18		<6.01	110.00		<0.37	<2.50			<5.32	<1.26								
03M005	11-Aug-88	F19		<6.01	106.00		<0.37	<2.50			<5.32	<1.26								
03M013	10-Nov-87	F16	<1.93	<4.81	142.00	<1.47	<0.10	<2.18	1.49	400.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03M017	10-Nov-87	F16	<1.93	<4.81	63.70	<1.47	<0.10	2.63	2.28	5.50	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03M020	18-Aug-88	F19		<6.01	167.00		<0.37	<2.50			<5.32	<1.26								
03M505	Well Abandoned																			
03M505	09-Nov-87	F16	<1.93	<4.81	122.00	<1.47	<0.10	<2.18	1.24	220.00	<5.94	<2.65	<10.00	<3.06	3.19	<0.70				
03U001	16-Nov-87	F16	<1.93	<4.81	59.80	<1.47	<0.10	<2.18	1.24	14.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U002	17-Nov-87	F16	2.62	<4.81	<220.00	<1.47	<0.10	2.48	1.78	1000.00	<5.94	4.49	<10.00	<3.06	<2.70	<0.70				
03U003	19-Nov-87	F16	<1.93	<4.81	99.00	<1.47	<0.10	3.19	1.68	190.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U003	11-Aug-88	F19		<6.01	57.10		<0.37	<2.50			<5.32	<1.26								
03U004	18-Nov-87	F16	2.08	<4.81	65.70	<1.47	<0.10	2.93	1.68	2.60	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U004	09-Aug-88	F19		<6.01	27.00		<0.37	<2.50			<5.32	<1.26								
03U005	23-Nov-87	F16	3.22	26.80	340.00	<1.47	0.11	<2.18	16.30	750.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U005	06-Apr-88	F18		21.30	180.00		<0.37	<2.50			<5.32	<1.26								
03U005	10-Aug-88	F19		13.90	160.00		<0.37	<2.50			<5.32	<1.26								
03U007	09-Nov-87	F16	<1.93	6.19	280.00	<1.47	<0.10	<2.18	1.78	320.00	<5.94	<2.65	<10.00	5.14	47.90	<0.70				
03U007	23-Nov-92	M37		10.00										<5.00	<2.00					
03U008	09-Nov-87	F16	<1.93	20.60	370.00	<1.47	<0.10	<2.18	1.53	760.00	<5.94	<2.65	<10.00	<3.06	4.26	<0.70				
03U009	20-Nov-87	F16	<1.93	<4.81	190.00	<1.47	<0.10	<2.18	14.80	110.00	6.73	<2.65	<10.00	<3.06	<2.70	<0.70				
03U009	22-Feb-93	M38		<2.00																
03U010	09-Nov-87	F16	<1.93	<4.81	125.00	<1.47	<0.10	<2.18	1.68	200.00	<5.94	2.70	<10.00	<3.06	<2.70	<0.70				
03U012	09-Nov-87	F16	1.98	6.19	220.00	<1.47	<0.10	3.49	3.56	200.00	<5.94	6.43	<10.00	<3.06	5.32	<0.70				
03U013	10-Nov-87	F16	<1.93	7.73	120.00	<1.47	<0.10	<2.18	2.52	160.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U014	04-Dec-87	F16	<1.93	<4.81	180.00	<1.47	0.11	3.03	1.40	8.50	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U014	17-Aug-88	F19		<6.01	138.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03U015	17-Nov-87	F16	<1.93	<4.81	59.80	<1.47	0.15	4.15	2.33	2.70	<5.94	<2.65	<10.00	3.29	<2.70	<0.70	<8.35			
03U015	05-Apr-88	F18		<6.01	40.00		<0.37	<2.50			<5.32	<1.26					<8.17			
03U017	10-Nov-87	F16	<1.93	<4.81	51.50	<1.47	<0.10	3.19	2.43	9.60	<5.94	4.59	<10.00	<3.06	<2.70	<0.70				
03U018	04-Dec-87	F16	<1.93	<4.81	89.20	<1.47	0.17	3.03	2.13	2.20	6.15	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U018	22-Aug-88	F19		<6.01	46.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross	Gross	Gross	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
			Alpha Radiation ALPHAG (pC/l)	Beta Radiation BETAG (pC/l)	Gamma Radiation GAMMAS (pC/l)										
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03M004	09-Aug-88	F19													
03M005	08-Dec-87	F16				<29.40									
03M005	06-Apr-88	F18													
03M005	11-Aug-88	F19													
03M013	10-Nov-87	F16				<29.40									
03M017	10-Nov-87	F16				<29.40									
03M020	18-Aug-88	F19													
03M505	Well Abandoned														
03M505	09-Nov-87	F16				<29.40									
03U001	16-Nov-87	F16				<29.40									
03U002	17-Nov-87	F16				<29.40									
03U003	19-Nov-87	F16				<29.40									
03U003	11-Aug-88	F19													
03U004	18-Nov-87	F16				<29.40									
03U004	09-Aug-88	F19													
03U005	23-Nov-87	F16				<29.40									
03U005	06-Apr-88	F18													
03U005	10-Aug-88	F19													
03U007	09-Nov-87	F16				<29.40									
03U007	23-Nov-92	M37							<1.00						
03U008	09-Nov-87	F16				<29.40									
03U009	20-Nov-87	F16				<29.40									
03U009	22-Feb-93	M38							2.00						
03U010	09-Nov-87	F16				<29.40									
03U012	09-Nov-87	F16				<29.40									
03U013	10-Nov-87	F16				<29.40									
03U014	04-Dec-87	F16	<3.00	1.70		<29.40									
03U014	17-Aug-88	F19				<25.00									
03U015	17-Nov-87	F16				<29.40									
03U015	05-Apr-88	F18													
03U017	10-Nov-87	F16				<29.40									
03U018	04-Dec-87	F16	<1.70	<1.00	<10.00	<29.40									
03U018	22-Aug-88	F19				<25.00									

TABLE IV - 3  
TCAAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)
TCAAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03U019	23-Nov-87	F16	2.67	<4.81	110.00	<1.47	0.13	3.03	18.30	7.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U019	12-Aug-88	F19		<6.01	95.80		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03U019	19-Jul-90	F27	<0.50	<6.01	94.70		<0.37	<2.50	<1.56	5.45	<5.32	<1.26	<25.50							
03U020	07-Dec-87	F16	<1.93	<4.81	179.00	<1.47	0.13	4.04	1.58	3.60	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U020	17-Aug-88	F19		<6.01	81.60		<0.37	<2.50			<5.32	<1.26								
03U022	05-Apr-88	F18		<6.01	129.00		0.56	<2.50			<5.32	<1.26								
03U023	10-Nov-87	F16	<1.93	<4.81	58.80	<1.47	<0.10	<2.18	0.79	12.50	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U023	15-Nov-88	F20		<6.01	38.40		<0.37	<2.50			<5.32	<1.26								
03U024	10-Aug-88	F19		<6.01	173.00		<0.37	<2.50			<5.32	<1.26								
03U025	10-Aug-88	F19		<6.01	118.00		<0.37	<2.50			<5.32	<1.26								
03U026	18-Nov-87	F16	3.32	<4.81	80.00	<1.47	<0.10	4.25	1.93	4.45	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U026	08-Apr-88	F18		<6.01	55.70		<0.37	<2.50			<5.32	<1.26					<8.17			
03U026	22-Aug-88	F19		<6.01	66.20		<0.37	4.10			<5.32	<1.26				<0.74	<8.17			
03U026	19-Jul-90	F27	<0.50	<6.01	129.00		<0.37	3.24	<1.56	7.17	<5.32	<1.26	<25.50							
03U027	20-Nov-87	F16	2.97	<4.81	240.00	<1.47	<0.10	2.53	1.39	350.00	9.32	4.08	<10.00	<3.06	<2.70					
03U027	16-Aug-88	F19		<6.01	154.00		<0.37	<2.50			<5.32	<1.26								
03U028	03-Dec-87	F16	<1.93	<4.81	72.50	<1.47	0.22	4.04	3.42	2.20	<5.94	<2.65	<10.00	<3.06	<2.70					
03U028	22-Aug-88	F19		<6.01	39.40		<0.37	2.90			<5.32	<1.26				<0.74	<8.17			
03U029	03-Dec-87	F16	<1.93	<4.81	81.40	<1.47	<0.10	<2.18	2.62	7.20	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U029	17-Aug-88	F19		<6.01	53.90		<0.37	<2.50			<5.32	<1.26				<0.74	8.67			
03U030	03-Dec-87	F16	<1.93	<4.81	220.00	<1.47	0.12	3.03	1.33	75.00	<5.94	<2.65	<10.00	<3.06	<2.70					
03U030	22-Aug-88	F19		<6.01	260.00		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03U031	10-Aug-88	F19		<6.01	50.20		<0.37	<2.50			<5.32	<1.26								
03U032	20-Nov-87	F16	<1.93	<4.81	29.40	<1.47	0.11	3.03	3.02	3.15	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U032	08-Apr-88	F18		<6.01	20.50		<0.37	<2.50			<5.32	<1.26								
03U032	22-Aug-88	F19		<6.01	<9.10		<0.37	3.53			<5.32	<1.26				<0.74	<8.17			
03U032	18-Jul-90	F27	<0.50	<6.01	32.70		<0.37	3.24	<1.56	3.69	<5.32	<1.26	<25.50							
03U075	10-Nov-87	F16	<1.93	<4.81	51.00	<1.47	<0.10	<2.18	0.99	6.40	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U075	18-Aug-88	F19		<6.01	45.10		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03U076	10-Nov-87	F16	<1.93	<4.81	133.00	<1.47	<0.10	<2.18	1.24	110.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U076	18-Aug-88	F19		<6.01	61.40		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03U078	23-Nov-87	F16	6.53	<4.81	100.00	<1.47	<0.10	5.06	1.53	6.50	6.21	<2.65	<10.00	<3.06	<2.70	<0.70				
03U078	18-Aug-88	F19		<6.01	47.40		<0.37	<2.50			<5.32	<1.26								
03U079	04-Dec-87	F16	<1.93	<4.81	82.40	<1.47	<0.10	<2.18	1.44	5.20	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U079	18-Aug-88	F19		<6.01	41.50		<0.37	<2.50			<5.32	<1.26								
03U083	10-Aug-88	F19		<6.01	98.80		<0.37	<2.50			<5.32	<1.26								

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pCi/l)	Gross Beta Radiation BETAG (pCi/l)	Gross Gamma Radiation GAMMAS (pCi/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03U019	23-Nov-87	F16				30.10									
03U019	12-Aug-88	F19				<25.00									
03U019	19-Jul-90	F27													
03U020	07-Dec-87	F16				<29.40									
03U020	17-Aug-88	F19													
03U022	05-Apr-88	F18													
03U023	10-Nov-87	F16				<29.40									
03U023	15-Nov-88	F20													
03U024	10-Aug-88	F19													
03U025	10-Aug-88	F19				<25.00									
03U026	18-Nov-87	F16				<29.40									
03U026	08-Apr-88	F18													
03U026	22-Aug-88	F19				<25.00									
03U026	19-Jul-90	F27													
03U027	20-Nov-87	F16				<29.40									
03U027	16-Aug-88	F19													
03U028	03-Dec-87	F16				<29.40									
03U028	22-Aug-88	F19				<25.00									
03U029	03-Dec-87	F16				<29.40									
03U029	17-Aug-88	F19				<25.00									
03U030	03-Dec-87	F16				<29.40									
03U030	22-Aug-88	F19				<25.00									
03U031	10-Aug-88	F19													
03U032	20-Nov-87	F16	2.80	3.50		<29.40									
03U032	08-Apr-88	F18													
03U032	22-Aug-88	F19				<25.00									
03U032	18-Jul-90	F27													
03U075	10-Nov-87	F16				<29.40									
03U075	18-Aug-88	F19				<25.00									
03U076	10-Nov-87	F16				<29.40									
03U076	18-Aug-88	F19				<25.00									
03U078	23-Nov-87	F16				<29.40									
03U078	18-Aug-88	F19													
03U079	04-Dec-87	F16				<29.40									
03U079	18-Aug-88	F19													
03U083	10-Aug-88	F19													

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03U084	23-Nov-87	F16	<1.93	<4.81	177.00	<1.47	<0.10	<2.18	2.48	160.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U087	20-Nov-87	F16	<1.93	<4.81	67.60	<1.47	<0.10	4.04	2.87	<1.19	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U087	11-Apr-88	F18		<6.01	24.70		<0.37	<2.50			<5.32	<1.26								
03U087	17-Nov-88	F20		<6.01	45.60		<0.37	2.64			<5.32	<1.26								
03U087	27-Mar-91	F30																		
03U087	12-Mar-92	F34																		
03U087	04-Mar-93	F38																		
03U087	(4) 04-Mar-93	F38																		
03U088	17-Nov-87	F16	2.72	<4.81	98.00	<1.47	0.15	5.61	2.08	4.30	<5.94	<2.65	<10.00	4.27	<2.70	<0.70	<8.35			
03U088	05-Apr-88	F18		<6.01	54.60		<0.37	3.51			<5.32	<1.26					<8.17			
03U089	20-Nov-87	F16	3.66	<4.81	80.40	<1.47	0.12	28.00	1.44	5.50	8.80	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U089	05-Apr-88	F18		<6.01	88.20		<0.37	44.40			<5.32	<1.26					<8.17			
03U090	19-Nov-87	F16	1.93	<4.81	61.80	<1.47	<0.10	4.04	1.88	1.50	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U090	06-Apr-88	F18		<6.01	40.20		<0.37	<2.50			<5.32	<1.26					<8.17			
03U090	16-Aug-88	F19		<6.01	53.00		<0.37	<2.50			<5.32	<1.26			<0.74		<8.17			
03U090	19-Jul-90	F27	<0.50	<6.01	35.10		<0.37	2.70	<1.56	5.45	<5.32	<1.26	<25.50							
03U090	(4) 19-Jul-90	F27	<0.50		36.80			2.63	<1.56	3.84	<5.32	<1.26	<25.50							
03U092	23-Nov-87	F16	2.97	<4.81	220.00	<1.47	<0.10	<2.18	2.28	190.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U092	08-Apr-88	F18		<6.01	115.00		<0.37	<2.50			<5.32	<1.26					<8.17			
03U092	25-Aug-88	F19		<6.01	144.00		<0.37	<2.50			<5.32	<1.26			<0.74		16.70			
03U093	04-Dec-87	F16	<1.93	<4.81	220.00	<1.47	0.19	<2.18	1.29	1800.00	6.21	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U093	17-Aug-88	F19		<6.01	100.00		0.54	<2.50			<5.32	<1.26			<0.74		<8.17			
03U093	22-Feb-93	M38		<2.00		<0.20					3.00	<6.00		<2.00						
03U094	04-Dec-87	F16	<1.93	<4.81	240.00	<1.47	0.14	3.03	1.39	66.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U094	25-Aug-88	F19		<6.01	92.90		<0.37	<2.50			<5.32	<1.26			<0.74		<8.17			
03U094	24-Nov-92	M37		<2.00		<0.20							<6.00		<2.00					
03U096	04-Dec-87	F16	<1.93	<4.81	41.20	<1.47	0.11	3.54	1.87	2.20	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U096	25-Aug-88	F19		<6.01	34.10		<0.37	3.21			<5.32	<1.26			<0.74		<8.17			
03U097	20-Nov-87	F16	<1.93	<4.81	290.00	<1.47	<0.10	<2.18	1.63	380.00	7.25	<2.65	<10.00	<3.06	<2.70	<0.70				
03U097	07-Apr-88	F18		<6.01	130.00		<0.37	<2.50			<5.32	<1.26					<8.17			
03U099	19-Nov-87	F16	3.32	<4.81	46.10	<1.47	<0.10	2.78	2.03	350.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U099	11-Apr-88	F18		<6.01	32.80		<0.37	<2.50			<5.32	<1.26								
03U111	20-Nov-87	F16	<1.93	10.80	470.00	<1.47	0.13	<2.18	3.66	850.00		<2.65	<10.00	<3.06	<2.70	<0.70				
03U111	07-Apr-88	F18		9.84	320.00		<0.37	<2.50			<5.32	<1.26					<8.17			
03U112	20-Nov-87	F16	2.48	<4.81	82.40	<1.47	<0.10	4.04	2.08	3.75	6.73	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U112	08-Apr-88	F18		<6.01	51.30		<0.37	<2.50			<5.32	<1.26					17.40			
03U112	16-Aug-88	F19		<6.01	61.20		<0.37	2.65			<5.32	<1.26			<0.74		<8.17			
03U112	18-Jul-90	F27	<0.50	<6.01	99.10		<0.37	3.45	<1.56	14.00	<5.32	<1.26	<25.50		<0.74		12.00	11000.00		75.30
03U112	17-Sep-90	F27					0.42													
03U112	20-Sep-90	F27		<6.01	83.60		0.65	4.02			<5.32	3.31					<8.17	11000.00	33.70	110.00
03U112	28-Mar-91	F30															<8.17	9600.00	22.10	37.40
03U112	12-Mar-92	F34															<8.35	30000.00	<12.10	31.80



TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pCi/l)	Gross Beta Radiation BETAG (pCi/l)	Gross Gamma Radiation GAMMAS (pCi/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03U084	23-Nov-87	F16				<29.40									
03U087	20-Nov-87	F16				<29.40									
03U087	11-Apr-88	F18													
03U087	17-Nov-88	F20													
03U087	27-Mar-91	F30													
03U087	12-Mar-92	F34													
03U087	04-Mar-93	F38													
03U087	(4) 04-Mar-93	F38													
03U088	17-Nov-87	F16				<29.40									
03U088	05-Apr-88	F18													
03U089	20-Nov-87	F16				<29.40									
03U089	05-Apr-88	F18													
03U090	19-Nov-87	F16				<29.40									
03U090	06-Apr-88	F18													
03U090	16-Aug-88	F19				<25.00									
03U090	19-Jul-90	F27													
03U090	(4) 19-Jul-90	F27													
03U092	23-Nov-87	F16				<29.40									
03U092	08-Apr-88	F18													
03U092	25-Aug-88	F19				<25.00									
03U093	04-Dec-87	F16				<29.40									
03U093	17-Aug-88	F19				<25.00									
03U093	22-Feb-93	M38							<1.00						
03U094	04-Dec-87	F16	<3.60	<2.20		<29.40									
03U094	25-Aug-88	F19				<25.00									
03U094	24-Nov-92	M37							1.00						
03U096	04-Dec-87	F16				<29.40									
03U096	25-Aug-88	F19				<25.00									
03U097	20-Nov-87	F16				<29.40									
03U097	07-Apr-88	F18													
03U099	19-Nov-87	F16				<29.40									
03U099	11-Apr-88	F18													
03U111	20-Nov-87	F16				<29.40									
03U111	07-Apr-88	F18													
03U112	20-Nov-87	F16				<29.40									
03U112	08-Apr-88	F18													
03U112	16-Aug-88	F19				<25.00									
03U112	18-Jul-90	F27													
03U112	17-Sep-90	F27													
03U112	20-Sep-90	F27													
03U112	28-Mar-91	F30													
03U112	12-Mar-92	F34													

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03U112	08-Mar-93	F38																		
03U113	18-Nov-87	F16	<1.93	<4.81	53.90	<1.47	<0.10	<2.18	2.23	7.20	<5.94	2.76	<10.00	<3.06	<2.70	<0.70	<8.17	8700.00	10.10	17.30
03U113	06-Apr-88	F18		<6.01	36.40		<0.37	<2.50			<5.32	<1.26					<8.17			
03U113	09-Aug-88	F19		<6.01	25.90		<0.37	2.55			<5.32	<1.26				<0.74	<8.17			
03U113	18-Jul-90	F27	<0.50	<6.01	45.80		0.86	<2.50	<1.56	7.16	<5.32	<1.26	<25.50							
03U114	23-Nov-87	F16	<1.93	<4.81	52.90	<1.47	0.33	4.04	12.40	2.25	<5.94	5.10	<10.00	<3.06	<2.70	<0.70	<8.35			
03U114	11-Apr-88	F18		<6.01	25.20		<0.37	<2.50			22.90	<1.26					<8.17			
03U114	09-Aug-88	F19		<6.01	33.90		<0.37	2.93			<5.32	<1.26				<0.74	<8.17			
03U114	18-Jul-90	F27	<0.50	<6.01	46.20		<0.37	<2.50	<1.56	11.10	<5.32	<1.26	<25.50							
03U121	08-Dec-87	F16	<1.93	<4.81	33.30	<1.47	<0.10	<2.18	2.52	100.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U121	08-Apr-88	F18		<6.01	29.90		<0.37	<2.50			<5.32	<1.26					<8.17			
03U121	16-Aug-88	F19		<6.01	39.40		<0.37	<2.50			<5.32	<1.26				<0.74	<8.17			
03U121	18-Jul-90	F27	<0.50	<6.01	42.10		<0.37	2.96	<1.56	9.66	<5.32	<1.26	<25.50			<0.74	<8.17	470.00		67.20
03U121	17-Sep-90	F27		<6.01	36.30			3.22			<5.32	2.67					<8.17	320.00	<10.30	23.20
03U121	28-Mar-91	F30															<8.17	161.00	20.30	21.70
03U121	12-Mar-92	F34															<8.35	1800.00	<12.10	45.10
03U121	08-Mar-93	F38															<8.17	840.00	<10.30	15.60
03U124	08-Apr-88	F18		<6.01	25.80		<0.37	<2.50			<5.32	<1.26				<0.74				
03U124	18-Aug-88	F19		<6.01	38.00		<0.37	4.88			<5.32	<1.26				<0.74	<8.17			
03U129	08-Dec-87	F16	<1.93	9.28	370.00	<1.47	0.17	<2.18	4.95	380.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
03U129	07-Apr-88	F18		<6.01	160.00		<0.37	<2.50			<5.32	<1.26					<8.17			
03U301	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<50.00	<1.00				<0.20	60.00			
03U301	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	30.00		<50.00	3.00				<0.20	10.00		20.00	90.00
03U301	24-Oct-89	A24		<5.00	35.00		<8.00	<9.00	26.00		<16.00	2.00				<0.20	10.00		20.00	<50.00
03U301	18-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00		30.00	<50.00
03U314	20-Apr-89	A22		8.00	200.00		<0.10	<1.00	<10.00		<50.00	<1.00				<0.20	<10.00			
03U314	19-Jul-89	A23		11.00	<200.00		0.10	<1.00	<10.00		<50.00	2.00				<0.20	<10.00		160.00	230.00
03U314	24-Oct-89	A24		11.00	230.00		<8.00	<9.00	<4.00		<16.00	1.00				<0.20	<10.00		140.00	260.00
03U314	19-Jan-90	A25		12.00	300.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00		260.00	320.00
03U315	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	50.00		<50.00	9.00				<0.20	<10.00			
03U315	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	30.00		<50.00	3.00				<0.20	<10.00		140.00	150.00
03U315	24-Oct-89	A24		<5.00	100.00		<8.00	<9.00	<4.00		<16.00	3.00				<0.20	<10.00		150.00	160.00
03U315	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	4.00				<0.20	<10.00		170.00	210.00
03U316	20-Apr-89	A22		<3.00	<200.00		0.20	2.00	300.00		<50.00	66.00				<0.20	<10.00			
03U316	19-Jul-89	A23		<2.00	<200.00		0.10	<1.00	70.00		<50.00	22.00				<0.20	<10.00		20.00	70.00
03U316	24-Oct-89	A24		<5.00	90.00		<8.00	<9.00	<4.00		<16.00	4.00				<0.20	<10.00		20.00	<50.00
03U316	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	2.00				<0.20	<10.00		40.00	50.00
03U317	20-Apr-89	A22		<3.00	<200.00		<0.10	1.00	50.00		<50.00	30.00				<0.20	10.00			
03U317	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	30.00		<50.00	15.00				<0.20	<10.00		30.00	50.00
03U317	25-Oct-89	A24		<5.00	110.00		<8.00	<9.00			<16.00	2.00				<0.20	<10.00		30.00	80.00
03U317	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	5.00				<0.20	20.00		40.00	60.00
03U521	20-Nov-87	F16	1.98	<4.81	33.30	<1.47	<0.10	2.53	2.97	4.45	6.21	4.59	<10.00	<3.06	<2.70	<0.70				
03U521	11-Apr-88	F18		<6.01	19.40		<0.37	<2.50			<5.32	<1.26								

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03U112	08-Mar-93	F38													
03U113	18-Nov-87	F16	4.20	2.70		<29.40									
03U113	06-Apr-88	F18													
03U113	09-Aug-88	F19				<25.00									
03U113	18-Jul-90	F27													
03U114	23-Nov-87	F16				<29.40									
03U114	11-Apr-88	F18													
03U114	09-Aug-88	F19				<25.00									
03U114	18-Jul-90	F27													
03U121	08-Dec-87	F16				<29.40									
03U121	08-Apr-88	F18													
03U121	16-Aug-88	F19				<25.00									
03U121	18-Jul-90	F27													
03U121	17-Sep-90	F27													
03U121	28-Mar-91	F30													
03U121	12-Mar-92	F34													
03U121	08-Mar-93	F38													
03U124	08-Apr-88	F18	<0.70	2.20		<25.00									
03U124	18-Aug-88	F19				<25.00									
03U129	08-Dec-87	F16				<29.40									
03U129	07-Apr-88	F18													
03U301	20-Apr-89	A22				10.00									
03U301	19-Jul-89	A23				20.00									
03U301	24-Oct-89	A24				30.00									
03U301	18-Jan-90	A25				<4.00									
03U314	20-Apr-89	A22				80.00									
03U314	19-Jul-89	A23				80.00									
03U314	24-Oct-89	A24				15.00									
03U314	19-Jan-90	A25				<41.00									
03U315	20-Apr-89	A22				80.00									
03U315	19-Jul-89	A23				60.00									
03U315	24-Oct-89	A24				53.00									
03U315	19-Jan-90	A25				<4.00									
03U316	20-Apr-89	A22				1700.00									
03U316	19-Jul-89	A23				180.00									
03U316	24-Oct-89	A24				22.00									
03U316	19-Jan-90	A25				<4.00									
03U317	20-Apr-89	A22				110.00									
03U317	19-Jul-89	A23				400.00									
03U317	25-Oct-89	A24				<4.00									
03U317	19-Jan-90	A25				<4.00									
03U521	20-Nov-87	F16				<29.40									
03U521	11-Apr-88	F18													

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (I)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
03U521	18-Nov-88	F20		<6.01	16.80		<0.37	<2.50			<5.32	<1.26								
03U521	25-Apr-90	F26															<8.17			
03U521	19-Jul-90	F27															<8.17	1500.00	27.70	59.40
03U521	(4) 19-Jul-90	F27															<8.17	1400.00	21.50	53.00
03U671	04-Dec-87	F16	<1.93	<4.81	95.10	<1.47	<0.10	3.54	2.03	14.80	<5.94	<2.65	<10.00	<3.06	<2.70					
03U671	22-Aug-88	F19		<6.01	42.10		<0.37	<2.50			<5.32	<1.26								
03U704	10-Nov-87	F16	<1.93	<4.81	45.10	<1.47	1.46	<2.18	1.93	140.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70	<8.35			
03U704	05-Apr-88	F18		<6.01	30.10		<0.37	<2.50			<5.32	<1.26					<8.17			
03U801	03-Dec-87	F16														<0.70				
03U803	01-Dec-87	F16														<0.70				
03U804	01-Dec-87	F16														<0.70				
03U805	01-Dec-87	F16														<0.70				
03U806	02-Dec-87	F16														<0.70				
03U811	25-Nov-87	F16														<0.70				
03U821	30-Nov-87	F16														<0.70				
03U822	01-Dec-87	F16														<0.70				
03U824	01-Dec-87	F16														<0.70				
03U831	25-Nov-87	F16														<0.70				
03U832	24-Nov-87	F16														<0.70				
04U001	16-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.19	280.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
04U002	17-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	0.79	360.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
04U003	19-Nov-87	F16	<1.93	<4.81	130.00	<1.47	<0.10	<2.18	0.99	210.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
04U007	09-Nov-87	F16	<1.93	<4.81	186.00	<1.47	<0.10	<2.18	1.68	400.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
04U012	09-Nov-87	F16	<1.93	<4.81	490.00	<1.47	<0.10	2.33	1.24	520.00	<5.94	<2.65	<10.00	<3.06	5.22	<0.70				
04U020	07-Dec-87	F16	<1.93	21.10	910.00	<1.47	<0.10	<2.18	1.53	1100.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
04U020	17-Aug-88	F19		21.20	570.00		<0.37	<2.50			<5.32	1.84								
04U077	04-Dec-87	F16	<1.93	<4.81	240.00	<1.47	<0.10	<2.18	1.34	200.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
04U510	18-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	2.28	270.00	<5.94	3.78	<10.00	<3.06	<2.70	<0.70				
04U806	02-Dec-87	F16														<0.70				
04U821	30-Nov-87	F16														<0.70				
04U821	19-Apr-90	F26															<8.17			

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
03U521	18-Nov-88	F20													
03U521	25-Apr-90	F26													
03U521	19-Jul-90	F27													
03U521	(4) 19-Jul-90	F27													
03U671	04-Dec-87	F16				<29.40									
03U671	22-Aug-88	F19													
03U704	10-Nov-87	F16				<29.40									
03U704	05-Apr-88	F18													
03U801	03-Dec-87	F16													
03U803	01-Dec-87	F16													
03U804	01-Dec-87	F16													
03U805	01-Dec-87	F16													
03U806	02-Dec-87	F16													
03U811	25-Nov-87	F16													
03U821	30-Nov-87	F16													
03U822	01-Dec-87	F16													
03U824	01-Dec-87	F16													
03U831	25-Nov-87	F16													
03U832	24-Nov-87	F16													
04U001	16-Nov-87	F16				<29.40									
04U002	17-Nov-87	F16				<29.40									
04U003	19-Nov-87	F16				<29.40									
04U007	09-Nov-87	F16				<29.40									
04U012	09-Nov-87	F16				<29.40									
04U020	07-Dec-87	F16	<1.60	<1.00	<10.00	<29.40									
04U020	17-Aug-88	F19													
04U077	04-Dec-87	F16				<29.40									
04U510	18-Nov-87	F16				71.10									
04U806	02-Dec-87	F16													
04U821	30-Nov-87	F16													
04U821	19-Apr-90	F26													

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
04U821	23-Jul-90	F27															<8.17	550.00	<10.30	21.50
04U821	23-Jul-90	F27															<8.17	540.00	<10.30	20.00
04U821	18-Sep-90	F27																		<9.36
04U821	20-Sep-90	F27															<8.17	420.00	10.50	31.40
04U832	24-Nov-87	F16														<0.70				
04U850	02-May-89	F22																	<10.30	23.80
04U850	19-Jul-89	F23																	<12.10	79.80
04U850	19-Oct-89	F24																	<12.10	35.10
04U871	23-Aug-88	F19																	28.50	
04U871	08-May-89	F22																	17.40	19.70
04U871	19-Jul-89	F23																	<12.10	42.60
04U871	23-Oct-89	F24																	<12.10	45.30
04U872	24-Aug-88	F19																	<10.30	
04U872	08-May-89	F22																	<10.30	13.90
04U872	19-Jul-89	F23																	<12.10	35.00
04U872	23-Oct-89	F24																	<12.10	24.60
04U875	23-Aug-88	F19																	10.20	
04U875	19-Jul-89	F23																	<12.10	44.40
04U875	19-Oct-89	F24																	<12.10	53.90
04U877	23-Aug-88	F19																	34.70	
04U877	02-May-89	F22																	<10.30	15.60
04U877	18-Jul-89	F23																	<12.10	61.10
04U877	19-Oct-89	F24																	<12.10	50.20
04U879	19-Jul-89	F23																	<12.10	36.90
04U879	17-Oct-89	F24																	<12.10	16.30
04U880	18-Jul-89	F23																	<12.10	61.10
04U880	19-Oct-89	F24																	<12.10	52.00
04U881	18-Jul-89	F23																	<12.10	46.30
04U881	18-Oct-89	F24																	<12.10	38.90
04U882	17-Jul-89	F23																	<12.10	63.10
04U882	18-Oct-89	F24																	<12.10	29.40
04U883	14-Oct-88	F20																		82.40
04U883	17-Jul-89	F23																	<12.10	29.40
04U883	18-Oct-89	F24																	<12.10	21.90
191942	30-Nov-87	F16														<0.70				
206688	23-Oct-89	F24																	<12.10	45.30
409595	30-Nov-87	F16														<0.70				
409596	30-Nov-87	F16														<0.70				

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr. (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
04U821	23-Jul-90	F27													
04U821	(4) 23-Jul-90	F27													
04U821	18-Sep-90	F27													
04U821	20-Sep-90	F27													
04U832	24-Nov-87	F16													
04U850	02-May-89	F22													
04U850	19-Jul-89	F23													
04U850	19-Oct-89	F24													
04U871	23-Aug-88	F19													
04U871	08-May-89	F22													
04U871	19-Jul-89	F23													
04U871	23-Oct-89	F24													
04U872	24-Aug-88	F19													
04U872	08-May-89	F22													
04U872	19-Jul-89	F23													
04U872	23-Oct-89	F24													
04U875	23-Aug-88	F19													
04U875	19-Jul-89	F23													
04U875	19-Oct-89	F24													
04U877	23-Aug-88	F19													
04U877	02-May-89	F22													
04U877	18-Jul-89	F23													
04U877	19-Oct-89	F24													
04U879	19-Jul-89	F23													
04U879	17-Oct-89	F24													
04U880	18-Jul-89	F23													
04U880	19-Oct-89	F24													
04U881	18-Jul-89	F23													
04U881	18-Oct-89	F24													
04U882	17-Jul-89	F23													
04U882	18-Oct-89	F24													
04U883	14-Oct-88	F20													
04U883	17-Jul-89	F23													
04U883	18-Oct-89	F24													
191942	30-Nov-87	F16													
206688	23-Oct-89	F24													
409595	30-Nov-87	F16													
409596	30-Nov-87	F16													

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
409597	30-Nov-87	F16														<0.70				
409598	30-Nov-87	F16														<0.70				
500691	17-Oct-89	F24																	<12.10	52.00
508115	18-Oct-89	F24																	<12.10	65.20
PJ#003	19-Nov-87	F16	<1.93	<4.81	130.00	<1.47	<0.10	<2.18	0.94	330.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#027	20-Nov-87	F16	<1.93	<4.81	190.00	<1.47	<0.10	<2.18	1.49	250.00	6.21	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#074	03-Dec-87	F16	<1.93	<4.81	220.00	<1.47	0.15	<2.18	1.10	410.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#074	19-Aug-88	F19		<6.01	134.00		<0.37	<2.50			<5.32	<1.26								
PJ#309	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	20.00		<50.00	8.00				<0.20	<10.00			
PJ#309	19-Jul-89	A23		<2.00	<200.00		0.20	<1.00	100.00		<50.00	42.00				<0.20	<10.00	20.00	90.00	
PJ#309	23-Oct-89	A24		<5.00	140.00		<8.00	<9.00	7.00		<16.00	7.00				<0.20	<10.00	30.00	<50.00	
PJ#309	18-Jan-90	A25		<5.00	200.00		<8.00	<9.00	<4.00		<16.00	16.00				<0.20	<10.00	30.00	50.00	
PJ#310	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<50.00	24.00				<0.20	<10.00			
PJ#310	19-Jul-89	A23		<2.00	200.00		0.20	<1.00	80.00		<50.00	26.00				<0.20	<10.00	20.00	70.00	
PJ#310	11-Oct-89	A24		<5.00	140.00		<8.00	<9.00	<4.00		<16.00	1.00				<0.20	<10.00	<20.00	1100.00	
PJ#310	19-Jan-90	A25		<5.00	300.00		<8.00	<9.00	39.00		<16.00	87.00				<0.20	<10.00	30.00	<50.00	
PJ#311	20-Apr-89	A22		<3.00	<200.00		<0.10	2.00	20.00		<50.00	50.00				<0.20	<10.00			
PJ#311	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	<10.00		<50.00	2.00				<0.20	<10.00	20.00	<50.00	
PJ#311	24-Oct-89	A24		<5.00	120.00		<8.00	<9.00	<4.00		<16.00	2.00				<0.20	<10.00	20.00	<50.00	
PJ#311	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	30.00	160.00	
PJ#313	20-Apr-89	A22		<3.00	<200.00		<0.10	<1.00	<10.00		<50.00	<1.00				<0.20	<10.00			
PJ#313	19-Jul-89	A23		<2.00	<200.00		<0.10	<1.00	50.00		<50.00	4.00				<0.20	<10.00	<20.00	80.00	
PJ#313	23-Oct-89	A24		<5.00	64.00		<8.00	<9.00	19.00		<16.00	2.00				<0.20	<10.00	20.00	50.00	
PJ#313	19-Jan-90	A25		<5.00	<200.00		<8.00	<9.00	<4.00		<16.00	<1.00				<0.20	<10.00	30.00	<50.00	
PJ#318	24-Aug-88	F19																	<10.30	
PJ#318	02-May-89	F22																	<10.30	32.80
PJ#318	19-Jul-89	F23																	<12.10	33.10
PJ#318	18-Oct-89	F24																	<12.10	12.60
PJ#502	18-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.73	240.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#503	18-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.53	360.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#506	19-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	0.89	560.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#507	18-Nov-87	F16	<1.93	<4.81	<220.00	<1.47	<0.10	<2.18	1.39	680.00	<5.94	<2.65	<10.00	<3.06	<2.70	<0.70				
PJ#508	23-Aug-88	F19		8.53	360.00		<0.37	<2.50			<5.32	<1.26								
PJ#806	02-Dec-87	F16														<0.70				
PJ#806	23-Apr-90	A26																		
Big 10 Supper Clt	14-Sep-93	M40		4.00		<0.20	<0.02	<10.00	10.00	560.00	<20.00	<2.00	<6.00		4.00	<0.20				



TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pCi/l)	Gross Beta Radiation BETAG (pCi/l)	Gross Gamma Radiation GAMMAS (pCi/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
409597	30-Nov-87	F16													
409598	30-Nov-87	F16													
500691	17-Oct-89	F24													
508115	18-Oct-89	F24													
PJ#003	19-Nov-87	F16				<29.40									
PJ#027	20-Nov-87	F16				<29.40									
PJ#074	03-Dec-87	F16	3.50	5.30		<29.40									
PJ#074	19-Aug-88	F19													
PJ#309	20-Apr-89	A22				40.00									
PJ#309	19-Jul-89	A23				340.00									
PJ#309	23-Oct-89	A24				53.00									
PJ#309	18-Jan-90	A25				<4.00									
PJ#310	20-Apr-89	A22				20.00									
PJ#310	19-Jul-89	A23				270.00									
PJ#310	11-Oct-89	A24				28.00									
PJ#310	19-Jan-90	A25				<1200.00									
PJ#311	20-Apr-89	A22				180.00									
PJ#311	19-Jul-89	A23				50.00									
PJ#311	24-Oct-89	A24				37.00									
PJ#311	19-Jan-90	A25				<4.00									
PJ#313	20-Apr-89	A22				<0.01									
PJ#313	19-Jul-89	A23				60.00									
PJ#313	23-Oct-89	A24				36.00									
PJ#313	19-Jan-90	A25				<4.00									
PJ#318	24-Aug-88	F19													
PJ#318	02-May-89	F22													
PJ#318	19-Jul-89	F23													
PJ#318	18-Oct-89	F24													
PJ#502	18-Nov-87	F16				<29.40									
PJ#503	18-Nov-87	F16				<29.40									
PJ#506	19-Nov-87	F16				<29.40									
PJ#507	18-Nov-87	F16				<29.40									
PJ#508	23-Aug-88	F19													
PJ#806	02-Dec-87	F16													
PJ#806	23-Apr-90	A26													
Big 10 Supper Clt	14-Sep-93	M40				30.00			2.00	120.00					11.00

TABLE IV - 3  
TCAAP Groundwater Quality Data (Inorganics) - (1)

Well	Date	Qtr (2)	Silver AG (ug/l)	Arsenic AS (ug/l)	Barium BA (ug/l)	Beryllium BE (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Manganese MN (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Antimony SB (ug/l)	Selenium SE (ug/l)	Thallium TL (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Nitrate NIT (ug/l)	Ortho phos- phates PO4ORT (ug/l)	Total Phos- phates TPO4 (ug/l)
TCAAP GW Action Criteria - ug/l (3)			0.09	0.20	1000.00	0.08	4.00	50.00	1.00		70.00	5.00	1.00	10.00	0.30	1.00	100.00			
Dewitt	20-Sep-93	M40		2.00		<0.20	3.80	<10.00	<10.00	480.00	<20.00	<2.00	<6.00		<2.00	<0.20				
Indy K.	22-Sep-93	M40		2.00		<0.20	<0.20	<10.00	30.00	50.00	<20.00	3.00	<6.00		<2.00	<0.20				

**TABLE IV - 3**  
**TCAAP Groundwater Quality Data (Inorganics) - (1)**

Well	Date	Qtr (2)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMMAS (pC/l)	Zinc ZN (ug/l)	Aluminum AL (ug/l)	Calcium CA (ug/l)	Cobalt CO (ug/l)	Iron FE (ug/l)	Potassium K (ug/l)	Magnesium MG (ug/l)	Molybdenum MO (ug/l)	Sodium NA (ug/l)	Vanadium V (ug/l)
TCAAP GW Action Criteria - ug/l (3)						700.00			1.00						20.00
Dewitt	20-Sep-93	M40				30.00			<1.00	340.00					5.00
Indy K.	22-Sep-93	M40				110.00			1.00	1200.00					20.00

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## Table IV-4

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### TCAAP Surface Water Quality Data (PCBs)

Notes:

- (1) Sites refer to monitoring locations illustrated on Figure VIII-1 of this report.
- (2) Qtr = Quarter. Under this heading, F = FCC.

**TABLE IV - 4**  
**TCAAP Surface Water Quality Data (PCBs)**

Location (1)	Date	QTR (2)	PCB 1016	PCB 1232	PCB 1242	PCB 1248	PCB 1254	PCB 1260	Total PCB
20100	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20200	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20300	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20400	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20500	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20700	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20800	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
20900	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
21000	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
21100	11-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
21200	12-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
21300	12-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
21400	12-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00
21600	12-May-93	F39	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00	<1.00

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## Table IV-5

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### TCAAP Surface Water Quality Data (Organics)

Notes:

- (1) This table represents monitoring performed for FCC during FY 93 in accordance with the TCAAP National Pollutant Discharge Elimination System (NPDES) permit.
- (2) Sites refer to monitoring locations illustrated on Figure VIII-1 of this report.
- (3) Qtr = Quarter. Under this heading, F = FCC.
- (4) TCAAP SW Action Criteria = surface water action criteria set forth in Table 3.7B of the Federal Facilities Agreement.

Shading denotes exceedances or potential exceedances of TCAAP action criteria. Exceedances are concentrations greater than the TCAAP action criteria. Potential exceedances are values reported as "less than the method detection limit," where the method detection limit is greater than the TCAAP action criteria.

**TABLE IV - 5**  
**TCAAP Surface Water Quality Data (Organics) - ug/l (1)**

Location (2)	Date	Qtr (3)	Trichloro ethene TRCLE	1,1- Dichloro ethene 11DCE	1,1,1- Trichloro ethane 111TCE	1,1- Dichloro ethane 11DCLE	Methylene Chloride CH2CL2	Oil & Grease OILGR (mg/l)	Total Organic Carbon TOC
TCAAP SW Action Criteria (4)			15	0.33	18000	9.4			
20100	07-Oct-92	F37						<1.00	
20100	12-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	1.00	9.00
20100	10-Dec-92	F37						<1.00	
20100	05-Jan-93	F38						<1.00	
20100	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.010
20100	03-Mar-93	F38						<1.00	
20100	06-Apr-93	F39						<1.00	
20100	11-May-93	F39						4.00	18.20
20100	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20100	17-Jun-93	F39						<1.00	
20100	16-Jul-93	F40						<1.00	
20100	10-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	15.00
20100	10-Sep-93	F40						<1.00	
20200	07-Oct-92	F37						<1.00	
20200	12-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	6.00
20200	10-Dec-92	F37						4.00	
20200	05-Jan-93	F38						<1.00	
20200	05-Feb-93	F38	5.72	<1.01	<1.16	<0.97	<1.41	<0.001	0.005
20200	03-Mar-93	F38						2.00	
20200	06-Apr-93	F39						<1.00	
20200	11-May-93	F39						<1.00	12.70
20200	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20200	17-Jun-93	F39						<1.00	
20200	16-Jul-93	F40						<1.00	
20200	10-Aug-93	F40	6.64	<1.01	<1.16	<0.97	<1.41	<1.00	7.40
20200	10-Sep-93	F40						<1.00	

**TABLE IV - 5**  
**TCAAP Surface Water Quality Data (Organics) - ug/l (1)**

Location (2)	Date	Qtr (3)	Trichloro ethene TRCLE	1,1- Dichloro ethene 11DCE	1,1,1- Trichloro ethane 111TCE	1,1- Dichloro ethane 11DCLE	Methylene Chloride CH2CL2	Oil & Grease OILGR (mg/l)	Total Organic Carbon TOC
TCAAP SW Action Criteria (4)			15	0.33	18000	9.4			
20300	07-Oct-92	F37						2.00	
20300	12-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	<5.00
20300	10-Dec-92	F37						<1.00	
20300	05-Jan-93	F38						<1.00	
20300	05-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	<0.005
20300	03-Mar-93	F38						2.00	
20300	06-Apr-93	F39						<1.00	
20300	11-May-93	F39						<1.00	8.85
20300	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20300	17-Jun-93	F39						<1.00	
20300	16-Jul-93	F40						<1.00	
20300	10-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	6.60
20300	10-Sep-93	F40						<1.00	
20400	07-Oct-92	F37						<1.00	
20400	11-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	6.00
20400	10-Dec-92	F37						<1.00	
20400	05-Jan-93	F38						<1.00	
20400	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.006
20400	03-Mar-93	F38						1.00	
20400	06-Apr-93	F39						<1.00	
20400	11-May-93	F39						<1.00	12.10
20400	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20400	17-Jun-93	F39						<1.00	
20400	16-Jul-93	F40						<1.00	
20400	09-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	10.00
20400	10-Sep-93	F40						<1.00	



**TABLE IV - 5**  
**TCAAP Surface Water Quality Data (Organics) - ug/l (1)**

Location (2)	Date	Qtr (3)	Trichloro ethene TRCLE	1,1- Dichloro ethene 11DCE	1,1,1- Trichloro ethane 111TCE	1,1- Dichloro ethane 11DCLE	Methylene Chloride CH2CL2	Oil & Grease OILGR (mg/l)	Total Organic Carbon TOC
TCAAP SW Action Criteria (4)			15	0.33	18000	9.4			
20500	07-Oct-92	F37						<1.00	
20500	11-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	5.00
20500	10-Dec-92	F37						<1.00	
20500	05-Jan-93	F38						<1.00	
20500	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.017
20500	03-Mar-93	F38						2.00	
20500	06-Apr-93	F39						<1.00	
20500	11-May-93	F39						2.00	10.60
20500	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20500	17-Jun-93	F39						<1.00	
20500	16-Jul-93	F40						<1.00	
20500	09-Aug-93	F40	1.29	<1.01	<1.16	<0.97	<1.41	2.00	9.10
20500	10-Sep-93	F40						<1.00	
20700	12-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	11.00
20700	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.016
20700	11-May-93	F39						<1.00	20.90
20700	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20700	10-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	1.00	21.00

**TABLE IV - 5**  
**TCAAP Surface Water Quality Data (Organics) - ug/l (1)**

Location (2)	Date	Qtr (3)	Trichloro ethene TRCLE	1,1- Dichloro ethene 11DCE	1,1,1- Trichloro ethane 111TCE	1,1- Dichloro ethane 11DCLE	Methylene Chloride CH2CL2	Oil & Grease OILGR (mg/l)	Total Organic Carbon TOC
TCAAP SW Action Criteria (4)			15	0.33	18000	9.4			
20800	07-Oct-92	F37						<1.00	
20800	11-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	12.00
20800	10-Dec-92	F37						<1.00	
20800	05-Jan-93	F38						<1.00	
20800	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.015
20800	03-Mar-93	F38						<1.00	
20800	06-Apr-93	F39						<1.00	
20800	11-May-93	F39						<1.00	19.10
20800	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20800	17-Jun-93	F39						<1.00	
20800	16-Jul-93	F40						<1.00	
20800	09-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	18.00
20800	10-Sep-93	F40						1.00	
20900	11-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	13.00
20900	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.008
20900	11-May-93	F39						<1.00	19.10
20900	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
20900	09-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	21.00
21000	12-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	11.00
21000	04-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.013
21000	11-May-93	F39						<1.00	18.80
21000	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
21000	09-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	16.00

**TABLE IV - 5**  
**TCAAP Surface Water Quality Data (Organics) - ug/l (1)**

Location (2)	Date	Qtr (3)	Trichloro ethene TRCLE	1,1- Dichloro ethene 11DCE	1,1,1- Trichloro ethane 111TCE	1,1- Dichloro ethane 11DCLE	Methylene Chloride CH2CL2	Oil & Grease OILGR (mg/l)	Total Organic Carbon TOC
TCAAP SW Action Criteria (4)			15	0.33	18000	9.4			
21100	12-Nov-92	F37	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	9.00
21100	05-Feb-93	F38	<1.04	<1.01	<1.16	<0.97	<1.41	<0.001	0.010
21100	11-May-93	F39						<1.00	19.20
21100	13-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41		
21100	10-Aug-93	F40	<1.04	<1.01	<1.16	<0.97	<1.41	2.00	14.00
21200	12-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41	1.00	27.20
21300	12-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	<5.00
21400	12-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41	<1.00	13.30
21600	12-May-93	F39	<1.04	<1.01	<1.16	<0.97	<1.41	1.00	<5.00

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## Table IV-6

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### TCAAP Surface Water Quality Data (Inorganics)

Notes:

- (1) This table represents monitoring performed for FCC during FY 93 in accordance with the TCAAP National Pollutant Discharge Elimination System (NPDES) permit. All concentration units are indicated below the respective parameters.
- (2) Sites refer to monitoring locations illustrated on Figure VIII-1 of this report.
- (3) Qtr = Quarter. Under this heading, F = FCC.
- (4) TCAAP SW Action Criteria = surface water action criteria set forth in Table 3.7B of the Federal Facilities Agreement. Criteria also exist for cadmium, chromium, and lead, but these are not shown since they involve a calculation using hardness. Refer to Table 3.7B (above) for these calculations.
- (5) Raw laboratory data not retrieved from IRDMIS.

Shading denotes exceedances or potential exceedances of TCAAP action criteria. Exceedances are concentrations greater than the TCAAP action criteria. Potential exceedances are values reported as "less than the method detection limit," where the method detection limit is greater than the TCAAP action criteria.

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**TABLE IV - 6**  
**TCAAP Surface Water Quality Data (Inorganics) - (1)**

Location (2)	Date	Qtr (3)	Silver AG (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Ortho Phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)	Zinc ZN (ug/l)	Gross Alpha Radiation ALPHAG (pCi/l)	Gross Beta Radiation BETAG (pCi/l)	Gross Gamma Radiation GAMAG (pCi/l)	Biological Oxygen Demand BOD (ug/l)
TCAAP SW Action Criteria (4)					11.00		13.40		0.14	5.20			47.00				
20100	07-Oct-92	F37									<12.10	25.10					
20100	11-Nov-92	F37															
20100	12-Nov-92	F37		<0.10	<2.18	2.73	<5.94			<8.35	<12.10	15.10	<29.40	<3.80	<4.50	16.70	<4000.00
20100	10-Dec-92	F37									45.50	19.10					
20100	05-Jan-93	F38									75.00	15.10					
20100	04-Feb-93	F38		<0.10	<2.18	3.42	<5.94			<8.35	<12.10	33.10	<29.40	<4.00	4.80	58.40	<4000.00
20100	03-Mar-93	F38									12.20	171.00					
20100	06-Apr-93	F39									19.90	34.10					
20100	11-May-93	F39	<1.93	<0.10	<2.18	3.11	<5.94	<2.65	<0.70	<8.35	<12.10	40.20	<29.40	<3.50	5.90	<11.60	<4000.00
20100	17-Jun-93	F39									24.60	120.00					
20100	16-Jul-93	F40									28.30	89.40					
20100	09-Aug-93	F40															
20100	10-Aug-93	F40		0.15	<2.18	12.00	<5.94			<8.35	<12.10	115.00	110.00				6000.00
20100	10-Sep-93	F40									<12.10	30.10					
20200	07-Oct-92	F37									<12.10	36.10					
20200	11-Nov-92	F37															
20200	12-Nov-92	F37		<0.10	<2.18	3.99	<5.94			<8.35	<12.10	57.20	<29.40				5000.00
20200	10-Dec-92	F37									540.00	2400.00					
20200	05-Jan-93	F38									61.10	19.10					
20200	04-Feb-93	F38															
20200	05-Feb-93	F38		<0.10	<2.18	3.26	<5.94			<8.35	15.00	54.20	<29.40				<4000.00
20200	03-Mar-93	F38									38.20	261.00					
20200	06-Apr-93	F39									18.30	52.20					
20200	11-May-93	F39	<1.93	0.76	<2.18	4.40	<5.94	<2.65	<0.70	<8.35	20.00	67.30	143.00	<7.80	<8.10	<9.30	<4000.00
20200	17-Jun-93	F39									<12.10	61.20					
20200	16-Jul-93	F40									15.00	54.20					
20200	09-Aug-93	F40															
20200	10-Aug-93	F40		0.13	<2.18	7.72	<5.94			<8.35	23.70	65.40	<29.40	<6.40	<7.30	<10.80	6000.00
20200	10-Sep-93	F40									<12.10	50.20					

**TABLE IV - 6**  
**TCAAAP Surface Water Quality Data (Inorganics) - (1)**

Location (2)	Date	Qtr (3)	Chemical Oxygen Demand COD (mg/l)	Dissolved Oxygen DO (ug/l)	Ammonia NH3 (ug/l)	Chloride CL (ug/l)	Lab pH	Field pH	Conductivity COND (umho)	Total Suspended Solids TSS (ug/l)	Coliform COLI (/100ml)	CO60 (pC/l)	CS137 (pC/l)	U234 (pC/l)	U235 (pC/l)	U238 (pC/l)
TCAAAP SW Action Criteria (4)																
20100	07-Oct-92	F37		820.00		18300.00	6.50		288.00	1000.00						
20100	11-Nov-92	F37		2870.00			6.62		262.00							
20100	12-Nov-92	F37	20.00		80.00	20700.00				1000.00	20.00	6.50	10.20	3.10	0.20	2.60
20100	10-Dec-92	F37		1710.00		21900.00	6.57		332.00	6000.00						
20100	05-Jan-93	F38		1350.00		24600.00	6.55		335.00	3000.00						
20100	04-Feb-93	F38	20.00	670.00	100.00	24400.00		7.22	385.00	4000.00	<10.00	<6.30	58.40	2.60	<0.60	2.70
20100	03-Mar-93	F38		520.00		27500.00		6.47	493.00	14000.00						
20100	06-Apr-93	F39		4800.00		22900.00		6.38	297.00	1000.00						
20100	11-May-93	F39	34.00	830.00	<50.00	23400.00	7.05		405.00	2000.00	40.00	<5.70	<5.90	<2.90	<1.60	2.90
20100	17-Jun-93	F39		1690.00		16300.00	7.26		261.00	4000.00						
20100	16-Jul-93	F40		830.00		16400.00	6.28		226.00	6000.00						
20100	09-Aug-93	F40	47.00	1510.00			6.85		217.00							
20100	10-Aug-93	F40			<50.00	11000.00				16000.00	370.00					
20100	10-Sep-93	F40		2310.00		13000.00	6.47		286.00	4000.00						
20200	07-Oct-92	F37		9510.00		21700.00	7.25		285.00	5000.00						
20200	11-Nov-92	F37		9700.00			8.19		778.00							
20200	12-Nov-92	F37	20.00		70.00	72000.00				2000.00	<10.00					
20200	10-Dec-92	F37		13100.00		216000.00	7.79		1140.00	210000.00						
20200	05-Jan-93	F38		13300.00		122000.00	8.06		1020.00	<1000.00						
20200	04-Feb-93	F38		11400.00				8.05	1030.00							
20200	05-Feb-93	F38	6.00		640.00	126000.00				1000.00	<10.00					
20200	03-Mar-93	F38		12500.00		55400.00	7.67		336.00	44000.00						
20200	06-Apr-93	F39		11700.00		133000.00		8.04	967.00	1000.00						
20200	11-May-93	F39	20.00	4600.00	<50.00	108000.00	7.59		1050.00	<1000.00	100.00	<4.70	<4.60	1.00	0.20	1.20
20200	17-Jun-93	F39		7700.00		67100.00	7.37		476.00	2000.00						
20200	16-Jul-93	F40		5000.00		103000.00	7.46		735.00	<1000.00						
20200	09-Aug-93	F40		8330.00			7.81		755.00							
20200	10-Aug-93	F40	14.00		200.00	67000.00				<1000.00	50.00	<4.40	<6.40	0.80	0.10	0.50
20200	10-Sep-93	F40		6290.00		74000.00	8.08		839.00	<1000.00						

**TABLE IV - 6**  
**TCAAP Surface Water Quality Data (Inorganics) - (1)**

Location (2)	Date	Qtr (3)	Silver AG (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Ortho Phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)	Zinc ZN (ug/l)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMAG (pC/l)	Biological Oxygen Demand BOD (ug/l)
TCAAP SW Action Criteria (4)					11.00		13.40		0.14	5.20			47.00				
20300	07-Oct-92	F37									<12.10	2300.00					
20300	11-Nov-92	F37															
20300	12-Nov-92	F37		<0.10	<2.18	3.69	<5.94			<8.35	<12.10	57.20	<29.40	<5.40	<5.60	<5.40	<4000.00
20300	10-Dec-92	F37									130.00	38.20					
20300	05-Jan-93	F38									104.00	120.00					
20300	04-Feb-93	F38															
20300	05-Feb-93	F38		0.18	<2.18	11.90	<5.94			<8.35	54.00	281.00	<29.40	<6.70	14.10	<18.60	7000.00
20300	03-Mar-93	F38									210.00	900.00					
20300	06-Apr-93	F39									111.00	32.10					
20300	11-May-93	F39	<1.93	0.14	<2.18	4.87	<5.94	<2.65	<0.70	<8.35	26.80	45.20	<29.40	<4.30	5.50	<10.80	<4000.00
20300	17-Jun-93	F39									<12.10	74.30					
20300	16-Jul-93	F40									29.00	120.00					
20300	09-Aug-93	F40															
20300	10-Aug-93	F40		<0.10	<2.18	25.00	<5.94			<8.35	<12.10	85.50	<29.40	<4.80	7.70	<9.40	<4000.00
20300	10-Sep-93	F40									<12.10	88.40					
20400	07-Oct-92	F37									<12.10	38.20					
20400	11-Nov-92	F37															
20400	10-Dec-92	F37		<0.10	2.28	2.94	<5.94			<8.35	<12.10	36.10	<29.40				<4000.00
20400	05-Jan-93	F38									105.00	74.30					
20400	04-Feb-93	F38		0.11	<2.18	4.33	<5.94			<8.35	<12.10	40.20					<4000.00
20400	03-Mar-93	F38									88.70	89.40	<29.40				
20400	06-Apr-93	F39									110.00	34.10					
20400	11-May-93	F39	<1.93	0.13	<2.18	3.87	<5.94	<2.65	<0.70	<8.35	21.60	38.20	<29.40	<4.60	5.90	<17.70	<4000.00
20400	17-Jun-93	F39									<12.10	91.10					
20400	16-Jul-93	F40									19.10	50.20					
20400	09-Aug-93	F40		<0.10	<2.18	4.85	<5.94			<8.35	46.90	69.10	<29.40	<4.40	<4.80	<11.20	<4000.00
20400	10-Sep-93	F40									<12.10	50.20					



**TABLE IV - 6**  
**TCAAP Surface Water Quality Data (Inorganics) - (1)**

Location (2)	Date	Qtr (3)	Chemical Oxygen Demand COD (mg/l)	Dissolved Oxygen DO (ug/l)	Ammonia NH3 (ug/l)	Chloride CL (ug/l)	Lab pH	Field pH	Conductivity COND (umho)	Total Suspended Solids TSS (ug/l)	Coliform COLI (/100ml)	CO60 (pC/l)	CS137 (pC/l)	U234 (pC/l)	U235 (pC/l)	U238 (pC/l)
TCAAP SW Action Criteria (4)																
20300	07-Oct-92	F37		9410.00		21000.00	8.55		387.00	830000.00						
20300	11-Nov-92	F37		10300.00			8.05		706.00							
20300	12-Nov-92	F37	10.00		230.00	52800.00				1000.00	<10.00	<1.40	<4.00	2.70	0.10	2.80
20300	10-Dec-92	F37		10300.00		73900.00	7.77		671.00	<1000.00						
20300	05-Jan-93	F38		14800.00		65000.00	8.26		873.00	8000.00						
20300	04-Feb-93	F38		14900.00				8.25	810.00							
20300	05-Feb-93	F38	10.00		400.00	58800.00				106000.00	<10.00	<10.80	<7.80	2.10	0.10	2.40
20300	03-Mar-93	F38		13400.00		48700.00		7.70	310.00	92000.00						
20300	06-Apr-93	F39		12800.00		67500.00		8.24	815.00	<1000.00						
20300	11-May-93	F39	10.00	5260.00	80.00	64000.00	7.70		819.00	<1000.00	<10.00	<3.80	<7.00	2.80	<1.00	3.40
20300	17-Jun-93	F39		8060.00		15500.00	7.44		333.00	2000.00						
20300	16-Jul-93	F40		4110.00		67400.00	7.33		519.00	4000.00						
20300	09-Aug-93	F40		10300.00			7.81		643.00							
20300	10-Aug-93	F40	10.00		100.00	41000.00				<1000.00	70.00	<3.60	<5.80	0.70	<0.30	0.50
20300	10-Sep-93	F40		5560.00		79000.00	7.84		912.00	2000.00						
20400	07-Oct-92	F37		7900.00		19500.00	7.40		362.00	<1000.00						
20400	11-Nov-92	F37	20.00	6400.00	200.00	24700.00	7.60		751.00	2000.00	80.00					
20400	10-Dec-92	F37		10100.00		210000.00	7.43		1260.00	2000.00						
20400	05-Jan-93	F38		17000.00		62000.00	7.81		985.00	3000.00						
20400	04-Feb-93	F38	20.00	3590.00	400.00	65200.00		7.83	953.00	3000.00	<10.00					
20400	03-Mar-93	F38		11700.00		43800.00		7.49	344.00	16000.00						
20400	06-Apr-93	F39		10500.00				7.61	834.00	2000.00						
20400	11-May-93	F39	20.00	4880.00	<50.00	27800.00	7.58		817.00	<1000.00	20.00	<9.30	<8.40	1.80	<0.50	2.00
20400	17-Jun-93	F39		7870.00		38900.00	7.37		254.00	2000.00						
20400	16-Jul-93	F40		5350.00		43600.00	7.25		684.00	1000.00						
20400	09-Aug-93	F40	21.00	8340.00	70.00	13000.00	7.56		548.00	<1000.00	64 (5)	<6.20	<5.00	0.40	0.10	0.60
20400	10-Sep-93	F40		4400.00		46000.00	7.74		841.00	5000.00						

TABLE IV - 6  
TCAAP Surface Water Quality Data (Inorganics) - (1)

Location (2)	Date	Qtr (3)	Silver AG (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Ortho Phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)	Zinc ZN (ug/l)	Gross Alpha Radiation ALPHAG (pC/l)	Gross Beta Radiation BETAG (pC/l)	Gross Gamma Radiation GAMAG (pC/l)	Biological Oxygen Demand BOD (ug/l)
TCAAP SW Action Criteria (4)					11.00		13.40		0.14	5.20			47.00				
20500	07-Oct-92	F37									<12.10	35.10					
20500	11-Nov-92	F37		<0.10	3.08	4.06	<5.94			<8.35	<12.10	45.20	66.10	<5.40	<5.80	15.60	5000.00
20500	10-Dec-92	F37									260.00	281.00					
20500	05-Jan-93	F38									85.00	341.00					
20500	04-Feb-93	F38		<0.10	<2.18	5.86	<5.94			<8.35	<12.10	48.20	<29.40	<10.60	24.80	<26.20	5000.00
20500	03-Mar-93	F38									59.60	221.00					
20500	06-Apr-93	F39									270.00	55.20					
20500	11-May-93	F39	<1.93	0.29	<2.18	6.57	<5.94	<2.65	<0.70	<8.35	12.50	30.10	105.00	<4.30	5.60	<17.80	5000.00
20500	17-Jun-93	F39									22.50	65.30					
20500	16-Jul-93	F40									14.60	62.20					
20500	09-Aug-93	F40		<0.10	<2.18	5.45	<5.94			<8.35	29.70	58.00	66.10				<4000.00
20500	10-Sep-93	F40									<12.10	131.00					
20700	11-Nov-92	F37															
20700	12-Nov-92	F37		<0.10	<2.18	4.02	<5.94			<8.35	<12.10	64.30	<29.40	<4.70	<4.90	<13.00	<4000.00
20700	04-Feb-93	F38		<0.10	4.72	2.74	<5.94			<8.35	<12.10	54.20	<29.40	<5.80	7.70	<14.60	4000.00
20700	11-May-93	F39	<1.93	<0.10	<2.18	3.50	<5.94	<2.65	<0.70	<8.35	<12.10	131.00	<29.40	<3.80	7.30	<17.50	5000.00
20700	09-Aug-93	F40															
20700	10-Aug-93	F40		<0.10	<2.18	2.97	<5.94			<8.35	<12.10	218.00	45.10	<4.70	<6.00	<7.20	10000.00
20800	07-Oct-92	F37									<12.10	151.00					
20800	11-Nov-92	F37		<0.10	<2.18	2.17	<5.94			<8.35	<12.10	60.20	<29.40	<4.80	<4.80	6.90	<4000.00
20800	10-Dec-92	F37									17.80	35.10					
20800	05-Jan-93	F38									24.20	53.20					
20800	04-Feb-93	F38		<0.10	<2.18	3.99	<5.94			<8.35	15.80	52.20	<29.40	<6.10	10.10	<15.50	7000.00
20800	03-Mar-93	F38									17.40	51.20					
20800	06-Apr-93	F39									86.70	87.30					
20800	11-May-93	F39	<1.93	<0.10	<2.18	2.58	<5.94	<2.65	<0.70	<8.35	28.00	141.00	<29.40	<4.00	<4.10	<11.30	5000.00
20800	17-Jun-93	F39									104.00	191.00					
20800	16-Jul-93	F40									48.40	181.00					
20800	09-Aug-93	F40		<0.10	<2.18	3.66	<5.94			<8.35	<12.10	213.00	<29.40	<3.70	<4.50	<10.80	6000.00
20800	10-Sep-93	F40									<12.10	211.00					
20900	11-Nov-92	F37		<0.10	<2.18	2.40	<5.94			<8.35	<12.10	76.30	<29.40				6000.00
20900	04-Feb-93	F38		0.21	<2.18	7.62	<5.94			<8.35	22.70	62.20	151.00				<4000.00
20900	11-May-93	F39	<1.93	<0.10	<2.18	2.82	<5.94	3.37	<0.70	<8.35	44.10	131.00	<29.40	<4.00	6.90	<14.10	5000.00
20900	09-Aug-93	F40		<0.10	<2.18	8.22	<5.94			<8.35	<12.10	192.00	130.00				7000.00

TABLE IV - 6  
TCAAP Surface Water Quality Data (Inorganics) - (1)

Location (2)	Date	Qtr (3)	Chemical Oxygen Demand COD (mg/l)	Dissolved Oxygen DO (ug/l)	Ammonia NH3 (ug/l)	Chloride CL (ug/l)	Lab pH	Field pH	Conductivity COND (umho)	Total Suspended Solids TSS (ug/l)	Coliform COLI (/100ml)	CO60 (pC/l)	CS137 (pC/l)	U234 (pC/l)	U235 (pC/l)	U238 (pC/l)
TCAAP SW Action Criteria (4)																
20500	07-Oct-92	F37		9150.00		11100.00	7.63		164.00	1000.00						
20500	11-Nov-92	F37	10.00	9460.00	140.00	86800.00	7.54		847.00	2000.00	60.00	<6.90	15.60	3.70	0.30	4.20
20500	10-Dec-92	F37		11700.00		59100.00	7.61		527.00	45000.00						
20500	05-Jan-93	F38		12300.00		590000.00	7.00		3040.00	32000.00						
20500	04-Feb-93	F38	20.00	6700.00	820.00	386000.00		7.37	1800.00	2000.00	<10.00	<11.70	<14.50	2.00	<0.10	2.20
20500	03-Mar-93	F38		1390000.00		70300.00		7.94	433.00	27000.00						
20500	06-Apr-93	F39		9640.00		110000.00		7.78	994.00	1000.00						
20500	11-May-93	F39	20.00	4770.00	<50.00	74100.00	7.57		861.00	1000.00	80.00	<8.50	<9.30	1.80	<0.40	1.90
20500	17-Jun-93	F39		8370.00		7200.00	7.56		184.00	3000.00						
20500	16-Jul-93	F40		5030.00		21300.00	7.29		1020.00	4000.00						
20500	09-Aug-93	F40	16.00	8430.00	<50.00	20000.00	7.72		461.00	<1000.00	140 (5)					
20500	10-Sep-93	F40		4450.00		290000.00	7.60		1970.00	5000.00						
20700	11-Nov-92	F37		11600.00			7.53		426.00							
20700	12-Nov-92	F37	40.00		210.00	26000.00				7000.00	<1.00	<8.60	<4.40	2.70	0.40	3.40
20700	04-Feb-93	F38	40.00	1750.00	760.00	38100.00		7.68	675.00	1000.00	<10.00	<7.60	<7.00	3.60	0.30	3.90
20700	11-May-93	F39	55.00	4380.00	<50.00	21300.00	7.54		455.00	33000.00	40.00	<8.50	<9.00	4.20	2.20	5.00
20700	09-Aug-93	F40		4740.00			7.33		300.00							
20700	10-Aug-93	F40	69.00		<50.00	14000.00				36000.00	140.00	<3.60	<3.60	0.20	<0.20	<0.50
20800	07-Oct-92	F37		6.59		28900.00	7.55		432.00	6000.00						
20800	11-Nov-92	F37	40.00	10900.00	260.00	22900.00	7.58		456.00	6000.00	20.00	<3.30	6.90	5.00	<0.80	4.10
20800	10-Dec-92	F37		12600.00		30800.00	7.71		544.00	2000.00						
20800	05-Jan-93	F38		4620.00		33700.00	7.70		679.00	2000.00						
20800	04-Feb-93	F38	40.00	2750.00	770.00	43200.00		7.72	691.00	2000.00	<10.00	<8.90	<6.60	3.20	<0.60	4.20
20800	03-Mar-93	F38		8730.00		54200.00		7.37	737.00	3000.00						
20800	06-Apr-93	F39		10600.00		19100.00		7.84	417.00	14000.00						
20800	11-May-93	F39	50.00	4200.00	<50.00	25200.00	7.49		466.00	31000.00	40.00	<5.10	<6.20	4.60	<1.60	3.80
20800	17-Jun-93	F39		5420.00		14800.00	7.41		264.00	52000.00						
20800	16-Jul-93	F40		1700.00		12200.00	7.21		333.00	8000.00						
20800	09-Aug-93	F40	9.00	5500.00	70.00	18000.00	7.48		285.00	36000.00	7 (5)	<7.20	<3.60	0.20	<0.20	<0.20
20800	10-Sep-93	F40		5130.00		16000.00	8.34		354.00	43000.00						
20900	11-Nov-92	F37	50.00	10400.00	350.00	13500.00	7.57		422.00	11000.00	20.00					
20900	04-Feb-93	F38	20.00	1500.00	500.00	33900.00		7.30	675.00	<1000.00	<10.00					
20900	11-May-93	F39	52.00	8550.00	<50.00	19600.00	7.48		445.00	280000.00	10.00	<8.30	<5.80	2.90	<2.00	5.30
20900	09-Aug-93	F40	66.00	6010.00	70.00	11000.00	7.48		316.00	26000.00	59 (5)					

**TABLE IV - 6**  
**TCAAP Surface Water Quality Data (Inorganics) - (1)**

Location (2)	Date	Qtr (3)	Silver AG (ug/l)	Cadmium CD (ug/l)	Chromium CR (ug/l)	Copper CU (ug/l)	Nickel NI (ug/l)	Lead PB (ug/l)	Mercury HG (ug/l)	Cyanide CYN (ug/l)	Ortho Phosphates PO4ORT (ug/l)	Total Phosphates TPO4 (ug/l)	Zinc ZN (ug/l)	Gross Alpha Radiation ALPHAG (pCi/l)	Gross Beta Radiation BETAG (pCi/l)	Gross Gamma Radiation GAMAG (pCi/l)	Biological Oxygen Demand BOD (ug/l)
TCAAP SW Action Criteria (4)					11.00		13.40		0.14	5.20			47.00				
21000	11-Nov-92	F37															
21000	12-Nov-92	F37		<0.10	<2.18	2.71	<5.94			<8.35	<12.10	51.20	<29.40				40000.00
21000	04-Feb-93	F38		<0.10	<2.18	4.01	<5.94			<8.35	<12.10	55.20	39.10				4000.00
21000	11-May-93	F39	<1.93	0.43	14.20	4.44	<5.94	4.50	<0.70	<8.35	57.30	131.00	<29.40	<6.30	10.10	<17.90	4000.00
21000	09-Aug-93	F40		<0.10	<2.18	4.06	<5.94			<8.35	103.00	220.00	53.10				6000.00
21100	11-Nov-92	F37															
21100	12-Nov-92	F37		<0.10	3.48	3.95	<5.94			<8.35	<12.10	14.10	<29.40				30000.00
21100	04-Feb-93	F38															
21100	05-Feb-93	F38		0.14	<2.18	3.15	<5.94			<8.35	<12.10	43.20	<29.40				4000.00
21100	11-May-93	F39	<1.93	<0.10	<2.18	2.82	<5.94	<2.65	<0.70	<8.35	<12.10	27.10	<29.40	<4.60	9.90	<10.40	<4000.00
21100	09-Aug-93	F40															
21100	10-Aug-93	F40		<0.10	<2.18	3.66	<5.94			<8.35	<12.10	54.30	<29.40				<4000.00
21200	11-May-93	F39															
21200	12-May-93	F39	<1.93	<0.10	<2.18	4.17	6.42	<2.65	<0.70	<8.35	<12.10	80.30	<29.40	<4.60	<4.90	<16.00	<4000.00
21300	11-May-93	F39															
21300	12-May-93	F39	<1.93	0.15	<2.18	4.93	<5.94	<2.65	<0.70	<8.35	113.00	120.00	<29.40	<3.90	<4.40	16.10	<4000.00
21400	11-May-93	F39															
21400	12-May-93	F39	4.95	0.13	<2.18	4.45	<5.94	3.73	<0.70	<8.35	98.20	120.00	<29.40	<3.90	4.70	<8.90	<4000.00
21600	11-May-93	F39															
21600	12-May-93	F39	<1.93	<0.10	<2.18	4.42	<5.94	<2.65	<0.70	<8.35	<12.10	89.40	31.10	<3.00	6.20	<9.10	6000.00

TABLE IV - 6  
TCAAP Surface Water Quality Data (Inorganics) - (1)

Location (2)	Date	Qtr (3)	Chemical Oxygen Demand COD (mg/l)	Dissolved Oxygen DO (ug/l)	Ammonia NH3 (ug/l)	Chloride CL (ug/l)	Lab pH	Field pH	Conductivity COND (umho)	Total Suspended Solids TSS (ug/l)	Coliform COLI (/100ml)	CO60 (pC/l)	CS137 (pC/l)	U234 (pC/l)	U235 (pC/l)	U238 (pC/l)
TCAAP SW Action Criteria (4)																
21000	11-Nov-92	F37		12200.00			7.65		465.00							
21000	12-Nov-92	F37	40.00		270.00	30300.00				4000.00	30.00					
21000	04-Feb-93	F38	40.00	2770.00	800.00	59100.00		7.59	745.00	<1000.00	<10.00					
21000	11-May-93	F39	53.00	5040.00	<50.00	26800.00	7.51		456.00	300000.00	20.00	<9.80	<8.10	2.40	<1.70	4.60
21000	09-Aug-93	F40	95.00	5210.00	100.00	11000.00	7.38		287.00	40000.00	18 (5)					
21100	11-Nov-92	F37		10100.00			7.63		766.00							
21100	12-Nov-92	F37	20.00		70.00	46800.00				1000.00	2.00					
21100	04-Feb-93	F38		12200.00				7.44	1110.00							
21100	05-Feb-93	F38	40.00		730.00	258000.00				<1000.00	<10.00					
21100	11-May-93	F39	46.00	2880.00	<50.00	20400.00	7.50		455.00	<1000.00	30.00	<5.40	<5.00	1.20	<0.50	3.20
21100	09-Aug-93	F40		3780.00			7.46		548.00							
21100	10-Aug-93	F40	30.00		<50.00	18000.00				<1000.00	390.00					
21200	11-May-93	F39		7400.00			7.16		563.00							
21200	12-May-93	F39	58.00		<50.00	43700.00				<1000.00	40.00	<7.20	<8.80	5.20	<1.80	4.80
21300	11-May-93	F39		10800.00			7.19		430.00							
21300	12-May-93	F39	38.00		<50.00	72300.00				<1000.00	180.00	16.10	<5.20	1.40	<0.60	1.70
21400	11-May-93	F39		6450.00			7.10		419.00							
21400	12-May-93	F39	36.00		<50.00	34100.00				<1000.00	900.00	<6.10	<2.80	4.20	<1.50	4.90
21600	11-May-93	F39		9170.00			7.07		314.00							
21600	12-May-93	F39	25.00		<50.00	31000.00				7000.00	20.00	<5.10	<4.00	2.70	<1.00	2.00

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**Table IV-7**

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**TCAAP Groundwater Pumping Data**

**TABLE IV-7  
TCAAP Groundwater Pumping Data**

MN Unique Well No.	Permit No.	Applicant	Township	Range	Section	Quarter Sections	Permitted Appropriation (MMGal/yr)	Permitted Pumping Rate (GPM)	Pumping Volume 1991 (MMGal)	Pumping Volume 1992 (MMGal)
<b>HIGH CAPACITY WELLS</b>										
200814	690434	AMERICAN LINEN SUPPLY CO	29	23	18	DABC	156.0	850.0	159.186	133.331
234407	876124	ARDEN MANOR MBLE PK	30	23	16	CDC	26.0	400.0	21.000	21.000
151568	876124	ARDEN MANOR MBLE PK	30	23	16	CDC	26.0	NA	0.000	0.000
236512	766021	GORDON RENDERING CO	30	23	20	DDB	20.0	100.0	1.363	2.214
234547	756231	HONEYWELL INC	29	23	18	BB	565.0	2000.0	286.900	183.400
234546	756231	HONEYWELL INC	29	23	18	BB	565.0	2000.0	311.000	386.200
233222	866254	LOWRY GROVE, INCORPORATED	29	23	7	BCB	6.0	140.0	3.550	3.052
NA	756255	MENGLKOCH COMPANY	30	23	21	CACD	18.0	100.0	1.711	1.848
231878	756255	MENGLKOCH COMPANY	30	23	21	CACD	18.0	60.0	5.619	3.483
NA	886105	MIDLAND HILLS C C	29	23	17	NA	49.0	400.0	25.303	20.660
NA	886105	MIDLAND HILLS C C	29	23	17	NA	49.0	200.0	0.000	0.000
200149	590760	MIDLAND HILLS C C	29	23	17	BDA	20.0	NA	2.952	3.227
200812	866124	MINNEAPOLIS PARK/RC	29	23	7	DACA	26.0	350.0	23.070	19.582
206793	700157	NEW BRIGHTON, CITY OF	30	23	30	BADD	900.0	600.0	64.900	164.757
206797	700157	NEW BRIGHTON, CITY OF	30	23	30	CBAA	900.0	800.0	319.362	223.260
206796	700157	NEW BRIGHTON, CITY OF	30	23	30	CBD	900.0	800.0	216.369	120.945
NA	700157	NEW BRIGHTON, CITY OF	30	23	29	BCA	900.0	900.0	70.850	71.334
206792	700157	NEW BRIGHTON, CITY OF	30	23	30	BADD	900.0	1000.0	101.094	251.600
110485	700157	NEW BRIGHTON, CITY OF	30	23	18	AC	900.0	1100.0	65.693	69.183
161432	700157	NEW BRIGHTON, CITY OF	30	23	32	DBC	900.0	1150.0	67.342	51.841
206791	700157	NEW BRIGHTON, CITY OF	30	23	29	CCDC	900.0	900.0	0.000	0.000
206795	700157	NEW BRIGHTON, CITY OF	30	23	30	BDA	900.0	900.0	64.329	52.807
206794	700157	NEW BRIGHTON, CITY OF	30	23	30	CABA	900.0	900.0	0.000	0.561
200148	856084	PAPER CALMENSON & CO	29	23	17	BBB	30.0	500.0	0.000	0.000
200804	600907	ST ANTHONY, CITY OF	29	23	6	DA	NA	NA	0	0
200803	600907	ST ANTHONY, CITY OF	29	23	6	AC	NA	NA	139.3	170.7
200524	600907	ST ANTHONY, CITY OF	30	23	31	CA	NA	NA	191.2	168.1
206755	836056	TWIN CITIES ARMY	30	23	16	ACDA	450.0	1370.0	0.123	0.000
206753	836056	TWIN CITIES ARMY	30	23	16	ACBD	450.0	1800.0	0.000	0.000
206758	836056	TWIN CITIES ARMY	30	23	16	BDAA	450.0	1730.0	0.114	0.000
206754	836056	TWIN CITIES ARMY	30	23	16	ABBB	450.0	2300.0	0.020	0.902
206759	836056	TWIN CITIES ARMY	30	23	16	DABA	450.0	1300.0	0.546	0.000
206756	836056	TWIN CITIES ARMY	30	23	16	BADA	450.0	1100.0	0.044	0.000
149740	796041	U OF MN	29	23	16	BDB	60.0	700.0	5.667	6.054
200154	856178	U OF MN	29	23	17	DBC	27.0	675.0	15.706	21.519
<b>OTHER WELLS</b>										
462112	916084	ALLIANT TECHSYSTEMS INC	30	23	20	ADC	21.0	9.0	4.086	5.842
462968	916084	ALLIANT TECHSYSTEMS INC	30	23	20	ADC	21.0	4.0	1.980	2.330
NA	866104	BELL LUMBER AND POLE CO	30	23	29	DCC	26.3	0.0	NA	0.000
439723	866104	BELL LUMBER AND POLE CO	30	23	29	DCC	26.3	0.0	NA	0.000
NA	866104	BELL LUMBER AND POLE CO	30	23	29	DCC	26.3	0.0	NA	0.000
NA	866104	BELL LUMBER AND POLE CO	30	23	29	DCC	26.3	0.0	NA	0.000
NA	866104	BELL LUMBER AND POLE CO	30	23	29	DCC	26.3	0.0	NA	0.000
449194	866104	BELL LUMBER AND POLE CO	30	23	29	CDD	26.3	1.1	NA	0.595
449193	866104	BELL LUMBER AND POLE CO	30	23	29	DCC	26.3	1.2	NA	0.629
200262	756219	BROADWAY PROPERTIES PARTN	29	24	13	DABA	28.0	0.0	0.035	0.000
200067	866053	INDIANHEAD TRUCK LINE	29	23	4	CCD	10.0	NA	11.876	0.075
NA	756223	MACGILLIS & GIBBS	30	23	29	D	1.1	48.0	2.004	2.917
122253	846113	MINN METAL FINISH	29	24	13	CDBC	6.0	48.0	3.456	4.728
200076	670637	OLD DUTCH FOODS INC	29	23	8	BDC	88.0	NA	41.265	38.637
236029	856218	REUBEN MEATS	29	24	13	DAB	60.0	NA	0.000	NA
448759	896278	WINTHROP & WEINSTINE	29	23	9	DCB	18.4	0.0	9.194	0.000

NA = Data Not Available

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**Table IX-1**

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**Site A Performance Data**



**TABLE IX - 1**  
**Site A Performance Data**

Date	Volume of Water Treated	Trichloroethene			Tetrachloroethene			1,2-Dichloroethene		
		Influent Conc. (ug/l)	Effluent Conc. (ug/l)	Pounds Removed	Influent Conc. (ug/l)	Effluent Conc. (ug/l)	Pounds Removed	Influent Conc. (ug/l)	Effluent Conc. (ug/l)	Pounds Removed
13-Sep-88	0	380		0	620		0	540		0
21-Sep-88	58,000	58		0.11	130		0.18	120		0.16
27-Sep-88	44,000	37		0.02	81		0.04	88		0.04
04-Oct-88	43,000	38		0.01	110		0.03	85		0.03
19-Oct-88	99,000	39		0.03	120		0.09	78		0.07
25-Oct-88	48,000	21		0.01	49		0.03	43		0.02
08-Nov-88	110,000	26		0.02	57		0.05	41		0.04
29-Nov-88	136,000	19		0.03	39		0.06	32		0.04
06-Dec-88	50,000	16		0.01	31		0.01	38		0.01
20-Dec-88	90,000	19		0.01	41		0.03	35		0.03
16-Jan-89	152,000	24		0.03	9		0.03	36		0.04
21-Feb-89	195,000	16		0.03	24		0.03	24		0.05
21-Mar-89	151,000	13		0.02	22		0.03	39		0.04
21-Apr-89	156,000	16		0.02	30		0.03	32		0.05
23-May-89	161,000	10		0.02	17		0.03	27		0.04
23-Jun-89	159,000	8		0.01	15		0.02	24		0.03
17-Jul-89	107,000	9		0.01	16		0.01	23		0.02
28-Aug-89	297,000	11		0.02	16		0.04	28		0.06
03-Oct-89	221,000	6		0.02	10		0.02	23		0.05
24-Oct-89	110,000	8	<1.0	0.01	15	<0.50	0.01	28	<0.50	0.02
22-Nov-89	157,000	11	<1.0	0.01	20	<0.50	0.02	34	<0.50	0.04
19-Dec-89	120,000	8	<1.0	0.01	14	<0.50	0.02	27	<0.50	0.03
23-Jan-90	120,830	11	<1.0	0.01	17	<0.50	0.02	33	<0.50	0.03
20-Feb-90	129,450	11	<1.0	0.01	18	<0.50	0.02	37	<0.50	0.04
20-Mar-90	120,330	11	<2.5	0.01	17	<0.50	0.02	32	<0.50	0.03
16-Apr-90	109,540	11	<1.0	0.01	17	<0.50	0.02	24	<0.50	0.03
15-May-90	104,020	9	<1.0	0.01	14	<0.50	0.01	19	<0.50	0.02
19-Jun-90	106,400	10	<1.0	0.01	18	<0.50	0.01	17	<0.50	0.02
17-Jul-90	82,380	10	<1.0	0.01	20	<0.50	0.01	13	<0.50	0.01
21-Aug-90	105,710	10	<1.0	0.01	19	<0.50	0.02	15	<0.50	0.01
18-Sep-90	129,200	10	<1.0	0.01	19	<0.50	0.02	15	<0.50	0.02
20-Oct-90	88,210	12	<1.0	0.01	28	<0.50	0.02	14	<0.50	0.01
20-Nov-90	41,470	13	<1.0	0.00	28	<0.50	0.01	17	<0.50	0.01
18-Dec-90	135,285	13	<1.0	0.01	22	<0.50	0.03	24	<0.50	0.01
22-Jan-91	127,985	12	<1.0	0.01	22	<0.50	0.02	18	<0.50	0.01
19-Feb-91	88,420	14	<1.0	0.01	25	<0.50	0.02	25	<0.50	0.01
19-Mar-91	93,610	13	<1.0	0.01	23	<0.50	0.02	19	<0.50	0.01
16-Apr-91	114,120	14	<1.0	0.01	26	<0.50	0.02	15	<0.50	0.01
21-May-91	173,580	14	<1.0	0.01	26	<0.50	0.04	15	<0.50	0.01
18-Jun-91	119,070	18	<1.0	0.01	25	<0.50	0.03	15	<0.50	0.01
23-Jul-91	159,550	13	<1.0	0.01	24	<0.50	0.04	24	<0.50	0.01
19-Aug-91	142,790	16	<1.0	0.01	34	<0.50	0.03	15	<0.50	0.01
17-Sep-91	145,410	15	<1.0	0.01	29	<0.50	0.04	14	<0.50	0.01
22-Oct-91	170,940	10	<0.50	0.01	20	<1.0	0.03	12	<0.50	0.01
19-Nov-91	98,210	12	<0.50	0.01	24	<1.0	0.02	12	<0.50	0.01
17-Dec-91	57,690	16	<0.50	0.01	30	<1.0	0.01	13	<0.50	0.01
21-Jan-92	192,180	17	<0.50	0.01	34	<1.0	0.05	15	<0.50	0.01
18-Feb-92	129,220	11	<0.50	0.01	20	<1.0	0.03	14	<0.50	0.01
17-Mar-92	114,400	13	<0.50	0.01	29	<1.0	0.02	15	<0.50	0.01
13-Apr-92	113,890	17	<0.50	0.01	38	<1.0	0.03	17	<0.50	0.01
18-May-92	183,180	14	<0.50	0.01	30	<1.0	0.05	17	0.686	0.01
16-Jun-92	158,500	23	<0.50	0.01	52	<1.0	0.05	21	1.20	0.01
21-Jul-92	164,110	18	<0.50	0.01	41	<1.0	0.06	21	0.642	0.01
18-Aug-92	61,600	17	<0.50	0.01	39	<1.0	0.02	20	<1.0	0.01
15-Sep-92	125,090	15	<0.50	0.01	34	<1.0	0.06	21	<0.50	0.01
20-Oct-92	151,970	18	<0.50	0.01	36	<1.0	0.06	30	<0.50	0.01
03-Nov-92	76,600	22	<0.50	0.01	50	<1.0	0.03	38	0.519	0.01
10-Dec-92	160,255	22	<0.50	0.01	48	<1.0	0.06	46	<0.50	0.01
05-Jan-93	118,125	18	<0.50	0.01	32	<1.0	0.04	32	<0.50	0.01
02-Feb-93	155,010	18	<0.50	0.01	30	<1.0	0.05	32	<0.50	0.01
02-Mar-93	154,678	18	<0.50	0.01	30	<1.0	0.06	31	1.13	0.01
19-Apr-93	271,482	14	<0.50	0.01	22	<1.0	0.06	20	2.00	0.01
07-May-93	110,650	15	<0.50	0.01	26	<1.0	0.03	22	1.90	0.01
01-Jun-93	144,590	10	<0.50	0.01	18	<1.0	0.02	15	2.23	0.01
22-Jul-93	286,480	10	<0.50	0.01	22	<1.0	0.05	17	2.04	0.01
16-Aug-93	126,320	9	<0.50	0.01	18	<1.0	0.02	20	2.59	0.01
14-Sep-93	131,200	11	0.853	0.01	23	<1.0	0.03	24	2.89	0.01
<b>SUBTOTALS</b>	<b>8,557,730</b>			<b>0.90</b>			<b>2.22</b>			<b>1.48</b>

Note: Minor discrepancies may exist between data presented in this table versus data retrieved from the IRDMIS, since the data in this table is unadjusted, raw laboratory data.

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**Table IX-2**

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**Site A Removal Action Groundwater Quality Monitoring**

**TABLE IX-2**  
**Site A Removal Action Groundwater Quality Monitoring**

Location	Frequency	Parameters
8 Extraction Wells (01U351-01U358)	Monthly for first 9 months, then quarterly	-Category 1 (Halogenated VOC's) -Category 2 (Metals) -Category 3 (Mercury) -Category 9 (Zinc)
4 Off-Post Monitoring Wells (01U901-01U904)	Monthly for first 9 months, then quarterly	-Category 1 (Halogenated VOC's)
9 On-Post Monitoring Wells (01U102, 01U115, 01U116, 01U117, 01U125, 01U138, 01U139, 01U140, 01U157, 01U158, 01U350)	Quarterly	-Category 1 (Halogenated VOC's)
15 On-Post Monitoring Wells (01U039, 01U067, 01U102, 01U105, 01U106, 01U108, 01U119, 01U120, 01U126, 01U127, 01U135, 01U136, 01U137, 01U138, 01U141)	Annually	-Category 1 (Halogenated VOC's)
All Wells	Qtrs. 42, 43, & 44	-Category 7 (Aromatic VOC's)
All Wells	Qtr. 42	-Category 2 (Metals) -Category 3 (Mercury) -Category 9 (Zinc) -Cobalt & Vanadium

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**Table IX-3**

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**Site A Removal Action Groundwater Level Monitoring**

**TABLE IX-3**  
**Site A Removal Action Groundwater Level Monitoring**

<u>MONITORING LOCATION</u>	<u>MONITORING FREQUENCY</u>
12 Piezometers (01U145-01U156)	-1/week for 1st month -2/month until system has operated for 6 months -monthly thereafter
8 Extraction Wells (01U351-01U358)	-1/week for 1st month -2/month until system has operated for 6 months -monthly thereafter
9 On-Post Monitoring Wells (01U115, 01U116, 01U117, 01U125, 01U138, 01U139, 01U140, 01U157, 01U158)	-1/week for 1st 6 months -monthly thereafter
4 Off-Post Monitoring Wells (01U901-01U904)	-1/week for 1st 6 months -monthly thereafter
26 On-Post Monitoring Wells (01U038, 01U039, 01U040, 01U041 01U063, 01U067, 01U102, 01U103 01U104, 01U105, 01U106, 01U107 01U108, 01U109, 01U110, 01U118 01U119, 01U120, 01U126, 01U127 01U133, 01U135, 01U136, 01U137 01U141, 01U350)	-biannually

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**Table X-1**

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**Groundwater Capture and Treatment Requirements,  
TGRS, TCAAP**

**TABLE X-1**  
**GROUNDWATER CAPTURE AND**  
**TREATMENT REQUIREMENTS**  
**TGRS, TCAAP**

TABLE 1 APPLICABLE OR RELEVANT AND APPROPRIATE REQUIREMENTS			
Substance	Contaminant Specific Requirements(a) (ppb)	Acceptable Risk Level(b) $10^{-6}$ (ppb)	Expected level in discharge (ppb)
<u>VOLATILE ORGANIC COMPOUNDS (VOC)</u>			
BENZENE	5 (MCL)	0.67	ND
TOULUENE	2000 (MCLGP)	-	ND
CIS 1,2-DICHLOROETHENE plus TRANS 1,2-DICHLOROETHENE	70 (MCLGP)	-	<1
1,1-DICHLOROETHENE	7 (MCL)	0.033	<1
1,1,1-TRICHLOROETHANE	200 (MCL)	22	<1
1,1,2-TRICHLOROETHANE	6.1 (RAL)	0.6	<1
1,2-DICHLOROETHANE	5 (MCL)	0.38	-
1,1,2-TRICHLOROETHENE	5 (MCL)	2.8	6
1,2-DICHLOROPROPANE	6 (MCLGP)	0.56	-
1,1,2,2-TETRACHLOROETHANE	6.9 (RAL)	0.7	-
CARBON TETRACHLORIDE	5 (MCL)	0.3	-
1,1,2-TRICHLOROTRIFLUOROETHANE	- (GA)	-	-
CHLOROFORM	5 (RAL)	0.19	<1
VINYL CHLORIDE	2 (MCL)	0.015	2
XYLENE	440 (MCLGP)	-	ND
1,1-DICHLOROETHANE	- (GA)	-	-
<u>METALS</u>			
ARSENIC	50 (MCL)	0.25	NA
BARIUM	1000 (MCL)	1000 (MCL)	NA
CYANIDE	200 (MCL)	200 (WQC)	NA
CADMIUM	5 (MCLP)	10 (WQC)	NA
LEAD	20 (MCLGP)	0.031	NA
NICKEL	150 (HA)	15.4 (WQC)	NA
MERCURY	2 (MCL)	2.0 (MCL)	NA

**TABLE X-1**

**GROUNDWATER CAPTURE AND  
TREATMENT REQUIREMENTS  
TGRS, TCAAP**

\*\*\*Notes for Table 1\*\*

- (a) Applicable to all phases, capture and discharge
  - (b) Receptor based criteria for Phase 2. Laboratory detection limits may be substituted for criteria levels with U.S. EPA approval. Values are based on  $10^{-6}$  risk level for carcinogens and for non-carcinogens the stricter limit determined by MCL, AIC or Water Quality criteria adjusted for ingestion of drinking water only.
- \* MCL Maximum Contaminant Level
  - \* MCLP Maximum Contaminant Level Proposed
  - \* MCLG Maximum Contaminant Level Goal
  - \* MCLGP Maximum Contaminant Level Proposed
  - \* HA Lifetime Health Advisory
  - \* RAL Recommended Allowable Level - State of Minnesota
  - \* SMC Secondary Maximum Contaminant Level
  - \* ND None detectable
  - \* NA Not significantly affected by remedy - not expected to be migrating from sources and will remain at background levels
- \* CAA Clean Air Act
  - \* AIC Chronic Acceptable Intake
  - \* WQC Water Quality Criteria - adapted for ingestion of drinking water only - concentrations represent  $1 \times 10^{-6}$  risk levels
- \* GA Group Action Criteria of 10 ppb adopted
  - \* ATSDR Agency for Toxic Substances and Disease Registry recommended action level for BGRS.



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**Table X-2**

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**Summary of BGRS Pumping Test Results, BGRS, TCAAP**

**TABLE X-2**  
**SUMMARY OF PUMPING TEST RESULTS**  
**BGRS, TCAAP**

<i>Well</i>	<i>Transmissivities (ft<sup>2</sup>/day)</i>
B1	27,254
B2	38,417
B3	26,920
B4	26,226
B5	34,273
B6	30,300

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**Table X-3**

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**1993 Extraction Well Practical Operating Pumping Rates  
TGRS, TCAAP**

**TABLE X-3**  
**1993 EXTRACTION WELL**  
**PRACTICAL OPERATING PUMPING RATES**  
**TGRS, TCAAP**

<i>Well Name</i>	<i>GPM</i>	<i>Well Name</i>	<i>GPM</i>
B1	200	B10	250
B2	200	B11	100
B3	200	B12	190
B4	200	SC1	40
B5	200	SC2	45
B6	275	SC3	100
B7	300	SC4	45
B8	135	SC5	100
B9	150		
		TOTAL	<u>2,730</u>

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**Table X-4**

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**Extraction Well Shut Down Sequence, TGRS, TCAAP**

**TABLE X-4**  
**EXTRACTION WELL**  
**SHUT DOWN SEQUENCE**  
**TGRS, TCAAP**

1st	B12
2nd	B7
3rd	B3, B11 and SC1
4th	B10 and SC4
5th	B8 and B2
6th	B9 and SC3
7th	B1 and B4
8th	B6 and B5
9th	SC2 and SC5

Note:

The SC1 well and associated treatment system is controlled by a run permissive switch. The switch is controlled by the TGRS PLC. When the PLC orders B11 to operate, SC1 is given permission to run. When the PLC orders B11 to shut down, permission is withdrawn for SC1 to operate. SC1 shuts down.

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**Table X-5**

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**Extraction Well Water Pumped for Fiscal Year 1993  
TGRS, TCAAP**

TABLE X - 5

EXTRACTION WELL WATER PUMPED FOR THE FISCAL YEAR 1993  
TGRS, TCAAP

<i>Volume of Water Pumped (Gallons)</i>																		
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC1	SC2	SC3	SC4	SC5	TOTAL
October	8,395,000	8,197,700	8,427,800	8,763,900	8,943,000	11,897,600	12,607,100	4,869,300	6,416,900	10,730,600	4,157,300	7,650,200	1,562,490	1,650,400	4,701,000	1,704,100	4,711,400	115,385,790
November	9,028,000	8,694,800	8,013,400	8,692,400	9,028,600	11,603,300	12,551,300	4,876,000	6,596,800	10,855,200	4,135,500	7,665,200	1,663,460	3,041,100	4,590,200	1,575,100	4,692,800	117,303,160
December	9,517,200	8,651,200	9,462,300	9,071,400	9,457,300	12,231,200	12,808,800	4,982,200	6,747,800	11,188,400	4,227,000	7,877,700	1,666,250	2,605,800	4,547,600	1,297,480	4,770,200	121,109,830
January	9,439,600	8,293,000	9,223,300	9,097,000	9,339,300	12,163,900	12,712,700	5,004,400	6,723,000	11,223,100	4,233,400	7,852,800	1,544,380	2,746,700	4,464,000	1,818,100	4,776,000	120,654,680
February	8,248,800	7,358,600	8,845,200	8,099,300	7,951,800	10,947,900	11,353,100	4,572,900	6,047,000	10,052,000	3,690,800	7,026,700	1,509,210	2,174,200	4,042,700	2,326,600	4,380,500	108,627,310
March	9,237,900	7,820,700	8,826,100	8,918,800	9,272,800	12,013,400	12,397,400	5,193,800	6,771,000	11,170,500	3,891,400	7,911,100	184,608	1,962,000	4,372,800	2,618,400	4,917,000	117,479,708
April	8,958,400	8,049,900	8,177,200	8,761,500	9,153,200	11,690,800	13,168,200	4,925,600	6,478,200	10,783,100	3,658,300	7,492,400	1,576,400	2,053,400	4,114,400	2,520,900	4,678,600	116,240,500
May	9,155,500	8,742,900	8,814,500	9,129,600	9,615,300	12,138,000	13,374,700	5,130,600	6,751,500	11,147,300	3,456,600	7,784,900	1,307,550	2,002,900	4,288,300	2,545,100	4,857,500	120,242,750
June	7,727,500	7,820,300	7,318,200	8,364,367	8,384,500	11,098,600	12,445,400	4,738,500	6,222,900	10,098,000	3,056,300	7,100,600	1,600,480	1,704,900	3,976,400	2,510,100	4,557,200	108,724,247
July	8,821,800	8,435,000	8,406,500	8,175,829	7,980,300	11,833,400	13,475,200	5,075,000	6,674,600	10,814,600	4,399,800	7,615,800	1,513,750	1,619,200	4,338,400	1,893,500	4,755,000	115,827,679
August	8,506,428	7,808,900	8,751,600	8,044,600	8,775,800	11,628,100	13,510,800	5,400,200	6,638,500	10,812,300	5,546,700	7,442,200	1,231,000	1,339,700	4,260,500	1,946,800	4,646,400	116,290,528
September	7,574,100	7,489,300	7,773,100	7,666,700	7,983,900	11,028,800	13,150,600	5,565,900	6,327,200	10,218,700	5,312,600	6,675,000	1,527,790	1,723,400	3,716,900	2,348,000	4,238,000	110,319,990
<b>TOTAL</b>	<b>104,610,228</b>	<b>97,362,300</b>	<b>102,039,200</b>	<b>102,785,395</b>	<b>105,885,800</b>	<b>140,275,000</b>	<b>153,555,300</b>	<b>60,334,400</b>	<b>78,395,400</b>	<b>129,093,800</b>	<b>49,765,700</b>	<b>90,094,600</b>	<b>16,887,368</b>	<b>24,623,700</b>	<b>51,413,200</b>	<b>25,104,180</b>	<b>55,980,600</b>	<b>1,388,206,172</b>



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**Table X-6**

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**Treatment Center Water Meter Totals for the  
Fiscal Year 1993, TGRS, TCAAP**

TABLE X - 6

TREATMENT CENTER WATER METER TOTALS FOR THE FISCAL YEAR 1993  
TGRS, TCAAP

<i>Volume of Water Pumped (Gallons)</i>										
	<i>Extraction Wells</i>	<i>Meter No. 1</i>	<i>Meter No. 2</i>	<i>Total M1 &amp; M2</i>	<i>Meter No. 3</i>	<i>Meter No. 4</i>	<i>Total M3 &amp; M4</i>	<i>Meter No. 5</i>	<i>Meter No. 6</i>	<i>Total M5 &amp; M6</i>
October	115,385,790	55,349,000	60,748,000	116,097,000	43,650,000	59,850,000	103,500,000	65,495,000	61,742,000	127,237,000
November	117,303,160	57,067,000	60,470,000	117,537,000	42,128,000	62,797,000	104,925,000	59,806,000	62,930,000	122,736,000
December	121,109,830	58,929,000	62,618,000	121,547,000	43,218,000	65,409,000	108,627,000	62,410,000	64,681,000	127,091,000
January	120,654,680	58,601,000	62,475,000	121,076,000	43,183,000	64,970,000	108,153,000	62,417,000	64,324,000	126,741,000
February	108,627,310	51,940,000	56,994,000	108,934,000	39,415,000	57,794,000	97,209,000	56,407,000	58,781,000	115,188,000
March	117,479,708	56,760,000	62,589,000	119,349,000	43,719,000	62,943,000	106,662,000	62,125,000	64,776,000	126,901,000
April	116,240,500	56,577,000	60,319,000	116,896,000	41,641,000	63,026,000	104,667,000	60,949,000	64,394,000	125,343,000
May	120,242,750	57,690,000	62,630,000	120,320,000	43,369,000	64,578,000	107,947,000	62,746,000	66,158,000	128,904,000
June	108,724,247	50,734,000	57,126,000	107,860,000	40,827,000	52,239,000	93,066,000	56,519,000	59,307,000	115,826,000
July	115,827,679	54,699,000	60,848,000	115,547,000	43,503,000	0	43,503,000	60,686,000	66,197,000	126,883,000
August	116,290,528	55,046,000	61,323,000	116,369,000	41,483,000	37,428,000	78,911,000	61,332,000	66,821,000	128,153,000
September	110,319,990	53,422,000	57,201,000	110,623,000	37,891,000	60,115,000	98,006,000	58,186,000	62,680,000	120,866,000
<b>TOTAL</b>	<b>1,388,206,172</b>	<b>666,814,000</b>	<b>725,341,000</b>	<b>1,392,155,000</b>	<b>504,027,000</b>	<b>651,149,000</b>	<b>1,155,176,000</b>	<b>729,078,000</b>	<b>762,791,000</b>	<b>1,491,869,000</b>

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**Table X-7**

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**Down Time Days, TGRS, TCAAP**

TABLE X-7

DOWN TIME DAYS  
TGRS, TCAAP

<i>Well Name</i>	<i>1993 Days Down</i>	<i>1992 Days Down</i>	<i>1991 Days Down</i>	<i>1990 Days Down</i>	<i>1989 Days Down</i>	<i>Well Name</i>	<i>1993 Days Down</i>	<i>1992 Days Down</i>	<i>1991 Days Down</i>	<i>1990 Days Down</i>	<i>1989 Days Down</i>
B1	5	6	9	7	55	B9	5	5	8	8	44
B2	8	7	8	8	33	B10	5	5	7	4	42
B3	6	6	20	5	33	B11	6	7	8	6	34
B4	6	7	8	4	35	B12	10	5	7	4	38
						SC1	9	6	11		
B5	7	7	10	4	36	SC2	7	8	7	5	49
B6	7	6	8	4	36	SC3	5	7	7	4	33
B7	6	5	7	4	41	SC4	6	7	7	4	34
B8	5	5	8	5	33	SC5	6	7	7	4	34

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**Table X-8**

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**Down Time Days by Category - 1993, TGRS, TCAAP**

**TABLE X-8**

**DOWN TIME DAYS  
BY CATEGORY - 1993  
TGRS, TCAAP**

<i>Problem</i>	<i>Down Time Days</i>	<i>%</i>	<i>Affected Wells/System</i>
System Modifications	0	0	Extraction Wells
Trouble Shooting/Repairs	4.9	79	Treatment Center
Trouble Shooting/Repairs	0.9	14.5	Pumphouses
Preventive Maintenance	0.1	1.6	Entire System
TCAAP Power System Failures	0.3	4.9	Entire System Down
<b>TOTAL DAYS DOWN</b>	<b>6.2</b>	<b>100</b>	

*Anticipated Down Time 1994*

Preventive Maintenance	0.1	Wells
Preventive Maintenance	0.1	Treatment Center
Preventive Maintenance	0.1	Forcemain
TCAAP Electrical System Failures	1.5	Entire System
Trouble Shooting/Repairs	1	Wells
Trouble Shooting/Repairs	3	Treatment Center
System Modifications (including painting of TGRS)	22	Treatment Center, Wells and Foremain

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**Table X-9**

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**Hydraulic Vertical Gradients, TGRS, TCAAP**

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS		04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03U001	<---> 03M001	0.016		0.002	0.001	0.001	0.001	0.004	0.001	0.002	0.005	0.009	0.006
03M001	<---> 03L001	0.002	0.001	-0.001	0.000	0.000	-0.001	-0.004	0.001	0.000	0.000	-0.006	-0.004
03L001	<---> 04U001	-0.018		-0.004	-0.004	-0.004	-0.004	-0.004	-0.005	-0.005	-0.005	-0.003	-0.003
03U002	<---> 03M002	-0.004	-0.001	-0.008	-0.007		-0.005	-0.006	-0.007	-0.005	-0.009	-0.007	0.004
03M002	<---> 03L002	-0.001	-0.001	-0.001	-0.001		-0.001	-0.001	0.000	-0.001	-0.001	-0.001	-0.001
03L002	<---> 04U002	-0.005	-0.002	-0.001	-0.001	-0.002	-0.001	-0.001	-0.002	-0.001	-0.003	-0.005	-0.002
03U003	<---> 03M003			-0.001	-0.082		0.001	0.004	-0.002	-0.001	-0.004	-0.001	-0.001
03M003	<---> 03L003	-0.012	-0.015	-0.014	0.073		-0.012	-0.007	-0.018	-0.015	-0.020	-0.020	-0.017
03L003	<---> 04U003	-0.066	-0.072	-0.060	-0.061	-0.059	-0.060	-0.054	-0.067	-0.066	-0.077	-0.063	-0.059
04U003	<---> PJ#003						-0.009		-0.009	-0.010	-0.023	-0.015	-0.011
03U004	<---> 03M004	-0.018	-0.008	-0.010	-0.010	-0.010	-0.010	-0.003	-0.011	-0.011	-0.012	-0.012	-0.011
03M004	<---> 03L004	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
03U005	<---> 03M005								0.002	0.002	0.004	0.001	0.001
03M005	<---> 03L005								-0.018	-0.018	-0.024	-0.018	-0.018
03U007	<---> 03M007				-0.001		-0.001	-0.001	-0.001	-0.001	0.000	0.000	-0.001
03M007	<---> 03L007				-0.006		-0.006	-0.006	-0.007	-0.006	-0.007	-0.006	-0.003
03L007	<---> 04U007				0.002		0.002	0.002	0.002	0.002	0.001	0.001	0.001
03U010	<---> 03M010				-0.002		-0.002	-0.002	-0.002	-0.001	-0.002	-0.001	0.000
03M010	<---> 03L010				-0.008		-0.010	-0.011	-0.013	-0.013	-0.013	-0.011	-0.012
03U012	<---> 03M012			0.003	-0.001		-0.001	0.001	-0.001	-0.001	-0.001	-0.001	-0.001
03M012	<---> 03L012			-0.002	-0.001		0.000	-0.006	-0.001	-0.001	-0.001	-0.001	0.000
03L012	<---> 04U012			-0.002	-0.002		-0.003	-0.001	-0.002	-0.002	-0.002	-0.002	-0.003
03U013	<---> 03M013		-0.001	-0.001	-0.001		-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
03M013	<---> 03L013		-0.001	-0.002	-0.002		-0.002	-0.009	-0.002	-0.001	-0.002	-0.001	-0.001
03U014	<---> 03L014		0.000	0.001	0.001		0.001	0.001	0.001	0.011	-0.001	-0.001	0.000
03U017	<---> 03M017	-0.006	-0.001	-0.001	-0.002			-0.002	-0.002	-0.002	-0.002	-0.001	-0.001
03M017	<---> 03L017	-0.001	-0.001	-0.001	0.002				-0.001	-0.001	-0.001	0.002	-0.001



TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS			04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03U018	<-->	03L018	-0.005	-0.002		-0.002	-0.002	-0.003	-0.002	-0.002	-0.003	-0.004	-0.004	-0.002
03U020	<-->	03M020	-0.005	0.004	-0.002	-0.002	-0.002	-0.002	-0.004	-0.003	-0.003	-0.004	-0.003	-0.002
03M020	<-->	03L020	0.000	0.000	0.000	0.001	0.000	0.000	0.001	0.001	0.001	0.001	0.001	0.001
03L020	<-->	04U020	-0.011	-0.016	-0.012	-0.013	-0.012	-0.011	-0.029	-0.016	-0.017	-0.040	0.005	-0.017
03U021	<-->	03L021						-0.002		-0.003				
03U027	<-->	03L027		0.000	0.000	0.000	0.000	0.000	-0.001	0.000	0.000	-0.001	0.000	0.000
03L027	<-->	04U027		-0.034	-0.035	-0.035	-0.035	-0.035		-0.040	-0.040	-0.047	-0.044	-0.037
04U027	<-->	PJ#027		-0.002	-0.002	-0.003	-0.004	-0.003		-0.003	-0.003	-0.003	-0.003	-0.002
03U028	<-->	03L028	-0.001	-0.001	-0.001		-0.001	0.000	0.000	-0.001	-0.001	-0.002	-0.010	-0.001
03U029	<-->	03L029	0.000				-0.003	0.012	0.013	-0.005	-0.004	-0.006	-0.006	0.001
03U077	<-->	03L077	-0.001	0.000	-0.008	-0.007	0.000	-0.008	-0.008	-0.007	-0.007	-0.008	-0.001	0.001
03L077	<-->	04U077	0.029	0.018	0.031	0.025	-0.053	-0.134	0.032	0.018	0.018	0.035	0.010	0.003
04U077	<-->	04J077												
03U078	<-->	03L078	-0.010	-0.009	0.003	0.006	0.006	0.004	0.003	-0.004	0.000	-0.009	0.000	0.006
03U079	<-->	03L079	-0.004	-0.004	0.011	0.019	0.010	0.011	0.009	0.006	0.008	-0.001	0.008	0.001
03U084	<-->	03L084								-0.009	-0.009	-0.009	-0.013	-0.010
03U113	<-->	03L113								-0.002	-0.002			-0.002
03U701	<-->	04U701	0.000	0.001	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	-0.002	0.001	0.001
03U702	<-->	04U702	0.005	0.005	0.001	0.002	0.001	0.001	0.002	0.001	0.001	0.002	0.004	0.003
04U702	<-->	04J702												
03U708	<-->	04U708	-0.007	-0.007	-0.007	-0.007	-0.006	-0.005	-0.006	-0.009	-0.007	-0.011	-0.010	-0.003
04U708	<-->	04J708												
03U709	<-->	04U709	-0.002	0.000	-0.005	-0.004	-0.001	-0.004	-0.003	-0.005	-0.004	-0.005	-0.004	0.002

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS	04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03U711 <---> 04U711		-0.006		-0.005	-0.004	-0.004	-0.002	-0.005	-0.005	-0.008	-0.003	-0.020
03M713 <---> 04U713												
04U713 <---> 04J713												
04U714 <---> 04J714												
PD3U3 <---> PD3L3	-0.058	-0.070	-0.066	-0.057	-0.061	-0.085	-0.047	-0.055	-0.058	-0.073	-0.076	-0.072
PD3L3 <---> PD3U4	0.007	0.007	-0.007	0.007	0.007	0.007	0.007	0.007	0.007	0.006	0.006	0.007
T2M3 <---> T2L3	0.019	0.022	-0.002	0.003	-0.004	-0.044	0.029	-0.010	-0.006	-0.024	-0.001	-0.013
T2L3 <---> T2U4	-0.051	-0.057	-0.033	-0.044	-0.034	-0.022	-0.038	-0.022	-0.021	-0.028	-0.033	0.138
T2U4 <---> T2PJ	-0.006	-0.005	-0.001	-0.003	-0.003	-0.003	-0.003	-0.003	-0.003	-0.004	-0.004	-0.070
T6U3 <---> T6M3	0.004	0.005	-0.006	-0.002	-0.007	-0.006	0.004	-0.006	-0.005	-0.003	0.005	0.004
T6M3 <---> T6L3	-0.001	-0.002	-0.001	0.002	-0.001	0.003	-0.002	-0.001	-0.001	-0.001	-0.002	-0.002
T6L3 <---> T6U4	-0.007	-0.008	-0.002	-0.007	-0.001	-0.007	-0.005	-0.003	-0.002	-0.004	-0.008	-0.006
T6U4 <---> T6PJ	0.000	0.000	0.014	-0.001	0.002	0.001	0.000	0.001	0.001	0.000	0.000	0.001

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS			09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03U001	<-->	03M001	0.002	0.002	0.002	0.002	-0.002	-0.003	-0.005	-0.004	-0.005	-0.004	-0.002	-0.005
03M001	<-->	03L001	0.001	0.000	-0.001	0.000	-0.008	-0.004	-0.002	-0.004	-0.004	-0.004	-0.005	-0.004
03L001	<-->	04U001	-0.004	-0.005	-0.003	-0.004	-0.003	0.051	-0.004	-0.004	-0.003	-0.004	-0.004	-0.004
03U002	<-->	03M002	0.004	-0.001	0.001	-0.017	-0.009	-0.101	-0.010	-0.009	-0.008	-0.009	-0.008	-0.009
03M002	<-->	03L002	0.000	-0.001	-0.001	-0.001	-0.001	0.163	-0.001	-0.001	-0.001	-0.002	-0.001	-0.001
03L002	<-->	04U002	-0.002	-0.002		-0.003	-0.016	-0.011	-0.013	-0.014	-0.014	-0.013	-0.013	-0.014
03U003	<-->	03M003	-0.002	0.000	0.002	-0.002	-0.012	-0.016	-0.015	-0.004	-0.006	-0.007	-0.005	-0.005
03M003	<-->	03L003	-0.017	-0.014	-0.011	-0.017	-0.033		-0.037	-0.019	-0.023	-0.021	-0.020	-0.021
03L003	<-->	04U003	-0.063	-0.053	-0.057	-0.056	-0.018		-0.015	-0.039	-0.034	-0.031	-0.032	-0.030
04U003	<-->	PJ#003	-0.011	-0.009	-0.010	-0.009	-0.007		-0.009	-0.010	-0.014	-0.008	-0.008	-0.009
03U004	<-->	03M004	-0.011	-0.009	-0.008	-0.008	-0.012		-0.014	-0.012	-0.012	-0.013		-0.012
03M004	<-->	03L004	-0.001	-0.001	0.000	-0.001	-0.001		-0.001	0.000	-0.001	-0.001		-0.001
03U005	<-->	03M005	0.002	0.004	0.001	0.002	0.005		0.005	0.005	0.005	0.005		0.002
03M005	<-->	03L005	-0.018	-0.024	-0.018	-0.018	-0.025		-0.024	-0.024	-0.024	-0.024		-0.018
03U007	<-->	03M007	-0.001	-0.001	-0.001	-0.001	-0.001		-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
03M007	<-->	03L007	-0.006	-0.006	-0.004	-0.005	-0.006		-0.006	-0.006	-0.006	-0.007	-0.008	-0.005
03L007	<-->	04U007	0.001	0.002	0.002	0.002	0.002		0.002	0.002	0.002	0.002	0.003	0.002
03U010	<-->	03M010	0.000	0.001	0.000	0.000	-0.001		0.000	-0.001	0.000			
03M010	<-->	03L010	-0.013	-0.012	-0.012	-0.013	-0.011		-0.014	-0.013	-0.013			
03U012	<-->	03M012	-0.001	-0.001	-0.001	0.000	0.000		0.000	0.000	0.000	-0.001	-0.001	0.000
03M012	<-->	03L012	-0.001	-0.001	-0.005	0.000	-0.002		-0.001	0.000	-0.001	0.000	-0.001	-0.002
03L012	<-->	04U012	-0.002	-0.002	0.000	-0.003	-0.003		-0.003	-0.004	-0.003	-0.003	-0.003	-0.003
03U013	<-->	03M013	-0.001	-0.001	-0.001	-0.001	-0.001		-0.001	0.000	0.000	0.000		0.000
03M013	<-->	03L013	-0.002	-0.002	-0.001	-0.001	-0.001		-0.002	-0.002	-0.001	-0.001		-0.001
03U014	<-->	03L014	0.000	0.001	0.001	0.001	0.001		0.001	0.002	0.001	0.002		0.002
03U017	<-->	03M017	-0.001	-0.001	-0.002	-0.001	-0.002		-0.001	-0.002	0.000	-0.002		-0.002
03M017	<-->	03L017	-0.001	-0.001	-0.001	0.000	-0.002		0.000	0.004	-0.001	-0.001		-0.001

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS	09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03U018 <--> 03L018	-0.002	-0.002	-0.001	-0.001	-0.003	-0.004	-0.003	-0.003	-0.003	-0.003	-0.003	-0.002
03U020 <--> 03M020	-0.002	-0.001	-0.003	0.003	-0.004	-0.026	-0.004	0.001	-0.002	-0.003	-0.003	-0.004
03M020 <--> 03L020	0.000	0.000	0.001	0.001	0.003		0.001	-0.002	0.003	0.001	0.002	0.003
03L020 <--> 04U020	-0.016	-0.013	-0.012	-0.012	-0.013		-0.030	-0.013	-0.013	-0.010	-0.010	-0.011
03U021 <--> 03L021				-0.002	-0.003		-0.003	-0.003	-0.003	-0.003	-0.003	-0.003
03U027 <--> 03L027	0.000	0.000	0.000	0.000	0.000		0.005	0.000	0.000	-0.001		-0.001
03L027 <--> 04U027	-0.040	-0.035	-0.030	-0.030	-0.041		-0.046	-0.042	-0.041	-0.041		-0.041
04U027 <--> PJ#027	-0.002	-0.002	-0.002	-0.002	-0.001		-0.002	-0.002	-0.002	0.000		-0.001
03U028 <--> 03L028	-0.001	-0.001	0.000	-0.001	-0.001		-0.001	-0.001	-0.001	-0.001		-0.001
03U029 <--> 03L029	-0.003	0.011	0.000	-0.004	0.008		-0.001	0.008				
03U077 <--> 03L077	0.001	-0.005	0.000	0.000	0.011		-0.012	-0.017	-0.012	-0.012		-0.012
03L077 <--> 04U077	-0.061	0.016	0.011				0.015	0.003	0.000	0.001		0.001
04U077 <--> 04J077	0.031		0.000				-0.043	-0.049	-0.048	-0.041		-0.037
03U078 <--> 03L078	0.010	0.005	-0.004	-0.001	0.001		-0.003	-0.001	0.000	0.005		0.006
03U079 <--> 03L079	0.009	0.010	-0.001	0.004	0.009		0.007	0.005	0.011	0.012		0.014
03U084 <--> 03L084	-0.011	-0.011	-0.011		-0.015		-0.013	-0.013	-0.014	-0.014		-0.015
03U113 <--> 03L113	-0.002			-0.001	-0.001		-0.002	-0.001	-0.001	-0.001		-0.001
03U701 <--> 04U701	-0.001	0.000	0.002	0.001	-0.003		-0.008	-0.010	-0.010	-0.009		-0.009
03U702 <--> 04U702	0.001	0.002	0.004	0.003	-0.002		-0.002	0.002	-0.004	-0.004		-0.004
04U702 <--> 04J702			0.003	0.002	-0.011		-0.010	-0.030	-0.015	-0.012		-0.011
03U708 <--> 04U708	-0.002	-0.005	-0.004	-0.007	-0.006		-0.010	-0.008	-0.008	-0.007		-0.007
04U708 <--> 04J708					-0.030		-0.019	-0.021	-0.020	-0.023		-0.022
03U709 <--> 04U709	0.003	-0.002	0.000	-0.003	-0.003	-0.008	-0.010	-0.003	-0.009	-0.009		-0.009

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS		09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03U711	<---> 04U711	-0.006	-0.004	-0.003	-0.005	-0.006	0.012	-0.007	-0.006	-0.006	-0.005	0.005	-0.007
03M713	<---> 04U713			0.027	0.027	0.027	0.011	0.035	0.032	0.031	0.030	0.031	0.032
04U713	<---> 04J713			-0.026	-0.027	-0.039	-0.134	-0.049	-0.049	-0.048	-0.045	-0.047	-0.051
04U714	<---> 04J714			0.003	0.000	-0.148		-0.003	-0.003	-0.002	-0.003	-0.002	-0.003
PD3U3	<---> PD3L3	-0.068	-0.065	-0.049	-0.052	-0.057		-0.063	-0.050	-0.050	-0.043	-0.048	-0.043
PD3L3	<---> PD3U4	0.007	0.007	0.008	-0.050	0.007		0.008	0.008	0.008	0.008	0.008	0.008
T2M3	<---> T2L3	-0.016	0.007	-0.012	-0.007	0.039		-0.010	-0.005	-0.005	0.001	0.001	-0.003
T2L3	<---> T2U4	-0.020	-0.026	-0.033	-0.014	-0.020		-0.007	-0.015	-0.007	-0.002	-0.002	-0.004
T2U4	<---> T2PJ	-0.003	-0.003	-0.003	-0.003	-0.002		-0.001	-0.002	-0.002	-0.002	-0.002	-0.003
T6U3	<---> T6M3	-0.005	0.002	0.004	-0.003	-0.010	-0.004	-0.010	-0.011	-0.011	-0.011	-0.011	-0.012
T6M3	<---> T6L3	-0.001	-0.001	-0.001	-0.001	-0.001		-0.001	-0.001	-0.001	0.000	-0.001	-0.001
T6L3	<---> T6U4	-0.003	-0.006	-0.006	-0.003	-0.004		-0.004	-0.004	-0.004	-0.003	-0.003	-0.004
T6U4	<---> T6PJ	0.001	0.001	0.001	0.001	0.001		0.001	0.000	0.000	0.000	0.001	0.001

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS			06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	9/01/92	10/08/92	03/02/93	09/10/93
03U001	<-->	03M001	-0.005	-0.005	-0.005	-0.005	-0.006	-0.003	-0.004	-0.004	-0.005
03M001	<-->	03L001	-0.003	-0.004	-0.005	-0.005	-0.004	-0.005	-0.005	-0.006	-0.006
03L001	<-->	04U001	-0.003	-0.004	-0.003	-0.003	-0.004	-0.003	-0.003	-0.002	-0.003
03U002	<-->	03M002	-0.008	-0.007	-0.008	-0.008	-0.008	-0.009	-0.007	-0.008	-0.009
03M002	<-->	03L002	-0.001	-0.004	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
03L002	<-->	04U002	-0.014	-0.013	-0.015	-0.014	-0.015	-0.015	-0.015	-0.015	-0.018
03U003	<-->	03M003	-0.004	-0.004	-0.004	-0.004	-0.003	-0.003	-0.003	-0.003	-0.004
03M003	<-->	03L003	-0.021	-0.021	-0.020	-0.022	-0.022	-0.011	-0.009	-0.009	-0.012
03L003	<-->	04U003	-0.028	-0.030	-0.029	-0.028	-0.028	-0.050	-0.045	-0.043	-0.034
04U003	<-->	PJ#003	-0.009	-0.010	-0.009	-0.009	-0.009	-0.006	-0.006	-0.006	-0.007
03U004	<-->	03M004			-0.013		-0.013	0.000	-0.037	-0.037	-0.036
03M004	<-->	03L004			-0.001		0.000	0.000	-0.019	-0.019	-0.019
03U005	<-->	03M005			0.001		0.005	0.000	0.000	0.000	0.000
03M005	<-->	03L005			-0.018		-0.018	0.000	0.000	0.000	0.000
03U007	<-->	03M007	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001	-0.001
03M007	<-->	03L007	-0.006	-0.005	-0.009	-0.006	-0.008	-0.010	-0.009	-0.007	-0.008
03L007	<-->	04U007	0.002	0.002	0.003	0.002	0.003	0.003	0.002	0.002	0.002
03U010	<-->	03M010			0.000		-0.006	0.000	-0.001	-0.001	-0.001
03M010	<-->	03L010			-0.008		-0.010	0.000	0.000	0.001	-0.002
03U012	<-->	03M012	-0.001	0.000	-0.001	-0.001	-0.001	0.000	-0.001	0.000	-0.001
03M012	<-->	03L012	-0.001	-0.001	-0.002	-0.001	0.000	-0.003	-0.002	-0.002	-0.002
03L012	<-->	04U012	-0.003	-0.003	-0.003	-0.003	-0.004	-0.002	-0.002	-0.003	-0.003
03U013	<-->	03M013			0.000		0.000	0.000	0.000	0.000	0.000
03M013	<-->	03L013			-0.002		-0.002	0.000	-0.001	-0.002	-0.002
03U014	<-->	03L014	0.002	0.001	0.002	0.002	0.002	0.003	0.002	0.002	0.002
03U017	<-->	03M017			-0.002		-0.002	0.000	-0.001	-0.001	-0.001
03M017	<-->	03L017			-0.002		-0.002	0.000	0.001	0.000	0.000

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS		06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	9/01/92	10/08/92	03/02/93	09/10/93
03U018	<---> 03L018			-0.003		-0.014	0.000	-0.003	-0.003	-0.003
03U020	<---> 03M020	-0.003	-0.004	-0.004	-0.004	-0.004	-0.002	-0.001	-0.002	-0.002
03M020	<---> 03L020	0.002	0.003	0.003	0.003	0.003	0.000	0.000	0.000	0.000
03L020	<---> 04U020	-0.009	-0.011	-0.008	-0.006	-0.009	-0.011	-0.008	-0.007	-0.004
03U021	<---> 03L021			-0.006		-0.003	0.000	-0.002	-0.003	-0.003
03U027	<---> 03L027			-0.001		0.000	0.000	-0.001	-0.001	-0.001
03L027	<---> 04U027			-0.040		-0.042	0.000	-0.043	-0.043	-0.044
04U027	<---> PJ#027			-0.002		-0.001	0.000	0.000	0.000	0.000
03U028	<---> 03L028			-0.001		-0.001	0.000	-0.001	-0.001	-0.001
03U029	<---> 03L029					0.010	0.000	0.010	0.010	0.008
03U077	<---> 03L077			-0.012		-0.011	0.000	-0.012	-0.012	-0.012
03L077	<---> 04U077			0.002		-0.001	0.000	0.006	0.004	0.003
04U077	<---> 04J077			-0.037		-0.041	0.000	-0.041	-0.043	-0.045
03U078	<---> 03L078			0.013		0.015	0.000	0.012	0.011	0.010
03U079	<---> 03L079			0.019		0.017	0.000	0.016	0.016	0.013
03U084	<---> 03L084			-0.014		-0.015	0.000	-0.279	-0.282	-0.284
03U113	<---> 03L113			-0.002		-0.002	0.000	-0.001	0.000	0.000
03U701	<---> 04U701			-0.009		-0.010	-4.696	-0.010	-0.010	-0.010
03U702	<---> 04U702			-0.004		-0.004	0.000	-0.004	-0.004	-0.004
04U702	<---> 04J702			-0.010		-0.011	0.000	-0.016	-0.017	-0.017
03U708	<---> 04U708			-0.006		-0.005	0.000	-0.007	-0.006	-0.007
04U708	<---> 04J708			-0.023		-0.026	0.000	-0.026	-0.027	-0.033
03U709	<---> 04U709			-0.009		-0.009	0.000	-0.009	-0.009	-0.010

TABLE X-9  
HYDRAULIC VERTICAL GRADIENTS  
TGRS, TCAAP

WELLS		06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	9/01/92	10/08/92	03/02/93	09/10/93
03U711	<---> 04U711	-0.006	0.006	0.005	0.005	0.006	-0.007	-0.006	-0.006	-0.007
03M713	<---> 04U713	0.033	0.036	0.034	0.034	0.035	0.037	0.035	0.034	0.035
04U713	<---> 04J713	-0.052	-0.055	-0.053	-0.053	-0.055	-0.058	-0.055	-0.054	-0.048
04U714	<---> 04J714	-0.003	-0.002	-0.003	-0.002	-0.003	-0.002	-0.002	-0.002	-0.002
PD3U3	<---> PD3L3	-0.038	-0.043	-0.040	-0.035	-0.051	-0.042	-0.041	-0.039	-0.039
PD3L3	<---> PD3U4	0.008	0.008	0.009	0.009	0.023	0.002	0.002	0.002	0.002
T2M3	<---> T2L3	0.004	0.003	0.005	0.005	0.006	0.001	0.005	0.005	0.001
T2L3	<---> T2U4	-0.001	-0.003	-0.001	-0.002	-0.002	-0.011	-0.009	-0.007	-0.009
T2U4	<---> T2PJ	-0.003	-0.003	-0.003	-0.003	-0.003	-0.004	-0.003	-0.004	-0.004
T6U3	<---> T6M3	-0.012	-0.011	-0.011	-0.011	-0.010	-0.011	-0.011	-0.012	-0.011
T6M3	<---> T6L3	0.000	-0.001	0.000	0.000	0.000	0.000	0.000	0.000	0.000
T6L3	<---> T6U4	-0.005	-0.004	-0.004	-0.004	-0.005	-0.005	-0.004	-0.005	-0.005
T6U4	<---> T6PJ	0.001	0.001	0.001	0.001	0.000	-0.001	-0.001	-0.001	0.000



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**Table X-10**

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**VOC Mass Loading Summary, TGRS, TCAAP**

**TABLE X-10**

**VOC MASS LOADING SUMMARY  
(lbs/day)  
TGRS, TCAAP**

<i>Well</i>	<i>% Contribution to VOC Mass Removal</i>	<i>FY 1993 Total Pounds VOC Mass Removal</i>
B1	3.1	625
B2	1.3	262
B3	0.17	34
B4	13.4	2,702
B5	31.5	6,352
B6	12.3	2,480
B7	0.04	8
B8	0.29	58
B9	1.8	363
B10	0.1	20
B11	0.03	6
B12	0.01	2
SC1	0.96	194
SC2	2.5	504
SC3	0.28	56
SC4	0.03	6
SC5	32.2	6,493
FY 1993 Total Daily Average		20,165 55 lbs/day
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TGRS 1992 Total		24,527 lbs.
TGRS 1991 Total		26,760 lbs.
TGRS 1990 Total		18,005 lbs.
TGRS 1989 Total		19,510 lbs.
BGRS 1988 Total		4,800 lbs.
BGRS 1987 Total		2,100 lbs.
Historical Total		115,867 lbs.
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**Table X-11**

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**Historical VOC Concentration in Extraction Wells  
TGRS, TCAAP**

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
03F302 (B1)	871117	9.700	0.300	3.800	5.000	< 0.020	51.400	< 0.200	11.300	< 0.200	0.600	1040.000	
03F302 (B1)	871215	23.200	0.260	12.300	12.800	< 0.200	177.000	< 0.200	20.800	1.100	1.500	2120.000	
03F302 (B1)	880112	23.000	< 4.000	12.000	20.000	< 4.000	182.000	< 4.000	18.000	< 4.000	< 4.000	2580.000	
03F302 (B1)	880428	41.000	< 10.000	12.000	14.000	< 10.000	124.000	< 10.000	22.000	< 10.000	< 10.000	2900.000	
03F302 (B1)	880719	24.000	0.490	7.500	18.000	< 0.200	234.000	< 0.200	< 0.200	1.200	2.700	4300.000	
03F302 (B1)	881021	24.000	< 0.500	10.000	14.000	< 1.000	135.000	< 0.500	0.500	0.660	2.200	4800.000	
03F302 (B1)	890316	31.000	< 10.000	< 10.000	11.000	< 10.000	130.000	< 10.000	< 10.000	< 10.000	< 10.000	5800.000	
03F302 (B1)	890420	27.000	0.600	14.000	13.000	< 0.200	100.000	< 1.000	0.700	0.700	1.600	4500.000	
03F302 (B1)	890719	44.000	< 20.000	22.000	< 20.000	< 20.000	120.000	< 100.000	< 20.000	< 20.000	< 20.000	2700.000	
03F302 (B1)	891024	62.000	< 20.000	< 20.000	< 20.000	< 20.000	67.000	< 100.000	< 20.000	< 20.000	< 20.000	2300.000	
03F302 (B1)	900118	43.000	< 20.000	< 20.000	< 20.000	< 20.000	91.000	< 100.000	< 20.000	< 20.000	< 20.000	2100.000	
03F302 (B1)	900118	56.000	< 20.000	< 20.000	< 20.000	< 20.000	110.000	< 100.000	< 20.000	< 20.000	< 20.000	2700.000	
03F302 (B1)	900508	3.600	< 0.500	2.200	2.400	< 0.500	28.000	< 0.500	< 0.500	< 0.500	< 0.500	1300.000	
03F302 (B1)	900713	83.000	< 25.000	23.000	18.000	< 5.000	120.000	< 38.000	< 12.000	< 7.500	< 25.000	1900.000	
03F302 (B1)	900713	85.000	< 25.000	22.000	18.000	< 5.000	120.000	< 38.000	< 12.000	< 7.500	< 25.000	1900.000	
03F302 (B1)	901219	< 1.000	< 1.000	< 1.000	< 0.780	73.000	< 0.500	< 1.900	< 0.720	< 1.000	1800.000		
03F302 (B1)	910319	< 50.000	< 50.000	< 50.000	< 39.000	42.000	< 25.000	< 95.000	< 36.000	< 15.000 T	< 50.000	1300.000	
03F302 (B1)	910605	< 50.000	< 50.000	< 50.000	< 39.000	42.000	< 25.000	< 95.000	< 36.000	< 15.000 T	< 50.000	1400.000	
03F302 (B1)	910905	< 50.000	< 50.000	< 50.000	< 39.000	44.000	< 25.000	< 95.000	< 36.000	< 15.000 R	< 50.000	1300.000	
03F302 (B1)	911204	57.000	< 25.000	< 25.000	< 20.000	44.000	< 12.000	< 48.000	< 18.000	< 7.500 R	< 25.000	1200.000	
03F302 (B1)	920306	62.000	< 50.000	< 50.000	< 39.000	76.000	< 25.000	< 95.000	< 36.000	< 25.000 R	< 50.000	1200.000	
03F302 (B1)	920605	31.000	< 25.000	< 25.000	< 20.000	30.000	< 12.000	< 48.000	< 18.000	< 7.500 T	< 25.000	890.000	
03F302 (B1)	920901	90.000	< 50.000	< 50.000	< 39.000	< 25.000	< 25.000	< 95.000	< 36.000	< 50.000	1000.000		
03F302 (B1)	930303	45.000	< 20.000	< 20.000	< 16.000	28.000	< 10.000	< 38.000	< 14.000	< 6.000 R	< 20.000	840.000	
03F302 (B1)	930915	35.000	< 10.000	< 10.000	9.400	26.000	< 5.000	< 19.000	< 7.200	< 3.000 R	< 10.000	860.000	
03F303 (B2)	871117	18.100	< 0.200	9.900	9.000	< 0.200	31.500	< 0.200	9.200	< 0.200	6.700	190.000	
03F303 (B2)	871215	19.100	< 0.200	8.100	10.200	< 0.200	28.900	< 0.200	8.900	0.300	8.900	282.000	
03F303 (B2)	880112	27.000	< 0.200	11.000	17.000	< 0.200	60.000	< 0.200	11.000	< 0.200	15.000	375.000	
03F303 (B2)	880428	18.500	< 0.200	8.200	10.300	< 0.200	41.900	< 0.200	< 0.200	< 0.200	10.700	274.000	
03F303 (B2)	880719	28.000	< 0.200	5.000	13.000	< 0.200	48.000	< 0.200	< 0.200	< 0.200	18.000	700.000	
03F303 (B2)	881021	22.000	< 0.500	5.200	7.600	< 1.000	32.000	< 0.500	< 0.500	< 0.500	14.000	1000.000	

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
03F303 (B2)	890316	< 10.000	< 10.000	< 10.000	< 10.000	< 10.000	< 10.000	< 10.000	< 10.000	61.000	< 10.000	11.000	1200.000
03F303 (B2)	890420	14.000	< 0.200	6.900	5.700	< 0.200	< 0.200	38.000	< 1.000	0.800	0.300	11.000	1100.000
03F303 (B2)	890719	20.000	< 4.000	9.000	6.800	< 4.000	< 4.000	48.000	< 20.000	< 4.000	< 4.000	17.000	860.000
03F303 (B2)	891024	19.000	< 5.000	< 5.000	< 5.000	< 5.000	< 5.000	28.000	< 25.000	< 5.000	< 5.000	12.000	850.000
03F303 (B2)	900118	24.000	< 5.000	6.200	< 5.000	< 5.000	< 5.000	33.000	< 25.000	< 5.000	< 5.000	8.600	650.000
03F303 (B2)	900508	15.000	< 0.500	5.500	4.500	< 0.500	< 0.500	20.000	< 0.500	< 0.500	< 0.500	8.600	700.000
03F303 (B2)	900713	24.000	< 5.000	6.900	5.900	< 1.000	< 1.000	29.000	< 7.500	< 2.500	< 1.500	11.000	510.000
03F303 (B2)	901219	12.000	< 1.000	< 1.000	< 0.780	18.000	< 0.500	< 1.900	< 1.900	< 0.720	< 1.000	< 1.000	320.000
03F303 (B2)	910319	16.000	< 10.000	< 10.000	< 7.800	17.000	< 5.000	< 19.000	< 19.000	< 7.200	< 3.000 T	< 10.000	380.000
03F303 (B2)	910605	13.000	< 10.000	< 10.000	< 7.800	15.000	< 5.000	< 19.000	< 19.000	< 7.200	< 15.000 T	< 10.000	350.000
03F303 (B2)	910905	< 20.000	< 20.000	< 20.000	< 16.000	14.000	< 10.000	< 38.000	< 38.000	< 14.000	< 6.000 R	< 20.000	360.000
03F303 (B2)	911204	14.000	< 5.000	< 5.000	< 3.900	15.000	< 2.500	< 9.500	< 9.500	< 3.600	< 1.500 R	< 5.000	360.000
03F303 (B2)	920306	18.000	< 10.000	< 10.000	< 7.800	15.000	< 5.000	< 19.000	< 19.000	< 7.200	< 5.000 R	< 10.000	400.000
03F303 (B2)	920605	15.000	< 10.000	< 10.000	< 7.800	13.000	< 5.000	< 19.000	< 19.000	< 7.200	< 3.000 T	< 10.000	390.000
03F303 (B2)	920901	32.000	< 20.000	< 20.000	< 15.600	11.000	< 10.000	< 38.000	< 38.000	< 14.400	< 20.000	< 20.000	400.000
03F303 (B2)	930303	21.000	< 5.000	5.900	< 3.900	10.000	< 2.500	< 9.500	< 9.500	< 3.600	< 1.500 R	6.100	340.000
03F303 (B2)	930915	33.000	< 5.000	< 5.000	< 3.900	7.600	< 2.500	< 9.500	< 9.500	< 3.600	< 1.500 R	6.100	350.000
03F303 (B2)	930915	41.000 D	< 10.000 D	< 10.000 D	< 7.800 D	9.800 D	< 5.000 D	< 19.000 D	< 19.000 D	< 7.200 D	< 3.000 RD	< 10.000 D	390.000 D
03F304 (B3)	871117	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	5.100
03F304 (B3)	871215	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	1.110	< 0.200	0.390	< 0.200	< 0.200	8.330
03F304 (B3)	880112	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	1.100	< 0.200	< 0.200	< 0.200	< 0.200	8.200
03F304 (B3)	880428	0.860	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	1.160	< 0.200	< 0.200	< 0.200	< 0.200	6.620
03F304 (B3)	880719	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	9.500
03F304 (B3)	890316	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	6.000
03F304 (B3)	890420	0.200	< 0.200	< 0.300	0.200	< 0.200	< 0.200	0.500	< 1.000	< 0.200	< 0.200	< 0.200	11.000
03F304 (B3)	890719	< 0.200	< 0.200	0.200	< 0.200	< 1.000	< 1.000	0.400	< 5.000	< 1.000	< 0.200	< 0.200	4.600
03F304 (B3)	891024	0.500	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 0.200	< 1.000	< 0.200	< 0.200	< 0.200	5.400
03F304 (B3)	900118	0.700	0.400	< 0.200	< 0.200	< 0.200	< 0.200	0.400	< 1.000	< 0.200	< 0.200	< 0.200	5.100
03F304 (B3)	900508	1.800	1.300	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	6.700
03F304 (B3)	900713	5.900	1.100	0.400	0.200	< 0.200	< 0.200	< 0.500	< 1.500	< 0.500	< 0.300	< 1.000	7.300
03F304 (B3)	901219	6.440	1.530	< 1.000	< 0.780	< 0.500	< 0.500	< 1.900	< 1.900	< 0.720	< 1.000	< 1.000	5.410

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
03F304 (B3)	910319	9.820	1.620	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	8.340
03F304 (B3)	910605	8.800	1.960	1.780	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	9.420
03F304 (B3)	910605	8.210	2.030	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	8.000
03F304 (B3)	910905	8.320	1.820	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	7.830
03F304 (B3)	911204	12.400	1.710	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	7.280
03F304 (B3)	920306	17.300	1.610	1.090	0.918	< 0.500	< 0.500		< 1.900	< 0.720	< 0.500 R	< 1.000	7.300
03F304 (B3)	920605	24.300	1.530 D	2.410	1.050 D	< 0.500 D	< 0.500 D		< 1.900	< 0.720 D	< 0.300 R	< 1.000	7.520 D
03F304 (B3)	920605	22.300 D	1.430	2.400 D	1.120	< 0.500	1.050		< 1.900 D	< 0.720	< 0.300 T	< 1.000 D	8.280
03F304 (B3)	920901	21.900	1.740	2.840	1.190	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	6.220
03F304 (B3)	920901	23.100 D	1.510 D	2.900 D	1.100 D	< 0.500 D	< 0.500 D		< 1.900 D	< 0.720 D		< 1.000 D	6.830 D
03F304 (B3)	930303	25.800	1.270	3.500	1.870	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	7.480
03F304 (B3)	930303	28.400 D	1.300 D	3.430 D	1.940 D	< 0.500 D	< 0.500 D		< 1.900 D	< 0.720 D	< 0.300 RD	< 1.000 D	8.840 D
03F304 (B3)	930915	40.100	1.190	4.780	2.510	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	12.100

03F305 (B4)	871117	17.600	2.400	2.200	2.000		< 0.200	0.800	< 0.200	0.400	< 0.200	0.800	22.900
03F305 (B4)	871215	31.000	3.100	4.100	6.140		< 0.200	1.550	< 0.200	0.470	< 0.200	1.100	54.000
03F305 (B4)	880112	39.000	2.300	3.600	5.500		< 0.200	1.600	< 0.200	0.750	< 0.200	0.860	61.000
03F305 (B4)	880428	34.900	1.860	4.190	2.490		< 0.200	1.380	< 0.200	< 0.200	< 0.200	0.820	26.300
03F305 (B4)	880719	85.000	8.600	2.400	1.800		< 0.200	0.730	< 0.200	< 0.200	< 0.200	6.500	38.000
03F305 (B4)	890316	68.000	1.800	8.200	14.000		1.300	< 1.000	< 1.000	1.900	11.000	2.000	68.000
03F305 (B4)	890420	58.000	1.600	15.000	19.000		< 0.200	3.300	< 1.000	0.400	< 0.200	1.400	100.000
03F305 (B4)	890719	110.000	2.600	49.000	34.000		< 1.000	7.800	< 5.000	< 1.000	< 1.000	1.300	140.000
03F305 (B4)	891023	240.000	< 2.000	77.000	67.000		< 2.000	13.000	< 10.000	< 2.000	< 2.000	< 2.000	430.000
03F305 (B4)	900118	330.000	< 4.000	79.000	110.000		< 4.000	26.000	< 20.000	< 4.000	< 4.000	< 4.000	590.000
03F305 (B4)	900508	460.000	2.300	130.000	100.000		1.500	22.000	< 0.500	1.200	< 0.500	0.600	1200.000
03F305 (B4)	900508	500.000	2.300	140.000	90.000		1.600	23.000	< 0.500	1.200	< 0.500	0.600	1100.000
03F305 (B4)	900713	770.000	< 20.000	210.000	170.000		< 4.000	46.000	< 30.000	< 10.000	< 6.000	< 20.000	1600.000
03F305 (B4)	901219	750.000	< 1.000	120.000	150.000	52.000	< 0.500		< 1.900	< 0.720		< 1.000	1800.000
03F305 (B4)	910319	980.000	< 50.000	170.000	160.000	44.000	< 25.000		< 95.000	< 36.000	< 15.000 T	< 50.000	2100.000
03F305 (B4)	910319	980.000	< 50.000	170.000	160.000	42.000	< 25.000		< 95.000	< 36.000	< 15.000 T	< 50.000	2100.000
03F305 (B4)	910605	930.000	< 50.000	150.000	160.000	49.000	< 25.000		< 95.000	< 36.000	< 15.000 T	< 50.000	2100.000
03F305 (B4)	910905	970.000	< 100.000	120.000	170.000	62.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	2400.000

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
03F305 (B4)	910905	880.000	< 100.000	110.000	160.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	2900.000
03F305 (B4)	911204	1100.000	< 50.000	140.000	170.000	60.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	2800.000
03F305 (B4)	920306	950.000	< 100.000	120.000	170.000	60.000	< 50.000		< 190.000	< 72.000	< 50.000 P	< 100.000	2600.000
03F305 (B4)	920605	910.000	< 100.000	160.000	170.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 i	< 100.000	2700.000
03F305 (B4)	920901	1300.000	4.380	200.000	210.000	62.000	6.000		< 1.900	2.830		8.520	2800.000
03F305 (B4)	930303	1100.000	< 50.000	140.000	170.000	65.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	2600.000
03F305 (B4)	930915	940.000	< 100.000	140.000	150.000	58.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	2700.000
03F306 (B5)	871117	845.000	1.300	130.000	90.000		2.500	17.000	0.200	15.800	< 0.200	0.400	1500.000
03F306 (B5)	871215	1150.000	1.460	48.800	143.000		4.400	27.400	< 0.200	15.300	0.600	0.360	2130.000
03F306 (B5)	880112	1220.000	< 4.000	171.000	185.000		< 4.000	5.700	< 4.000	9.200	< 4.000	< 4.000	2420.000
03F306 (B5)	880428	100.000	< 0.200	160.000	120.000		< 0.200	38.000	< 0.200	< 0.200	< 0.200	< 0.200	530.000
03F306 (B5)	880719	1500.000	3.800	135.000	236.000		8.000	34.000	< 0.200	< 0.200	< 0.200	< 0.200	2920.000
03F306 (B5)	881021	475.000	2.000	90.000	55.000		< 1.000	25.000	< 0.500	2.000	< 0.500	1.100	1400.000
03F306 (B5)	890316	1200.000	< 10.000	170.000	150.000		< 10.000	33.000	< 10.000	< 10.000	< 10.000	< 10.000	2800.000
03F306 (B5)	890420	1400.000	1.000	330.000	200.000		3.100	100.000	1.300	0.900	0.400	0.800	2700.000
03F306 (B5)	890719	800.000	< 5.000	300.000	130.000		< 5.000	30.000	< 25.000	< 5.000	< 5.000	< 5.000	2200.000
03F306 (B5)	891023	940.000	< 20.000	290.000	130.000		< 20.000	< 20.000	< 100.000	< 20.000	< 20.000	< 20.000	2700.000
03F306 (B5)	900118	1200.000	< 40.000	220.000	170.000		< 40.000	< 40.000	< 200.000	< 40.000	< 40.000	< 40.000	3300.000
03F306 (B5)	900508	1100.000	2.400	250.000	120.000		3.300	33.000	< 0.500	2.200	< 0.500	1.400	4200.000
03F306 (B5)	900713	1400.000	< 50.000	350.000	200.000		< 10.000	32.000	< 75.000	< 25.000	< 15.000	< 50.000	4900.000
03F306 (B5)	900713	1500.000	< 50.000	340.000	190.000		< 10.000	33.000	< 75.000	< 25.000	< 15.000	< 50.000	4700.000
03F306 (B5)	901119	1400.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	6400.000
03F306 (B5)	910319	1600.000	< 250.000	< 250.000	< 200.000	< 120.000	< 120.000		< 480.000	< 180.000	< 75.000 T	< 250.000	7000.000
03F306 (B5)	910605	1600.000	< 200.000	< 200.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	6400.000
03F306 (B5)	910905	1500.000	< 250.000	< 250.000	< 200.000	< 120.000	< 120.000		< 480.000	< 180.000	< 75.000 R	< 250.000	7200.000
03F306 (B5)	911204	1900.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 150.000 R	< 500.000	7500.000
03F306 (B5)	920306	1400.000	< 200.000	< 200.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 100.000 R	< 200.000	6900.000
03F306 (B5)	920605	1300.000	< 200.000	< 200.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	6400.000
03F306 (B5)	920901	1900.000	10.200	200.000	95.000	28.400	< 0.500		< 1.900	3.280		17.200	7500.000
03F306 (B5)	930303	1800.000	< 100.000	170.000	95.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	7300.000
03F306 (B5)	930915	1400.000	< 100.000	130.000	< 78.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	7500.000

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
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03F307 (B6)	871117	480.000	3.000	60.000	48.000		< 0.200	18.000	< 0.200	< 0.200	< 0.200	3.000	2370.000
03F307 (B6)	871215	90.800	1.800	110.000	45.000		4.100	16.300	< 0.200	13.100	0.400	1.700	3270.000
03F307 (B6)	880112	786.000	< 4.000	61.400	103.000		< 4.000	27.000	< 4.000	131.000	< 4.000	< 4.000	3300.000
03F307 (B6)	880428	550.000	< 4.000	100.000	75.000		< 4.000	31.000	< 4.000	< 4.000	< 4.000	< 4.000	3400.000
03F307 (B6)	880719	887.000	2.000	76.000	66.000		5.000	22.000	< 0.200	< 0.200	< 0.200	2.300	2860.000
03F307 (B6)	881021	400.000	1.200	55.000	70.000		3.200	18.000	< 0.500	2.000	< 0.500	1.500	3200.000
03F307 (B6)	890316	900.000	< 10.000	64.000	98.000		< 10.000	59.000	< 10.000	< 10.000	< 10.000	< 10.000	4170.000
03F307 (B6)	890420	530.000	2.000	150.000	83.000		3.900	23.000	1.000	0.600	0.200	2.200	3600.000
03F307 (B6)	890719	620.000	< 4.000	210.000	100.000		< 4.000	25.000	< 20.000	< 4.000	< 4.000	< 4.000	2400.000
03F307 (B6)	890719	640.000	< 4.000	200.000	100.000		< 4.000	25.000	< 20.000	< 4.000	< 4.000	< 4.000	2400.000
03F307 (B6)	891023	590.000	< 20.000	170.000	82.000		< 20.000	< 20.000	< 100.000	< 20.000	< 20.000	< 20.000	3300.000
03F307 (B6)	900119	570.000	< 20.000	91.000	110.000		< 20.000	20.000	< 100.000	< 20.000	< 20.000	< 20.000	2700.000
03F307 (B6)	900508	550.000	2.300	130.000	80.000		3.400	22.000	< 0.500	1.200	< 0.500	1.500	3200.000
03F307 (B6)	900713	570.000	< 50.000	160.000	130.000		< 10.000	< 25.000	< 75.000	< 25.000	< 15.000	< 50.000	2800.000
03F307 (B6)	901219	1400.000	1000.000	900.000	110.000	< 0.500	480.000		< 1.900	< 0.720		< 1.000	2900.000
03F307 (B6)	901219	410.000	1100.000	< 1.000	120.000	550.000	480.000		< 1.900	< 0.720		1100.000	3400.000
03F307 (B6)	901219	1500.000	< 1.000	910.000	110.000	580.000	< 0.500		< 1.900	< 0.720		1100.000	3500.000
03F307 (B6)	910319	470.000	< 100.000	< 100.000	91.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 T	< 100.000	2900.000
03F307 (B6)	910606	340.000	< 100.000	< 100.000	94.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 T	< 100.000	2500.000
03F307 (B6)	910905	360.000	< 100.000	< 100.000	86.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	2700.000
03F307 (B6)	911204	400.000	< 100.000	< 100.000	84.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	2700.000
03F307 (B6)	920306	310.000	< 100.000 D	< 50.000	79.000	< 25.000	< 25.000		< 190.000 D	< 36.000	< 50.000 R	< 50.000	2700.000 D
03F307 (B6)	920306	360.000 D	< 50.000	< 100.000 D	86.000 D	< 50.000 D	< 50.000 D		< 95.000	< 72.000 D	< 25.000 R	< 100.000 D	2500.000
03F307 (B6)	920605	290.000	< 50.000	70.000	84.000	< 25.000	< 25.000		< 95.000	< 36.000	< 15.000 T	< 50.000	2400.000
03F307 (B6)	920901	410.000	< 50.000	65.000	80.000	< 25.000	< 25.000		< 95.000	< 36.000		< 50.000	2400.000
03F307 (B6)	930303	360.000	< 50.000	81.000	84.000	< 25.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	2100.000
03F307 (B6)	930915	350.000	< 50.000	< 50.000	53.000	< 25.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	2400.000

03F308 (B7)	890316	15.000	< 5.000	< 5.000	< 5.000		< 5.000	< 5.000	< 5.000	< 5.000	< 5.000	< 5.000	75.000
03F308 (B7)	890420	5.000	< 0.200	< 1.700	1.300		< 0.200	0.300	< 1.000	< 0.200	< 0.200	< 0.200	44.000
03F308 (B7)	890719	4.500	< 0.200	1.400	0.800		< 0.200	0.300	< 1.000	< 0.200	< 0.200	< 0.200	29.000



TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
03F308 (B7)	891023	5.300	< 0.200	1.100	0.800		< 0.200	< 0.200	< 1.000	< 0.200	< 0.200	< 0.200	32.000
03F308 (B7)	900119	4.000	< 0.200	0.500	0.700		< 0.200	< 0.200	< 1.000	< 0.200	< 0.200	< 0.200	22.000
03F308 (B7)	900508	2.400	< 0.500	< 0.500	< 0.500		< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	23.000
03F308 (B7)	900713	2.900	< 1.000	0.300	0.400		< 0.200	< 0.500	< 1.500	< 0.500	< 0.300	< 1.000	20.000
03F308 (B7)	901219	1.380	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	16.300
03F308 (B7)	901219	1.390	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	17.400
03F308 (B7)	910319	1.370	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	13.200
03F308 (B7)	910606	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	8.220
03F308 (B7)	910905	< 1.000	< 1.000	< 1.000	0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	12.700
03F308 (B7)	911204	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	10.700
03F308 (B7)	920306	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.500 R	< 1.000	11.000
03F308 (B7)	920605	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	8.520
03F308 (B7)	920901	1.790	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	8.570
03F308 (B7)	930303	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	9.730
03F308 (B7)	930915	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	7.780

PJ#309 (B8)	881118	0.000	< 0.000	0.000	0.000		0.000	0.000	< 0.000	< 0.000	< 0.000	< 0.000	0.000
PJ#309 (B8)	890316	63.000	< 1.000	13.000	22.000		< 1.000	6.300	< 1.000	< 1.000	< 1.000	< 1.000	200.000
PJ#309 (B8)	890420	45.000	< 0.200	13.000	19.000		< 0.200	4.000	< 1.000	0.500	< 0.200	< 0.200	320.000
PJ#309 (B8)	890719	48.000	< 1.000	22.000	20.000		< 1.000	5.300	< 5.000	< 1.000	< 1.000	< 1.000	190.000
PJ#309 (B8)	891023	68.000	< 2.000	21.000	28.000		< 2.000	4.100	< 10.000	< 2.000	< 2.000	< 2.000	270.000
PJ#309 (B8)	900118	68.000	< 2.000	21.000	37.000		< 2.000	7.700	< 10.000	< 2.000	< 2.000	< 2.000	260.000
PJ#309 (B8)	900508	52.000	< 0.500	15.000	18.000		< 0.500	5.300	< 0.500	< 0.500	< 0.500	< 0.500	280.000
PJ#309 (B8)	900713	57.000	< 2.500	23.000	30.000		< 0.500	8.400	< 3.800	< 1.200	< 0.800	< 2.500	250.000
PJ#309 (B8)	901219	36.000	< 1.000	< 1.000	18.000	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	220.000
PJ#309 (B8)	910319	51.000	< 5.000	12.000	19.000	4.200	< 2.500		< 9.500	< 3.600	< 1.500 T	< 5.000	260.000
PJ#309 (B8)	910605	61.000	< 10.000	18.000	22.000	5.400	< 5.000		< 19.000	< 7.200	< 3.000 T	< 10.000	300.000
PJ#309 (B8)	910905	47.000	< 10.000	< 10.000	15.000	< 5.000	< 5.000		< 19.000	< 7.200	< 3.000 R	< 10.000	260.000
PJ#309 (B8)	911204	48.000	< 10.000	< 10.000	14.000	< 5.000	< 5.000		< 19.000	< 7.200	< 3.000 R	< 10.000	210.000
PJ#309 (B8)	920306	28.000	< 5.000	< 5.000	10.000	< 2.500	< 2.500		< 9.500	< 3.600	< 2.500 R	< 5.000	160.000
PJ#309 (B8)	920605	24.000	< 5.000	5.900	8.400	< 2.500	< 2.500		< 9.500	< 3.600	< 1.500 T	< 5.000	140.000
PJ#309 (B8)	920901	27.300	< 1.000	5.690	9.730	2.040	< 0.500		< 1.900	< 0.720		< 1.000	150.000

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLF	12DCE	12DCLF	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEF	TRCLE
PJ#309 (B8)	930303	18.000	< 2.000	4.300	7.400	2.100	< 1.000		< 3.800	< 1.400	< 0.600 R	< 2.000	130.000
PJ#309 (B8)	930915	17.000	< 2.000	3.000	6.300	1.400	< 1.000		< 3.800	< 1.400	< 0.600 R	< 2.000	110.000 X

PJ#310 (B9)	890316	180.000	< 1.000	38.000	48.000		5.400	10.000	< 1.000	< 1.000	< 1.000	< 1.000	470.000
PJ#310 (B9)	890420	150.000	0.200	47.000	30.000		0.600	8.200	< 1.000	0.400	< 0.200	< 0.200	700.000
PJ#310 (B9)	890719	240.000	< 2.000	74.000	46.000		< 2.000	11.000	< 10.000	< 2.000	< 2.000	< 2.000	480.000
PJ#310 (B9)	891011	220.000	< 2.000	63.000	35.000		< 2.000	5.600	< 10.000	< 2.000	< 2.000	< 2.000	560.000
PJ#310 (B9)	900119	230.000	< 0.200	46.000	47.000		< 0.200	9.800	< 1.000	< 0.200	< 0.200	< 0.200	630.000
PJ#310 (B9)	900508	140.000	< 0.500	36.000	24.000		0.600	6.700	< 0.500	< 0.500	< 0.500	< 0.500	500.000
PJ#310 (B9)	900713	240.000	< 10.000	65.000	54.000		< 2.000	10.000	< 15.000	< 5.000	< 3.000	< 10.000	690.000
PJ#310 (B9)	901219	160.000	< 1.000	27.000	34.000	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	610.000
PJ#310 (B9)	910319	160.000	< 20.000	26.000	25.000	< 10.000	< 10.000		< 38.000	< 14.000	< 6.000 T	< 20.000	580.000
PJ#310 (B9)	910606	120.000	< 20.000	35.000	23.000	< 10.000	< 10.000		< 38.000	< 14.000	< 6.000 T	< 20.000	470.000
PJ#310 (B9)	910905	140.000	< 25.000	< 25.000	21.000	< 12.000	< 12.000		< 48.000	< 18.000	< 7.500 R	< 25.000	590.000
PJ#310 (B9)	911204	140.000	< 20.000	< 20.000	25.000	< 10.000	< 10.000		< 38.000	< 14.000	< 6.000 R	< 20.000	520.000
PJ#310 (B9)	920306	120.000	< 20.000	< 20.000	25.000	< 10.000	< 10.000		< 38.000	< 14.000	< 10.000 R	< 20.000	520.000
PJ#310 (B9)	920605	110.000	< 10.000	23.000	25.000	6.100	< 5.000		< 19.000	< 7.200	< 3.000 T	< 10.000	540.000
PJ#310 (B9)	920901	220.000	< 50.000	< 50.000	< 39.000	< 25.000	< 25.000		< 95.000	< 36.000		< 50.000	650.000
PJ#310 (B9)	930303	150.000	< 10.000	26.000	31.000	9.200	< 5.000		< 19.000	< 7.200	< 3.000 R	< 10.000	580.000
PJ#310 (B9)	930915	130.000	< 10.000	21.000	22.000	6.000	< 5.000		< 19.000	< 7.200	< 3.000 R	< 10.000	480.000

PJ#311 (B10)	890316	36.000	< 5.000	< 5.000	< 5.000		< 5.000	< 5.000	< 5.000	< 5.000	< 5.000	< 5.000	150.000
PJ#311 (B10)	890420	16.000	< 0.200	3.300	1.100		< 0.200	0.400	< 1.000	< 0.200	< 0.200	< 0.200	82.000
PJ#311 (B10)	890719	21.000	< 0.400	5.000	1.100		< 0.400	0.600	< 2.000	< 0.400	< 0.400	< 0.400	67.000
PJ#311 (B10)	891024	15.000	< 0.400	3.200	< 0.400		< 0.400	< 0.400	< 2.000	< 0.400	< 0.400	< 0.400	52.000
PJ#311 (B10)	900119	13.000	< 0.400	1.400	0.900		< 0.400	< 0.400	< 2.000	< 0.400	< 0.400	< 0.400	47.000
PJ#311 (B10)	900508	4.000	< 0.500	< 0.500	< 0.500		< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	17.000
PJ#311 (B10)	900713	8.400	< 1.000	1.900	0.600		< 0.200	< 0.500	< 1.500	< 0.500	< 0.300	< 1.000	30.000
PJ#311 (B10)	901219	5.810	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	30.900
PJ#311 (B10)	910319	58.700	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	24.800
PJ#311 (B10)	910606	4.960	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	25.000
PJ#311 (B10)	910606	4.880	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	24.800

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
PJ#311 (B10)	910905	4.680	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	25.100
PJ#311 (B10)	911204	6.690	< 1.000	< 1.000	< 0.780	1.020	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	25.400
PJ#311 (B10)	920306	4.970	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.500 R	< 1.000	25.200
PJ#311 (B10)	920605	4.140	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	23.600
PJ#311 (B10)	920901	5.430	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	19.500
PJ#311 (B10)	930303	4.240	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	19.600
PJ#311 (B10)	930915	4.470	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	21.700

03F312 (B11)	881219	< 0.000	< 0.000	< 0.000	< 0.000		< 0.000	< 0.000	< 0.000	< 0.000	< 0.000	< 0.000	< 0.000
03F312 (B11)	890316	< 1.000	< 1.000	< 1.000	< 1.000		< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	1.300
03F312 (B11)	890420	1.700	< 0.200	< 0.600	0.800		< 0.200	0.300	< 1.000	< 0.200	< 0.200	< 0.200	5.000
03F312 (B11)	890719	3.600	< 0.200	1.900	2.800		< 0.200	0.800	< 1.000	< 0.200	< 0.200	< 0.200	10.000
03F312 (B11)	891024	3.700	< 0.200	2.100	3.700		< 0.200	1.700	< 1.000	< 0.200	< 0.200	< 0.200	31.000
03F312 (B11)	900118	3.200	< 0.200	2.100	4.300		< 0.200	2.300	< 1.000	< 0.200	< 0.200	< 0.200	26.000
03F312 (B11)	900508	1.200	< 0.500	1.200	2.400		< 0.500	1.100	< 0.500	< 0.500	< 0.500	< 0.500	22.000
03F312 (B11)	900713	2.200	< 1.000	2.700	4.500		< 0.200	2.500	< 1.500	< 0.500	< 0.300	< 1.000	20.000
03F312 (B11)	901219	< 1.000	< 1.000	1.190	2.590	1.540	< 0.500		< 1.900	< 0.720		< 1.000	17.900
03F312 (B11)	910319	< 1.000	< 1.000	1.210	2.540	1.310	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	17.000
03F312 (B11)	910605	< 1.000	< 1.000	< 1.000	2.130	1.470	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	18.400
03F312 (B11)	910905	< 1.000	< 1.000	< 1.000	2.320	1.450	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	21.800
03F312 (B11)	910905	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	< 0.500
03F312 (B11)	911204	< 1.000	< 1.000	< 1.000	2.020	1.050	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	18.100
03F312 (B11)	920306	< 1.000	< 1.000	< 1.000	1.930	1.130 D	< 0.500		< 1.900	< 0.720	< 0.500 R	< 1.000	16.800 D
03F312 (B11)	920306	< 1.000 D	< 1.000 D	< 1.000 D	1.890 D	1.160	< 0.500 D		< 1.900 D	< 0.720 D	< 0.500 R	< 1.000 D	17.600
03F312 (B11)	920605	< 1.000	< 1.000	< 1.000	1.700	0.961	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	19.300
03F312 (B11)	920901	1.080	< 1.000	< 1.000	1.570	0.863	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	20.600
03F312 (B11)	930303	< 1.000	< 1.000	< 1.000	1.310	0.820	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	16.700
03F312 (B11)	930915	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	14.900

PJ#313 (B12)	890316	3.300	< 1.000	< 1.000	< 1.000		< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	18.000
PJ#313 (B12)	890420	2.900	< 0.200	< 1.000	0.900		< 0.200	< 0.200	< 1.000	< 0.200	< 0.200	< 0.200	27.000
PJ#313 (B12)	890719	7.700	< 0.200	2.100	0.500		< 0.200	< 0.200	< 1.000	0.400	< 0.200	< 0.200	25.000

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEF	TRCLE
PJ#313 (B12)	891023	3.000	< 0.200	0.600	0.400		< 0.200	< 0.200	< 1.000	< 0.200	< 0.200	< 0.200	15.000
PJ#313 (B12)	900119	2.500	< 0.200	0.300	0.400		< 0.200	< 0.200	< 1.000	< 0.200	< 0.200	< 0.200	14.000
PJ#313 (B12)	900508	1.200	< 0.500	< 0.500	< 0.500		< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	< 0.500	17.000
PJ#313 (B12)	900713	1.900	< 1.000	< 0.300	< 0.200		< 0.200	< 0.500	< 1.500	< 0.500	< 0.300	< 1.000	12.000
PJ#313 (B12)	901219	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	10.300
PJ#313 (B12)	910319	1.180	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	9.120
PJ#313 (B12)	910605	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	6.970
PJ#313 (B12)	911204	< 1.000	< 1.000	< 1.000	< 0.780 D	< 0.500 D	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	7.550 D
PJ#313 (B12)	911204	< 1.000 D	< 1.000 D	< 1.000 D	< 0.780	< 0.500	< 0.500 D		< 1.900 D	< 0.720 D	< 0.300 R	< 1.000 D	7.640
PJ#313 (B12)	920306	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.500 R	< 1.000	5.760
PJ#313 (B12)	920605	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 T	< 1.000	5.780
PJ#313 (B12)	920901	1.860	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	5.690
PJ#313 (B12)	930303	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	4.950
PJ#313 (B12)	930915	< 1.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720	< 0.300 R	< 1.000	4.170

03U301 (SC1)	890316	88.000	< 1.000	11.000	7.600		< 1.000	225.000	< 1.000	< 5.000	4.700	< 1.000	2750.000
03U301 (SC1)	890420	25.000	0.300	18.000	4.000		< 0.200	160.000	< 1.000	0.400	1.100	0.600	1100.000
03U301 (SC1)	890719	61.000	< 5.000	18.000	< 5.000		< 5.000	160.000	< 25.000	< 5.000	< 5.000	< 5.000	1100.000
03U301 (SC1)	891024	120.000	< 40.000	< 40.000	< 40.000		< 40.000	200.000	< 200.000	< 40.000	< 40.000	< 40.000	3000.000
03U301 (SC1)	900118	99.000	< 10.000	< 10.000	< 10.000		< 10.000	160.000	< 50.000	< 10.000	< 10.000	< 10.000	1700.000
03U301 (SC1)	900508	2.200	< 0.500	< 0.500	< 0.500		< 0.500	4.600	< 0.500	< 0.500	< 0.500	< 0.500	57.000
03U301 (SC1)	900713	62.000	< 20.000	8.200	< 4.000		< 4.000	99.000	< 30.000	< 10.000	< 6.000	< 20.000	1200.000
03U301 (SC1)	901219	< 1.000	< 1.000	< 1.000	< 0.780	86.000	< 0.500		< 1.900	< 0.720		< 1.000	1300.000
03U301 (SC1)	910319	72.000	< 50.000	< 50.000	< 39.000	82.000	< 25.000		< 95.000	< 36.000	< 15.000 T	< 50.000	1100.000
03U301 (SC1)	910604	57.000	< 5.000	< 5.000	< 3.900	93.000	< 2.500		< 9.500	< 3.600	< 1.500 T	< 5.000	1000.000
03U301 (SC1)	910905	< 1.000	< 1.000	< 50.000	< 0.780	71.000	< 0.500		< 95.000	< 36.000	< 0.300 R	< 1.000	9.140
03U301 (SC1)	910905	< 50.000	< 50.000	< 1.000	< 39.000	< 0.500	< 25.000		< 1.900	< 0.720	< 15.000 R	< 50.000	1200.000
03U301 (SC1)	911204	76.000	< 20.000	< 20.000	< 16.000	85.000	< 10.000		< 38.000	< 14.000	< 6.000 R	< 20.000	1200.000
03U301 (SC1)	920306	72.000	< 50.000	< 50.000	< 39.000	71.000	< 25.000		< 95.000	< 36.000	< 25.000 R	< 50.000	1200.000
03U301 (SC1)	920306									< 36.000			
03U301 (SC1)	920605	< 50.000	< 50.000	< 50.000	< 39.000	71.000	< 25.000		< 95.000	< 36.000	< 15.000 T	< 50.000	1200.000
03U301 (SC1)	920901	190.000	< 100.000	< 100.000	< 78.000	69.000	< 50.000		< 190.000	< 72.000	< 30.000 T	< 100.000	1400.000

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	11TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	F12DCE	TCLE	TRCLE
03U301 (SC1)	930303	< 100.000	< 100.000	< 100.000	< 78.000	88.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	1500.000
03U301 (SC1)	930303	64.000 D	< 20.000 D	< 20.000 D	< 16.000 D	89.000 D	< 10.000 D		< 38.000 D	< 14.000 D	< 6.000 RD	< 20.000 D	1600.000 D
03U301 (SC1)	930915	72.000	< 50.000	< 50.000	< 39.000	76.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	1400.000
03U314 (SC2)	890105	10500.000	19.000	850.000	3600.000		59.000	4700.000	16.000	10.000	12.000	< 1.000	37000.000
03U314 (SC2)	890316	5000.000	< 10.000	370.000	950.000		< 10.000	1000.000	< 10.000	< 10.000	< 100.000	< 10.000	12000.000
03U314 (SC2)	890420	3400.000	8.300	630.000	530.000		19.000	610.000	3.500	1.700	2.400	3.000	11000.000
03U314 (SC2)	890719	3500.000	< 40.000	870.000	510.000		< 40.000	730.000	< 200.000	< 40.000	< 40.000	< 40.000	8900.000
03U314 (SC2)	891024	3500.000	< 100.000	< 100.000	< 100.000		< 100.000	< 100.000	< 500.000	< 100.000	< 100.000	< 100.000	8600.000
03U314 (SC2)	900119	2700.000	< 50.000	190.000	410.000		< 50.000	540.000	< 250.000	< 50.000	< 50.000	< 50.000	6500.000
03U314 (SC2)	900508	2200.000	4.800	350.000	300.000		8.400	340.000	< 0.500	3.300	1.400	1.600	6500.000
03U314 (SC2)	900719	2500.000	< 100.000	300.000	360.000		< 20.000	460.000	< 150.000	< 50.000	< 30.000	< 100.000	6300.000
03U314 (SC2)	901219	2100.000	< 1.000	< 1.000	270.000	310.000	< 0.500		< 1.900	< 0.720		< 1.000	6200.000
03U314 (SC2)	910319	2300.000	< 200.000	< 200.000	190.000	200.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	5800.000
03U314 (SC2)	910319	2300.000	< 200.000	< 200.000	190.000	210.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	5800.000
03U314 (SC2)	910605	2300.000	< 200.000	< 200.000	190.000	200.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	6000.000
03U314 (SC2)	910905	1900.000	< 250.000	< 250.000	< 200.000	170.000	< 120.000		< 480.000	< 180.000	< 75.000 R	< 250.000	5400.000
03U314 (SC2)	911204	2600.000	< 100.000	130.000	180.000	170.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	7100.000
03U314 (SC2)	911204	2300.000	< 100.000	140.000	200.000	200.000	< 50.000		< 190.000	< 72.000	< 30.000 R	< 100.000	7300.000
03U314 (SC2)	920306	1700.000	< 200.000	< 200.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 100.000 R	< 200.000	4700.000
03U314 (SC2)	920605	1400.000	< 200.000	< 200.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	4300.000
03U314 (SC2)	920901	2000.000	< 200.000	< 200.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 60.000 T	< 200.000	4900.000
03U314 (SC2)	930303	1200.000	< 50.000	86.000	95.000	54.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	2600.000
03U314 (SC2)	930915	670.000	< 50.000	< 50.000	< 39.000	< 25.000	< 25.000		< 95.000	< 36.000	< 15.000 R	< 50.000	1600.000
03U314 (SC2)	930915	670.000 D	< 50.000 D	< 50.000 D	< 39.000 D	< 25.000 D	< 25.000 D		< 95.000 D	< 36.000 D	< 15.000 RD	< 50.000 D	1500.000 D
03U315 (SC3)	890105	65.000	< 1.000	5.600	5.600		< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	58.000
03U315 (SC3)	890316	610.000	< 10.000	58.000	44.000		32.000	< 10.000	< 10.000	11.000	< 10.000	< 10.000	870.000
03U315 (SC3)	890420	490.000	< 0.200	100.000	45.000		< 0.200	< 0.200	< 1.000	0.900	< 0.200	< 0.200	1300.000
03U315 (SC3)	890719	620.000	< 4.000	150.000	51.000		< 4.000	15.000	< 20.000	< 4.000	< 4.000	< 4.000	940.000
03U315 (SC3)	891024	890.000	< 10.000	160.000	58.000		< 10.000	< 10.000	< 50.000	< 10.000	< 10.000	< 10.000	1700.000
03U315 (SC3)	900119	1000.000	< 20.000	75.000	95.000		< 20.000	37.000	< 100.000	< 20.000	< 20.000	< 20.000	2100.000

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCLE	12DCE	12DCLE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLEE	TRCLE
03U315 (SC3)	900508	850.000	< 0.500	60.000	57.000		< 0.500	29.000	< 0.500	0.800	< 0.500	< 0.500	2000.000
03U315 (SC3)	900508	850.000	< 0.500	65.000	64.000		< 0.500	30.000	< 0.500	0.800	< 0.500	< 0.500	2100.000
03U315 (SC3)	900713	1100.000	< 20.000	130.000	94.000		< 4.000	39.000	< 30.000	< 10.000	< 6.000	< 20.000	2100.000
03U315 (SC3)	901219	490.000	< 1.000	< 1.000	51.000	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	1300.000
03U315 (SC3)	910319	390.000	< 25.000	30.000	29.000	< 12.000	< 12.000		< 48.000	< 18.000	< 7.500 T	< 25.000	940.000
03U315 (SC3)	910605	330.000	< 25.000	43.000	24.000	< 12.000	< 12.000		< 48.000	< 18.000	< 7.500 T	< 25.000	830.000
03U315 (SC3)	910905	250.000	< 25.000	< 25.000	< 20.000	< 12.000	< 12.000		< 48.000	< 18.000	< 7.500 R	< 25.000	700.000
03U315 (SC3)	911204	220.000	< 10.000	15.000	13.000	< 5.000	< 5.000		< 19.000	< 7.200	< 3.000 R	< 10.000	440.000
03U315 (SC3)	920306	130.000	< 10.000	< 10.000	10.000	< 5.000	< 5.000		< 19.000	< 7.200	< 5.000 R	< 10.000	330.000
03U315 (SC3)	920605	110.000	< 10.000	13.000	< 7.800	< 5.000	< 5.000		< 19.000	< 7.200	< 3.000 T	< 10.000	310.000
03U315 (SC3)	920901	110.000 D	< 10.000	11.000	< 7.800 D	< 5.000	< 5.000 D		< 19.000 D	< 7.200 D	< 3.000 T	< 10.000	210.000 D
03U315 (SC3)	920901	120.000	< 10.000 D	< 10.000 D	< 7.800	< 5.000 D	< 5.000		< 19.000	< 7.200	< 3.000 T	< 10.000 D	250.000
03U315 (SC3)	930303	56.000	< 2.000	5.200	3.800	< 1.000	< 1.000		< 3.800	< 1.400	< 0.600 R	< 2.000	150.000
03U315 (SC3)	930915	35.000	< 2.000	3.500	1.900	< 1.000	< 1.000		< 3.800	< 1.400	< 0.600 R	< 2.000	88.000

03U316 (SC4)	890105	14.000	< 1.000	1.600	3.500		< 1.000	< 1.000	< 1.000	1.300	< 1.000	< 1.000	< 1.000
03U316 (SC4)	890316	31.000	< 1.000	3.200	1.700		< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	2.900
03U316 (SC4)	890420	28.000	< 0.200	4.900	2.500		< 0.200	< 0.200	< 1.000	1.700	< 0.200	< 0.200	4.900
03U316 (SC4)	890719	29.000	< 0.200	9.200	2.100		< 0.200	< 0.200	< 1.000	2.000	< 0.200	< 0.200	4.200
03U316 (SC4)	891024	35.000	< 0.400	8.700	3.000		< 0.400	< 0.400	< 2.000	0.900	< 0.400	< 0.400	5.500
03U316 (SC4)	900119	27.000	< 0.200	4.800	5.000		< 0.200	< 0.200	< 1.000	2.600	< 0.200	< 0.200	9.000
03U316 (SC4)	900119	29.000	< 0.200	6.100	4.200		< 0.200	< 0.200	< 1.000	2.800	< 0.200	< 0.200	10.000
03U316 (SC4)	900508	32.000	< 0.500	4.200	2.700		< 0.500	< 0.500	< 0.500	2.600	< 0.500	< 0.500	12.000
03U316 (SC4)	900713	38.000	< 1.000	7.400	4.400		< 0.200	< 0.500	< 1.500	4.200	< 0.300	< 1.000	14.000
03U316 (SC4)	901219	30.200	< 1.000	3.260	3.020	< 0.500	< 0.500		< 1.900	3.460		< 1.000	14.900
03U316 (SC4)	910319	25.800	< 1.000	3.540	2.480	< 0.500	< 0.500		< 1.900	32.400	< 0.300 T	< 1.000	14.300
03U316 (SC4)	910604	29.400	< 1.000	3.510	2.630	< 0.500	< 0.500		< 1.900	3.960	< 0.300 T	< 1.000	18.100
03U316 (SC4)	910905	23.400	< 1.000	2.460	2.260	< 0.500	< 0.500		< 1.900	3.240	< 0.300 R	< 1.000	16.600
03U316 (SC4)	911204	22.100	< 1.000	2.130	1.920	< 0.500	< 0.500		< 1.900	3.270	< 0.300 R	< 1.000	16.700
03U316 (SC4)	920306	20.900	< 1.000	2.170	2.630	< 0.500	< 0.500		< 1.900	2.970	< 0.500 R	< 1.000	17.600
03U316 (SC4)	920605	20.200	< 1.000	2.850 D	2.660	< 0.500 D	< 0.500		< 1.900	3.610 D	< 0.300 T	< 1.000	17.700
03U316 (SC4)	920605	20.800 D	< 1.000 D	2.760	2.780 D	< 0.500	< 0.500 D		< 1.900 D	3.530	< 0.300 T	< 1.000 D	18.100 D

TABLE X-11

HISTORICAL VOC CONCENTRATIONS IN EXTRACTION WELLS  
TGRS, TCAAP

CONCENTRATION UNITS: UG/L

WELL	DATE	111TCE	112TCE	11DCE	11DCE	12DCE	12DCE	C12DCE	C2H3CL	CHCL3	T12DCE	TCLE	TRCLE
03U316 (SC4)	920901	22.900	< 1.000	3.970	3.120	< 0.500	< 0.500		< 1.900	4.470	< 0.300 T	< 1.000	20.800
03U316 (SC4)	930303	16.600	< 1.000	2.270	2.990	< 0.500	< 0.500		< 1.900	3.840	< 0.300 R	< 1.000	17.800
03U316 (SC4)	930915	14.000	< 1.000	1.660	2.310	< 0.500	< 0.500		< 1.900	3.770	< 0.300 R	< 1.000	22.700
03U317 (SC5)	890105	< 1.000	< 1.000	< 1.000	< 1.000		< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000	< 1.000
03U317 (SC5)	890316	1100.000	< 10.000	66.000	19.000		24.000	19.000	< 10.000	< 10.000	< 10.000	< 10.000	3200.000
03U317 (SC5)	890420	2800.000	< 0.200	660.000	27.000		4.200	27.000	< 1.000	1.300	< 0.200	13.000	13000.000
03U317 (SC5)	890719	5800.000	< 20.000	1200.000	47.000		< 20.000	66.000	< 100.000	< 20.000	< 20.000	< 20.000	12000.000
03U317 (SC5)	891023	6800.000	< 200.000	760.000	< 200.000		< 200.000	< 200.000	< 1000.000	< 200.000	< 200.000	< 200.000	19000.000
03U317 (SC5)	891023	7000.000	< 200.000	750.000	< 200.000		< 200.000	< 200.000	< 1000.000	< 200.000	< 200.000	< 200.000	18000.000
03U317 (SC5)	900119	7300.000	< 200.000	< 200.000	< 200.000		< 200.000	< 200.000	< 1000.000	< 200.000	< 200.000	< 200.000	21000.000
03U317 (SC5)	900508	5200.000	9.800	210.000	53.000		10.000	60.000	< 0.500	5.900	< 0.500	18.000	18000.000
03U317 (SC5)	900713	7500.000	< 200.000	720.000	70.000		< 40.000	100.000	< 300.000	< 100.000	< 60.000	< 200.000	15000.000
03U317 (SC5)	901219	5000.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	17000.000
03U317 (SC5)	901219	5300.000	< 1.000	< 1.000	< 0.780	< 0.500	< 0.500		< 1.900	< 0.720		< 1.000	18000.000
03U317 (SC5)	910319	5700.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 150.000 T	< 500.000	16000.000
03U317 (SC5)	910604	6200.000	< 100.000	280.000	< 78.000	< 50.000	< 50.000		< 190.000	< 72.000	< 30.000 T	< 100.000	16000.000
03U317 (SC5)	910905	5700.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 150.000 R	< 500.000	23000.000
03U317 (SC5)	911204	5700.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 150.000 R	< 500.000	18000.000
03U317 (SC5)	920306	4400.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 250.000 R	< 500.000	14000.000
03U317 (SC5)	920605	4000.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 150.000 T	< 500.000	15000.000
03U317 (SC5)	920901	6700.000	< 500.000	< 500.000	< 390.000	< 250.000	< 250.000		< 950.000	< 360.000	< 150.000 T	< 500.000	19000.000
03U317 (SC5)	930303	4600.000	< 250.000	< 250.000	< 200.000	< 130.000	< 130.000		< 480.000	< 180.000	< 75.000 R	< 250.000	12000.000
03U317 (SC5)	930915	4700.000	< 200.000	240.000	< 160.000	< 100.000	< 100.000		< 380.000	< 140.000	< 60.000 R	< 200.000	14000.000

Note: D - Duplicate sample or Test Name  
 T - Analyzed for but not detected  
 R - Analyte required for reporting purposes but not currently certified

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**Table X-12**

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**1993 Treatment System Summary, TGRS, TCAAP**



TABLE X-12

1993 TREATMENT SYSTEM  
 SAMPLING SUMMARY (µg/L)  
 TGRS, TCAAP

<i>Compound</i>	<i>Average Influent</i>	<i>Range Influent</i>	<i>Average Effluent</i>	<i>Range Effluent</i>
Vinyl Chloride	BD	BD	BD	BD
1,1-dichloroethene	12.53	BD - 43	BD	BD
Trans-1,2-dichloroethene	0.09	BD - 1.03	BD	BD
1,2-dichloroethene	2.87	BD - 14	BD	BD
1,1-dichloroethane	9.55	BD - 34	BD	BD
Chloroform	0.11	BD - 1.34	BD	BD
1,1,1-trichloroethane	350.83	250 - 470	BD	BD
1,2-dichloroethane	0.25	BD - 1.84	BD	BD
Trichloroethene	1450	1000 - 1800	0.81	BD - 1.36
1,1,2-trichloroethane	0.19	BD - 2.3	BD	BD
Tetrachloroethene	0.41	BD - 3.58	BD	BD

Note:

BD - Below Detection Limits. BD assumed zero for averaging purposes.

See Appendix G for method detection limits and complete analytical data for TGRS influent and effluent.

Concentration Units: µg/l.

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**Table X-13**

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**Historical Metals and Cyanide Concentrations,  
Treatment System, TGRS, TCAAP**

TABLE X-13  
 HISTORICAL METALS AND CYANIDE CONCENTRATIONS  
 TREATMENT SYSTEM  
 TGRS, TCAAP

CONCENTRATION: UG/L

WELL	DATE	AS	BA	CD	CR	CU	CYN	HG	NI	PB	ZN
TGRSE	871111	< 1.000	69.000	< 5.000	< 10.000	< 25.000		< 0.400	< 40.000	4.000	33.000
TGRSE	871201	1.000	297.000	< 5.000	< 10.000	< 25.000		< 0.400	< 40.000	11.000	17.100
TGRSE	871229	< 1.000	72.000	< 5.000	< 10.000	< 25.000	< 5.000	2.800	< 40.000	< 3.000	39.000
TGRSE	880119	1.000	250.000	< 5.000	< 10.000	105.000	< 5.000	< 0.400	< 40.000	13.000	170.000
TGRSE	880428	7.600	310.000	< 5.000	< 10.000	54.000	< 5.000	< 0.400	139.000	14.000	200.000
TGRSE	880524	0.110	364.000	< 5.000	< 10.000	35.000	< 23.000	< 0.400	< 40.000	15.000	291.000
TGRSE	880622	11.000	466.000	12.000	28.000	97.000	< 5.000	< 0.400	42.000	26.000	339.000
TGRSE	880719	2.000	63.000	< 5.000	< 10.000	25.000	< 5.000	< 0.400	< 40.000	4.000	58.000
TGRSE	880825	4.000	123.000	< 5.000	< 10.000	117.000	< 5.000	< 0.400	40.000	8.000	88.000
TGRSE	880921	2.000	138.000	< 5.000	< 10.000	124.000	< 5.000	< 0.400	< 40.000	13.000	80.000
TGRSE	881024	1.000	89.000	< 5.000	< 10.000	< 25.000	< 5.000	< 0.400	< 40.000	5.000	26.000
TGRSE	890420	3.000	300.000	0.300	1.000	80.000	< 10.000	< 0.200	< 50.000	2.000	130.000
TGRSE	890719	< 2.000	500.000	0.200	2.000	10.000	< 10.000	< 0.200	< 50.000	1.000	190.000
TGRSE	890719	< 2.000	200.000	0.200	8.000	20.000		< 0.200	< 50.000	< 1.000	140.000
TGRSE	891012	< 50.000	570.000	< 8.000	< 9.000	140.000	< 10.000	< 0.200	< 16.000	2.000	390.000
TGRSE	900119	< 5.000	600.000	< 8.000	< 9.000	47.000	< 10.000	< 0.200	< 16.000	3.000	< 360.000
TGRSE	900410	< 2.000	300.000	< 10.000	< 100.000	50.000	< 17.000	< 0.200	< 50.000	1.000	< 130.000
TGRSE	900508	< 0.000	70.000	< 10.000	< 10.000	< 10.000	< 10.000	< 0.000	< 20.000	< 0.000	< 10.000
TGRSE	900713	< 0.000	< 200.000	< 10.000	< 100.000	40.000	20.000	< 0.000	< 50.000	< 100.000	720.000
TGRSE	900814	< 0.000	600.000	0.300	< 0.000	180.000	< 10.000	< 0.000	< 50.000	20.000	390.000
TGRSE	900912	< 2.000	530.000	0.100	2.000	89.000	< 10.000	< 0.200	< 21.000	< 1.000	< 320.000
TGRSE	901015	< 6.010	1800.000	< 0.370	< 2.500	12.400		< 0.740	< 5.320	< 1.260	68.000
TGRSE	901113	< 6.010	150.000	< 0.370	< 2.500	< 1.560		< 0.740	< 5.320	< 1.260	< 25.000
TGRSE	901211	< 6.010	130.000	< 0.370	< 2.500	< 1.560		< 0.740	< 5.320	< 1.260	< 25.000
TGRSE	910111	< 6.010	105.000	< 0.370	< 15.000	5.230		< 0.740	< 5.320	< 1.260	31.500
TGRSE	910111		120.000	< 5.000	< 2.500	< 20.000			< 63.100	< 100.000	
TGRSE	910213		157.000	< 5.000	< 15.000	37.100		< 0.740	< 5.320	< 1.260	53.900
TGRSE	910219	< 6.010									
TGRSE	910319	< 6.010	415.000	< 5.000	< 15.000	113.000	< 8.170	< 0.740	< 5.320	< 100.000	164.000
TGRSE	910319								< 63.100	< 1.260	
TGRSE	910410	< 6.010	141.000	< 5.000	< 15.000	29.100	< 8.170		< 5.320	1.510	311.000

**TABLE X-13**  
**HISTORICAL METALS AND CYANIDE CONCENTRATIONS**  
**TREATMENT SYSTEM**  
**TGRS, TCAAP**

CONCENTRATION: UG/L

WELL	DATE	AS	BA	CD	CR	CU	CYN	HG	NI	PB	ZN
TGRSE	910507	< 6.010	103.000	< 5.000	< 15.000	< 20.000	< 8.170		< 5.320	< 1.260	21.400
TGRSE	910604	< 6.010	92.700	< 5.000	< 15.000	< 20.000	< 8.170	< 0.740	< 63.100	< 100.000	13.200
TGRSE	910604								< 5.320	< 1.260	
TGRSE	910702	< 6.010	215.000	< 5.000	< 15.000	35.100	< 8.170	< 0.740	< 63.100	< 100.000	381.000
TGRSE	910702								< 5.320	< 1.260	
TGRSE	910806	< 6.010	109.000	< 5.000	< 15.000	< 20.000	< 8.170	< 0.740	< 63.100	< 100.000	856.000
TGRSE	910806						< 8.170 D			< 1.260	
TGRSE	910905	< 6.010	101.000	< 5.000	< 15.000	< 20.000	< 8.170	< 0.740	< 63.100	< 100.000	31.500
TGRSE	910905								< 5.320	< 1.260	
TGRSE	911001	< 6.010	116.000	< 5.000	< 15.000	< 20.000	< 8.170	< 0.740	< 63.100	< 1.260	124.000
TGRSE	911001								< 5.320	< 100.000	
TGRSE	911104								< 5.320		
TGRSE	911105	< 6.010		< 5.000	< 15.000	65.300	< 8.170	< 0.740		< 1.260	144.000
TGRSE	911105						< 8.170 D				
TGRSE	911204	< 6.010		< 5.000	< 15.000	35.100	10.300	< 0.740	< 5.320	< 1.260	111.000
TGRSE	920107	< 6.010						< 0.740	< 5.320	< 1.260	
TGRSE	920109			< 5.000	< 15.000	< 20.000					19.300
TGRSE	920204	< 6.010		< 5.000	< 15.000	< 20.000		< 0.740	< 5.320	< 1.260	19.300
TGRSE	920303	< 6.010	96.800	< 5.000	< 15.000	< 20.000	< 8.170	< 0.740	< 63.100	< 100.000	29.500
TGRSE	920303								< 5.320	< 1.260	
TGRSE	920407	< 6.010		< 3.380	< 142.000	< 138.000		< 0.740	< 5.320	< 1.260	19.400
TGRSE	920505	< 6.010		< 5.000	< 15.000	25.100		< 0.740	< 5.320	1.540	63.100
TGRSE	920602	< 6.010		< 5.000	< 15.000	32.100		< 0.740	< 5.320	< 1.260	101.000
TGRSE	920707			< 5.000	< 15.000	< 20.000			< 5.320	< 1.260	33.600
TGRSE	920716									< 1.260	
TGRSE	920716									< 1.260 D	
TGRSE	920721									< 1.260	
TGRSE	920804	< 6.010						< 0.740		< 1.260	
TGRSE	920901	< 6.010						< 0.740		< 1.260	
TGRSE	921006	< 6.010							< 5.320	< 1.260	
TGRSE	921103			< 5.000	< 15.000	< 20.000		< 0.740	< 5.320	< 1.260	< 13.000

TABLE X-13

**HISTORICAL METALS AND CYANIDE CONCENTRATIONS  
TREATMENT SYSTEM  
TGRS, TCAAP**

CONCENTRATION: UG/L

WELL	DATE	AS	BA	CD	CR	CU	CYN	HC	NI	PB	ZN
TGRSE	921201	< 6.010						< 0.740	< 5.320	< 1.260	
TGRSE	921204			< 5.000	< 15.000	< 20.000					< 13.000
TGRSE	930105	< 6.010		< 5.000	< 15.000	< 20.000		< 0.740	< 5.320	< 1.260	30.500
TGRSE	930202	< 6.010		< 5.000	< 15.000	24.100		< 0.740	< 5.320	< 1.260	40.700
TGRSE	930302	< 6.010	373.000	< 5.000	< 15.000	95.400	< 8.170	< 0.740	< 63.100	< 1.260	192.000
TGRSE	930407	< 6.010		< 5.000	< 15.000	< 20.000		< 0.740	< 5.320	< 1.260	15.300
TGRSE	930505	< 6.010		< 5.000	< 15.000	< 20.000		< 0.740	< 5.320	< 1.260	23.400
TGRSE	930601	< 6.010		< 5.000	< 15.000	36.100		< 0.740	< 63.100	< 1.260	91.600
TGRSE	930706	< 6.010		< 5.000	< 15.000	123.000		< 0.740	6.490	< 1.260	205.000
TGRSE	930803	< 6.010		< 5.000	< 15.000	< 20.000		< 0.740	< 63.100	< 1.260	15.300
TGRSE	930915	< 6.010		< 5.000	< 15.000	< 20.000		< 0.740	< 5.320	< 1.260	40.700

NOTE: D - Duplicate Sample or Test Name

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**Table X-14**

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**Total Phosphorus and Ortho Phosphate Concentrations  
Treatment System, TGRS, TCAAP**

TABLE X-14

**TOTAL PHOSPHORUS AND ORTHO PHOSPHATE CONCENTRATIONS  
TREATMENT SYSTEM  
TGRS, TCAAP**

<i>Location</i>	<i>Date</i>	<i>Ortho Phosphate (µg/L)</i>	<i>Total Phosphorus (µg/L)</i>
TGRSE	870112	48.000	107.000
TGRSE	870112	45.000	106.000
TGRSE	871117	37.000	60.000
TGRSE	871208	34.000	
TGRSE	871209		47.000
TGRSE	880428		1560.000
TGRSE	880503	38.000	
TGRSE	880524	38.000	624.000
TGRSE	880622	30.000	1840.000
TGRSE	880719	47.000	67.000
TGRSE	880825	41.000	338.000
TGRSE	880921	29.000	70.000
TGRSE	881024	32.000	54.000
TGRSE	890420	40.000	510.000
TGRSE	890523	20.000	110.000
TGRSE	890613	50.000	190.000
TGRSE	890719	40.000	50.000
TGRSE	890719	40.000	210.000
TGRSE	890815	40.000	220.000
TGRSE	890912	< 20.000	290.000
TGRSE	891012	50.000	120.000
TGRSE	891114	50.000	90.000
TGRSE	891212	880.000	960.000
TGRSE	900119	50.000	140.000
TGRSE	900213	0.080	0.070
TGRSE	900313	0.080	0.170
TGRSE	900410	100.000	190.000
TGRSE	900508	50.000	50.000
TGRSE	900508	90.000	80.000
TGRSE	900612	120.000	120.000
TGRSE	900713	40.000	220.000
TGRSE	900814	40.000	120.000
TGRSE	900912	70.000	120.000

TABLE X-14

**TOTAL PHOSPHORUS AND ORTHO PHOSPHATE CONCENTRATIONS  
TREATMENT SYSTEM  
TGRS, TCAAP**

<i>Location</i>	<i>Date</i>	<i>Ortho Phosphate (µg/L)</i>	<i>Total Phosphorus (µg/L)</i>
TGRSE	901113		76.600
TGRSE	901211	180.000	
TGRSE	901214		180.000
TGRSE	910111	34.700	75.800
TGRSE	910213	26.800	43.500
TGRSE	910319		530.000
TGRSE	910326	33.800	
TGRSE	910410	26.000	78.600
TGRSE	910507	32.800	74.500
TGRSE	910604	26.700	35.100
TGRSE	910702		61.400
TGRSE	910806	< 10.300	56.900
TGRSE	910808	68.400	
TGRSE	910905	35.200	36.500
TGRSE	911001	36.000	68.600
TGRSE	911104	29.500	1500.000
TGRSE	911104		1000.000
TGRSE	911204	29.600	42.800
TGRSE	920107	34.400	53.200
TGRSE	920204	41.200	63.400
TGRSE	920303	37.400	33.600
TGRSE	920407	41.800 L	240.000
TGRSE	920507	31.400	50.700
TGRSE	920602	35.200	190.000
TGRSE	920707	33.500	83.600
TGRSE	920804	54.400	110.000 L
TGRSE	920901	31.100	58.000 L
TGRSE	921006	38.500	57.600
TGRSE	921103	28.500	41.200
TGRSE	930505	< 10.300	750.000

Note: L - Missed holding time for analysis



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**Table XI-1**

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**Target Volatile Organic Compounds  
Site K VOC Remediation, Building 103, TCAAP**

**TABLE XI-1**

**TARGET VOLATILE ORGANIC COMPOUNDS  
SITE K VOC REMEDIATION  
BUILDING 103, TCAAP**

1. trans-1,2-dichloroethylene
2. trichloroethylene
3. 1,1-dichloroethylene
4. 1,1-dichloroethane
5. chloroform
6. 1,1,1-trichloroethane
7. tetrachloroethylene
8. cis-1,2-dichloroethylene
9. vinyl chloride
10. 1,2-dichloroethane
11. 1,1,2-trichloroethane
12. carbon tetrachloride
13. methylene chloride
14. 1,2-dichloroethene
15. 1,2-dichloropropane
16. 1,2,2-trichlorotrifluoroethane

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**Table XI-2**

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**Effluent Target Compounds, Site K Remediation,  
Building 103, TCAAP**

TABLE XI-2  
EFFLUENT TARGET COMPOUNDS  
SITE K VOC REMEDIATION  
BUILDING 103, TCAAP

Monthly

Total Phosphorus  
Ortho Phosphate

pH

Quarterly

VOCs

METALS:

Chromium  
Copper  
Lead  
Zinc

Annually

Hazardous Substance List

VOCs  
Semi-Volatiles  
Metals  
PCB/Pesticides

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**Table XI-3**

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**Site K Groundwater Elevations,  
Building 103, TCAAP**

TABLE XI-3  
SITE K GROUNDWATER ELEVATIONS  
BUILDING 103, TCAAP

WELL ID	ELEVATION AMSL	8/25/86	9/30/86	10/1/86	10/2/86	10/7/86	10/9/86	10/13/86	10/24/86	05/11/87	07/23/87	08/04/87	08/13/87	08/24/87	09/01/87	10/06/87	11/03/87
01U047	880.31																
01U048	885.32																
01U052	886.51																
01U065	883.90																
01U128	883.69																
01U601	892.68	883.93	884.63	884.58	884.53	884.33	884.23	884.33		882.75		884.53				883.26	883.24
01U602	889.35																
01U603	887.31	879.86	878.65	878.58	878.49	878.16	877.81	878.54		877.36	879.36	879.13			877.23	876.02	875.87
01U604	888.98	879.23	877.38	877.18	877.06	876.78	876.58	876.68		877.51	877.11	878.57	877.20		875.83	875.07	875.49
01U605	887.76	877.96	878.35	878.35	878.31	878.18	877.94	878.05		887.76		878.41			877.58	876.43	875.97
01U607	891.01	883.95	885.80	885.71	885.61	885.24	885.00	885.33		884.31	887.88	885.84			884.56	883.56	883.22
01U608	889.30																
01U609	889.33										882.83	881.38				882.94	882.76
01U611	889.29																
01U612	886.91	879.34	877.36	877.37	877.31	877.06	877.01	876.89		878.06	877.14	877.90			876.42	Dry	Dry
01U613	892.07	883.88	884.51	884.46	884.42	884.17	884.07	884.49		882.52	885.70	884.49			883.67	883.04	882.75
01U615	888.66	879.44	876.96	876.49	876.33	876.12	876.01	876.19		877.86	876.15	879.01	875.42		874.81	874.47	874.46
01U616	890.37	878.98	879.83	879.71	879.60	879.49	879.37	879.35	879.14	878.98	880.58	880.69	879.52	878.62	878.30	877.47	877.28
01U617	887.72	879.32	877.56	877.26	877.12	876.96	876.70	876.92		877.50	876.80	878.83	876.52		875.78	875.18	875.21
01U618	888.65	877.95	877.49	877.31	877.19	876.85	876.69	876.65		876.22	877.55	878.50			875.72	874.76	874.50
01U619	891.75	883.05	882.91	882.75	883.79	883.52	883.36	883.28	883.52	882.70	884.69	884.10	883.83		883.08	882.13	881.95
01U620	891.52	883.17	882.02	881.77	881.63	878.62	878.46	878.51		878.66	879.34	880.60			877.39	876.64	876.43
01U621	886.57	879.71	878.68	878.44	878.33	878.12	877.90	878.02		877.79	878.30	879.78			876.97	876.20	875.99
01U622	889.43																
01U623	889.44	883.43	878.38	878.37	878.34	878.17	878.12	878.06			877.54	877.78				876.34	876.39
01U624A	889.88	880.15	878.75	878.46	878.32	878.03	877.89	877.96	877.90	878.41	879.17	880.10	877.81		879.78	Dry	Dry
01U624B	889.88	880.15	878.71	878.43	878.29	878.00	877.88	877.92	877.90	878.41	878.91	880.08	877.78	877.00	876.73	876.08	875.92
01U624C	889.91	880.15	878.73	878.45	878.31	878.02	877.89	877.96	877.91	878.41	878.89	880.09	877.78	877.02	876.76	876.11	875.93
01U624D	889.89	880.16	878.72	878.45	878.30	878.01	877.89	877.95	877.91	878.42	878.88	880.09	877.79	877.04	876.75	876.10	875.94
01U625A	886.92	878.28	877.63	877.20	877.03	877.73	877.58	877.74	877.87	878.98	878.00	880.36	877.08	876.61	876.43	875.95	875.91
01U625B	886.91	878.27	877.64	877.21	877.06	876.96	876.84	876.99	877.16	878.21	877.19	879.71	876.24	875.84	875.63	875.21	875.13
01U625C	886.91	878.28	877.66	877.20	877.04	876.86	876.84	876.98	877.15	878.25	877.21	879.71	876.23	875.83	875.62	875.20	875.13
01U625D	886.92	878.29	877.64	877.20	877.05	876.87	876.85	876.99	877.16	878.22	877.18	879.69	876.25	875.82	875.66	875.24	875.14
01U626A	886.87	877.12	881.69	881.73	881.94	876.82	876.57	876.77	876.80	878.04	876.92	879.21	876.31	875.63	875.41	874.78	874.84
01U626B	886.88	879.31	877.26	876.78	876.61	882.02	882.02	881.91	876.77	878.05	876.49	879.42	876.59	875.22	875.13	874.79	874.73
01U626C	886.88	878.69	877.18	876.70	876.53	876.54	876.40	876.59	876.84	878.07	876.58	879.45	876.68	875.23	875.22	874.88	874.81
01U626D	886.88	879.82	877.18	876.96	876.85	876.61	876.46	876.66	876.89	878.08	876.64	879.48	876.77	875.34	875.31	874.96	874.86
01U627A	886.46	877.97	878.16	877.96	877.98	877.80	877.51	877.62	877.41	878.03	877.76	879.21	878.04	876.86	876.56	873.81	875.64
01U627B	886.47	878.00	877.48	877.08	876.93	876.93	876.76	876.96	877.08	878.03	876.99	879.44	876.25	875.81	875.66	875.21	875.19
01U627C	886.47	878.07	877.42	876.99	876.85	876.84	876.67	876.86	877.02	878.05	876.87	879.45	876.12	875.70	875.55	875.15	875.10
01U627D	886.48	878.06	877.49	877.04	876.88	876.86	876.70	876.89	877.05	878.05	876.95	879.47	876.11	875.75	875.57	875.15	875.06
01U628A	887.82	879.60	878.22	878.10	878.02	877.87	877.47	877.77	877.49	877.42	877.65	878.83	877.68	877.01	876.81	875.97	875.87
01U628B	887.83	879.88	878.03	877.84	877.74	877.60	877.26	877.51	877.34	877.51	877.40	878.91	877.28	876.67	876.48	875.74	875.65
01U628C	887.82	879.89	877.77	877.47	877.34	877.16	876.92	877.13	877.11	877.52	877.08	879.03	876.67	876.15	876.44	875.42	875.34
01U628D	887.84	879.91	877.79	877.48	877.36	877.17	876.92	877.14	877.12	877.61	877.17	879.02	876.69	876.19	876.02	875.39	875.30

Note:  
Elevations reported in feet above mean sea level  
NM - Not measured

TABLE XI-3  
SITE K GROUNDWATER ELEVATIONS  
BUILDING 103, TCAAP

WELL ID	ELEVATION AMSL	01/05/88	02/29/88	04/05/88	05/27/88	07/08/88	09/07/88	10/04/88	12/06/88	03/29/89	06/07/89	09/08/89	11/21/89	01/03/90	05/07/90	07/03/90	10/02/90	
		01U047	880.31															
01U048	885.32																	
01U052	886.51																	
01U065	883.90																	
01U128	883.69																	
01U601	892.68	883.13	883.09	883.73	883.38	883.08	883.39	883.48	883.72	884.01	883.78	883.78		882.77	883.62	884.09	883.73	
01U602	889.35																	
01U603	887.31	877.29	875.74	875.64	875.91	875.44	875.93	876.56	875.93	875.74	877.24	878.05		876.22	877.47	878.48	877.78	
01U604	888.98	877.38		874.73	875.03	874.78	874.99	875.68	875.03	874.38	876.00	876.98		876.04	876.24	877.12	876.88	
01U605	887.76	875.47	Dry		876.53	875.54	875.80	875.61	875.86	DRY	877.32	876.91		DRY	876.32	878.51	877.54	
01U607	891.01	883.53	882.64	885.81	884.75	886.32	885.14	885.21	885.06	886.88	884.58	885.79		882.19	885.13	885.21	883.96	
01U608	889.30																	
01U609	889.33	882.55	882.38	882.88	882.80	882.65	882.84	882.81	882.82	882.50	882.98	883.00		882.27	N/A	883.26	883.21	
01U611	889.29				883.18		883.21	883.21	883.36	882.45	N/M	N/M		889.29	883.20	883.81	883.47	
01U612	886.91	878.08		876.48	876.91	876.39		Dry	877.01	876.94	DRY	N/M	877.16		DRY	877.16	877.12	
01U613	892.07	882.69	881.82	884.42	883.82	884.20	884.57	884.17	N/M	885.31	N/M	884.48		881.86	883.68	884.22	883.24	
01U615	888.66	877.71	874.06	874.11	874.32	874.27	874.46	874.86	874.38	874.13	874.90	876.48		874.47	874.65	876.05	876.45	
01U616	890.37	878.89	876.74	876.74	877.09	877.20	877.51	878.04	876.83	876.68	878.20	879.23		876.71	876.93	878.60	879.19	
01U617	887.72	877.33	874.52	874.70	875.06	874.87	875.05	875.32	874.97	874.46	875.79	876.88		874.95	875.44	877.00	877.04	
01U618	888.65	875.98	873.80	874.00	874.42	874.47	875.45	875.20	874.30	874.01	875.55	876.66		874.02	874.33	876.38	876.66	
01U619	891.75	881.82	891.75	882.23	882.20	882.22	883.05	882.40	882.39	882.33	883.00	882.90		881.28	881.99	883.17	882.99	
01U620	891.52	878.51	875.79	875.91	876.29	876.30	876.64	877.09	878.95	875.84	877.27	878.61		878.82	879.09	880.99	881.36	
01U621	886.57	877.72	875.24	875.50	875.91	875.74	875.98	876.30	875.83	875.18	876.82	876.83		875.61	876.14	877.99	878.00	
01U622	889.43																	
01U623	889.44	877.94	876.06	875.79	875.76	875.76	875.89	876.76	875.70	875.48	876.13	876.96		875.83	875.73	876.60	877.44	
01U624A	889.88	878.25	889.88	889.88	DRY	DRY	DRY	DRY	DRY	DRY	DRY	878.17		DRY	DRY	DRY	877.67	878.09
01U624B	889.88	878.25	875.35	875.38	875.74	875.73	876.59	876.63	875.73	875.38	876.68	878.08		876.30	875.67	875.88	877.66	878.07
01U624C	889.91	878.28	875.37	875.41	875.77	875.75	876.11	876.63	875.75	875.39	876.70	878.10		876.32	875.68	875.90	877.66	878.08
01U624D	889.89	878.25	875.36	875.39	875.76	875.74	876.10	876.64	875.74	875.39	876.71	878.09		876.32	875.69	875.90	877.65	878.08
01U625A	886.92	878.78	875.39	875.45	875.75	875.69	875.95	876.29	874.92	875.49	876.48	878.01		875.61	875.00	875.20	876.77	877.15
01U625B	886.91	878.08	874.62	874.68	874.97	874.90	875.20	875.49	874.89	874.75	875.71	877.28		875.64	874.94	875.14	876.74	877.11
01U625C	886.91	878.07	874.62	874.67	874.96	874.89	875.20	875.50	874.89	874.74	875.70	877.28		875.64	874.94	875.14	876.76	877.11
01U625D	886.92	878.07	874.62	874.68	874.97	874.90	875.20	875.50	874.91	874.76	875.71	877.28		875.66	874.94	875.13	876.77	877.10
01U626A	886.87	877.81	874.17	874.25	874.54	874.73	874.72	875.07	874.29	874.15	875.56	876.99		875.73	875.49	875.96	876.73	876.80
01U626B	886.88	877.89	874.19	874.25	874.52	874.45	874.68	874.85	874.43	874.41	875.28	876.87		875.38	874.63	874.88	876.40	876.68
01U626C	886.88	877.92	874.28	874.36	874.62	874.53	874.79	874.97	874.53	874.47	875.37	876.95		875.41	874.66	874.88	876.44	876.74
01U626D	886.88	877.91	874.34	874.41	874.71	874.61	874.87	875.04	874.60	874.51	875.42	876.99		875.46	874.72	874.94	876.51	876.80
01U627A	886.46	877.86	875.16	875.40	875.66	875.76	875.71	876.55	875.31	874.70	876.78	877.83		876.79	877.14	877.43	877.69	877.58
01U627B	886.47	877.88	874.56	874.68	875.01	874.88	875.12	875.34	874.82	874.66	875.73	877.16		875.75	874.96	875.22	876.79	877.00
01U627C	886.47	877.89	874.51	874.63	874.91	874.75	875.05	875.29	874.77	874.65	875.64	877.10		875.62	874.83	875.11	876.71	876.95
01U627D	886.48	877.89	874.53	874.63	874.95	874.80	875.08	875.25	874.82	874.63	875.67	877.13		875.57	874.90	875.14	876.73	876.95
01U628A	887.82	877.18	875.06	875.35	875.89	875.60	875.77	876.06	875.66	874.84	876.73	877.43		875.86	875.49	876.32	877.94	
01U628B	887.83	877.29	874.90	875.13	875.63	875.35	875.56	875.84	875.45	874.76	876.43	877.28		875.80	875.32	875.98	877.63	
01U628C	887.82	877.42	874.67	874.83	875.22	875.02	875.24	875.50	875.14	874.63	876.00	877.07		875.72	875.09	875.55	877.18	
01U628D	887.84	877.44	874.67	874.84	875.19	875.03	875.24	875.52	875.16	874.63	875.99	877.09		875.68	875.10	875.56	877.20	

Note:  
Elevations reported in feet above mean sea level  
NM - Not measured

TABLE XI-3

SITE K GROUNDWATER ELEVATIONS  
BUILDING 103, TCAAP

WELL ID	ELEVATION AMSL	3/06/91	6/04/91	9/03/91	12/06/91	03/02/92	06/01/92	09/09/92	12/01/92	03/02/93	06/01/93	09/08/93
01U047	880.31	873.12	875.51	873.97	875.34	874.24	873.82	873.02	873.67	873.54	874.63	874.87
01U048	885.32	873.13	875.89	874.38	875.45	874.54	874.32	873.51	874.07	873.45	875.00	875.25
01U052	886.51	873.11	876.04	874.91	875.65	874.95	874.64	873.61	874.47	873.55	875.52	875.49
01U065	883.90	872.83	874.60	873.84	874.25	873.81	873.71	873.25	873.80	873.23	874.27	874.43
01U128	883.69	872.80	876.35	874.17	875.56	874.41	874.01	872.93	873.87	873.09	875.35	875.18
01U601	892.68	883.13	884.95	883.89	884.65	884.46	886.48	883.94	883.91	883.27	884.34	884.43
01U602	889.35	883.31	883.91	883.42	883.83	883.40	883.15	883.13	883.31	882.71	883.20	883.86
01U603	887.31	876.28	878.99	877.34	878.27	877.54	877.49	878.01	877.11	876.38	878.19	879.17
01U604	888.98	876.14	877.90	876.38	877.58	876.50	876.67	876.50	876.35	876.12	877.01	878.65
01U605	887.76	DRY	878.95	877.68	878.02	877.52	877.72	877.34	877.34	875.64	878.38	878.43
01U607	891.01	883.47	886.22	884.65	885.69	886.17	884.25	883.63	884.94	882.84	885.86	884.82
01U608	889.30	883.20	884.06	883.35	884.21	883.53	883.27	883.19	883.46	882.62	883.49	884.18
01U609	889.33	882.37	883.77	883.42	883.97	883.37	883.22	883.12	883.41	882.72	883.35	883.91
01U611	889.29	882.92	884.47	883.65	884.34	883.92	883.48	883.58	N/A	883.13	883.92	884.18
01U612	886.91	DRY	878.20	877.19	878.00	876.62	877.31	877.11	877.19	DRY	878.21	878.65
01U613	892.07	882.55	884.76	884.50	884.33	884.67	883.30	884.13	883.62	882.77	884.65	884.13
01U615	888.66	874.58	877.31	875.82	877.36	876.10	876.30	875.66	876.16	875.70	876.29	878.67
01U616	890.37	876.65	879.69	878.52	879.71	878.55	878.83	878.33	878.60	877.34	878.82	880.81
01U617	887.72	875.24	878.00	876.57	877.72	876.52	876.92	876.39	876.72	875.91	877.09	878.99
01U618	888.65	873.97	877.76	877.81	879.08	877.74	878.06	877.55	877.96	877.53	879.25	881.12
01U619	891.75	881.30	884.41	882.89	883.84	883.25	882.87	882.72	883.08	881.61	883.38	884.01
01U620	891.52	878.79	882.31	878.87	880.07	878.70	879.07	878.55	878.96	876.78	878.21	880.27
01U621	886.57	875.76	879.09	877.57	878.58	877.36	877.81	877.29	877.64	876.45	878.05	879.84
01U622	889.43	DRY	882.50	882.51	882.70	DRY	DRY	DRY	DRY	DRY	DRY	N/A
01U623	889.44	875.76	876.72	877.08	877.96	877.23	877.48	876.88	877.03	876.33	876.97	879.09
01U624A	889.88	DRY	878.96	877.43	878.76	877.45	877.75	877.14	877.63	DRY	877.80	879.96
01U624B	889.88	875.65	878.90	877.42	878.74	877.45	877.75	877.13	877.61	876.53	877.78	879.96
01U624C	889.91	875.67	878.91	877.42	878.75	877.46	877.76	877.15	877.64	876.56	877.80	879.96
01U624D	889.89	875.66	878.89	877.40	878.75	877.46	877.76	877.14	877.63	876.56	877.79	879.97
01U625A	886.92	875.01	878.03	876.55	877.94	876.69	876.94	876.31	876.85	876.18	876.96	879.27
01U625B	886.91	875.02	878.06	876.54	877.95	876.71	876.93	876.29	876.84	876.17	876.95	879.26
01U625C	886.91	875.02	878.06	876.54	877.95	876.71	876.93	876.29	876.84	876.18	876.95	879.26
01U625D	886.92	875.02	878.07	876.55	877.96	876.72	876.94	876.30	876.85	876.16	876.96	879.27
01U626A	886.87	875.81	877.73	876.32	877.68	876.62	876.79	876.23	876.63	876.62	876.94	878.89
01U626B	886.88	874.82	877.71	876.18	877.59	876.42	876.60	875.94	876.52	876.03	876.63	878.93
01U626C	886.88	874.82	877.78	876.23	877.65	876.47	876.66	875.98	876.57	876.02	876.68	878.98
01U626D	886.88	874.86	877.82	876.28	877.69	876.51	876.70	875.93	876.61	876.03	876.73	879.01
01U627A	886.46	877.52	878.47	877.36	878.22	877.26	877.63	877.19	877.27	877.30	877.86	879.31
01U627B	886.47	875.17	878.02	876.50	877.82	876.64	876.88	876.25	876.77	876.12	876.95	879.12
01U627C	886.47	875.00	877.93	876.43	877.77	876.59	876.82	876.17	876.71	876.07	876.87	879.08
01U627D	886.48	875.03	877.97	876.45	877.78	876.60	876.83	876.18	876.73	876.08	876.89	879.09
01U628A	887.82	875.59	878.63	877.33	878.14	877.06	877.63	877.11	877.40	876.19	877.89	879.40
01U628B	887.83	875.46	878.45	877.10	878.03	876.92	877.43	876.87	877.21	876.14	877.63	879.30
01U628C	887.82	875.28	878.19	876.75	877.89	876.72	877.12	876.52	876.94	876.06	877.26	879.17
01U628D	887.84	875.29	878.22	876.77	877.89	876.74	877.13	876.53	876.95	876.06	877.26	879.17

Note:  
Elevations reported in feet above mean sea level  
NM - Not measured



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**Table XI-4**

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**Site K, 1993 Groundwater Quality Data  
Building 103, TCAAP**

TABLE XI - 4

SITE K, 1993 GROUNDWATER QUALITY DATA  
BUILDING 103, TCAAP

Concentration Units: ug/l

WELL	DATE	C12DCE	C2H3CL	CH2CL2	11DCE	11DCLE	12DCE	T12DCE	CHCL3	12DCLE	111TCE	TRCLE	CCLA	112TCE	TCLEE	12DCLP	TCLTFE
OW104	08/13/87	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	ND	NA	ND	ND		
(01U604)	12/01/87	ND	ND	1.00	ND	ND	NA	ND	ND	ND	ND	ND	ND	NA	ND		
	02/29/88	1.00	ND	ND	ND	1.50	NA	ND	ND	ND	ND	0.60	ND	NA	ND		
	05/26/88	1.80	ND	ND	ND	2.00	NA	ND	ND	ND	ND	1.50	ND	ND	ND		
	05/08/90	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND		
	05/08/90	Dup	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND		
	03/05/91	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	03/05/92	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	03/27/93	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
OW111	08/13/87	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS	NS		
(01U611)	12/01/87	3900	120	ND	ND	74	NA	ND	ND	ND	ND	110000	ND	NA	ND		
	03/01/88	1800	ND	ND	ND	ND	NA	ND	ND	ND	33	38000	ND	NA	ND		
	05/26/88	1500	ND	77	ND	ND	NA	ND	ND	ND	ND	60000	ND	ND	ND		
	05/08/90	3300	ND	ND	ND	ND	NA	ND	ND	ND	ND	35000	ND	ND	ND		
	03/05/91	NA	ND	ND	ND	ND	3900	ND	ND	ND	ND	40000	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	1300	ND	ND	ND	ND	200000	ND	ND	ND		
	03/27/93	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	81000	ND	ND	ND	ND	ND
OW115	05/08/90	1200	ND	ND	ND	ND	NA	270	ND	ND	ND	6500	ND	ND	ND		
(01U615)	03/05/91	NA	ND	ND	ND	ND	950	160	ND	ND	ND	8800	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	1300	ND	ND	ND	ND	14000	ND	ND	ND		
	03/24/93	NA	ND	ND	ND	ND	930	ND	ND	ND	ND	17000	ND	ND	ND	ND	ND
OW117	08/13/87	6.20	ND	NA	0.50	1.90	NA	ND	ND	ND	ND	1.40	NA	ND	ND		
(01U617)	12/01/87	6.50	ND	ND	ND	3.20	NA	ND	ND	ND	ND	1.40	ND	NA	ND		
	02/29/88	3.40	ND	ND	0.30	1.40	NA	ND	ND	ND	ND	1.10	ND	NA	ND		
	05/26/88	4.00	ND	ND	ND	1.70	NA	ND	ND	ND	ND	1.90	ND	ND	ND		
	05/26/88	Dup.	4.00	ND	ND	0.40	2.00	NA	ND	ND	ND	2.00	ND	ND	ND		
	05/08/90	4.90	ND	ND	0.40	0.80	NA	0.40	ND	ND	ND	2.00	ND	ND	ND		

TABLE XI - 4

SITE K , 1993 GROUNDWATER QUALITY DATA  
BUILDING 103, TCAAP

Concentration Units: ug/l

WELL	DATE	C12DCE	C2H3CL	CH2CL2	11DCE	11DCLE	12DCE	T12DCE	CHCL3	12DCLE	111TCE	TRCLE	CCL4	112TCE	TCLEE	12DCLP	TCLTFE
	07/03/90	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND		
	10/02/90	4.80	ND	NA	ND	0.50	NA	0.50	ND	ND	ND	2.10	ND	ND	ND		
	03/05/91	NA	ND	ND	ND	ND	3.33	ND	ND	ND	ND	1.17	ND	ND	ND		
	06/10/91	NA	ND	ND	ND	ND	3.68	ND	ND	0.68	ND	1.08	ND	ND	ND		
	09/03/91	NA	ND	ND	ND	ND	4.32	NA	ND	ND	ND	1.71	ND	ND	ND		
	09/03/91	Dup	NA	ND	ND	ND	4.35	NA	ND	ND	ND	1.80	ND	ND	ND		
	12/03/91	NA	ND	ND	ND	ND	3.09	NA	ND	ND	ND	1.68	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	2.98	ND	ND	ND	ND	1.27	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	2.90	ND	ND	ND	ND	1.29	ND	ND	ND		
	06/02/92	NA	ND	ND	ND	ND	3.54	0.528	ND	ND	ND	1.13	ND	ND	ND		
	06/02/92	NA	ND	ND	ND	ND	3.67	0.454	ND	ND	ND	1.28	ND	ND	ND		
	09/10/92	NA	ND	ND	ND	ND	1.69	NA	ND	ND	ND	0.923	ND	ND	ND		
	09/10/92	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	03/24/93	NA	ND	ND	ND	ND	2.66	ND	ND	ND	ND	1.31	ND	ND	ND	ND	ND
	09/16/93	NA	ND	ND	ND	ND	1.75	ND	ND	ND	ND	.985	ND	ND	ND	ND	ND
	09/16/93	Dup	NA	ND	ND	ND	1.84	ND	ND	ND	ND	1.14	ND	ND	ND	ND	ND
OW118	08/13/87	2.50	ND	NA	0.60	2.40	NA	ND	ND	ND	ND	7.70	NA	ND	ND		
(01U618)	11/30/87	2.30	ND	ND	ND	ND	NA	2.30	ND	ND	ND	8.60	ND	NA	ND		
	11/30/87	2.40	ND	ND	ND	ND	NA	2.40	ND	ND	ND	8.80	ND	NA	ND		
	02/29/88	1.50	ND	ND	ND	ND	NA	ND	ND	ND	0.60	8.90	ND	NA	ND		
	02/29/88	Dup	1.40	ND	ND	ND	NA	ND	ND	ND	ND	4.50	ND	NA	ND		
	05/26/88	2.40	ND	ND	ND	ND	NA	ND	ND	ND	ND	7.00	ND	ND	ND		
	05/08/90	1.30	ND	ND	ND	0.30	NA	ND	ND	ND	ND	6.00	ND	ND	ND		
	03/05/91	NA	ND	ND	ND	ND	0.79	ND	ND	ND	ND	4.97	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	2.09	ND	ND	ND	ND	3.77	ND	ND	ND		
	03/27/93	NA	ND	ND	ND	.854	1.13	ND	ND	ND	ND	5.3	ND	ND	ND	ND	ND

TABLE XI - 4

SITE K , 1993 GROUNDWATER QUALITY DATA  
BUILDING 103, TCAAP

Concentration Units: ug/l

WELL	DATE	C12DCE	C2H3CL	CH2CL2	11DCE	11DCLE	12DCE	T12DCE	CHCL3	12DCLE	111TCE	TRCLE	CCLA	112TCE	TCLEE	12DCLP	TCLTFE
OW119	05/08/90	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	2.50	ND	ND	ND		
(01U619)	03/05/91	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.76	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.975	ND	ND	ND		
	03/24/93	NA	ND	ND	ND	2.23	ND	ND	ND	ND	ND	2	ND	ND	ND	ND	ND
OW121	05/08/90	ND	ND	1.20	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND		
(01U621)	07/03/90	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND	ND		
	10/02/90	ND	ND	NA	ND	ND	NA	ND	ND	ND	ND	1.17	ND	ND	ND		
	03/05/91	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	9.35		
	03/05/91	Dup	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	06/10/91	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	09/03/91	NA	ND	ND	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND		
	12/03/91	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	06/02/92	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	12/03/91	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	03/03/92	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	06/02/92	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND		
	06/02/92	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	06/02/92	NA	ND	ND	ND	ND	ND	NA	ND	ND	ND	ND	ND	ND	ND		
	03/24/93	NA	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
	09/16/93	NA	ND	ND	ND	ND	3.21	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND

ND = Not detected above method detection limit.

NA = Not analyzed

NS = Not sampled (well cover corroded in place)

\* = Vinyl chloride & diclorodifloromethane co-elute. Compound calculated as dichlorodifloromethane.

Compound too low to confirm.

See Table 2 for abbreviations of chemicals

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**Table XI-5**

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**Site K, Treatment System Concentrations  
Building 103, TCAAP**

TABLE XI-5

**SITE K , TREATMENT SYSTEM CONCENTRATIONS**  
**BUILDING 103, TCAAP**  
 CONCENTRATION UNITS: µg/L

WELL	DATE	12DCLP	112TCE	C2H3CL	TCLTFE	C12DCE	C2H5CL	C2CL2	11DCE
INF	921201	< 2.00	< 10.00	< 15.00		61.00	< 10.00	< 10.00	< 3.00
INF	930302	< 0.40	< 2.00	< 3.00		13.00	< 2.00	< 2.00	< 0.60
INF	930601	< 2.00	< 10.00	< 15.00		49.00	< 10.00	22.00	< 3.00
INF	930916	< 2.00	< 10.00	< 15.00		54.00	< 10.00	< 10.00	< 3.00
EFF	921002								
EFF	921103								
EFF	921201	< 0.20	< 1.00	< 1.50		< 0.50	< 1.00	< 1.00	< 0.30
EFF	921201	< 0.20	< 1.00	< 1.50		< 0.50	< 1.00	< 1.00	< 0.30
EFF	930105								
EFF	930202								
EFF	930302	< 1.00	< 1.00	< 1.90	< 1.00			< 3.20	< 1.00
EFF	930407								
EFF	930505								
EFF	930601	< 0.20	< 1.00	< 1.50		< 0.50	< 1.00	< 1.00	< 0.30
EFF	930601	< 0.20	< 1.00	< 1.50		< 0.50	< 1.00	< 1.00	< 0.30
EFF	930706								
EFF	930803								
EFF	930916	< 0.20	< 1.00	< 1.50		10.00	< 1.00	< 1.00	< 0.30
EFF	930916	< 0.20	< 1.00	< 1.50		9.20	< 1.00	< 1.00	< 0.30

TABLE XI-5

**SITE K , TREATMENT SYSTEM CONCENTRATIONS**  
**BUILDING 103, TCAAP**  
 CONCENTRATION UNITS: µg/L

WELL	DATE	12DCE	11DCLE	T12DCE	CHCL3	12DCLE	111TCLE	CCL4	TRCLE
INF	921201	67.00	< 2.00	6.00	< 5.00	< 2.00	< 5.00	< 3.00	560.00
INF	930302	14.30	< 0.40	1.30	< 1.00	< 0.40	< 1.00	< 0.60	110.00
INF	930601	59.00	< 2.00	10.00	6.70	< 2.00	< 5.00	< 3.00	420.00
INF	930916	62.20	< 2.00	8.20	< 5.00	< 2.00	< 5.00	< 3.00	390.00
EFF	921002								
EFF	921103								
EFF	921201	< 0.50	< 0.20	< 0.30	< 0.50	< 0.20	< 0.50	< 0.30	< 0.50
EFF	921201	< 0.50	< 0.20	< 0.30	< 0.50	< 0.20	< 0.50	< 0.30	< 0.50
EFF	930105								
EFF	930202								
EFF	930302	< 0.50	< 0.78	< 0.30	< 0.72	< 0.50	< 1.00	< 1.30	< 0.50
EFF	930407								
EFF	930505								
EFF	930601	< 0.50	< 0.20	< 0.30	< 0.50	< 0.20	< 0.50	< 0.30	< 0.50
EFF	930601	< 0.50	< 0.20	< 0.30	< 0.50	< 0.20	< 0.50	< 0.30	0.60
EFF	930706								
EFF	930803								
EFF	930916	10.50	< 0.20	0.50	< 0.50	< 0.20	< 0.50	< 0.30	34.00
EFF	930916	9.50	< 0.20	< 0.30	< 0.50	< 0.20	< 0.50	< 0.30	32.00

TABLE XI-5

**SITE K , TREATMENT SYSTEM CONCENTRATIONS**  
**BUILDING 103, TCAAP**  
 CONCENTRATION UNITS: µg/L

WELL	DATE	TCLEE	TPO4	O-PO4	CHROMIUM	COPPER	LEAD	ZINC
INF	921201	< 10.00						
INF	930302	< 2.00						
INF	930601	< 10.00						
INF	930916	< 10.00						
EFF	921002		42.90	23.60				
EFF	921103		84.30	21.50				
EFF	921201	< 1.00	52.90	56.20	< 15.00	< 20.00	< 1.26	< 13.00
EFF	921201	< 1.00						
EFF	930105		15.30	26.10				
EFF	930202		331.00	51.70				
EFF	930302	< 1.00	280.00	58.90	< 15.00	< 20.00	0.74	30.00
EFF	930407		50.00	40.00				
EFF	930505		730.00	< 10.30				
EFF	930601	< 1.00	53.10	27.30	< 15.00	< 20.00	< 1.26	15.00
EFF	930601	< 1.00						
EFF	930706		39.80	13.50				
EFF	930803		23.80	49.50				
EFF	930916	< 1.00	75.30	23.90	< 15.00	< 20.00	< 1.26	< 13.00
EFF	930916	< 1.00						



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**Table XI-6**

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**Site K 1993 Annual Results Effluent Priority Pollutants  
Building 103, TCAAP**

TABLE XI-6

**SITE K 1993 ANNUAL RESULTS  
EFFLUENT PRIORITY POLLUTANTS  
BUILDING 103, TCCAP  
(3/2/93)**

	<i>Compound</i>	<i>Concentration (µg/L)</i>
Metals	Aluminum	< 107
	Antimony	< 37.1
	Arsenic	< 62.9
	Barium	143
	Beryllium	< 2.5
	Cadmium	< 5
	Calcium	78000
	Chromium	< 15
	Cobalt	< 25
	Copper	< 20
	Iron	8450
	Lead	< 100
	Magnesium	19500
	Manganese	926
	Molybdenum	< 30.9
	Nickel	< 63.1
	Potassium	2410
	Selenium	< 75
	Silver	< 12.5
	Sodium	46400
Thallium	< 100	
Vanadium	< 20	
Zinc	30	
Other Metals	Arsenic	< 6.01
	Cyanide	< 8.17
	Lead	< 1.26
	Mercury	< 0.74
	Selenium	< 14.9
	Thallium	< 2.5
		o-PO4
	PO4	280

TABLE XI-6

**SITE K 1993 ANNUAL RESULTS  
EFFLUENT PRIORITY POLLUTANTS  
BUILDING 103, TCCAP  
(3/2/93)**

	<i>Compound</i>	<i>Concentration (µg/L)</i>
Pesticides/ PCBs	4,4-DDD	< 0.0848
	4,4-DDE	< 0.0946
	4,4-DDT	< 0.0316
	Aldrin	< 0.0638
	alpha-BHC	< 0.0434
	alpha-Chlordane	< 0.0202
	beta-BHC	< 0.0109
	delta-BHC	< 0.0488
	Dieldrin	< 0.0321
	Endosulfan I	< 0.0086
	Endosulfan II	< 0.012
	Endosulfan sulfate	< 0.02
	Endrin	< 0.0372
	Endrin aldehyde	< 0.0697
	Endrin ketone	< 0.0282
	gamma-BHC	< 0.0429
	gamma-Chlordane	< 0.045
	Heptachlor	< 0.0631
	Heptachlor epoxide	< 0.006
	Methoxychlor	< 0.267
	PCB-1016	< 0.1
	PCB-1221	< 0.1
	PCB-1232	< 0.1
	PCB-1242	< 0.1
	PCB-1248	< 0.1
	PCB-1254	< 0.1
	PCB-1260	< 0.1
	Toxaphene	< 0.5

TABLE XI-6

**SITE K 1993 ANNUAL RESULTS  
EFFLUENT PRIORITY POLLUTANTS  
BUILDING 103, TCCAP  
(3/2/93)**

	<i>Compound</i>	<i>Concentration (µg/L)</i>	
Semi-Volatiles	1,2,4-Trichlorobenzene	<	10
	1,2-Dichlorobenzene	<	10
	1,3-Dichlorobenzene	<	10
	1,4-Dichlorobenzene	<	10
	2,4,5-Trichlorophenol	<	50
	2,4,6-Trichlorophenol	<	10
	2,4-Dichlorophenol	<	10
	2,4-Dimethylphenol	<	10
	2,4-Dinitrophenol	<	50
	2,4-Dinitrotoluene	<	10
	2,6-Dinitrotoluene	<	10
	2-Chloronaphthalene	<	10
	2-Chlorophenol	<	10
	2-Methylnaphthalene	<	10
	2-Methylphenol	<	10
	2-Nitroaniline	<	50
	2-Nitrophenol	<	10
	3,3-Dichlorobenzidine	<	20
	3-Nitroaniline	<	50
	4,6-Dinitro-2-methylphenol	<	50
	4-Bromophenyl-phenylether	<	10
	4-Chloro-3-methylphenol	<	10
	4-Chloroaniline	<	10
	4-Chlorophenyl-phenylether	<	10
	4-Methylphenol	<	10
	4-Nitroaniline	<	50
	4-Nitrophenol	<	50
	Acenaphthene	<	10
	Acenaphthylene	<	10
	Anthracene	<	10
	Benzoic acid	<	50
	Benzo (A) anthracene	<	10
	Benzo (A) pyrene	<	10

**TABLE XI-6**  
**SITE K 1993 ANNUAL RESULTS**  
**EFFLUENT PRIORITY POLLUTANTS**  
**BUILDING 103, TCCAP**  
**(3/2/93)**

	<i>Compound</i>	<i>Concentration (µg/L)</i>	
Semi-Volatiles (Continued)	Benzo (B) fluoranthene	<	10
	Benzo (G,H,I) perylene	<	10
	Benzo (K) fluoranthene	<	10
	Benzyl Alcohol	<	10
	Bis (2-chloroethoxy) methane	<	10
	Bis (2-chloroethyl) ether	<	10
	Bis (2-chloroisopropyl) ether	<	10
	Bis (2-ethylhexyl) phthalate		36
	Butylbenzylphthalate	<	10
	Chrysene	<	10
	Dibenzofuran	<	10
	Di-N-butylphthalate	<	10
	Di-N-octylphthalate	<	10
	Dibenz (A,H) anthracene	<	10
	Diethylphthalate	<	10
	Dimethyl phthalate	<	10
	Fluoranthene	<	10
	Fluorene	<	10
	Hexachlorobenzene	<	10
	Hexachlorobutadiene	<	10
	Hexachlorocyclopentadiene	<	10
	Hexachloroethane	<	10
	Indene (1,2,3-CD) pyrene	<	10
	Isopropane	<	10
	N-Nitrosodi-N-propylamine	<	10
	N-Nitrosodiphenylamine	<	10
	Napthalene	<	10
	Nitrobenzene	<	10
	Pentachlorophenol	<	50
	Phenanthrene	<	10
	Phenol	<	10
	Pyrene	<	10

## TABLE XI-6

**SITE K 1993 ANNUAL RESULTS  
EFFLUENT PRIORITY POLLUTANTS  
BUILDING 103, TCCAP  
(3/2/93)**

	<i>Compound</i>	<i>Concentration (µg/L)</i>	
Volatiles	1,1,1-Trichloroethane	<	1
	1,1,2-Trichloroethane	<	1
	1,1,2-Trichlorotrifluoroethane	<	1
	1,1-Dichloroethane	<	0.78
	1,1-Dichloroethylene	<	1
	1,2-Dichloroethane	<	0.5
	1,2-Dichloroethylene	<	0.5
	1,2-Dichloropropane	<	1
	Carbon tetrachloride	<	1.3
	Chloroform	<	0.72
	Methylene chloride	<	3.2
	Tetrachloroethylene	<	1
	trans-1,2-Dichloroethylene	<	0.3
	Trichloroethylene	<	0.5
	Vinyl chloride	<	1.9

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**Table XII-1**

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**Site I, 1993 Monitoring Data,  
Building 502, TCAAP**

TABLE XII-1

SITE I, 1993 MONITORING DATA  
 BUILDING 502, TCAAP  
 Concentration Units: µg/L

<i>Compound</i>	<i>01U640 (Dry)</i>	<i>01U636 (Dry)</i>	<i>01U064</i>	<i>MDL</i>	<i>01U639 (Dry)</i>
1,1,1-trichloroethane	-	-	ND	5.00	-
1,1-dichloroethane	-	-	ND	3.90	-
trans-1,2-dichloroethene	-	-	10	1.50	-
1,2-dichloroethene	-	-	300	5.00	-
trichloroethene	-	-	3.8	2.50	-
Remaining VOCs	-	-	16*	9.50	-
PCB, All Alocchlors	-	-	-	-	-

Notes:

ND - Not Detected

- Not Analyzed

\* - Vinyl Chloride



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## Table XIV-1

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### FY 95 Annual Monitoring Plan

#### Site Designations

A	-	Site A	129-3	-	Site 129-3
B	-	Site B	129-5	-	Site 129-5
C	-	Site C	129-15	-	Site 129-5
D	-	Site D	SWB	-	Southwest Boundary
E	-	Site E	GP	-	Gravel Pit
F	-	Site F	BRV	-	Bedrock Valley
G	-	Site G	MISC	-	Miscellaneous Wells
H	-	Site H	OP	-	Off-Post
I	-	Site I			
J	-	Site J			
K	-	Site K			

#### Unit Designations

01U	-	Upper Fridley Formation	PC	-	Prairie du Chien
01L	-	Lower Fridley Formation	J	-	Jordan
03U	-	Upper Hillside Formation	SL	-	St. Lawrence
03M	-	Middle Hillside Formation	MS	-	Mt. Simon
03L	-	Lower Hillside Formation	H	-	Hinkley
SP	-	St. Peter	UNK	-	Unknown

#### Notes:

- ① "X" denotes a water level measurement during the month indicated in the heading (OND 94 = October, November, December 1994).
- ② The numbers represents analytical parameter categories. The parameters within each category are outlined in Appendix E.
- ③ Only Total Phosphates from Category 4 will be analyzed.
- ④ Monitoring for Category 1 will be conducted once every other year with the next sampling event scheduled for FY 96.
- ⑤ Well to be used for performance monitoring of the OU3 groundwater recovery system which is scheduled to be in operation during FY 94. Water levels will be measured at these wells quarterly during the first two years of operation. In addition, water levels will be measured daily for the first week, and monthly for the first quarter of operation.
- ⑥ Water level will be measured if the wellhead is accessible.
- ⑦ Sample for Category 1 if in production at time of sample collection.
- (A) Indicate that the sampling will be conducted by Alliant Techsystems, Inc.
- (P) Designates a piezometer.

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
A	O1U	01U038		---	--X	---	--X	---	---	---	---	
A	O1U	01U039		---	--X	---	--X	---	1	---	---	
A	O1U	01U040		---	--X	---	--X	---	---	---	---	
A	O1U	01U041		---	--X	---	--X	---	---	---	---	
A	O1U	01U063		---	--X	---	--X	---	---	---	---	
A	O1U	01U067		---	--X	---	--X	---	---	---	---	
A	O1U	01U102		--X	--X	--X	--X	1	1,7	1	1	
A	O1U	01U103		---	--X	---	--X	---	1	---	---	
A	O1U	01U104		---	--X	---	--X	---	---	---	---	
A	O1U	01U105		---	--X	---	--X	---	---	---	---	
A	O1U	01U106		---	--X	---	--X	---	1	---	---	
A	O1U	01U107		---	--X	---	--X	---	---	---	---	
A	O1U	01U108		---	--X	---	--X	---	1	---	1	
A	O1U	01U109		---	--X	---	--X	---	1,7	---	---	
A	O1U	01U110		---	--X	---	--X	---	1,7	---	---	
A	O1U	01U115		-X-	X-X	-X-	X-X	1	1	1	1	
A	O1U	01U116		-X-	X-X	-X-	X-X	1	1	1	1	
A	O1U	01U117		--X	--X	--X	--X	1	1	1	1	
A	O1U	01U118		---	--X	---	--X	---	1,7	---	---	
A	O1U	01U119		---	--X	---	--X	---	1	---	---	
A	O1U	01U120		---	--X	---	--X	---	1	---	---	
A	O1U	01U125		-X-	X-X	-X-	X-X	1	1	1	1	
A	O1U	01U126		---	--X	---	--X	---	1	---	---	
A	O1U	01U127		---	--X	---	--X	---	1	---	---	
A	O1U	01U133		---	--X	---	--X	---	---	---	---	
A	O1U	01U135		---	--X	---	--X	---	1	---	---	
A	O1U	01U136		---	--X	---	--X	---	---	---	---	
A	O1U	01U137		---	--X	---	--X	---	1	---	---	
A	O1U	01U138		-X-	X-X	-X-	X-X	1	1	1	1	
A	O1U	01U139		-X-	X-X	-X-	X-X	1	1,7	1	1	
A	O1U	01U140		-X-	X-X	-X-	X-X	1	1,7	1	1	
A	O1U	01U141		---	--X	---	--X	---	---	---	---	
A	O1U	01U142		---	---	---	---	---	---	---	---	
A	O1U	01U143		---	---	---	---	---	---	---	---	P P

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
A	O1U	01U144		---	---	---	---	---	---	---	---	
A	O1U	01U145		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U146		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U147		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U148		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U149		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U150		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U151		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U152		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U153		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U154		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U155		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U156		XXX	XXX	XXX	XXX	---	---	---	---	P
A	O1U	01U157		-X-	X-X	-X-	X-X	1	1	1	1	
A	O1U	01U158		-X-	X-X	-X-	X-X	1	1	1	1	
A	O1U	01U350		---	---	---	---	---	---	---	---	
A	O1U	01U351		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U352		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U353		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U354		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U355		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U356		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U357		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U358		XXX	XXX	XXX	XXX	1,2,3,9	1,2,3,9	1,2,3,9	1,2,3,9	
A	O1U	01U901		XXX	XXX	XXX	XXX	1	1	1	1	
A	O1U	01U902		XXX	XXX	XXX	XXX	1	1,7	1	1	
A	O1U	01U903		XXX	XXX	XXX	XXX	1	1,7	1	1,7	
A	O1U	01U904		XXX	XXX	XXX	XXX	1	1,7	1	1,7	
A	O3U	03U023		---	--X(A)	---	--X(A)	---	1	---	---	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
B	O1U	01U011		---	--X	---	--X	---	---	---	---	
B	O1U	01U022		---	--X	---	---	---	---	---	---	
B	O1U	01U033		---	--X	---	---	---	---	---	---	
B	O1U	01U034		---	--X	---	---	---	---	---	---	
B	O1U	01U035		---	--X	---	---	---	---	---	---	
B	O1U	01U036		---	--X	---	---	---	1	---	---	
B	O1U	01U037		---	--X	---	---	---	---	---	---	
B	O1U	01U100		---	--X	---	---	---	---	---	---	
B	O1U	01U101		---	--X	---	---	---	---	---	---	
B	O1U	01U122		---	--X	---	---	---	---	---	---	
B	O3U	03U011		---	--X(A)	---	--X(A)	---	---	---	---	
B	O3U	03U022		---	--X(A)	---	--X(A)	---	---	---	---	
B	O3U	03U082		---	--X(A)	---	--X(A)	---	---	---	---	④
C	O1U	01U043		---	--X	---	---	---	---	---	---	
C	O1U	01U045		---	--X	---	---	---	4	---	---	③
C	O1U	01U046		---	--X	---	---	---	---	---	---	
C	O1U	01U085		---	--X	---	---	---	1	---	---	
C	O3U	03U024		---	--X(A)	---	--X(A)	---	---	---	---	
C	O3U	03U025		---	--X(A)	---	--X(A)	---	---	---	---	
C	O3U	03U083		---	--X(A)	---	--X(A)	---	1,7	---	---	
D	O3U	03U017		---	--X(A)	---	--X(A)	---	1(A)	---	---	
D	O3U	03U018		---	--X(A)	---	--X(A)	---	1(A)	---	---	
D	O3U	03U093		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
D	O3U	03U096		---	--X(A)	---	--X(A)	---	1(A)	---	---	
D	O3U	03U316		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
D	O3U	03U317		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
D	O3U	03U716		---	--X(A)	---	--X(A)	---	---	---	---	
D	O3M	03M017		---	--X(A)	---	--X(A)	---	1(A)	---	---	
D	O3L	03L017		---	--X(A)	---	--X(A)	---	1(A)	---	---	
D	O3L	03L018		---	--X(A)	---	--X(A)	---	1(A)	---	---	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
E	O3U	03U015		---	--X(A)	---	--X(A)	---	1	---	---	
E	O3U	03U088		---	--X(A)	---	--X(A)	---	---	---	---	
E	O3U	03U089		---	--X(A)	---	--X(A)	---	1	---	---	
E	O3U	519288	E101-MW	---	--X	---	--X	---	1	---	---	
E	O3U	519289	E102-MW	---	--X	---	--X	---	1	---	---	
E	O3U	519290	E103-MW	---	--X	---	--X	---	1	---	---	
F	O3U	03U019		---	--X(A)	---	--X(A)	---	1	---	---	
F	O3U	03U026		---	--X	---	---	---	1	---	---	
F	O3U	03U092		---	--X(A)	---	--X(A)	---	1	---	---	
F	O3U	03U112		---	--X(A)	---	--X(A)	---	1,4	---	---	
F	O3U	03U113		---	--X(A)	---	--X(A)	---	1	---	---	
F	O3U	03U114		---	--X	---	--X	---	1	---	---	
F	O3U	03U121		---	--X	---	---	---	1,4	---	---	
F	O3L	03L113		---	--X(A)	---	--X(A)	---	1	---	---	
G	O3U	03U014		---	--X(A)	---	--X(A)	---	1(A)	---	---	
G	O3U	03U020		---	--X(A)	---	--X(A)	---	1(A)	---	---	
G	O3U	03U094		---	--X(A)	---	--X(A)	---	1(A)	---	---	
G	O3U	03U314		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
G	O3U	03U315		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
G	O3U	03U715		---	--X(A)	---	--X(A)	---	---	---	---	
G	O3M	03M020		---	--X(A)	---	--X(A)	---	1(A)	---	---	
G	O3L	03L014		---	--X(A)	---	--X(A)	---	---	---	---	
G	O3L	03L020		---	--X(A)	---	--X(A)	---	1(A)	---	---	
G	O4U	04U020		---	--X(A)	---	--X(A)	---	1(A)	---	---	
G	O4U	PJ#074		---	---	---	---	---	---	---	---	
H	O1U	01U060		---	--X	---	---	---	---	---	---	
H	O1U	01U098		---	--X	---	---	---	1	---	---	
H	O3U	03U099		---	--X	---	---	---	1	---	---	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
I	O1U	01U004		---	--X	---	--X	---	---	---	---	
I	O1U	01U054		---	---	---	---	---	---	---	---	
I	O1U	01U064		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O1U	01U132		---	---	---	---	---	---	---	---	
I	O1U	01U631		---	---	---	---	---	---	---	---	
I	O1U	01U632		---	---	---	---	---	---	---	---	
I	O1U	01U634		---	---	---	---	---	---	---	---	
I	O1U	01U635		---	---	---	---	---	---	---	---	
I	O1U	01U636		---	--X(A)	---	--X(A)	---	1,5(A)	---	---	
I	O1U	01U638		---	---	---	---	---	---	---	---	
I	O1U	01U639		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O1U	01U640		---	--X(A)	---	--X(A)	---	1,5(A)	---	---	
I	O1U	01U642		---	---	---	---	---	---	---	---	
I	O1U	01U652		---	---	---	---	---	---	---	---	
I	O1U	01U666		---	---	---	---	---	---	---	---	
I	O1U	01U667		---	---	---	---	---	---	---	---	
I	O1U	01U668		---	---	---	---	---	---	---	---	
I	O1U	01U675		---	---	---	---	---	---	---	---	
I	O1U	482086	I01MW	---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O1U	482087	I05MW	---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O1U	482088	I02MW	---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O1U	482089	I04MW	---	--X(A)	---	--X(A)	---	---	---	---	
I	O1U	482090	I03MW	---	--X(A)	---	--X(A)	---	---	---	---	
I	O3U	03U004		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U027		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U028		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U029		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U030		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U301		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
I	O3U	03U647		---	--X(A)	---	--X(A)	---	---	---	---	

**TABLE XIV - 1  
FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
I	O3U	03U648		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3U	03U658		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U659		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3U	03U674		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3U	03U675		---	---	---	---	---	---	---	---	
I	O3U	03U676		---	---	---	---	---	---	---	---	
I	O3M	03M004		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3L	03L004		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3L	03L027		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3L	03L028		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3L	03L029		---	--X(A)	---	--X(A)	---	---	---	---	
I	O3L	03L080		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	O3F	03F312		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
I	O3U	OW543U3		---	--X(A)	---	--X(A)	---	---	---	---	
I	O4U	04U027		---	--X(A)	---	--X(A)	---	1(A)	---	---	
I	PJ#	PJ#027		---	--X(A)	---	--X(A)	---	---	---	---	
J	O1U	01U003		---	--X	---	--X	---	---	---	---	
J	O1U	01U050		---	--X	---	---	---	---	---	---	
J	O1U	01U051		---	--X	---	---	---	---	---	---	
J	O1U	01U053		---	--X	---	---	---	---	---	---	
J	O1U	01U054		---	--X	---	---	---	---	---	---	
J	O1U	01U062		---	--X	---	---	---	---	---	---	
J	O1U	01U524		---	--X	---	---	---	---	---	---	
J	O1U	01U525		---	--X	---	---	---	---	---	---	
J	O1U	01U526		---	--X	---	---	---	1	---	---	
J	O1U	01U527		---	--X	---	---	---	---	---	---	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
K	O1U	01U047		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U048		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U052		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U065		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U128		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	01U601		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U602		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U603		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U604		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	01U605		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U607		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U608		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U609		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U611		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	01U612		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U613		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U615		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	01U616		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U617		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
K	O1U	01U618		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	01U619		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	01U620		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U621		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
K	O1U	01U622		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U623		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U624		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U625		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U626		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U627		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	01U628		---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	482083	K04-MW	---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O1U	482084	K02-MW	---	--X(A)	---	--X(A)	---	---	---	---	
K	O1U	482085	K01-MW	---	--X(A)	---	--X(A)	---	---	---	---	



**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information			Groundwater Level Monitoring Plan				Groundwater Quality Monitoring Plan				Notes	
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95		Q48 Sep 95
K	O3U	03U013		---	--X(A)	---	--X(A)	---	---	---	---	
K	O3U	03U075		---	--X(A)	---	--X(A)	---	1(A)	---	---	
K	O3U	03U076		---	--X(A)	---	--X(A)	---	---	---	---	
K	O3M	03M013		---	--X(A)	---	--X(A)	---	---	---	---	
K	O3L	03L013		---	--X(A)	---	--X(A)	---	---	---	---	
129-3	O3U	03U087		---	--X(A)	---	--X(A)	---	1,4	---	---	
129-3	O3U	03U521		---	--X	---	---	---	---	---	---	
129-5	O1U	01U072		---	--X	---	---	---	---	---	---	
129-5	O3U	03U097		---	--X	---	---	---	1	---	---	
129-5	O3U	03U111		---	--X(A)	---	--X(A)	---	---	---	---	
129-5	O3U	03U129		---	--X	---	---	---	---	---	---	
129-15	O3U	03U016		---	--X(A)	---	--X(A)	---	1	---	---	
129-15	O3U	03U032		---	--X(A)	---	--X(A)	---	1	---	---	
129-15	O3U	03U090		---	--X(A)	---	--X(A)	---	1	---	---	
129-15	O3U	03U124		---	--X	---	--X	---	1	---	---	
129-15	O3U	519291	1291501-MW	---	--X	---	--X	---	1	---	---	
129-15	O3L	03L091		---	--X	---	---	---	1	---	---	
SWB	O1U	01U062		---	--X	---	---	---	---	---	---	
SWB	O1U	01U803		---	---	---	---	---	---	---	---	
SWB	O1U	01U805		---	---	---	---	---	---	---	---	
SWB	O1U	01U806		---	---	---	---	---	---	---	---	
SWB	O1U	01U807		---	---	---	---	---	---	---	---	
SWB	O3U	03U001		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3U	03U002		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3U	03U003		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3U	03U021		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O3U	03U077		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O3U	03U078		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O3U	03U079		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O3U	03U084		---	--X(A)	---	--X(A)	---	1(A)	---	---	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
SWB	O3U	03U671		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U672		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3U	03U673		--X(A)	--X(A)	--X(A)	--X(A)	---	I(A)	---	I(A)	⑤
SWB	O3U	03U701		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U702		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U703		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U708		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U709		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U710		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U711		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U801		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3U	03U803		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3U	03U804		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U805		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3U	03U806		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3U	409550	PCA 6U3	---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3M	03M001		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3M	03M002		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3M	03M003		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3M	03M713		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3M	03M802		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3M	03M806		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L001		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3L	03L002		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L003		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	O3L	03L021		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L077		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L078		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L079		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L084		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	O3L	03L673		--X(A)	--X(A)	--X(A)	--X(A)	---	I(A)	---	---	⑤
SWB	O3L	03L802		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3L	03L806		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	O3L	03L833		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	

**TABLE XIV - 1  
FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
SWB	O3F	03F302		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F303		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F304		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F305		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F306		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F307		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F308		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O3F	03F312		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4U	04U001		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4U	04U002		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U003		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4U	04U077		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U673		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	1(A)	⑤
SWB	O4U	04U701		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U702		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U708		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U709		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U711		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4U	04U713		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U714		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4U	04U802		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4U	04U806		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4U	04U833		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	
SWB	O4J	04J077		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4J	04J702		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4J	04J708		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4J	04J713		---	--X(A)	---	--X(A)	---	1(A)	---	---	
SWB	O4J	04J714		---	--X(A)	---	--X(A)	---	1(A)	---	1(A)	

**TABLE XIV - 1  
FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
SWB	PJ#	PJ#003		---	--X(A)	---	--X(A)	---	I(A)	---	---	
SWB	PJ#	PJ#309		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	PJ#	PJ#310		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	PJ#	PJ#311		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	PJ#	PJ#313		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
SWB	PJ#	PJ#802		---	--X(A)	---	--X(A)	---	---	---	---	
SWB	PJ#	PJ#806		---	--X(A)	---	--X(A)	---	I(A)	---	---	
GP	O3U	03U704		---	--X(A)	---	--X(A)	---	I(A)	---	---	
GP	O3U	03U705		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
GP	O3U	03U706		---	--X(A)	---	--X(A)	---	I(A)	---	I(A)	
GP	O3U	03U707		---	--X(A)	---	--X(A)	---	I(A)	---	---	
GP	SG	Staff Gauge 1		---	--X(A)	---	--X(A)	---	---	---	---	
GP	SG	Staff Gauge 2		---	--X(A)	---	--X(A)	---	---	---	---	
GP	SG	Staff Gauge 3		---	--X(A)	---	--X(A)	---	---	---	---	
BRV	O3U	03U005		---	--X(A)	---	--X(A)	---	I	---	---	
BRV	O3M	03M005		---	--X(A)	---	--X(A)	---	I	---	---	
BRV	O3L	03L005		---	--X(A)	---	--X(A)	---	I	---	---	
BRV	O3L	03L081		---	--X(A)	---	--X(A)	---	I	---	---	
BRV	O3L	03L137		---	--X	---	--X	---	---	---	---	
BRV	O3L	03L138		---	--X	---	--X	---	I	---	---	
MISC	O1U	01U012		---	--X	---	--X	---	---	---	---	
MISC	O1U	01U044		---	--X	---	---	---	---	---	---	
MISC	O1U	01U130		---	--X	---	---	---	---	---	---	
MISC	O1U	01U131		---	---	---	---	---	---	---	---	
MISC	O3U	03U006		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3U	03U007		---	--X(A)	---	--X(A)	---	---	---	---	④
MISC	O3U	03U008		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3U	03U009		---	--X(A)	---	--X(A)	---	---	---	---	④
MISC	O3U	03U010		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3U	03U012		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3U	03U031		---	--X(A)	---	--X(A)	---	I(A)	---	---	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
MISC	O3M	03M007		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3M	03M010		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3M	03M012		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3L	03L007		---	--X(A)	---	--X(A)	---	---	---	---	④
MISC	O3L	03L010		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3L	03L012		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O3L	03L086		---	--X	---	---	---	---	---	---	
MISC	O4U	04U007		---	--X(A)	---	--X(A)	---	---	---	---	④
MISC	O4U	04U012		---	--X(A)	---	--X(A)	---	---	---	---	
MISC	O4U	04U510		---	--X(A)	---	--X(A)	---	---	---	---	④
MISC	PJ#	PJ#501		---	---	---	---	---	---	---	---	
MISC	PJ#	PJ#502		---	---	---	---	---	---	---	---	
MISC	PJ#	PJ#503		---	---	---	---	---	---	---	---	
OP	O1L	01L811		---	--X	---	---	---	---	---	---	
OP	O1L	01L813		---	--X	---	---	---	---	---	---	
OP	O1L	01L816		---	--X	---	---	---	---	---	---	
OP	O1L	01L821		---	--X	---	---	---	---	---	---	
OP	O1L	01L822		---	--X	---	---	---	---	---	---	
OP	O1L	01L823		---	--X	---	---	---	---	---	---	
OP	O1U	01U803		---	---	---	---	---	---	---	---	
OP	O1U	01U807		---	---	---	---	---	---	---	---	
OP	O1U	01U813		---	---	---	---	---	---	---	---	
OP	O3L	03L809		---	--X(A)	---	--X(A)	---		---	---	
OP	O3L	03L811		---	--X	---	---	---		---	---	
OP	O3L	03L813		---	--X	---	---	---	---	---	---	
OP	O3L	03L822		---	--X	---	---	---		---	---	
OP	O3L	03L832		--X(A)	--X(A)	--X(A)	--X(A)	---	(A)	---	---	⑤
OP	O3L	03L841		--X(A)	--X(A)	--X(A)	--X(A)	---		---	---	⑤
OP	O3L	03L846		---	--X	---	---	---		---	---	
OP	O3L	03L848		--X(A)	--X(A)	--X(A)	--X(A)	---	(A)	---	---	⑤
OP	O3L	03L853		---	--X	---	---	---		---	---	
OP	O3L	03L854		--X(A)	--X(A)	--X(A)	--X(A)	---		---	---	⑤
OP	O3L	03L856		---	--X	---	---	---		---	---	

**TABLE XIV - 1  
FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan				①	Groundwater Quality Monitoring Plan			②	Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95		
OP	O3L	03L858		---	--X	---	---	---	1	---	---		
OP	O3L	03L859		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	
OP	O3L	03L860		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	
OP	O3L	03L861		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	
OP	O3L	234425	Gerebi	Denied Access				Denied Access					
OP	O3L	409546	PCA2L3	--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤	
OP	O3L	409556	PCA4L3	---	--X	---	---	---	1	---	---		
OP	O3L	409557	PCA1L3	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	
OP	O3L	409597	BS118L3	---	--X	---	---	---	1	---	---		
OP	O3L	MW15H	MW15H	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	⑤	
OP	O3M	03M843		---	--X	---	--X	---	1	---	---		
OP	O3M	03M848		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤	
OP	O3U	03U811		---	--X	---	---	---	1	---	---		
OP	O3U	03U815		---	--X	---	---	---	1	---	---		
OP	O3U	03U821		---	--X	---	---	---	1	---	---		
OP	O3U	03U822		---	--X	---	---	---	1	---	---		
OP	O3U	03U824		---	--X	---	---	---	1	---	---		
OP	O3U	03U831		---	--X	---	---	---	1	---	---		
OP	O3U	03U832		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤	
OP	O3U	234352	1206 12th Av. NW	---	---	---	---	---	1	---	---		
OP	O3U	409596	BS118U3	---	--X	---	---	---	1	---	---		
OP	LH/PC	206787	MV High School	Not Accessible				---	1	---	---		
OP	SP	200814	Amer. Linen	---	---	---	---	---	---	---	---		
OP	SP/PC/J	233222	Lowry Gr. Trail.	Well Abandoned				---	---	---	---		
OP	PC	04U821		---	--X	---	--X	---	1	---	---		
OP	PC	04U832		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	
OP	PC	04U834		---	--X	---	---	---	1	---	1		
OP	PC	04U841		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤	
OP	PC	04U843		---	--X	---	---	---	1	---	---		
OP	PC	04U844		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤	
OP	PC	04U845		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	
OP	PC	04U846		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤	
OP	PC	04U847		---	--X(A)	---	--X(A)	---	1	---	1		
OP	PC	04U848		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤	

**TABLE XIV - 1**  
**FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
OP	PC	04U849		---	--X	---	---	---	1	---	---	
OP	PC	04U850		---	--X	---	---	---	1	---	---	
OP	PC	04U851		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤
OP	PC	04U852		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤
OP	PC	04U854		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	
OP	PC	04U855		---	--X	---	---	---	1	---	---	
OP	PC	04U859		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤
OP	PC	04U860		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤
OP	PC	04U861		--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤
OP	PC	04U871		---	--X	---	---	---	1	---	---	
OP	PC	04U872		---	--X	---	---	---	1	---	---	
OP	PC	04U875		---	--X	---	---	---	1	---	---	
OP	PC	04U877		--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	⑤
OP	PC	04U879		---	--X	---	---	---	1	---	---	
OP	PC	04U880		---	--X	---	---	---	1	---	---	
OP	PC	04U881		---	--X	---	---	---	1	---	---	
OP	PC	04U882		---	--X	---	---	---	1	---	---	
OP	PC	04U883		---	--X	---	---	---	1	---	1	
OP	PC	200154	UM Golf Course	---	---	---	---	---	---	---	---	
OP	PC	206688	Cloverpond	Denied Access				Denied Access				
OP	PC	233533	Roselawn Cem.	---	---	---	---	---	---	---	---	
OP	PC	234319	Hide & Tallow #1	---	---	---	---	---	---	---	---	
OP	PC	234547	Hnywell Ridgway	Not Accessible				---	1	---	---	
OP	PC	04U863	323U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	⑤
OP	PC	04U864	324U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	⑤
OP	PC	04U865	325U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	⑤
OP	PC	04U866	326U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	⑤
OP	PC	409547	PCA1U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤
OP	PC	409548	PCA2U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	---	---	⑤
OP	PC	409549	PCA3U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1	---	---	
OP	PC	409555	PCA5U4	---	--X	---	---	---	1	---	---	
OP	PC	500691	414U4	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	⑤
OP	PC	512761	Gross Golf Course #2	---	--X	---	---	---	1	---	---	⑥

**TABLE XIV - 1  
FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
OP	PC/J	200148	Paper Calmenson	Pump Decommissioned - No Access				Pump Decommissioned - No Access				
OP	PC/J	200804	St. Anthony #3	Denied Access				Denied Access				
OP	PC/J	200812	Gross Golf	Not Accessible				---	1	---	1	
OP	PC/J	206793	New Brighton #3	Not Accessible				---	1	---	---	
OP	PC/J	235539	Old Hotel	---	---	---	---	---	---	---	---	
OP	PC/J	520931	OU3 Extraction Well	--X(A)	--X(A)	--X(A)	--X(A)	1(A)	1(A)	1(A)	1(A)	
OP	PC/J	PJ#318		---	--X	---	---	---	1	---	---	
OP	J	04J834		---	--X	---	---	---	1	---	1	
OP	J	04J835		---	--X	---	---	---	1	---	1	
OP	J	04J882		---	--X	---	---	---	1	---	1	
OP	J	200076	Old Dutch	---	--X	---	---	---	1	---	---	⑥
OP	J	200524	St. Anthony #5	Denied Access				Denied Access				
OP	J	200803	St. Anthony #4	Denied Access				Denied Access				
OP	J	201082	NW Hospital	---	---	---	---	---	---	---	---	
OP	J	206791	New Brighton #7	Not Accessible				---	1	---	---	
OP	J	206797	New Brighton #6	---	--X	---	---	---	1	---	---	⑥
OP	J	231845	MNDOT	Not Accessible				---	---	---	---	
OP	J	04J864	324 J	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	
OP	J	04J866	326 J	--X(A)	--X(A)	--X(A)	--X(A)	---	1(A)	1(A)	1(A)	
OP	PC/J/SL	233221	Reuben Meats	Not Accessible				---	---	---	---	
OP	MS/H	NB#10	New Brighton #10	---	--X	---	--X	---	1	---	---	⑦
OP	MS/H	NB#11	New Brighton #11	---	--X	---	--X	---	1	---	---	⑦
OP	MS/H	NB#8	New Brighton #8	---	--X	---	--X	---	1	---	---	⑦
OP	MS/H	NB#9	New Brighton #9	---	--X	---	--X	---	1	---	---	⑦
OP	UNK	134318	Seutter	---	---	---	---	---	---	---	---	
OP	UNK	191942	Model Stone	---	---	---	---	---	---	---	---	
OP	UNK	200264		---	---	---	---	---	---	---	---	



**TABLE XIV - 1  
FY 95 Annual Monitoring Plan**

Well Information				Groundwater Level Monitoring Plan ①				Groundwater Quality Monitoring Plan ②				Notes
Site	Unit	Well I.D.	Common Name	Q45 OND 94	Q46 JFM 95	Q47 AMJ 95	Q48 JAS 95	Q45 Dec 94	Q46 Mar 95	Q47 Jun 95	Q48 Sep 95	
OP	UNK	234335	Mengelkoch #1	---	---	---	---	---	---	---	---	
OP	UNK	234337	Mengelkoch #3	---	---	---	---	---	---	---	---	
OP	UNK	234353	Lentsch Ice	---	---	---	---	---	---	---	---	
OP	UNK	234356	Nordquist P43	---	---	---	---	---	---	---	---	
OP	UNK	234357	Phillips Pet.	---	---	---	---	---	---	---	---	
OP	UNK	234430	Cmiel	---	---	---	---	---	---	---	---	
OP	UNK	234463	Solie	---	---	---	---	---	---	---	---	
OP	UNK	234546	Hnywell Ridgway	Not Accessible				---	1	---	---	
OP	UNK	405651	Metal-Matic	Not Accessible				---	---	---	---	
OP	UNK	BOYLE		---	---	---	---	---	---	---	---	
OP	UNK	NB#12	New Brighton #12	---	--X	---	--X	---	1	---	---	⑦
OP	UNK	NB#4	New Brighton #4	---	--X	---	--X	---	1	---	---	⑦
OP	UNK	NB#5	New Brighton #5	---	--X	---	--X	---	1	---	---	⑦

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**Table XIV-2**

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**Remedial Action Treatment System Monitoring**

**TABLE XIV-2  
Remedial Action Treatment System Monitoring**

**INTERIM TGRS**

<u>Location</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
Treatment System Influent	Monthly	Cat. 1
Treatment System Effluent	Quarterly Monthly	Antimony, Cobalt, Manganese Cat. 1, Arsenic, Lead, Mercury, Cadmium, Chromium, Nickel, Zinc, and pH
	Annually	Priority Pollutants

**SITE A**

<u>Location</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
Treatment System Effluent <sup>(1)(2)</sup>	Monthly	VOC Scan, Arsenic, Barium, Cadmium, Chromium, Lead, Nickel, Zinc, nitrates, phosphates, and orthophosphates

**INTERIM SITE K**

<u>Location</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
Treatment System Influent	Quarterly	CH <sub>2</sub> CL <sub>2</sub> , 111TCE, 11DCLE, T12DCE, TRCLE, CCL <sub>4</sub>
Treatment System Effluent	Monthly	Ortho and Total Phosphorus
	Quarterly	Lead, Mercury, Zinc, Chromium, Copper, CH <sub>2</sub> CL <sub>2</sub> , 111TCE, 11DCLE, T12DCE, TRCLE, CCL <sub>4</sub>

**OU3**

<u>Location</u>	<u>Sampling Frequency</u>	<u>Parameters</u>
Treatment System Influent	Monthly	Cat. 1
Treatment System Effluent	Monthly	Cat. 1

Note: The parameter list for Category 1 is presented in Appendix E.

- (1) USEPA and not USAEC analytical protocol required by Metropolitan Waste Control Commission on waters discharged to the sanitary sewer.
- (2) Upon startup of the Site A removal action, the parameters sampled on a monthly basis will be 12 DCE, TRCLE, TCLEE, and total mercury. Chemical oxygen demand, total suspended solids, and pH would be added to the parameters sampled on a quarterly basis.

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## Table XIV-3

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### National Pollutant Discharge Elimination System (NPDES) Monitoring Plan

Notes:

- M = Analysis required once a month.  
- At least two of the monthly samples are to be collected after/during rainfall of at least 0.5 inches.
- Q = Analysis required once a quarter.
- Y = Analysis required once a year.
- C = Continuous flow measurement.
- (1) = Sites refer to monitoring locations illustrated on Figure VIII-1.
- (2) = These values are to be estimated.
- (3) = Sample location 20201 is monitored separately from the other locations and, therefore, has different monitored parameters and frequencies.

**TABLE XIV - 3**  
**National Pollutant Discharge Elimination System (NPDES) Monitoring Plan**

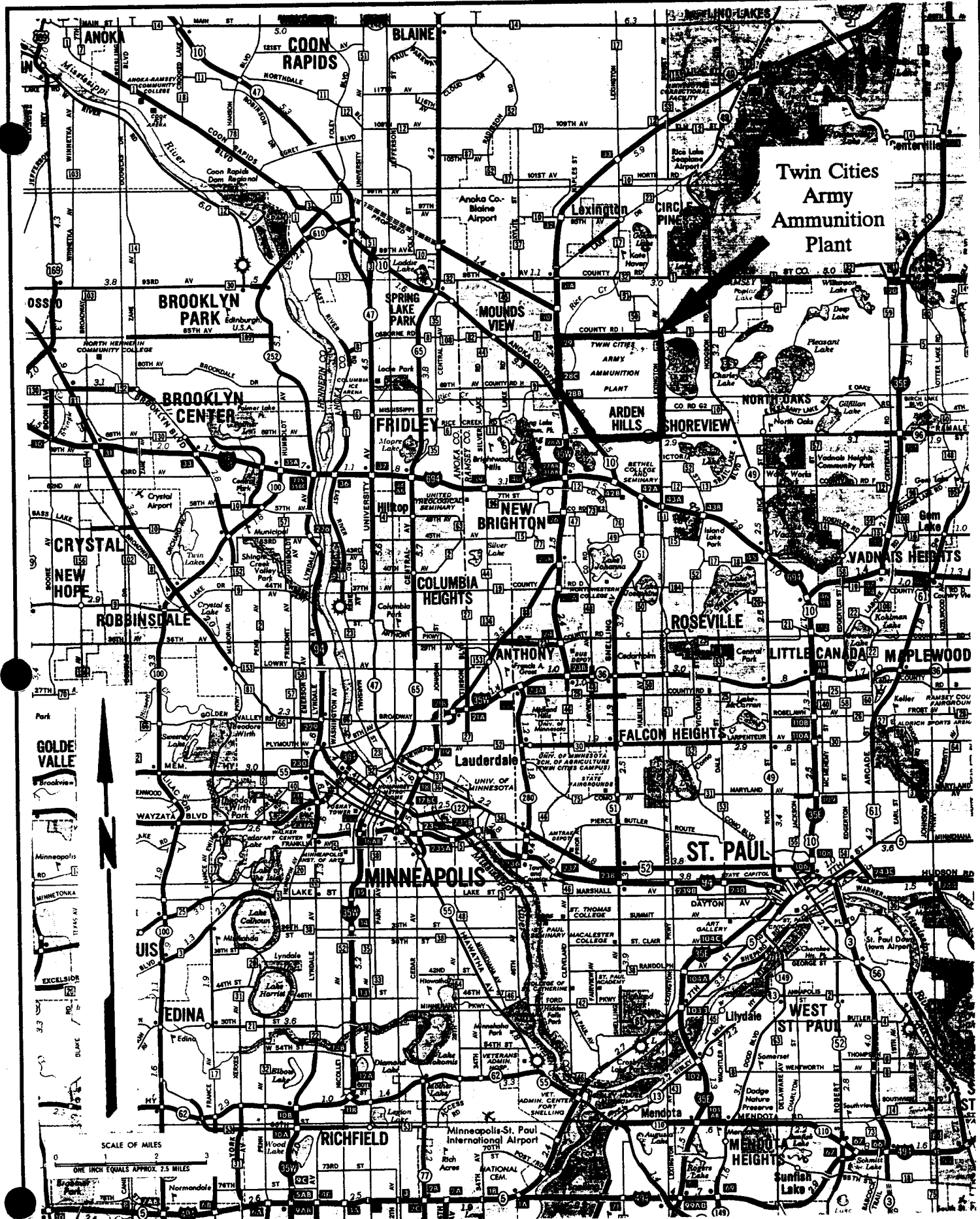
Analysis	Units	Sample Locations (1)															Field Water Blank	D.I. Water Blank
		20100 Marsden Lk Out	20200 (3) Bldg 103/114 Outfall	20201 Bldg 103 Effluent	20300 Bldg 113/115 Outfall	20400 Bldg 104/116 Outfall	20500 Round Lk Outfall	20700 Rice Crk In	20800 Rice Crk Out	20900 Rice Crk & Lex	21000 Rice Crk & Long Lk	21100 Culvert Area Runoff	21200 N Inlet Lex Runoff	21300 Mid Inlet Lex Runoff	21400 S Inlet Lex Runoff	21600 Hamline Runoff		
Volume	gal/day	M	M	C	M	M	M	M	M	Q (2)	Q (2)	Q (2)	Q (2)	Q (2)	Q (2)	Q (2)	--	--
pH		M	M	M	M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Suspended Solids	mg/l	M	M		M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Chemical Oxygen Demand	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Total Organic Carbon	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Biological Oxygen Demand	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Dissolved Oxygen	mg/l	M	M		M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Fecal Coliform Bacteria	#/100ml	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Oil	mg/l	M	M		M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Ammonia	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Cyanide	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Cadmium	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Chloride	mg/l	M	M		M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Chromium (Total)	mg/l	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Copper	mg/l	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q
Lead	mg/l	Q	Y	Q	Y	Y	Q	Y	Y	Y	Y	Y	Q	Q	Q	Q	Y	Y
Mercury	mg/l	Y	Y		Y	Y	Q	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Nickel	mg/l	Q	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Phosphorus (Total)	mg/l	M	M	M	M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Phosphorus (Ortho)	mg/l	M	M	M	M	M	M	M	M	Q	Q	Q	Y	Y	Y	Y	M	M
Silver	mg/l	Y	Q		Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Q	Y	Y
Zinc	mg/l	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Q	Y	Y	Y	Q	Q	Q
Trichloroethene	ug/l	Y	Q	Q	Q	Q	Y	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
1,1,1-Trichloroethane	ug/l	Y	Q	Q	Q	Q	Y	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
Methylene Chloride	ug/l	Y	Q	Q	Q	Q	Y	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
1,1-Dichloroethene	ug/l	Y	Q		Q	Q	Y	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
1,1-Dichloroethane	ug/l	Y	Q	Q	Q	Q	Y	Q	Q	Q	Q	Q	Y	Y	Y	Y	Q	Q
trans 1,2-Dichloroethene	ug/l			Q		Q												
Carbon Tetrachloride	ug/l			Q														
Polychlorinated Biphenyls	ug/l	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Gross Alpha	pCi	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Gross Beta	pCi	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
Gamma Spectranalysis	pCi	Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y
24-hr pH Meter/Recorder		Y	Y		Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	Y	--	--

## FIGURES

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## Figures

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Twin Cities  
Army  
Ammunition  
Plant

**TWIN CITIES ARMY AMMUNITION PLANT**

Site Location Map



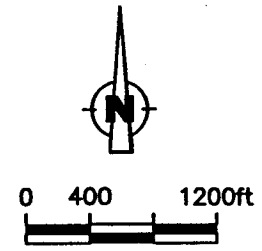
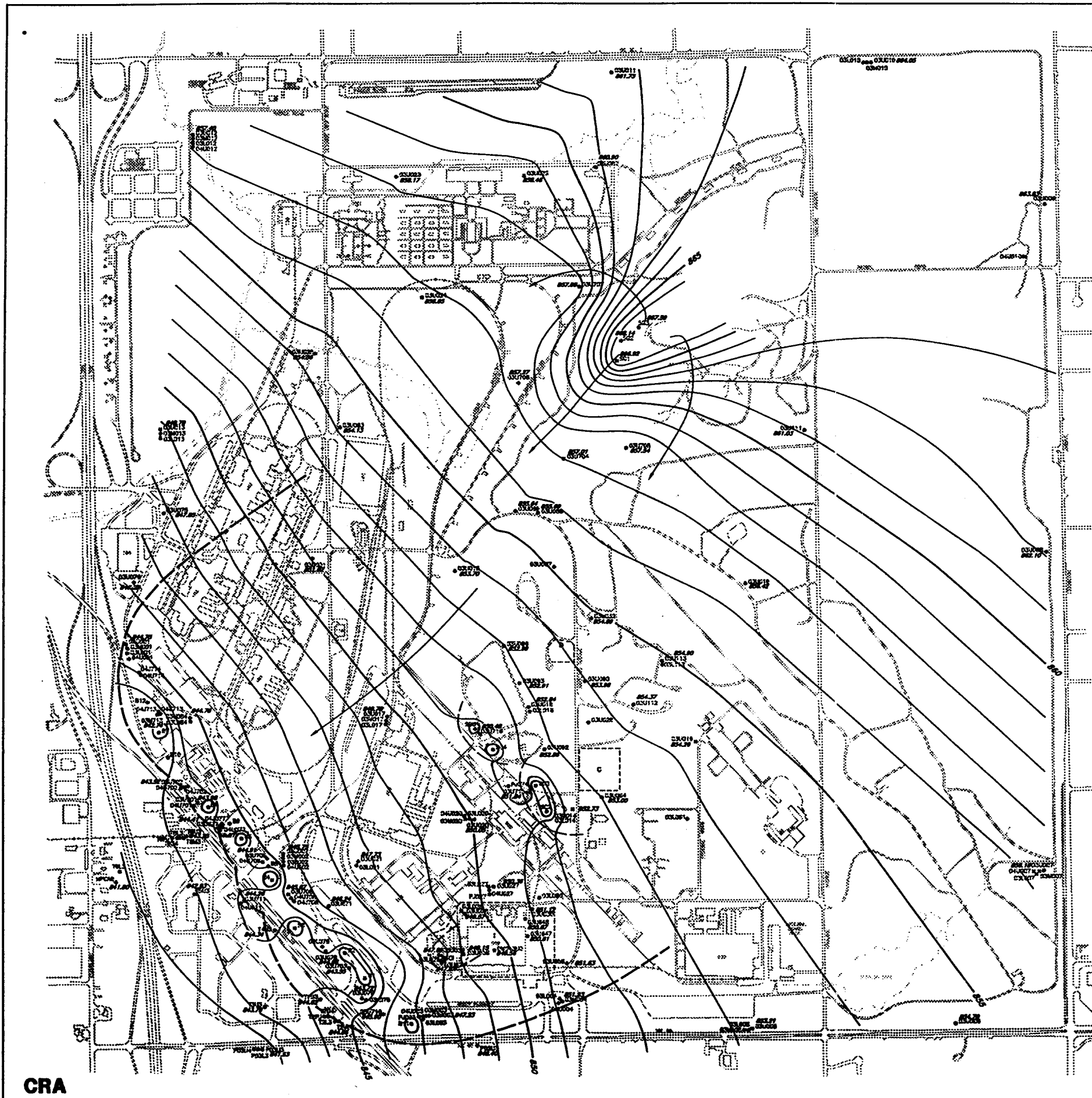
**Wenck**

Wenck Associates, Inc. 1800 Pioneer Creek Ctr.  
Environmental Engineers Maple Plain, MN 55359

FEB 1994

Figure II-1

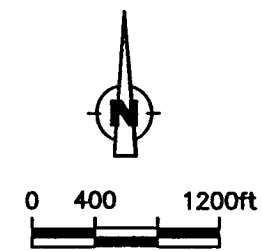
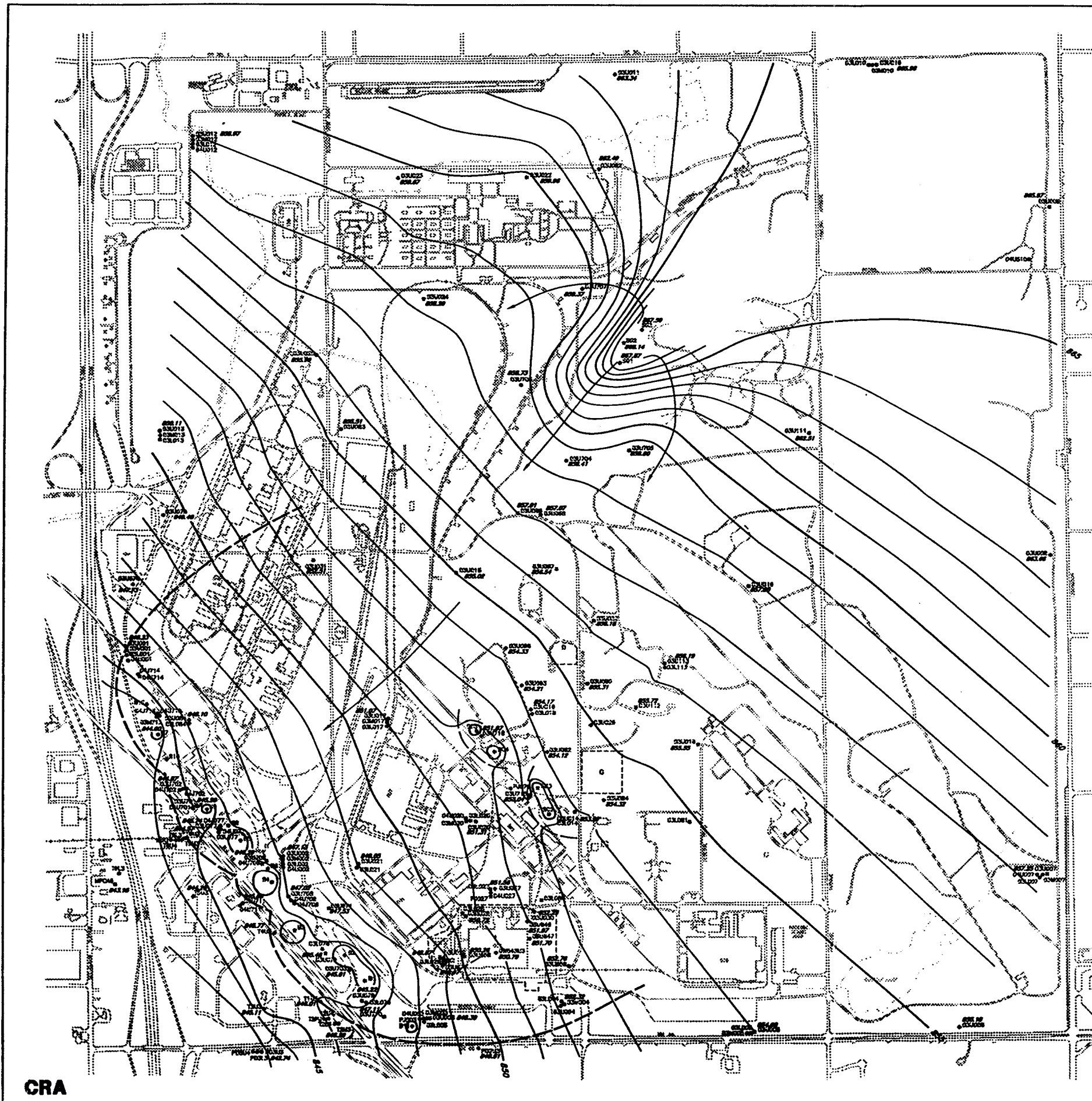




**LEGEND**

- 857.54 GROUNDWATER ELEVATION IN FEET AMSL (3-2-93)
- GROUNDWATER CONTOUR
- ← DIRECTION OF GROUNDWATER FLOW
- - - LIMIT OF CAPTURE

figure V-1  
 ON-POST, GROUNDWATER ELEVATIONS,  
 UPPER UNIT 3, SPRING 1993 (Q38)  
 Twin Cities Army Ammunition Plant

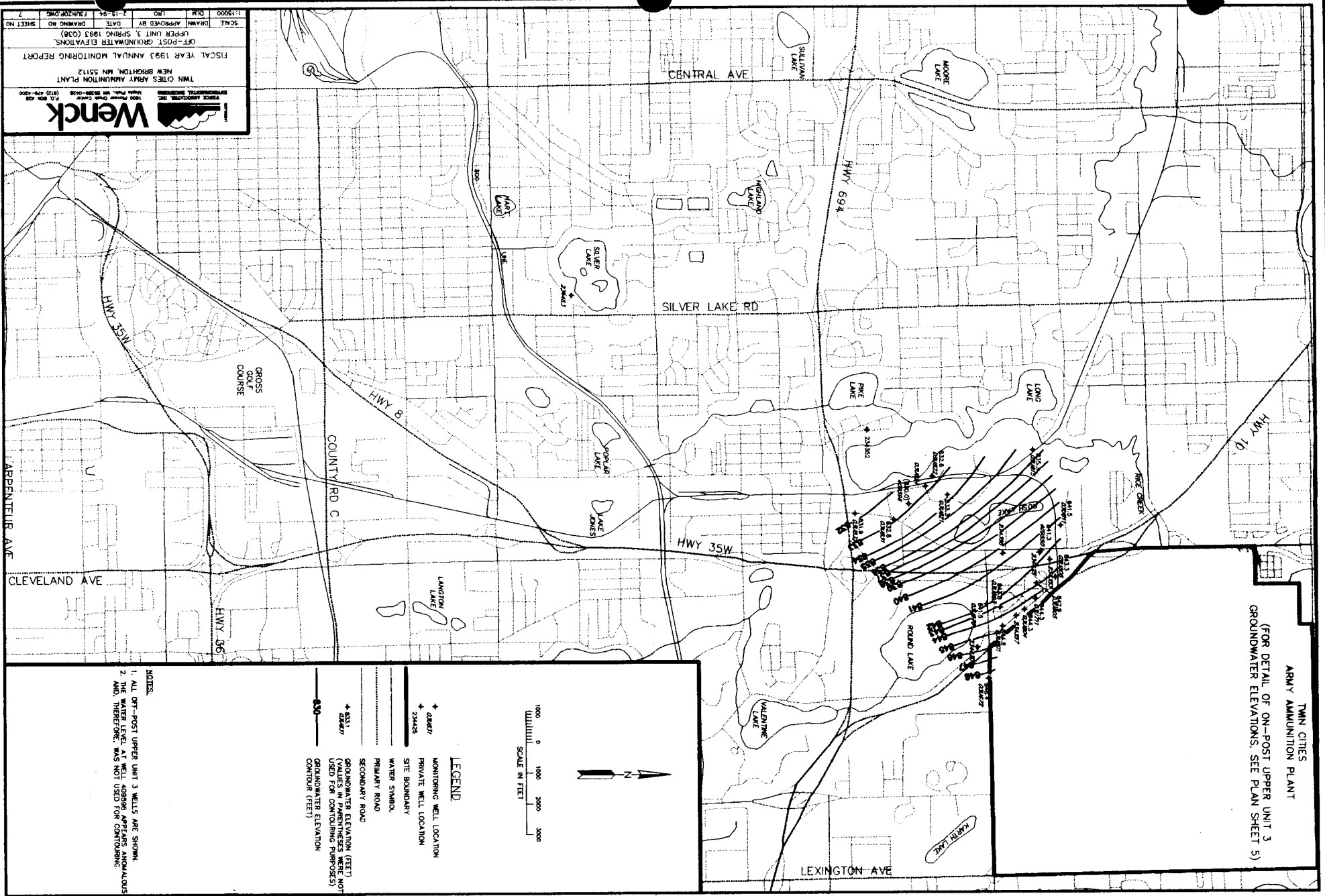


**LEGEND**

- 857.54 GROUNDWATER ELEVATION IN FEET AMSL (9-10-93)
- GROUNDWATER CONTOUR
- ← DIRECTION OF GROUNDWATER FLOW
- - - LIMIT OF CAPTURE

figure V-2  
 ON-POST, GROUNDWATER ELEVATIONS,  
 UPPER UNIT 3, FALL 1993 (Q40)  
 Twin Cities Army Ammunition Plant

TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 OFF-POST GROUNDWATER ELEVATIONS  
 UPPER UNIT 3, SPRING 1993 (Q38)  
 SCALE DRAWING APPROVED BY DATE DRAWING NO. SHEET NO.  
 1:15000 DKM LRO 2-11-94 7  
**Wenck**  
 PROFESSIONAL ENGINEERS  
 1800 PIONEER CREEK CENTER  
 MAPLE PLAIN, MN 55359 (612) 879-1000



TWIN CITIES  
 ARMY AMMUNITION PLANT  
 (FOR DETAIL OF ON-POST UPPER UNIT 3  
 GROUNDWATER ELEVATIONS, SEE PLAN SHEET 5)

**NOTES:**

1. ALL OFF-POST UPPER UNIT 3 WELLS ARE SHOWN.
2. THE WATER LEVEL AT WELL 380808 APPLIES ANOMALOUS AND, THEREFORE, WAS NOT USED FOR CONTOURING.

**LEGEND**

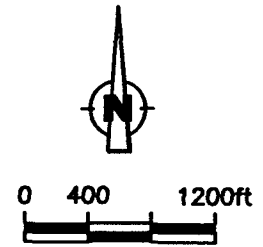
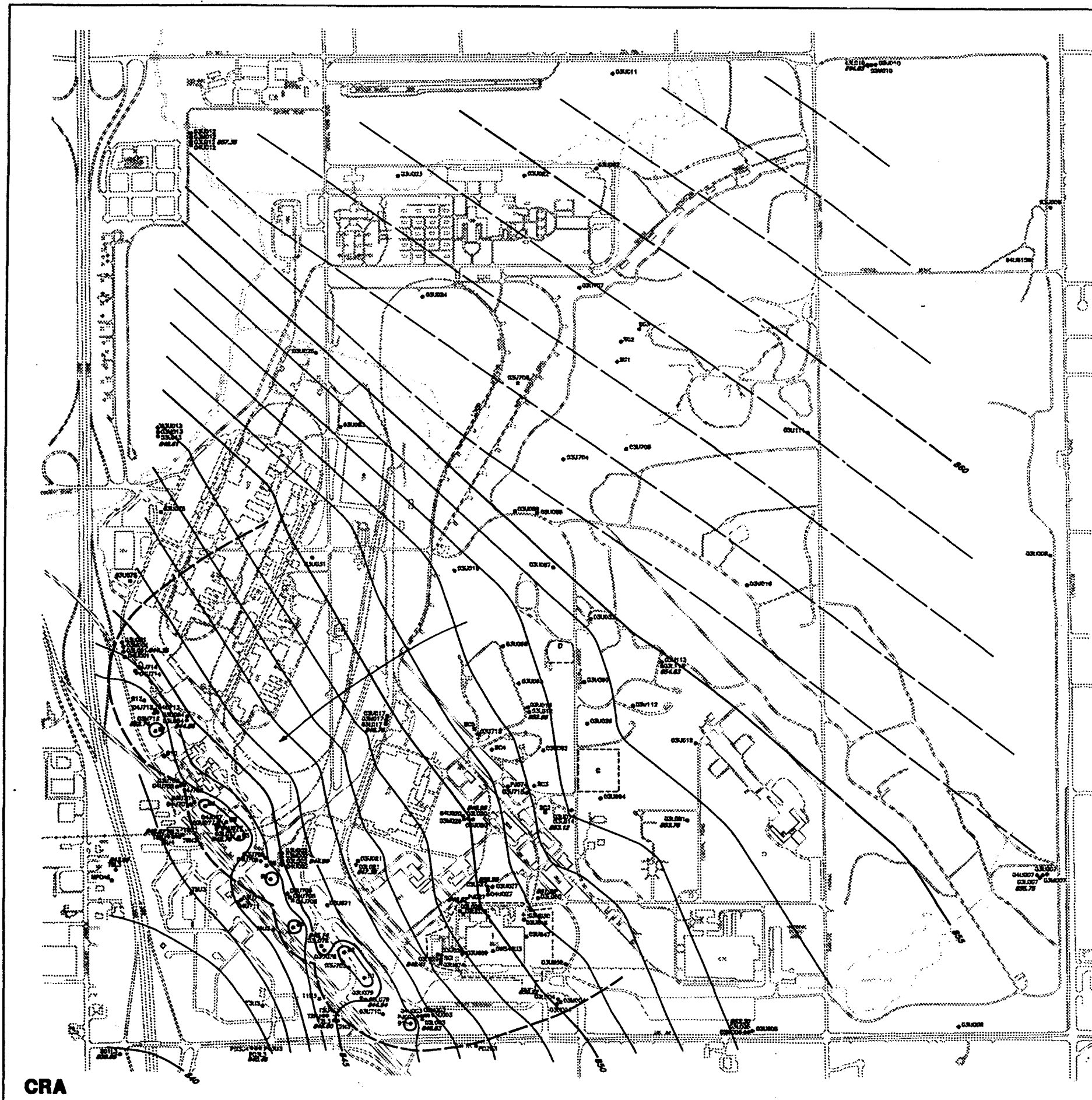
- MONITORING WELL LOCATION
- PRIVATE WELL LOCATION
- SITE BOUNDARY
- WATER SYMBOL
- PRIMARY ROAD
- SECONDARY ROAD
- GROUNDWATER ELEVATION (FEET) (NOT USED FOR CONTOURING PURPOSES)
- GROUNDWATER ELEVATION CONTOUR (FEET)

1000 0 1000 2000 3000  
 SCALE IN FEET

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, Groundwater Elevations,  
 Upper Unit 3, Spring 1993 (Q38)

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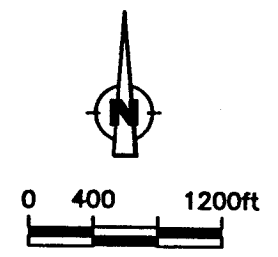
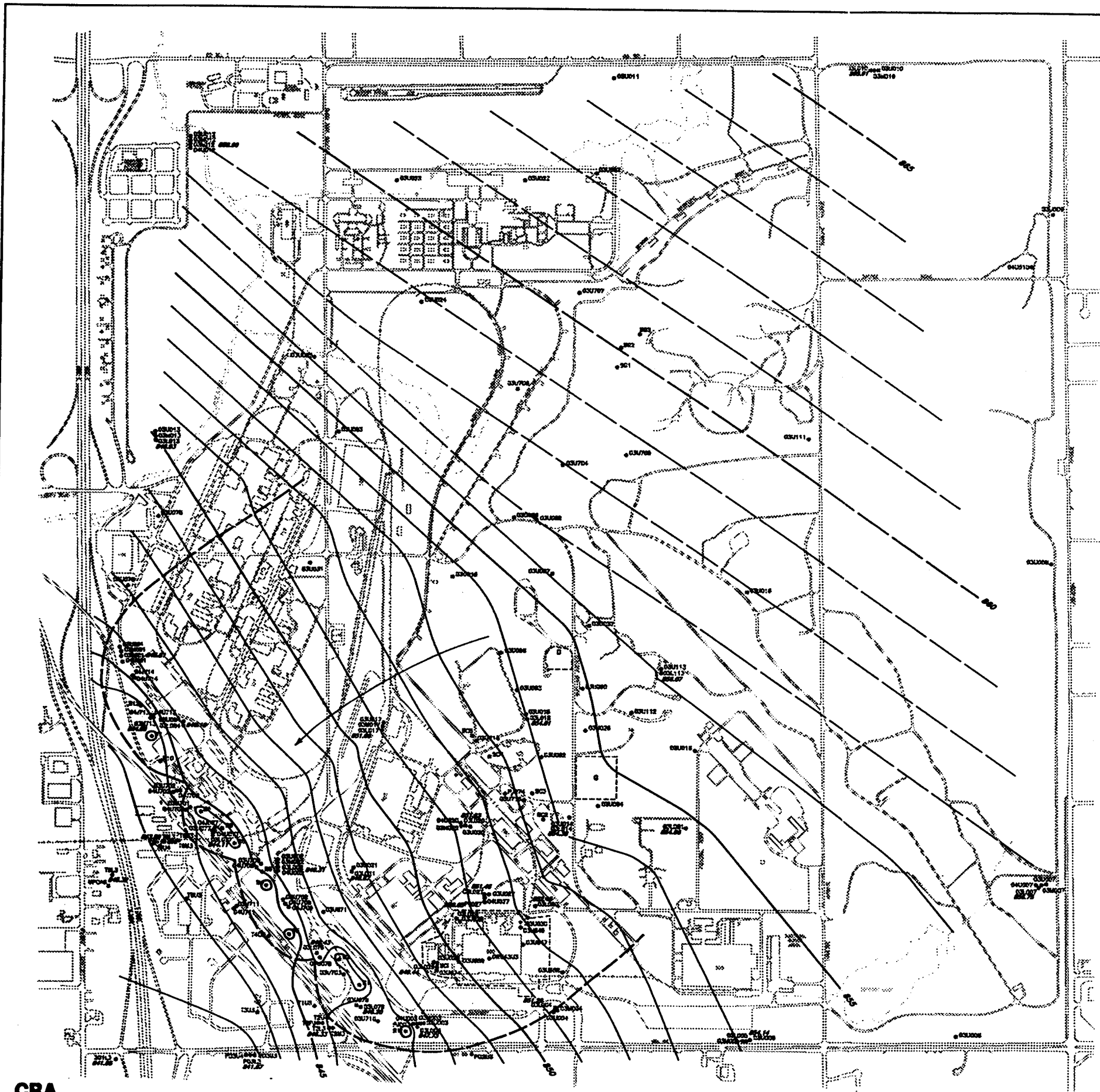
FEB. 1994  
 Figure V-3



**LEGEND**

- 857.54 GROUNDWATER ELEVATION IN FEET AMSL (3-2-93)
- GROUNDWATER CONTOUR
- ← DIRECTION OF GROUNDWATER FLOW
- - - LIMIT OF CAPTURE

figure V-4  
 ON-POST, GROUNDWATER ELEVATIONS,  
 LOWER UNIT 3, SPRING 1993 (Q38)  
 Twin Cities Army Ammunition Plant

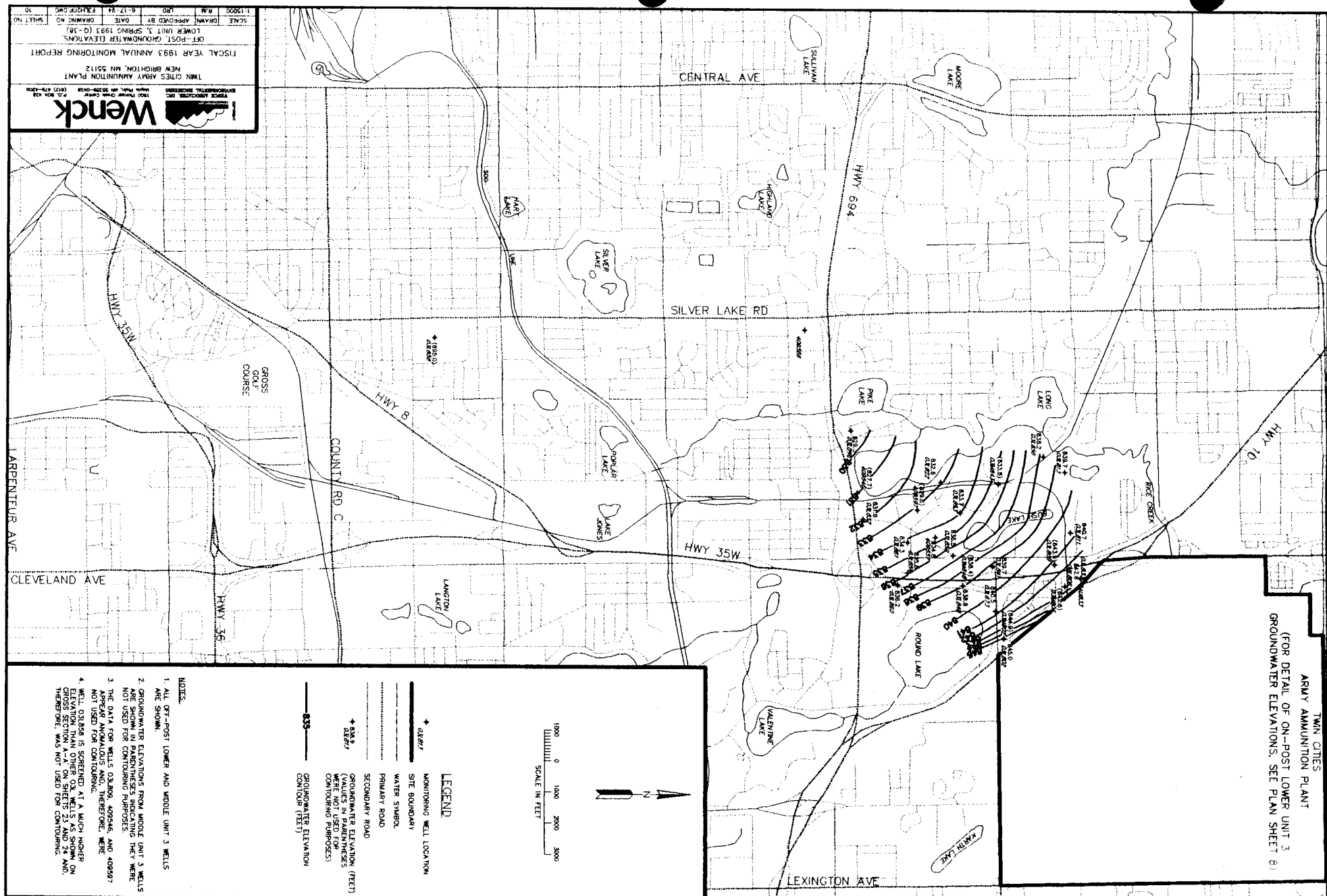


**LEGEND**

- 857.54 GROUNDWATER ELEVATION IN FEET AMSL (9-10-93)
- GROUNDWATER CONTOUR
- ← DIRECTION OF GROUNDWATER FLOW
- - - LIMIT OF CAPTURE

figure V-5  
 ON-POST, GROUNDWATER ELEVATIONS,  
 LOWER UNIT 3, FALL 1993 (Q40)  
 Twin Cities Army Ammunition Plant

SCALE 1:15000  
 DRAWN BY [REDACTED]  
 APPROVED BY [REDACTED]  
 DATE 6-17-94  
 SHEET NO. 10  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 OFF-POST GROUNDWATER ELEVATIONS  
 LOWER UNIT 3, SPRING 1993 (Q38)  
 TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRUNSWICK, MN 55112  
**Wenck**  
 1800 Pioneer Creek Center  
 Environmental Engineers  
 Maple Plain, MN 55359



TWIN CITIES  
 ARMY AMMUNITION PLANT  
 (FOR DETAIL OF ON-POST LOWER UNIT 3  
 GROUNDWATER ELEVATIONS, SEE PLAN SHEET 8)

**NOTES:**

1. ALL OFF-POST LOWER AND MIDDLE UNIT 3 WELLS ARE SHOWN.
2. GROUNDWATER ELEVATIONS FROM LOWER UNIT 3 WELLS ARE SHOWN IN PARENTHESES INDICATING THEY WERE NOT USED FOR CONTOURING PURPOSES.
3. THE DATA FOR WELLS 03A99, 409546, AND 409597 APPEAR ANOMALOUS AND, THEREFORE, WERE NOT USED FOR CONTOURING.
4. WELL 03A58 IS SCREENED AT A MUCH HIGHER ELEVATION THAN OTHER 03 WELLS AS SHOWN ON THIS ONE. IT WAS NOT USED FOR CONTOURING.

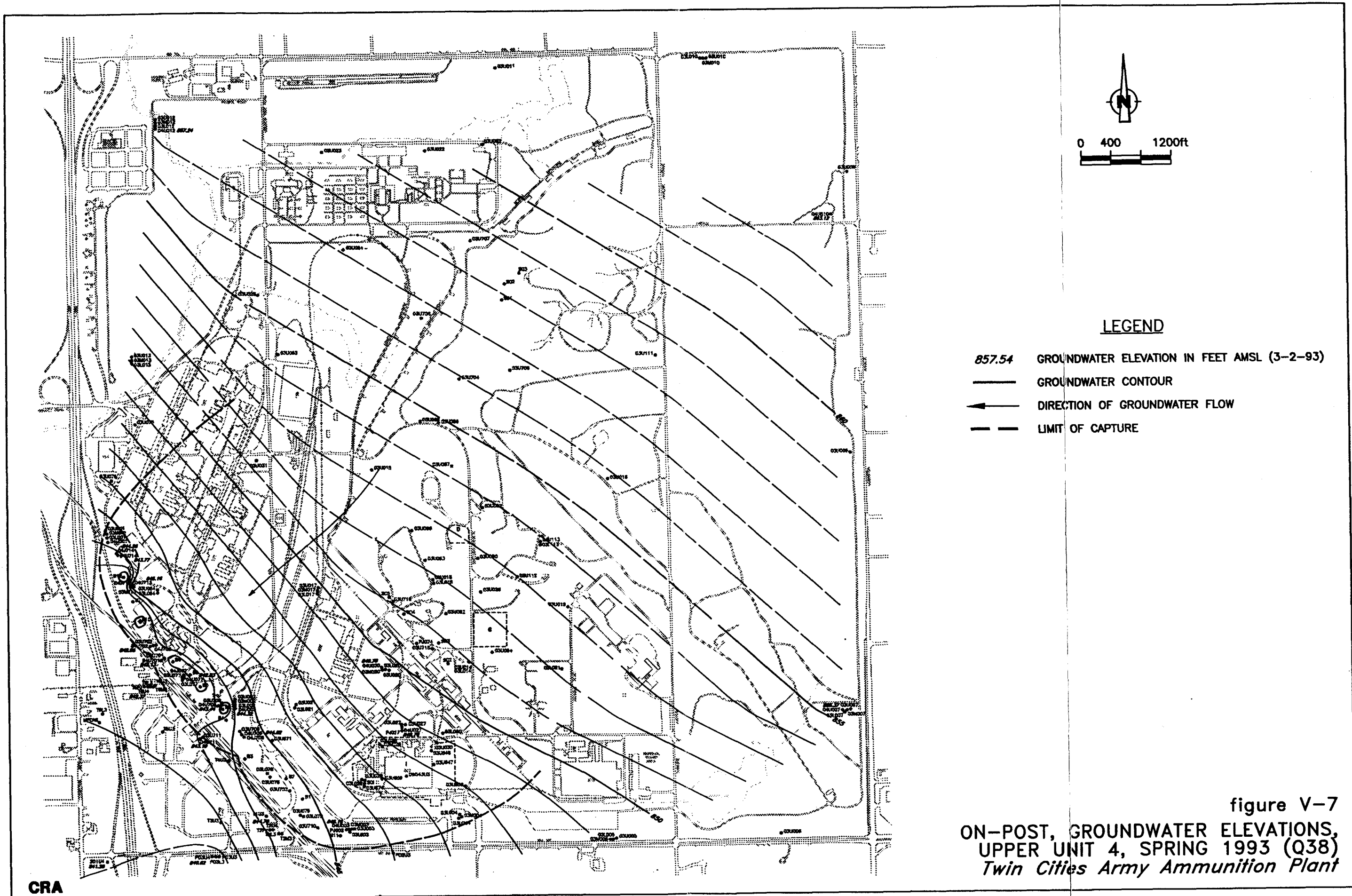
**LEGEND**

- MONITORING WELL LOCATION
- SITE BOUNDARY
- WATER SYMBOL
- PRIMARY ROAD
- SECONDARY ROAD
- GROUNDWATER ELEVATION (FEET) (VALUES IN PARENTHESES CONTOURING PURPOSES)
- GROUNDWATER ELEVATION CONTOUR (FEET)

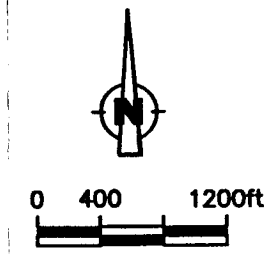
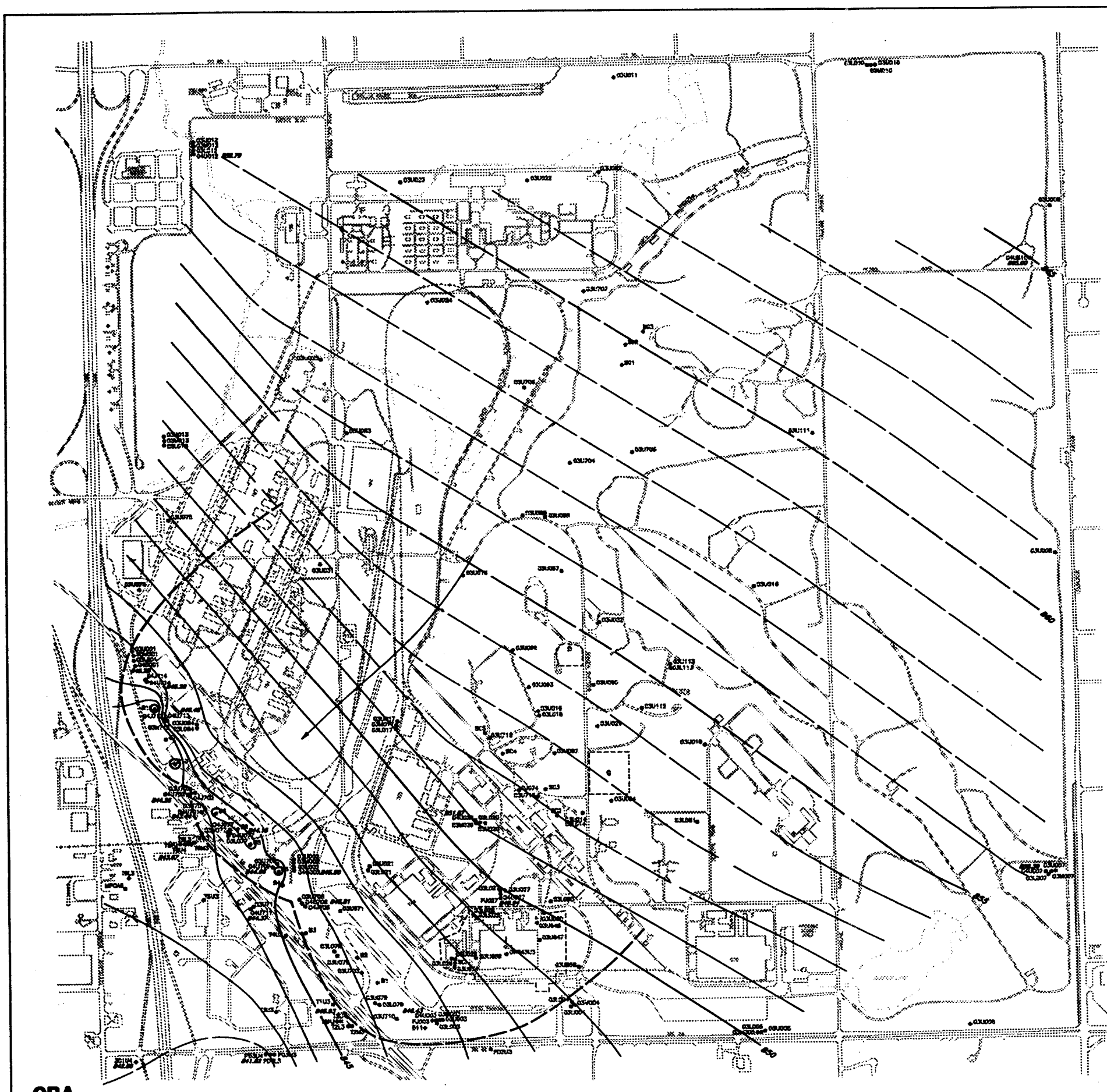
1000 0 1000 2000 3000  
 SCALE IN FEET

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, Groundwater Elevations,  
 Lower Unit 3, Spring 1993 (Q38)

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CRA



**LEGEND**

- 857.54 GROUNDWATER ELEVATION IN FEET AMSL (9-10-93)
- GROUNDWATER CONTOUR
- ← DIRECTION OF GROUNDWATER FLOW
- - - LIMIT OF CAPTURE

figure V-8  
 ON-POST, GROUNDWATER ELEVATIONS,  
 UPPER UNIT 4, FALL 1993 (Q40)  
 Twin Cities Army Ammunition Plant

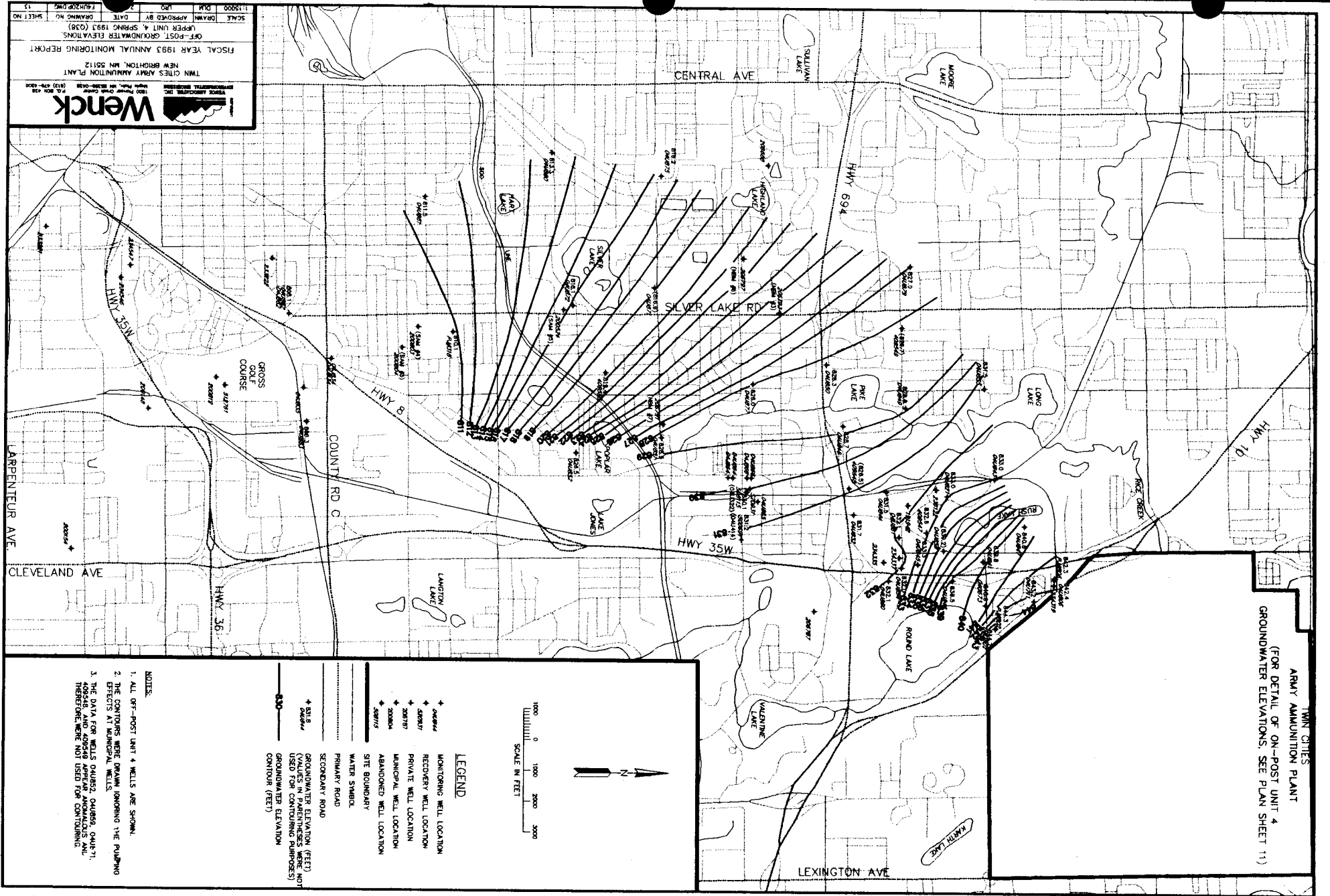


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TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112

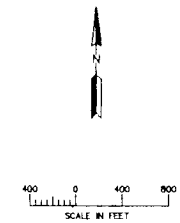
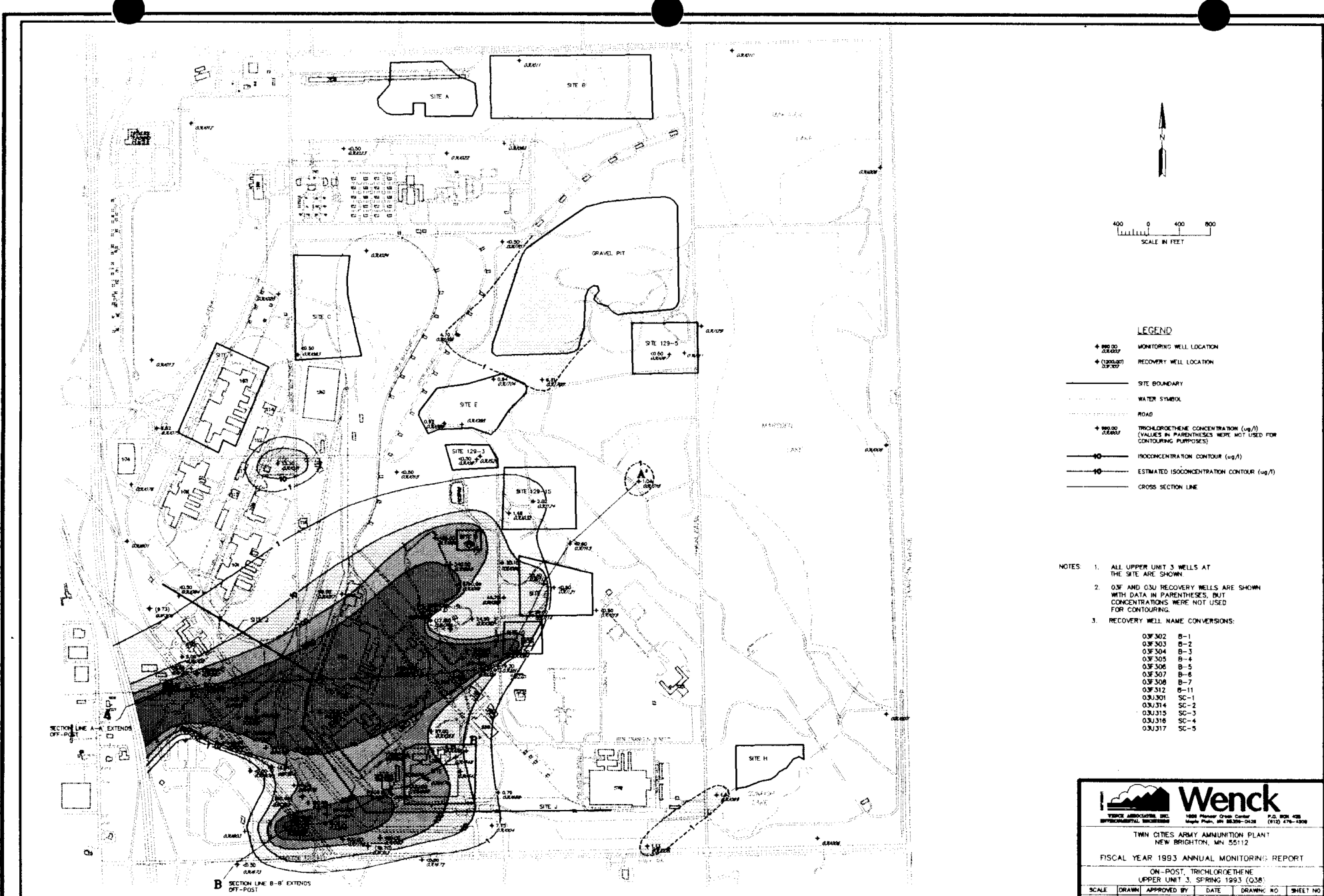
FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 OFF-POST GROUNDWATER ELEVATIONS  
 UPPER UNIT 4, SPRING 1993 (Q38)

SCALE DRAWING APPROVED BY DATE  
 SHEET NO. 13



**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, Groundwater Elevations,  
 Upper Unit 4, Spring 1993 (Q38)

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- LEGEND**
- ◆ MONITORING WELL LOCATION
  - ◆ RECOVERY WELL LOCATION
  - SITE BOUNDARY
  - WATER SYMBOL
  - ROAD
  - ◆ TRICHLOROETHENE CONCENTRATION (ug/l)  
(VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)
  - 100 CONCENTRATION CONTOUR (ug/l)
  - 40 ESTIMATED 100CONCENTRATION CONTOUR (ug/l)
  - CROSS SECTION LINE

- NOTES**
1. ALL UPPER UNIT 3 WELLS AT THE SITE ARE SHOWN.
  2. 03F AND 03U RECOVERY WELLS ARE SHOWN WITH DATA IN PARENTHESES, BUT CONCENTRATIONS WERE NOT USED FOR CONTOURING.
  3. RECOVERY WELL NAME CONVERSIONS:
 

03F302	B-1
03F303	B-2
03F304	B-3
03F305	B-4
03F306	B-5
03F307	B-6
03F308	B-7
03F312	B-11
03U301	SC-1
03U314	SC-2
03U315	SC-3
03U316	SC-4
03U317	SC-5

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 NEW BRIGHTON, MN 55112

FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 ON-POST, TRICHLOROETHENE  
 UPPER UNIT 3, SPRING 1993 (Q38)

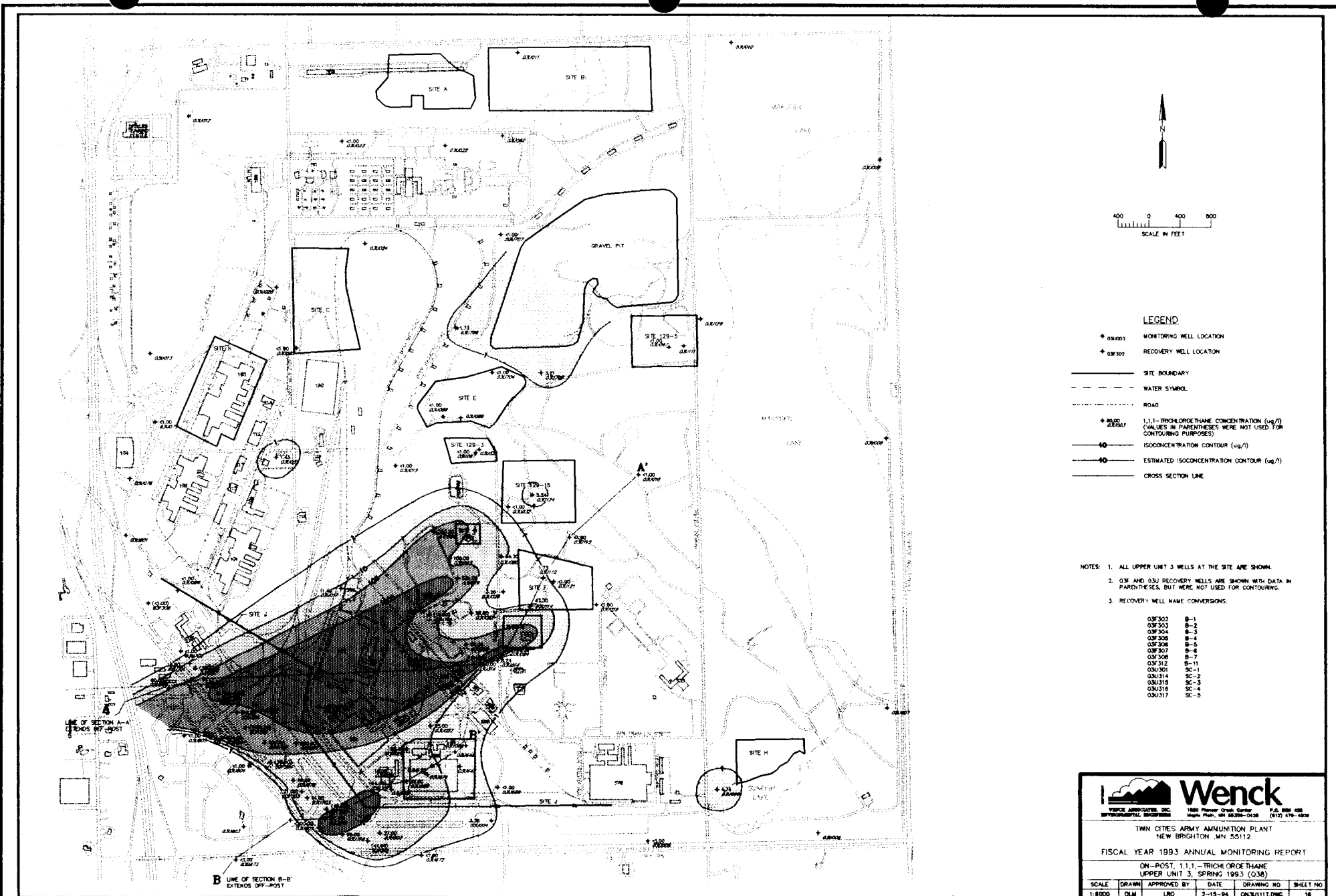
SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:8000	DM	LD	2-19-94	ON/UT/EL/038	14

**TWIN CITIES ARMY AMMUNITION PLANT**  
 On Post, Trichloroethene,  
 Upper Unit 3, Spring 1993 (Q38)

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**FEB. 1994**  
 Figure VI-1






**LEGEND**

- ◆ OSU003 MONITORING WELL LOCATION
- ◆ OSF302 RECOVERY WELL LOCATION
- SITE BOUNDARY
- - - WATER SYMBOL
- - - ROAD
- + OSU003 1,1,1-TRICHLOROETHANE CONCENTRATION (ug/l)  
(VALUES IN PARENTHESES WERE NOT USED FOR  
CONTOURING PURPOSES)
- 40 ISOCOCONCENTRATION CONTOUR (ug/l)
- 40 ESTIMATED ISOCOCONCENTRATION CONTOUR (ug/l)
- CROSS SECTION LINE

- NOTES: 1. ALL UPPER UNIT 3 WELLS AT THE SITE ARE SHOWN.  
 2. OSF AND OSU RECOVERY WELLS ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.  
 3. RECOVERY WELL NAME CONVERSIONS:

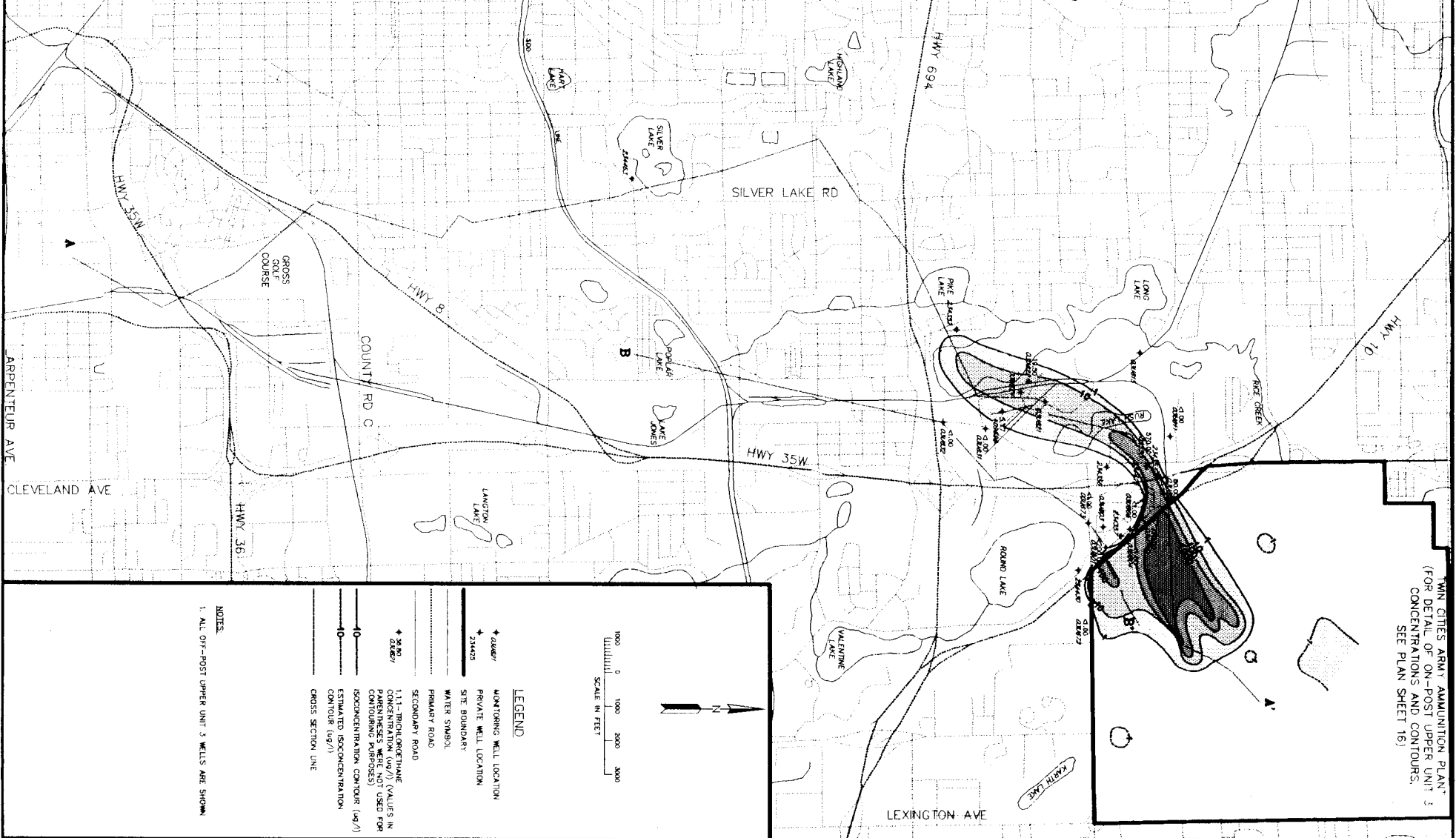
OSF302	B-1
OSF303	B-2
OSF304	B-3
OSF306	B-4
OSF308	B-5
OSF307	B-6
OSF308	B-7
OSF312	B-11
OSU301	SC-1
OSU314	SC-2
OSU318	SC-3
OSU316	SC-4
OSU317	SC-5

 <b>Wenck</b> <small>WENCK ASSOCIATES, INC. 1800 Pioneer Creek Center Maple Plain, MN 55359-0428 P.O. BOX 428 (612) 476-4200</small>					
<b>TWIN CITIES ARMY AMMUNITION PLANT</b> NEW BRIGHTON, MN 55112					
FISCAL YEAR 1993 ANNUAL MONITORING REPORT					
ON-POST, 1,1,1-TRICHLOROETHANE UPPER UNIT 3, SPRING 1993 (Q38)					
SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:8000	DJM	LRG	2-13-94	ONSU111.DWG	16

**TWIN CITIES ARMY AMMUNITION PLANT**  
 On Post, 1,1,1-Trichloroethane,  
 Upper Unit 3, Spring 1993 (Q38)

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SCALE: 1:10000  
 DRAWING NO. 17  
 SHEET NO. 17  
 DATE: 1/21/94  
 APPROVED BY: [Signature]  
 DRAWN BY: [Signature]  
 OFF-POST 1,1,1-TRICHLOROETHANE  
 UPPER UNIT 3, SPRING 1993 (Q38)  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112  
**Wenck**  
 1800 Pioneer Creek Ctr.  
 Maple Plain, MN 55359  
 (612) 876-4328  
 FAX (612) 876-4328



TWIN CITIES ARMY AMMUNITION PLANT  
 (FOR DETAIL OF ON-POST UPPER UNIT 3  
 CONCENTRATIONS AND CONTOURS,  
 SEE PLAN SHEET 16)

**LEGEND**

- ▲ 24867/ 21423 MONITORING WELL LOCATION
- ▲ 21423 PRIVATE WELL LOCATION
- SITE BOUNDARY
- WATER SYMBOL
- PRIMARY ROAD
- SECONDARY ROAD
- 1,1,1-TRICHLOROETHANE CONCENTRATION (U/L) VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES
- ESTIMATED ISOCONCENTRATION CONTOUR (U/L)
- CROSS SECTION LINE

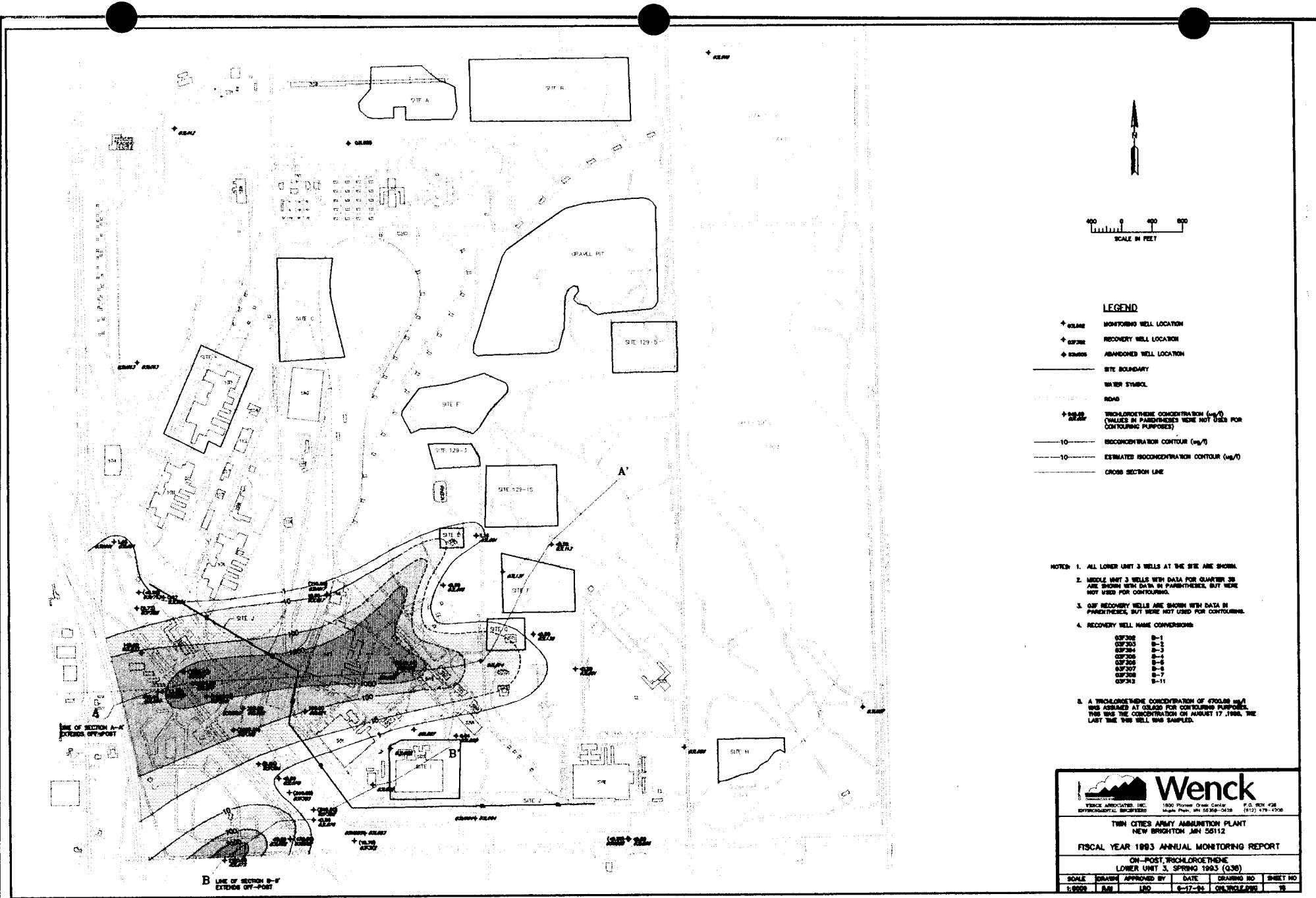
1000 0 1000 2000 3000  
 SCALE IN FEET

NOTES  
 1. ALL OFF-POST UPPER UNIT 3 WELLS ARE SHOWN

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, 1,1,1-Trichlorethane,  
 Upper Unit 3, Spring 1993 (Q38)

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 Figure VI-4



**LEGEND**

- + OBLM MONITORING WELL LOCATION
- + OPRM RECOVERY WELL LOCATION
- + OABM ABANDONED WELL LOCATION
- SITE BOUNDARY
- WATER SYMBOL
- ROAD
- + 1000 µg/l TRICHLOROETHENE CONCENTRATION (µg/l) (VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)
- 10— ISOCONCENTRATION CONTOUR (µg/l)
- 10— ESTIMATED ISOCONCENTRATION CONTOUR (µg/l)
- CROSS SECTION LINE

- NOTES:
1. ALL LOWER UNIT 3 WELLS AT THE SITE ARE SHOWN.
  2. MIDDLE UNIT 3 WELLS WITH DATA FOR QUARTER 38 ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  3. OPR RECOVERY WELLS ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  4. RECOVERY WELL NAME CONVERSIONS:
 

OP306	B-1
OP303	B-2
OP304	B-3
OP308	B-4
OP309	B-5
OP307	B-6
OP305	B-7
OP312	B-11
  5. A TRICHLOROETHENE CONCENTRATION OF 470000 µg/l WAS ASSUMED AT OBL04 FOR CONTOURING PURPOSES. THIS WAS THE CONCENTRATION ON AUGUST 17, 1988, THE LAST TIME THIS WELL WAS SAMPLED.

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**TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON JMN 55112**

**FISCAL YEAR 1993 ANNUAL MONITORING REPORT**

**ON-POST TRICHLOROETHENE  
 LOWER UNIT 3, SPRING 1993 (Q38)**

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:5000	BM	LD	6-17-93	ON-POST-Q38	19

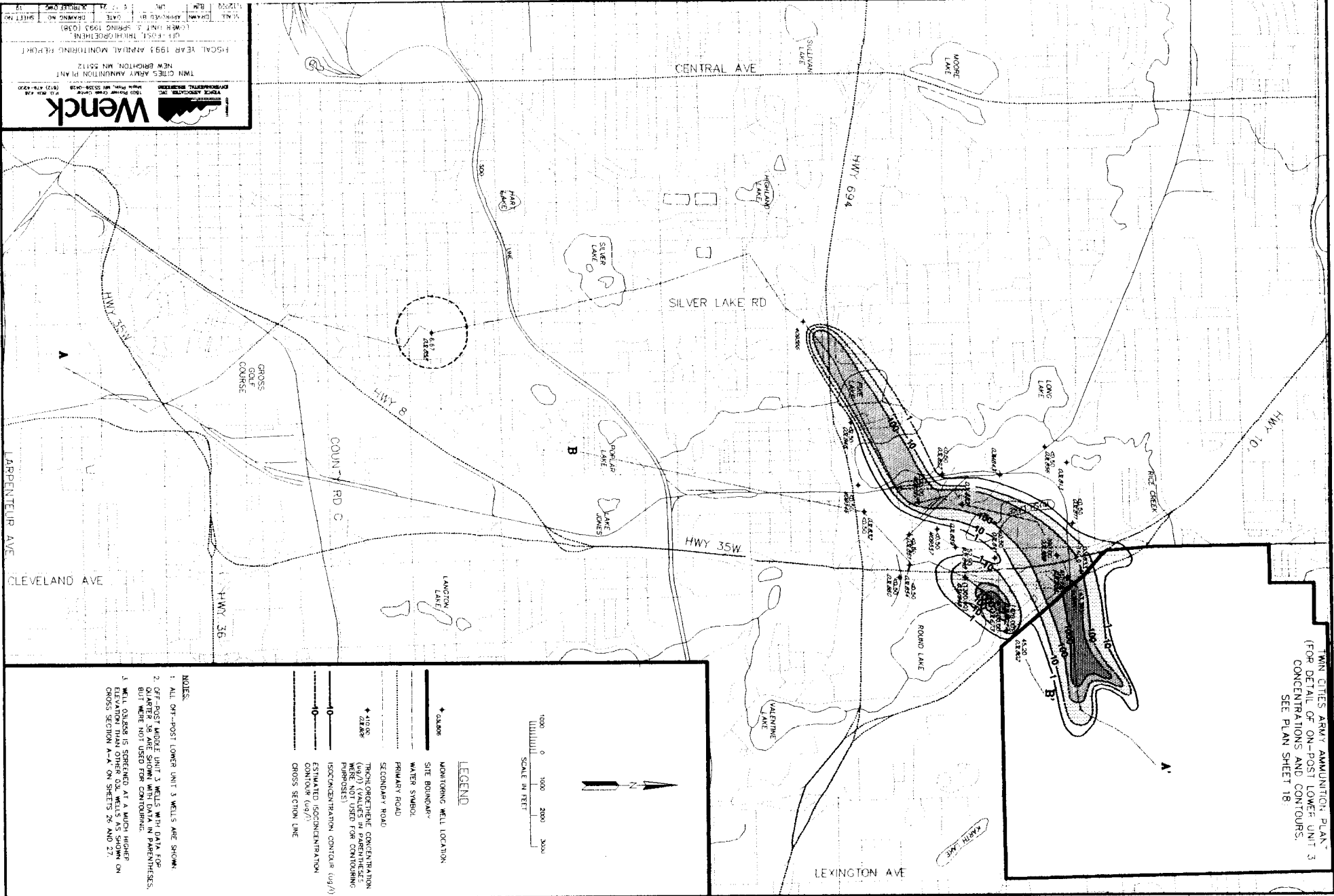
**TWIN CITIES ARMY AMMUNITION PLANT**  
 On Post, Trichloroethene,  
 Lower Unit 3, Spring 1993 (Q38)

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JUNE 1994  
 Figure VI-5

TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 LOWER UNIT 3, SPRING 1993 (Q38)  
 DRAWING NO. 18  
 SHEET NO. 18



TWIN CITIES ARMY AMMUNITION PLANT  
 FOR DETAIL OF ON-POST LOWER UNIT 3  
 CONCENTRATIONS AND CONTOURS,  
 SEE PLAN SHEET 18

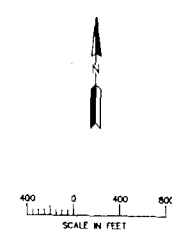
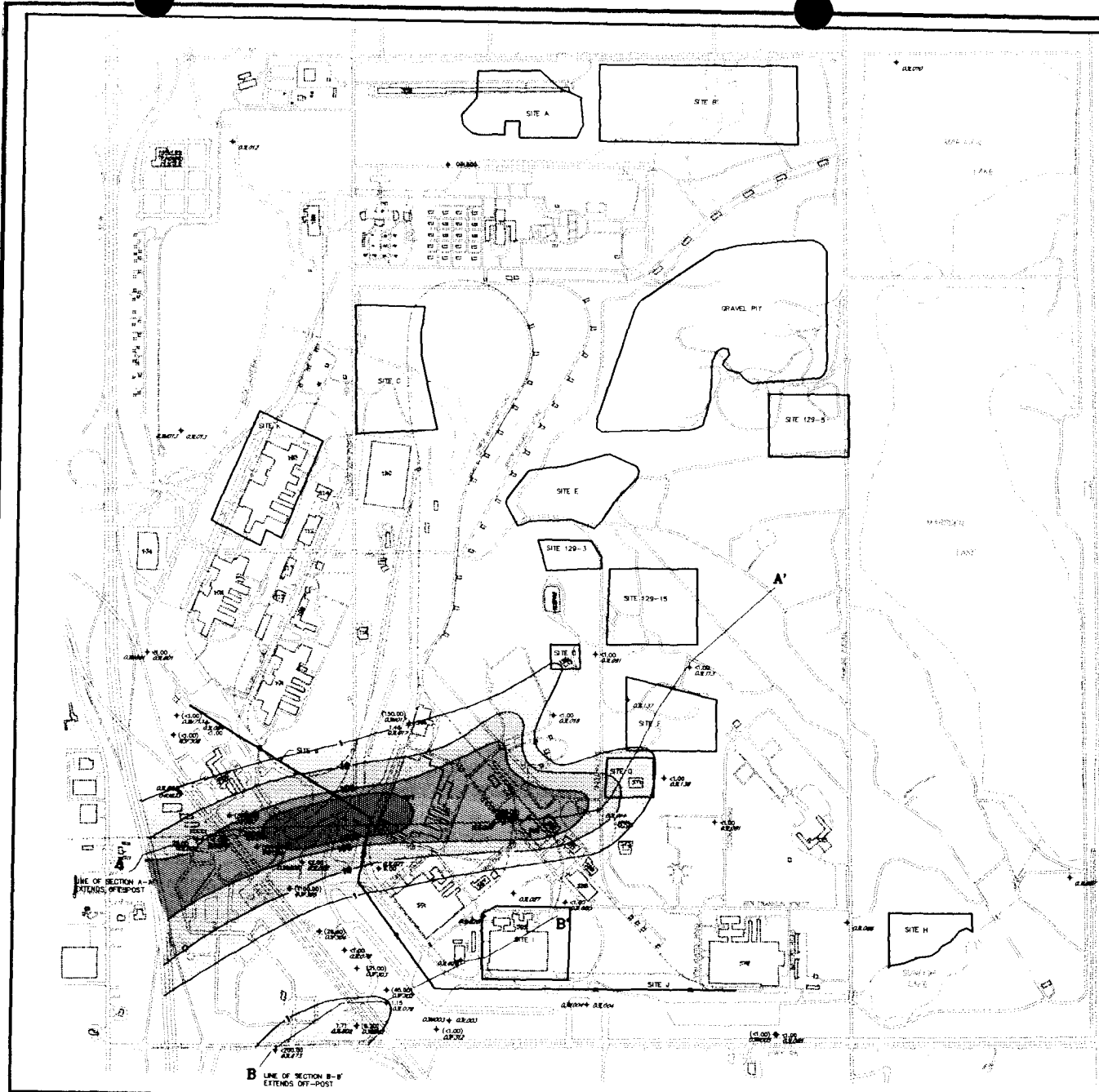
**NOTES:**  
 1. ALL OFF-POST LOWER UNIT 3 WELLS ARE SHOWN.  
 2. OFF-POST LOWER UNIT 3 WELLS WITH DATA FOR TRICHLOROETHENE CONCENTRATIONS AND CONTOURS, BUT WERE NOT USED FOR CONTOURING PURPOSES.  
 3. WELL DATA IS SORTED AT A MUCH HIGHER CROSS SECTION A-A' ON SHEETS 26 AND 27.

**LEGEND**  
 + MONITORING WELL LOCATION  
 --- SITE BOUNDARY  
 --- WATER SWAMP  
 --- PRIMARY ROAD  
 --- SECONDARY ROAD  
 --- THICK ORGANEIC CONCENTRATION (ug/l) VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES  
 --- ESTIMATED ISOCENTRATION CONTOUR (ug/l)  
 --- ISOCENTRATION CONTOUR (ug/l)  
 --- GROSS SECTION LINE

SCALE IN FEET  
 0 1000 2000 3000

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, Trichlorethene,  
 Lower Unit 3, Spring 1993 (Q38)

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**LEGEND**

- ◆ 02002 MONITORING WELL LOCATION
- ◆ 03302 RECOVERY WELL LOCATION
- ◆ 03005 ABANDONED WELL LOCATION
- SITE BOUNDARY
- WATER SYMBOL
- ROAD
- ◆ 14002  
◆ 22002 1,1,1-TRICHLOROETHANE CONCENTRATION (ug/l)  
(VALUES IN PARENTHESES WERE NOT USED FOR  
CONTOURING PURPOSES)
- 10 ISOCONCENTRATION CONTOUR (ug/l)
- 10 ESTIMATED ISOCONCENTRATION CONTOUR (ug/l)
- CROSS SECTION LINE

- NOTES:
1. ALL LOWER UNIT 3 WELLS AT THE SITE ARE SHOWN.
  2. MIDDLE UNIT 3 WELLS WITH DATA FOR QUARTER 30 ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  3. 03F RECOVERY WELLS ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  4. RECOVERY WELL NAME CONVERSIONS:
- |        |      |
|--------|------|
| 03F302 | B-1  |
| 03F303 | B-2  |
| 03F304 | B-3  |
| 03F305 | B-4  |
| 03F306 | B-5  |
| 03F307 | B-6  |
| 03F308 | B-7  |
| 03F302 | B-11 |

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TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112

FISCAL YEAR 1993 ANNUAL MONITORING REPORT

ON-POST, 1,1,1-TRICHLOROETHANE  
 LOWER UNIT 3, SPRING 1993 (Q38)

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:8000	DLM	LRO	2-15-94	0261117L-DWG	20

**TWIN CITIES ARMY AMMUNITION PLANT**  
 On Post, 1,1,1-Trichloroethane,  
 Lower Unit 3, Spring 1993 (Q38)

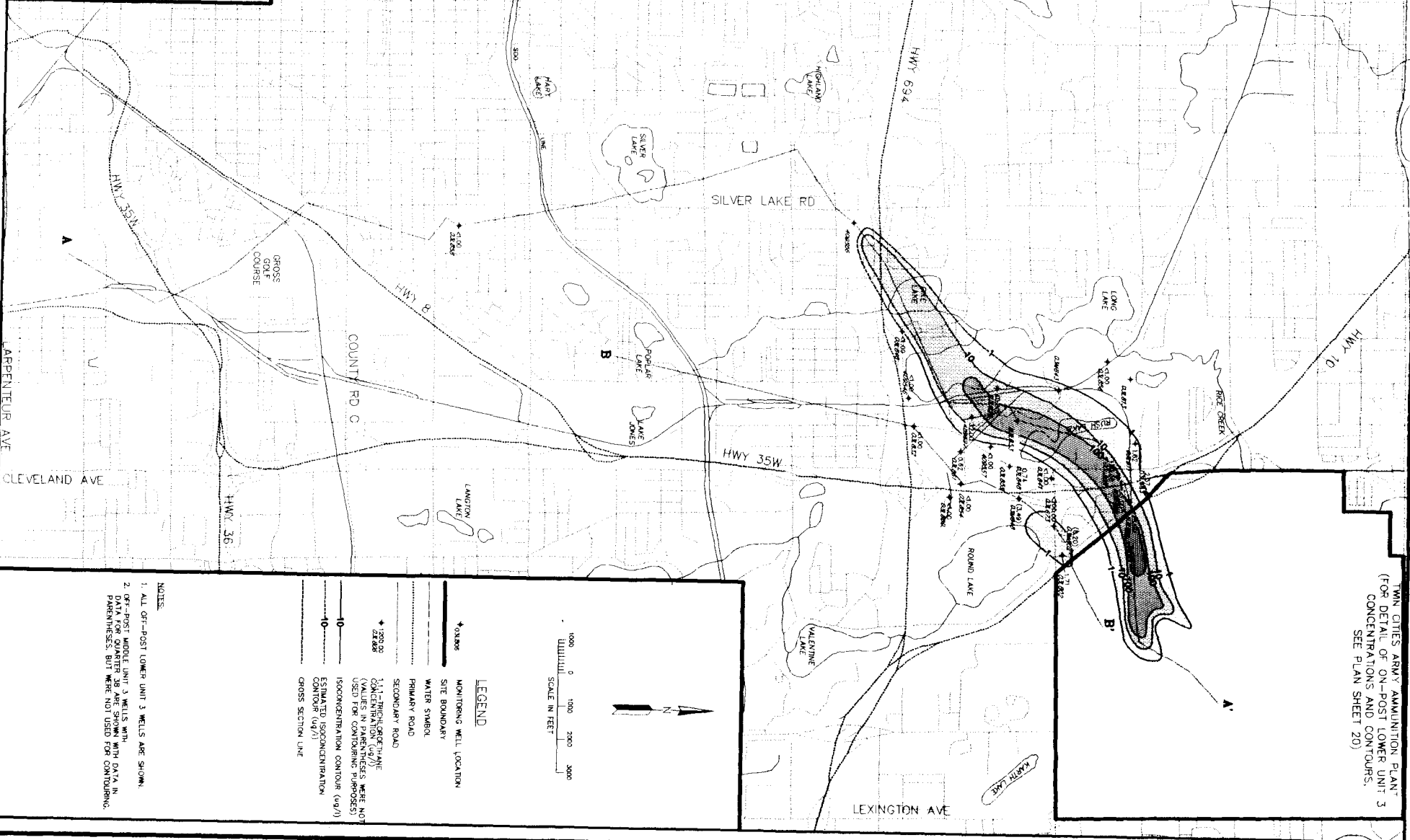
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**FEB 1994**  
**Figure VI-7**



SHEET NO. 20  
 DRAWING NO. 100-100-100-100  
 DATE 7/19/94  
 PROJECT 111-1 TRICHLOROETHANE  
 LOWER UNIT 3, SPRING 1993 (Q38)  
 OFF-POST 111-1 TRICHLOROETHANE  
 TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55117  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
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TWIN CITIES ARMY AMMUNITION PLANT  
 (FOR DETAIL OF ON-POST LOWER UNIT 3  
 CONCENTRATIONS AND CONTOURS,  
 SEE PLAN SHEET 20)

- NOTES:
1. ALL OFF-POST LOWER UNIT 3 WELLS ARE SHOWN.
  2. OFF-POST MIDDLE UNIT 3 WELLS WITH DATA FOR QUARTER 38 ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.

**LEGEND**  
 MONITORING WELL LOCATION  
 SITE BOUNDARY  
 WATER SYMBOL  
 PRIMARY ROAD  
 SECONDARY ROAD  
 1,1,1-TRICHLOROETHANE CONCENTRATION (ug/l)  
 (VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)  
 ISOCHLORINE CONTOUR (ug/l)  
 ESTIMATED ISOCHLORINE CONTOUR (ug/l)  
 GROSS SECTION LINE

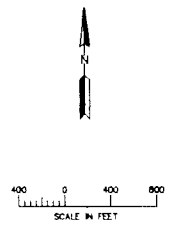
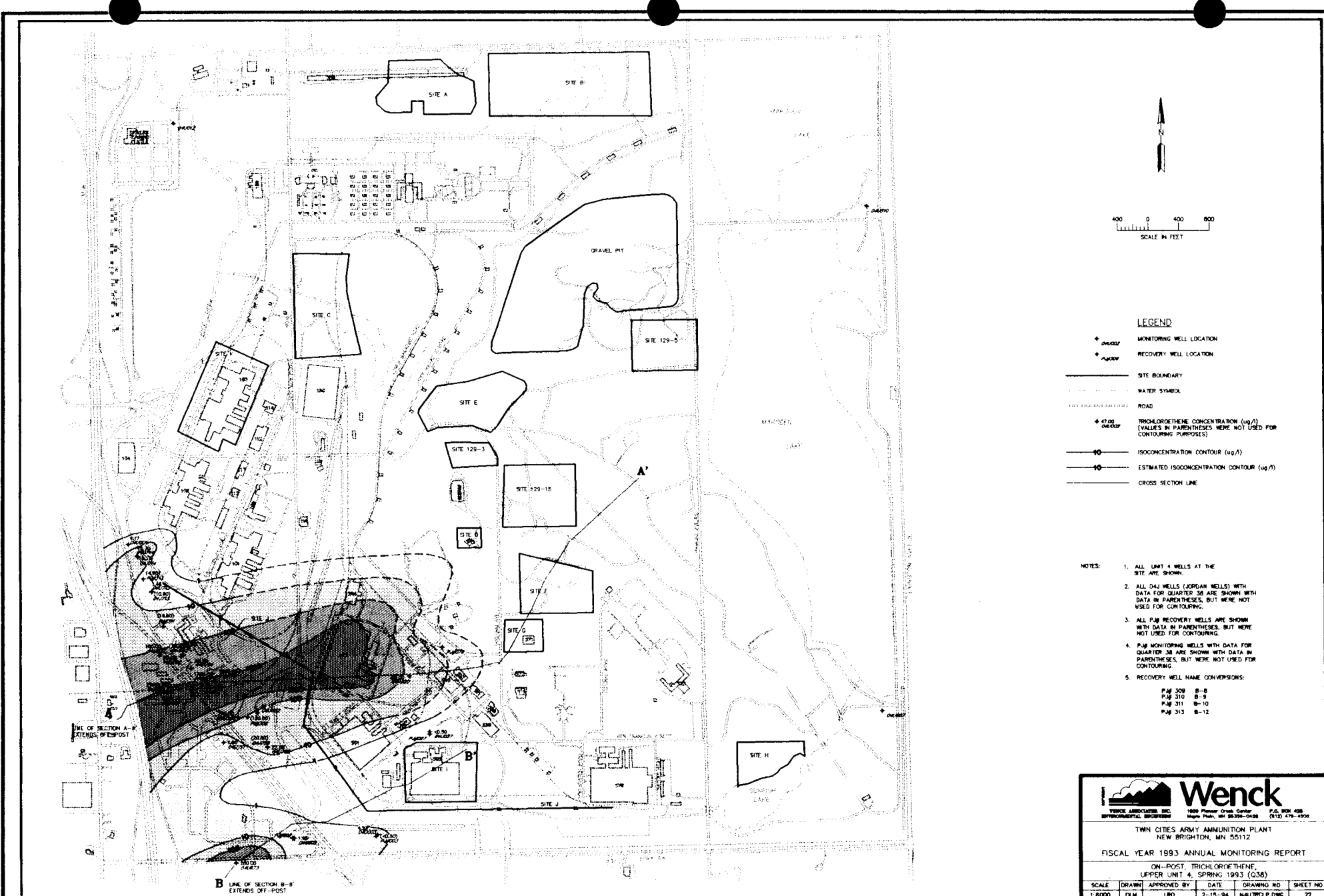
0.05  
 0.10  
 0.25  
 0.50  
 1.00

0000 0 1000 2000 3000  
 GRAPHICAL SCALE IN FEET

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, 1,1,1-Trichlorethane,  
 Lower Unit 3, Spring 1993 (Q38)

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 Figure VI-8



- LEGEND**
- + MONITORING WELL LOCATION
  - + RECOVERY WELL LOCATION
  - SITE BOUNDARY
  - WATER SYMBOL
  - ROAD
  - +47.00 TRICHLOROETHENE CONCENTRATION (ug/l)  
(VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)
  - 40 ISOCONCENTRATION CONTOUR (ug/l)
  - 10 ESTIMATED ISOCONCENTRATION CONTOUR (ug/l)
  - CROSS SECTION LINE

- NOTES:**
1. ALL LIFT 4 WELLS AT THE SITE ARE SHOWN.
  2. ALL D4J WELLS (JORDAN WELLS) WITH DATA FOR QUARTER 38 ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  3. ALL P48 RECOVERY WELLS ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  4. P48 MONITORING WELLS WITH DATA FOR QUARTER 38 ARE SHOWN WITH DATA IN PARENTHESES, BUT WERE NOT USED FOR CONTOURING.
  5. RECOVERY WELL NAME CONVERSIONS:  
 P48 308 B-8  
 P48 310 B-9  
 P48 311 B-10  
 P48 313 B-12

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**TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112**

**FISCAL YEAR 1993 ANNUAL MONITORING REPORT**

**ON-POST, TRICHLOROETHENE  
 UPPER UNIT 4, SPRING 1993 (Q38)**

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:8000	PLM	LRO	2-15-94	HA/WH/PL/PLM	22

**TWIN CITIES ARMY AMMUNITION PANT**  
 On Post, Trichloroethene,  
 Upper Unit 4, Spring 1993 (Q38)

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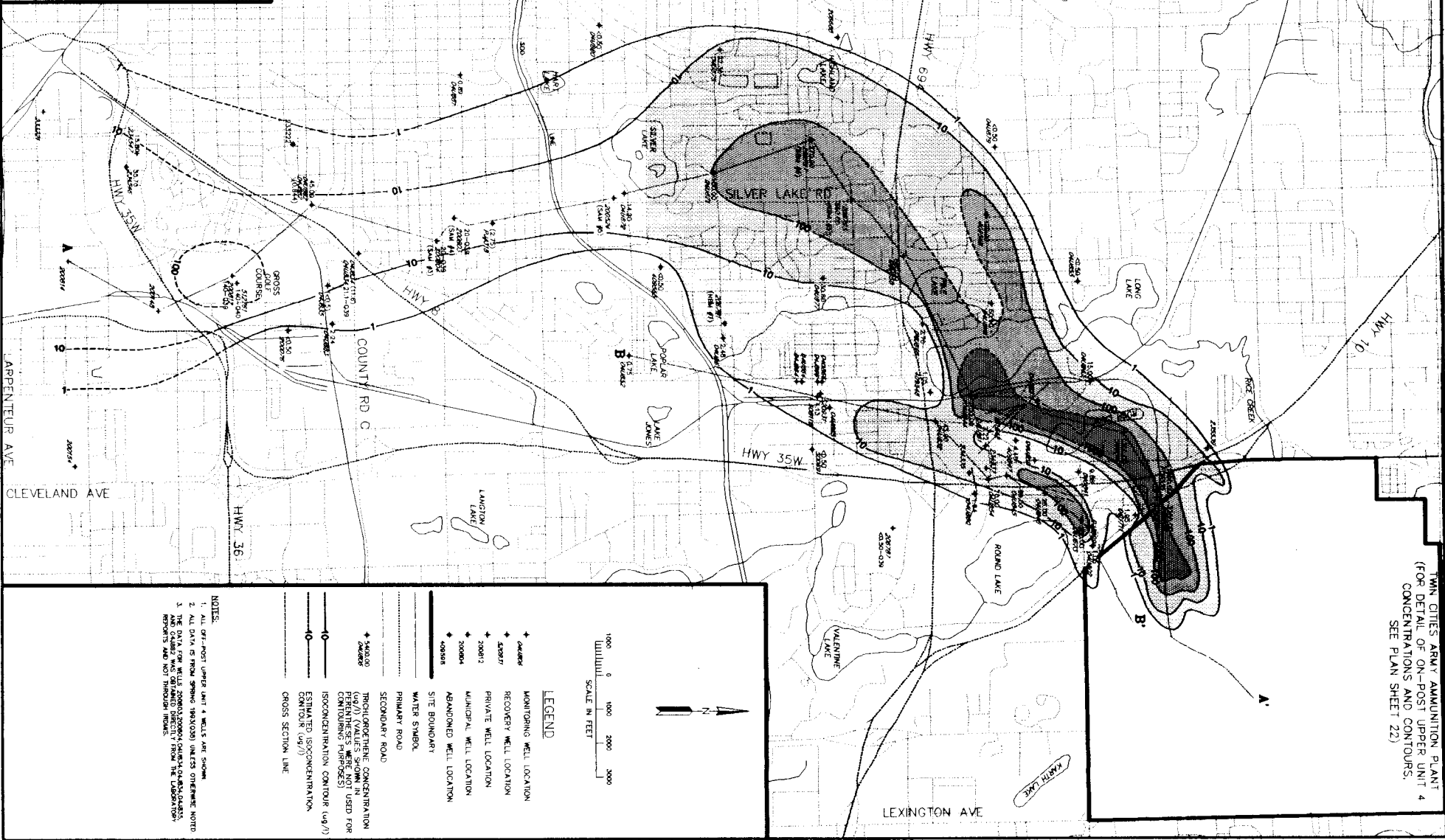
**FEB. 1994**  
 Figure VI-9

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 Maple Plain, MN 55359 (952) 839-4284  
 FAX (952) 839-4284

TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112

FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 OFF-POST TRICHLOROETHENE  
 UPPER UNIT 4, SPRING 1993 (Q38)

SCALE: DRAWING BY DATE DRAWING NO. SHEET NO.  
 1:5000 OMR LMO 2/15 148787/000 21



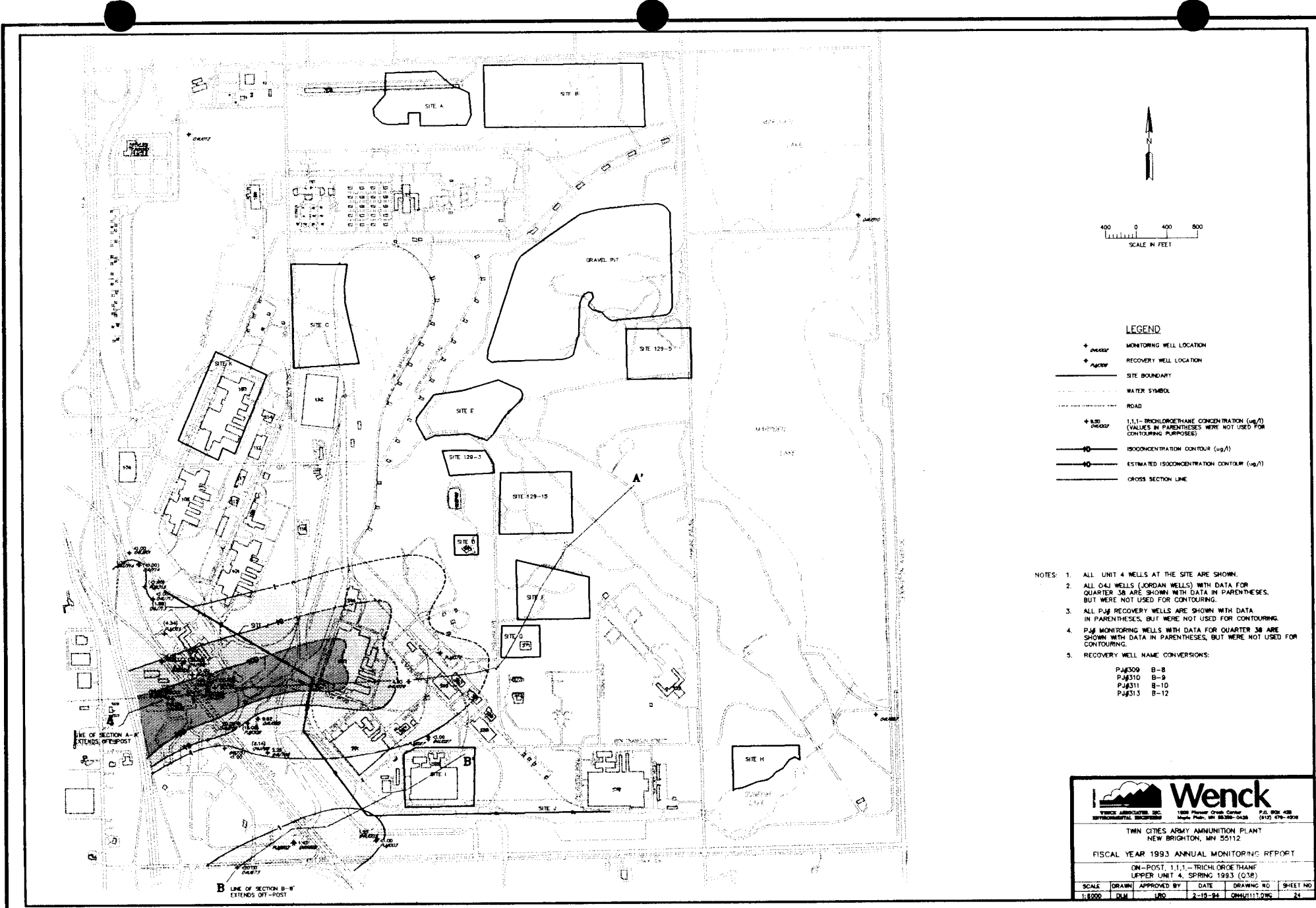
TWIN CITIES ARMY AMMUNITION PLANT  
 (FOR DETAIL OF ON-POST UPPER UNIT 4  
 CONCENTRATIONS AND CONTOURS,  
 SEE PLAN SHEET 22)

**NOTES:**  
 1. ALL OFF-POST UPPER UNIT 4 WELLS ARE SHOWN.  
 2. ALL DATA IS FROM SPRING 1993(Q38) UNLESS OTHERWISE NOTED.  
 3. THE DATA FOR WELLS 200004, 200005, 200006, 200007, 200008, 200009, 200010, 200011, 200012, 200013, 200014, 200015, 200016, 200017, 200018, 200019, 200020, 200021, 200022, 200023, 200024, 200025, 200026, 200027, 200028, 200029, 200030, 200031, 200032, 200033, 200034, 200035, 200036, 200037, 200038, 200039, 200040, 200041, 200042, 200043, 200044, 200045, 200046, 200047, 200048, 200049, 200050, 200051, 200052, 200053, 200054, 200055, 200056, 200057, 200058, 200059, 200060, 200061, 200062, 200063, 200064, 200065, 200066, 200067, 200068, 200069, 200070, 200071, 200072, 200073, 200074, 200075, 200076, 200077, 200078, 200079, 200080, 200081, 200082, 200083, 200084, 200085, 200086, 200087, 200088, 200089, 200090, 200091, 200092, 200093, 200094, 200095, 200096, 200097, 200098, 200099, 200100, 200101, 200102, 200103, 200104, 200105, 200106, 200107, 200108, 200109, 200110, 200111, 200112, 200113, 200114, 200115, 200116, 200117, 200118, 200119, 200120, 200121, 200122, 200123, 200124, 200125, 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201000.

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, Trichloroethene,  
 Upper Unit 4, Spring 1993 (Q38)


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FEB. 1994  
 Figure VI-10



**TWIN CITIES ARMY AMMUNITION PLANT**  
 On Post, 1,1,1-Trichloroethane,  
 Upper Unit 4, Spring 1993 (Q38)

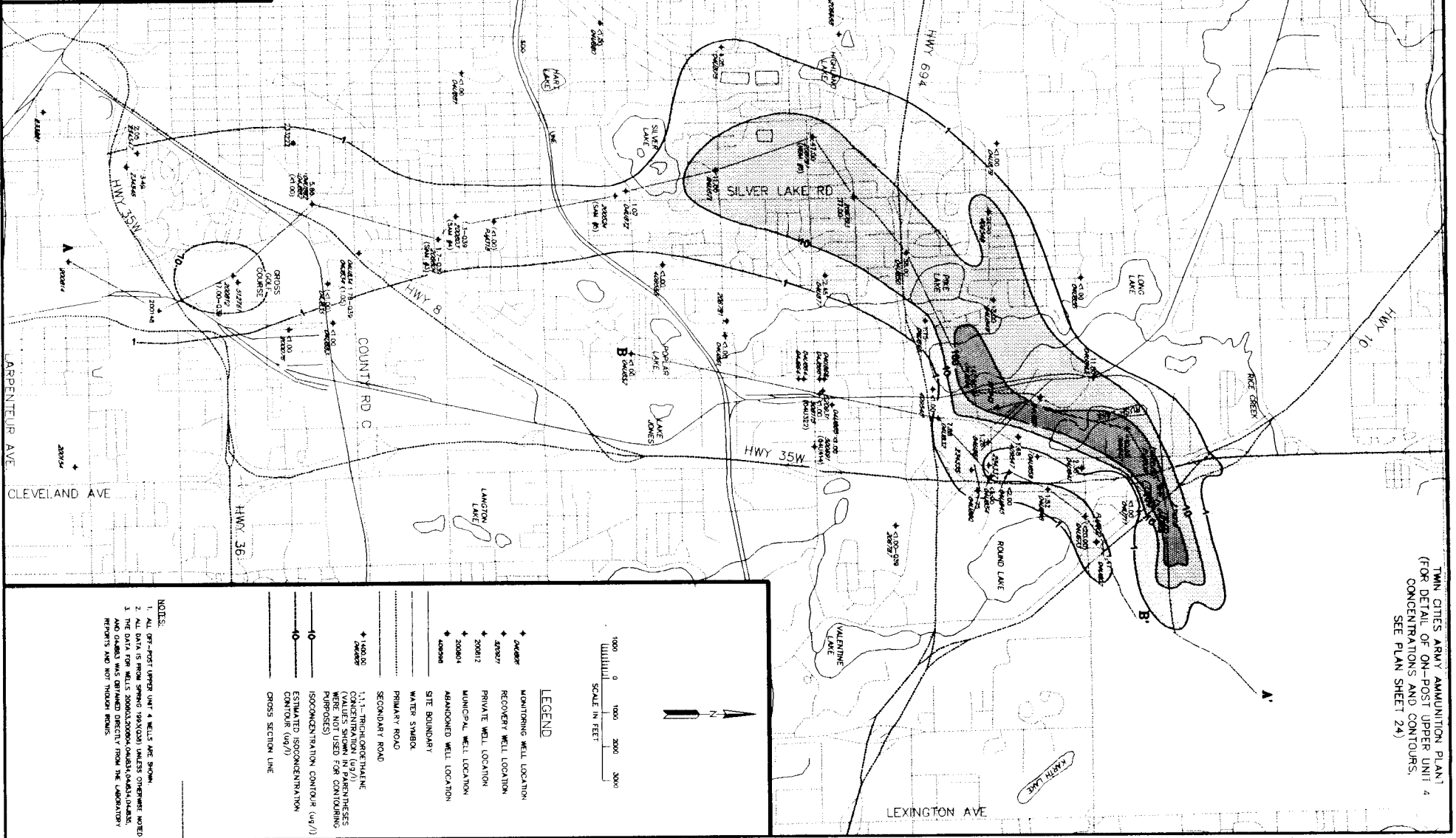


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 Wenck Associates, Inc. 1800 Pioneer Creek Ctr.  
 Environmental Engineers Maple Plain, MN 55359

**FEB 1994**

Figure VI-11

1:5000 PLAN NO. 1-11-1-TRICHLOROETHANE  
 SCALE DRAWING APPROVED BY DATE DRAWING NO. SHEET NO.  
 OFF-POST 1,1,1-TRICHLOROETHANE  
 UPPER UNIT 4, SPRING 1993 (Q38)  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 TEIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112  
**Wenck**  
 WENCK ASSOCIATES, INC.  
 ENVIRONMENTAL ENGINEERS  
 1800 PIONEER CREEK CENTER  
 MAPLE PLAIN, MN 55359 (612) 479-4200



TEIN CITIES ARMY AMMUNITION PLANT  
 (FOR DETAIL OF ON-POST UPPER UNIT 4  
 CONCENTRATIONS AND CONTOURS,  
 SEE PLAN SHEET 24)

**NOTES:**  
 1. ALL OFF-POST UPPER UNIT 4 WELLS ARE SHOWN.  
 2. ALL DATA IS FROM SPRING 1993(Q38). VALUES OTHER THAN NOTED  
 3. THE DATA FOR WELLS 200003,200004,200005,200006,200007,200008,200009,  
 AND 200010 WAS OBTAINED DIRECTLY FROM THE LABORATORY  
 REPORTS AND NOT THROUGH MONITORING.

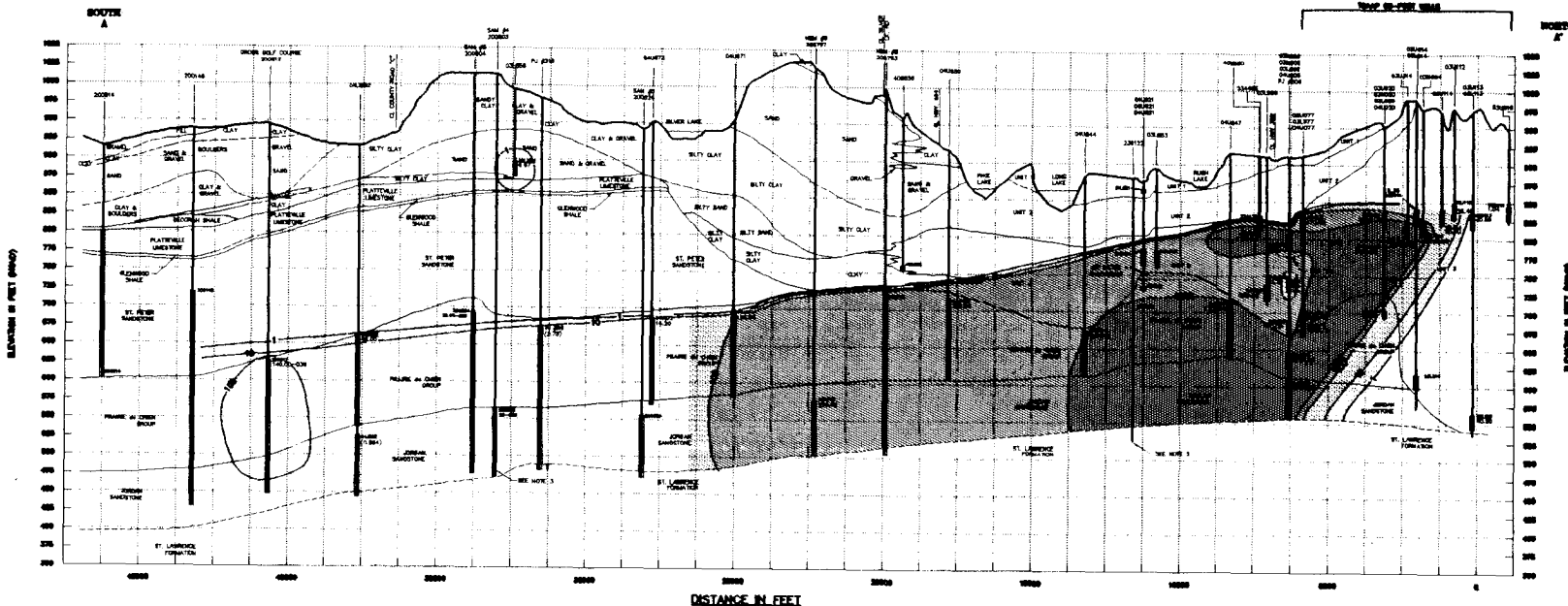
**LEGEND**  
 \* 200007 MONITORING WELL LOCATION  
 \* 200017 RECOVERY WELL LOCATION  
 \* 200012 PRIVATE WELL LOCATION  
 \* 200004 MUNICIPAL WELL LOCATION  
 \* 200001 ABANDONED WELL LOCATION  
 \* 200006 SITE BOUNDARY  
 WATER SYMBOL  
 PRIMARY ROAD  
 SECONDARY ROAD  
 \* 100000 1,1,1-TRICHLOROETHANE CONCENTRATION (ug/l) (VALUES SHOWN IN PARENTHESES REFER TO MONITORING PERSONS) ESTIMATED ISOCONCENTRATION CONTOUR (ug/l)  
 CROSS SECTION LINE

1000 0 1000 2000 3000  
 SCALE IN FEET

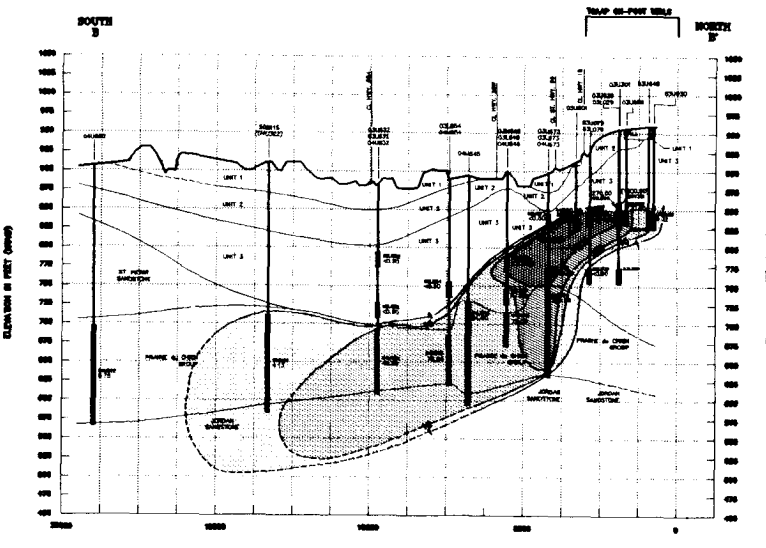
**TEIN CITIES ARMY AMMUNITION PLANT**  
 Off-Post, 1,1,1-Trichloroethane,  
 Upper Unit 4, Spring 1993 (Q38)

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 Figure VI-12



CROSS SECTION A-A'



CROSS SECTION B-B'

- NOTES**
- (1) CROSS SECTION TOPOGRAPHY CONSTRUCTED WITH DATA FROM U.S.G.S. NEW BRIGHTON 7.5 MINUTE SERIES QUAD NW41 DATED 1987 (PHOTOCOPIED 1972 AND 1980). WELL LOCATIONS AND THE "LINE" OF SECTION ARE SHOWN ON SHEET NO. 4.
  - (2) WELL NESTS, CONSISTING OF INDIVIDUAL WELLS IN THE SAME PROXIMITY, ARE REPRESENTED ON THE CROSS SECTION BY A SINGLE LINE WITH MULTIPLE WELL SCREENS.
  - (3) FOR SECTION A-A' NO INFORMATION WAS PROVIDED ON THE WELL LOG FOR 200R03 (SAM #4) CONCERNING WELL CONSTRUCTION DETAILS, ESPECIALLY THE OPEN HOLE INTERVAL. AS THIS IS REFERRED TO AS A JORDAN WELL, THE OPEN HOLE WAS ASSUMED TO EXTEND FROM THE TOP OF THE JORDAN TO THE BOTTOM OF THE BOREHOLE.
  - (4) FOR SECTION B-B' NO INFORMATION WAS AVAILABLE ON THE WELL LOG FOR 03U029 AND 03U073 CONCERNING WELL CONSTRUCTION DETAILS, ESPECIALLY THE SCREENED INTERVALS. THE SCREENED INTERVALS FOR THESE WELLS WERE ASSUMED TO BE SIMILAR TO OTHER NEARBY UPPER UNIT 3 WELLS.
  - (5) WELL 230I22 HAS BEEN ABANDONED, BUT IS SHOWN SINCE IT WAS USED TO PREPARE THE CROSS SECTION.
  - (6) ALL DATA IS FROM SPRING 1993 (Q38) UNLESS OTHERWISE NOTED.
  - (7) THE DATA FOR WELL 04BB2 (CROSS SECTION A-A') WAS OBTAINED DIRECTLY FROM THE LABORATORY REPORTS AND NOT THROUGH IRGAMS.

- LEGEND**
- GEOLGIC CONTACT
  - - - INFERRED GEOLGIC CONTACT
  - ⊕ SCREENED INTERVAL OF WELL
  - OPEN HOLE INTERVAL OF WELL
  - ▬ TRICHLOROETHENE CONCENTRATION (ug/l) (VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)
  - ISOCENTRATION CONTOUR (ug/l)
  - ESTIMATED ISOCENTRATION CONTOUR (ug/l)

**SCALE**

VERTICAL:  
1 INCH = 30 FEET

HORIZONTAL:  
1 INCH = 1250 FEET

VE = 25X

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TWIN CITIES ARMY AMMUNITION PLANT  
NEW BRIGHTON, MN 55112

FISCAL YEAR 1993 ANNUAL MONITORING REPORT

TRICHLOROETHENE CROSS SECTION A-A' AND B-B' (Q38)

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
AS SHOWN	DLM	LDW	7-18-94	TC38TRCL-DWG	28

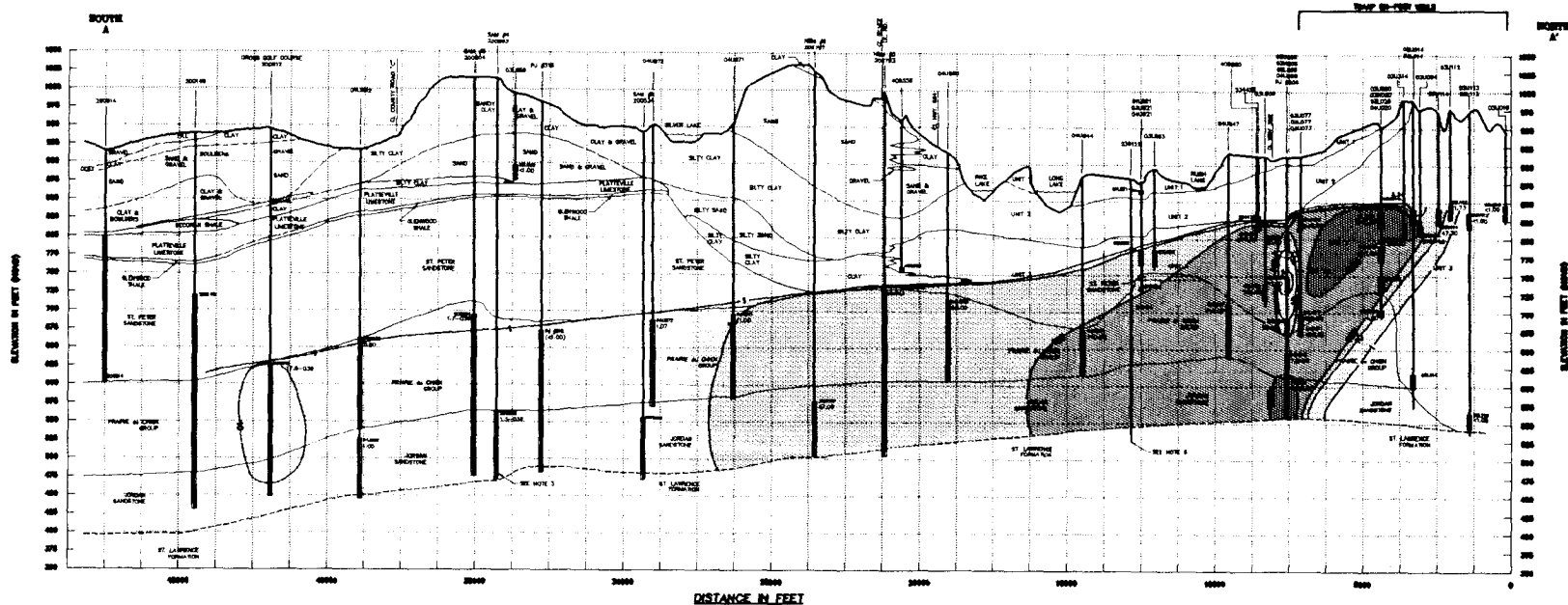
TWIN CITIES ARMY AMMUNITION PLANT

Trichloroethene Cross Sections A-A' and B-B' Spring 1993 (Q38)

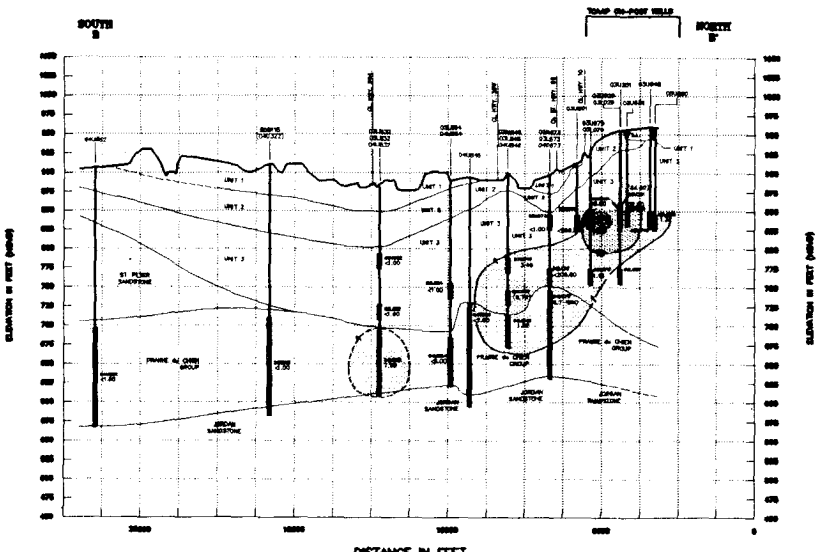
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Environmental Engineers Maple Plain, MN 55359

FEB. 1994

Figure VI-13



CROSS SECTION A-A'



CROSS SECTION B-B'

- NOTES**
- (1) CROSS SECTION TOPOGRAPHY CONSTRUCTED WITH DATA FROM U.S.G.S. NEW BRIGHTON 7.5 MINUTE SERIES QUAD MAP DATED 1967 (PHOTOREPROD 1972, AND 1980). WELL LOCATIONS AND THE "LINE" OF SECTION ARE SHOWN ON SHEET NO. 4
  - (2) WELL LOGS, CONSISTING OF INDIVIDUAL WELLS BY THE SAME PROMINITY, ARE REPRESENTED ON THE CROSS SECTION BY A SINGLE LINE WITH MULTIPLE WELL SCREENS
  - (3) FOR SECTION A-A' NO INFORMATION WAS PROVIDED ON THE WELL LOG FOR 030003 (SAM #4) CONCERNING WELL CONSTRUCTION DETAILS, ESPECIALLY THE OPEN HOLE INTERVAL, AS THIS IS REFERRED TO AS A JORDAN WELL THE OPEN HOLE WAS ASSUMED TO EXTEND FROM THE TOP OF THE JORDAN TO THE BOTTOM OF THE BOREHOLE.
  - (4) FOR SECTION B-B' NO INFORMATION WAS AVAILABLE ON THE WELL LOG FOR 030028 AND 030073 CONCERNING WELL CONSTRUCTION DETAILS, ESPECIALLY THE SCREENED INTERVALS. THE SCREENED INTERVALS FOR THESE WELLS WERE ASSUMED TO BE SIMILAR TO OTHER NEARBY UPPER UNIT 3 WELLS.
  - (5) WELL 238122 HAS BEEN ABANDONED, BUT IS SHOWN SINCE IT WAS USED TO PREPARE CROSS SECTION A-A'.
  - (6) ALL DATA IS FROM SPRING 1993 (Q38) UNLESS OTHERWISE NOTED.
  - (7) THE DATA FOR WELL 030182 (CROSS SECTION A-A') WAS OBTAINED DIRECTLY FROM THE LABORATORY REPORTS AND NOT THROUGH RIDGAS.
  - (8) WELLS 030101 AND 030173 WERE CONTOURED BASED ON THEIR HISTORICAL ANALYTICAL RESULTS.

- LEGEND**
- GEOLGIC CONTACT
  - - - INFERRED GEOLGIC CONTACT
  - ▬ SCREENED INTERVAL OF WELL
  - OPEN HOLE INTERVAL OF WELL
  - 1,1,1-TRICHLOROETHANE CONCENTRATION (ug/l) (VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)
  - ISOCONCENTRATION CONTOUR (ug/l)
  - ESTIMATED ISOCONCENTRATION CONTOUR (ug/l)

**SCALE**

VERTICAL:  
1 INCH = 75 FEET

HORIZONTAL:  
1 INCH = 1075 FEET

N.E. = 25%

**Wenck**  
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TWIN CITIES ARMY AMMUNITION PLANT  
NEW BRIGHTON, MN 55312

FISCAL YEAR 1993 ANNUAL MONITORING REPORT

1,1,1-TRICHLOROETHANE CROSS SECTIONS A-A' AND B-B' (Q38)

SCALE DRAWN APPROVED BY DATE DRAWING NO. SHEET NO.  
AS SHOWN DLM IRO 2-15-94 TCVSTCEW 7

TWIN CITIES ARMY AMMUNITION PLANT

1,1,1-Trichloroethane Cross Sections A-A' and B-B' Spring 1993 (Q38)

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Environmental Engineers Maple Plain, MN 55359

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Figure VI-14

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

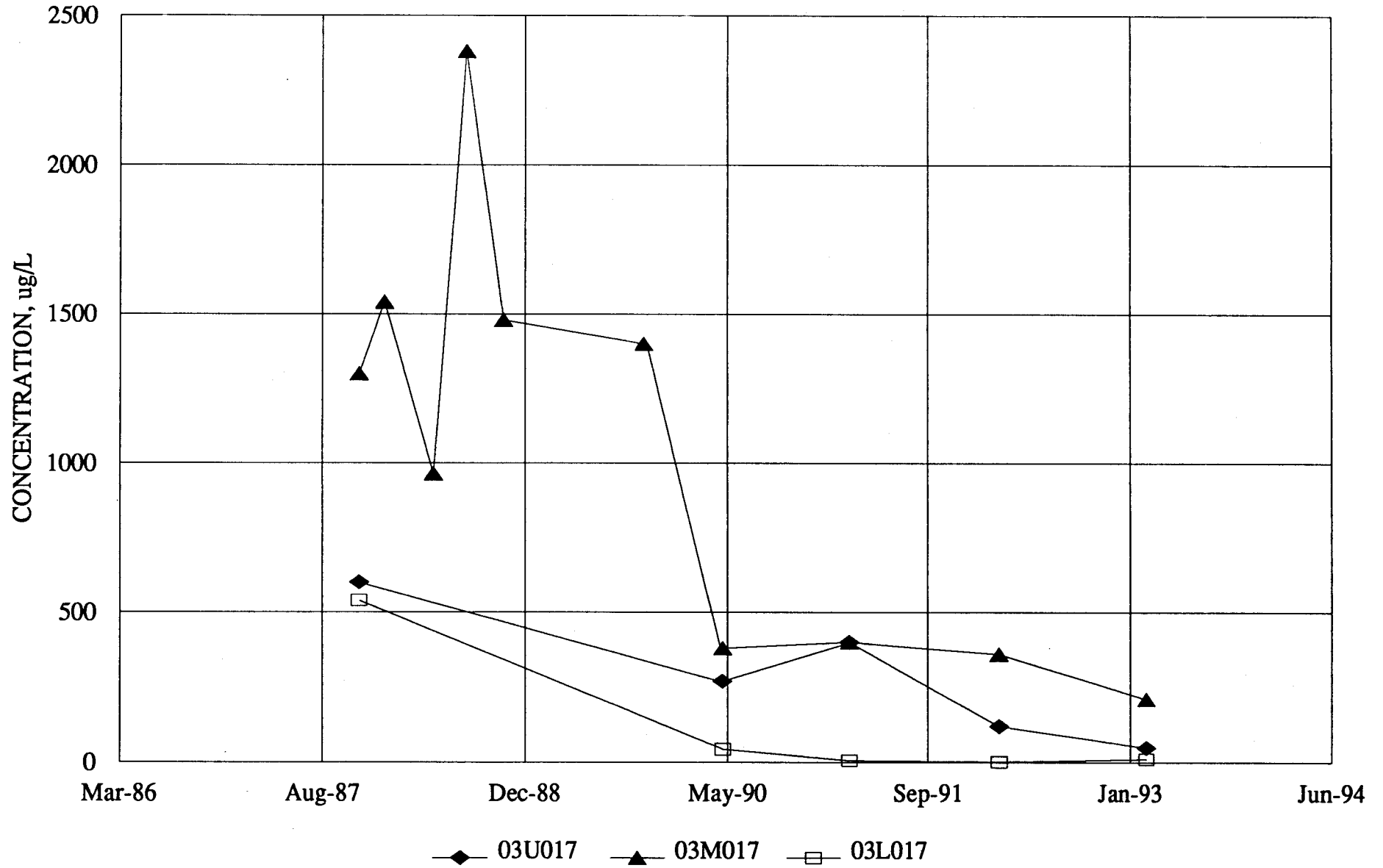


Figure VII-1, SITE D, 017 Well Nest  
WENCK ASSOCIATES, INC.



# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

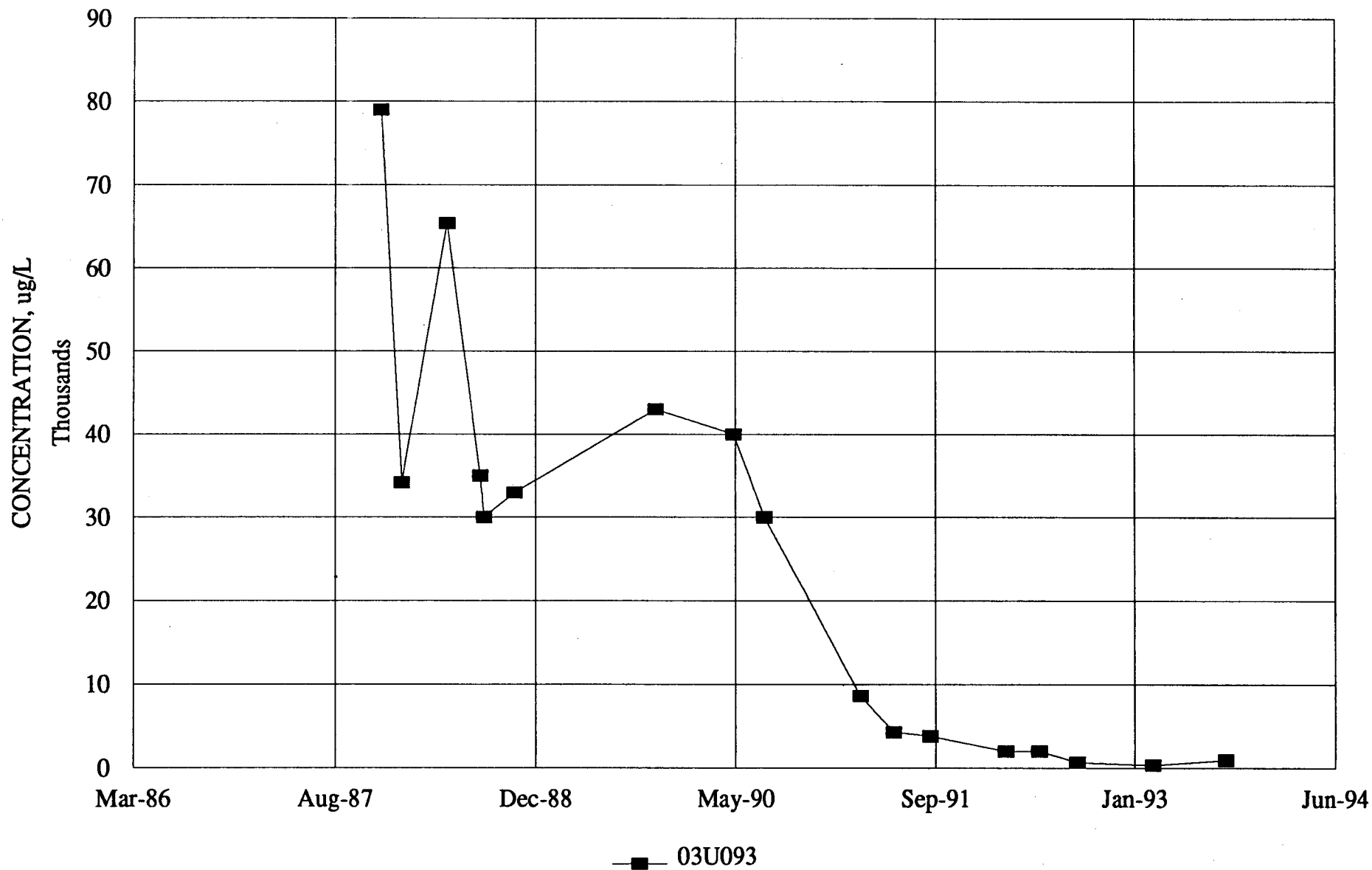


Figure VII-2, SITE D, Well 03U093  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

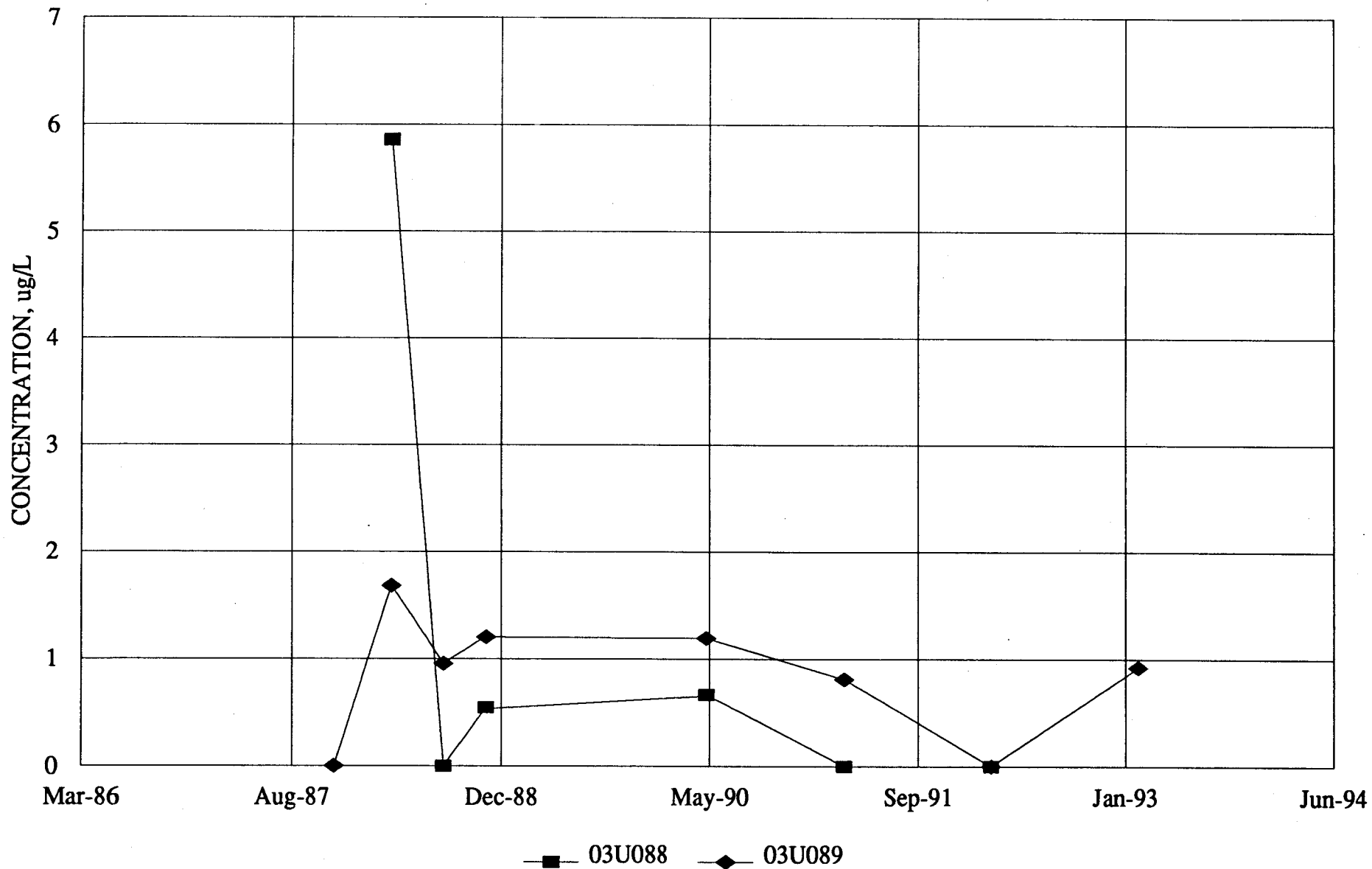


Figure VII-3, SITE E, Wells 03U088 and 03U089  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

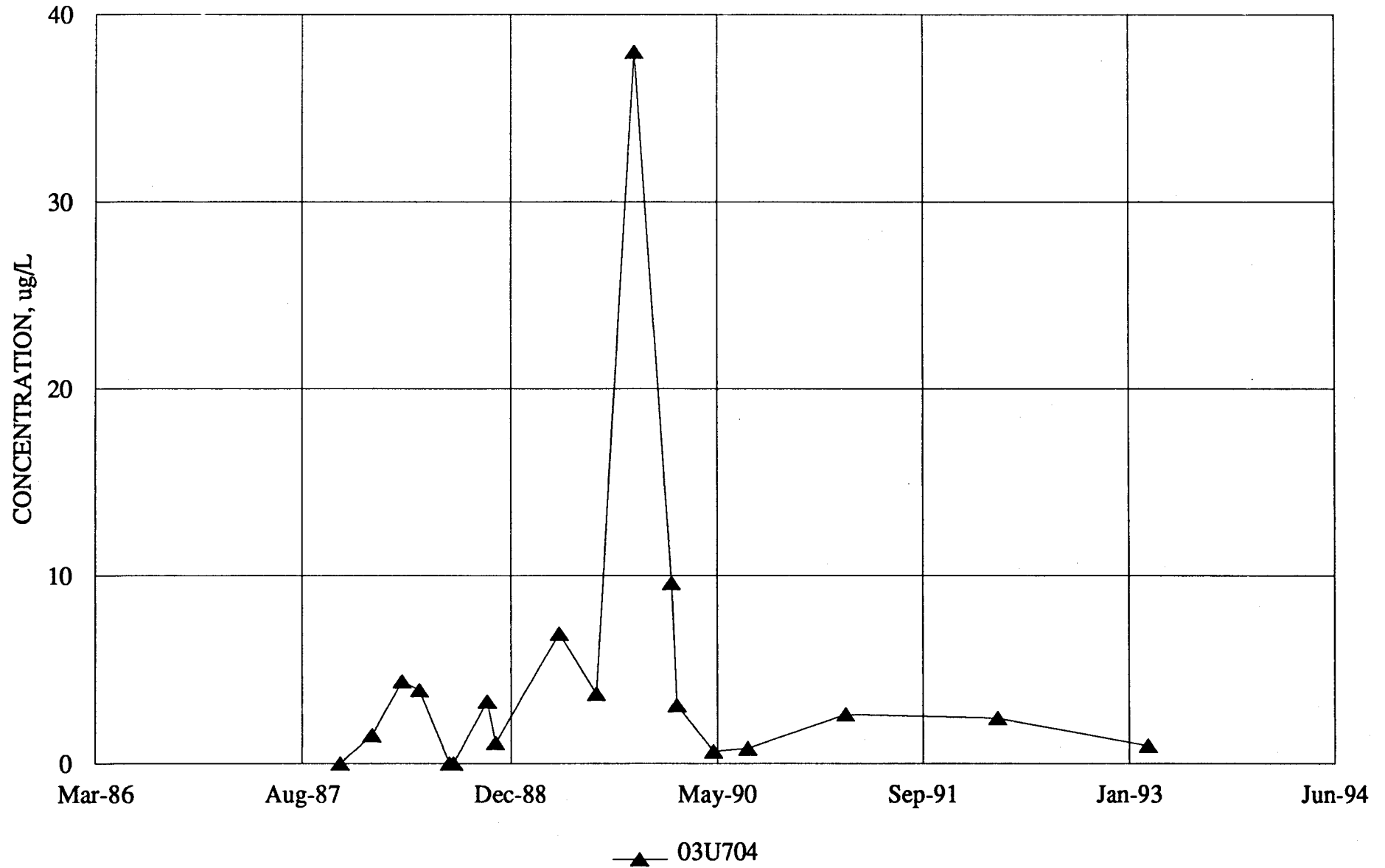


Figure VII-4, SITE E, Well 03U704  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

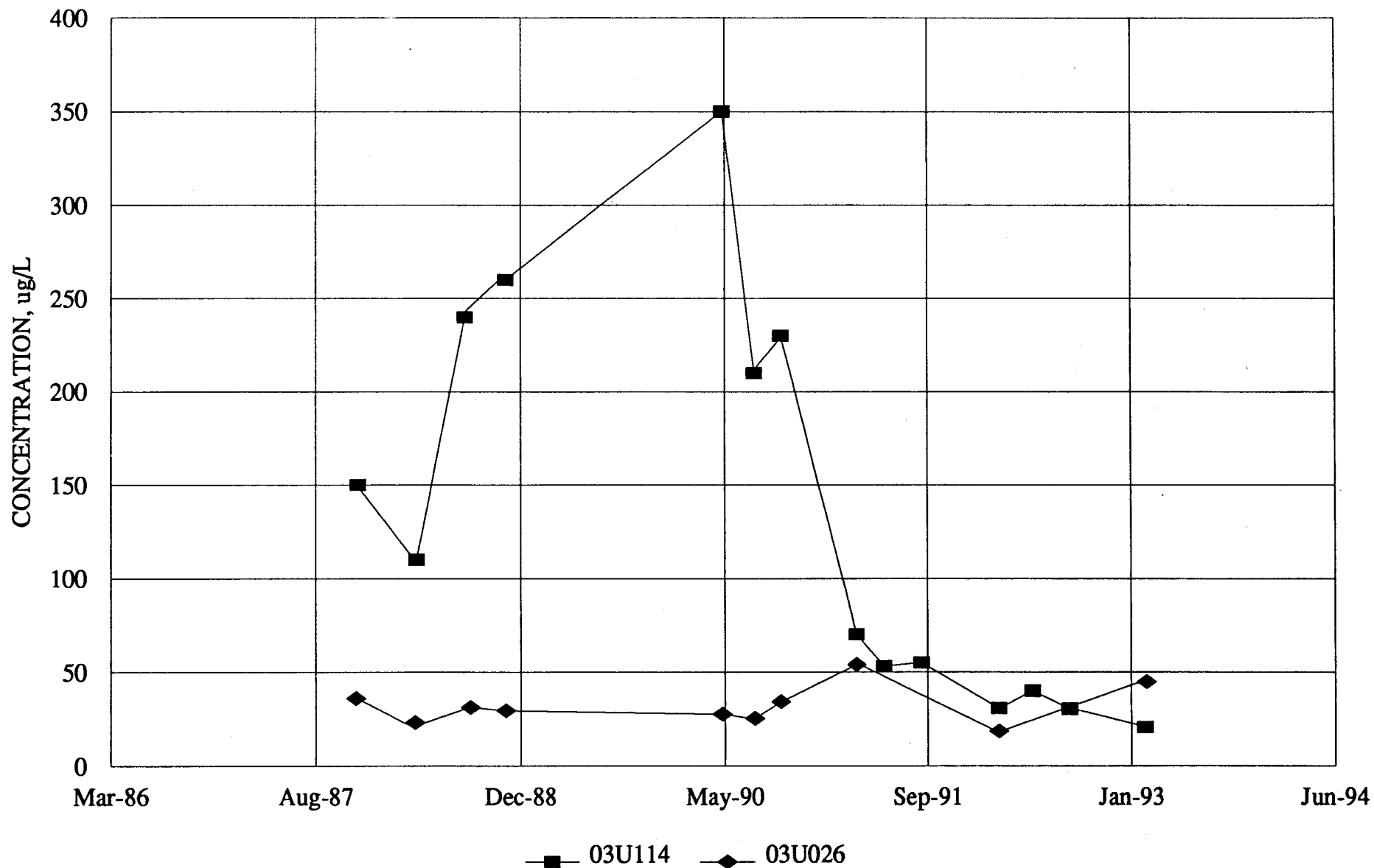


Figure VII-5, SITE F  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

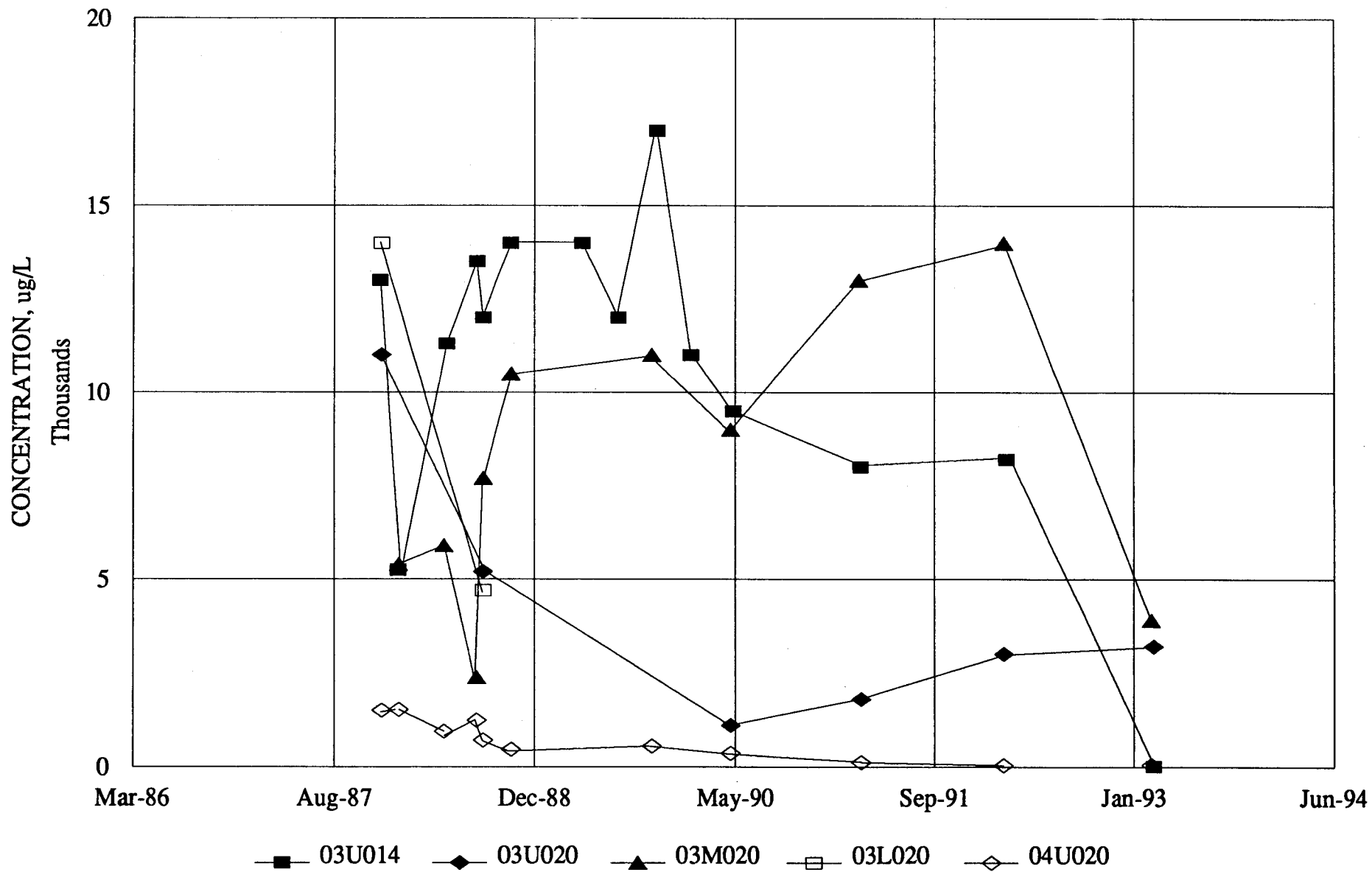


Figure VII-6, SITE G  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

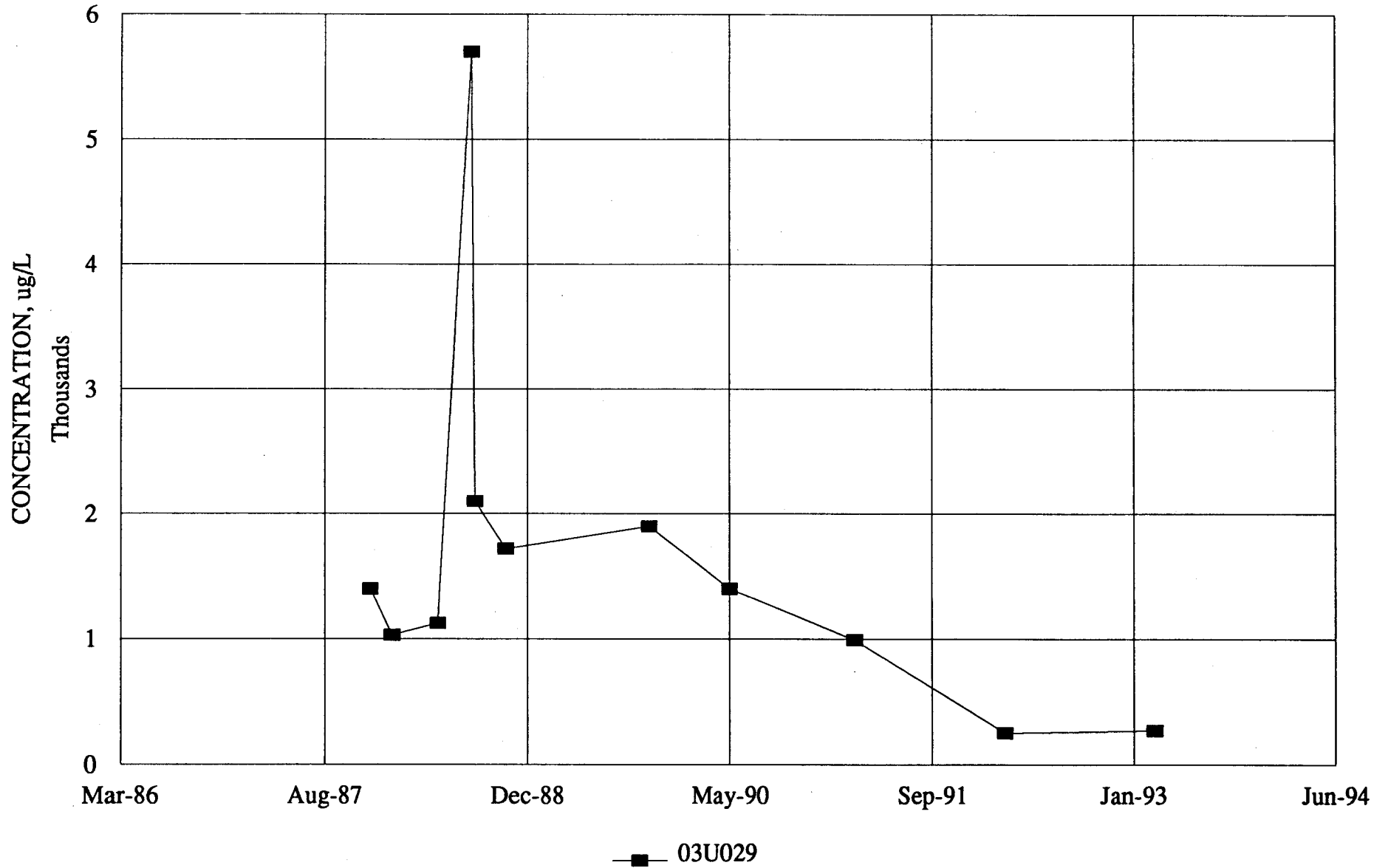


Figure VII-7, SITE I  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

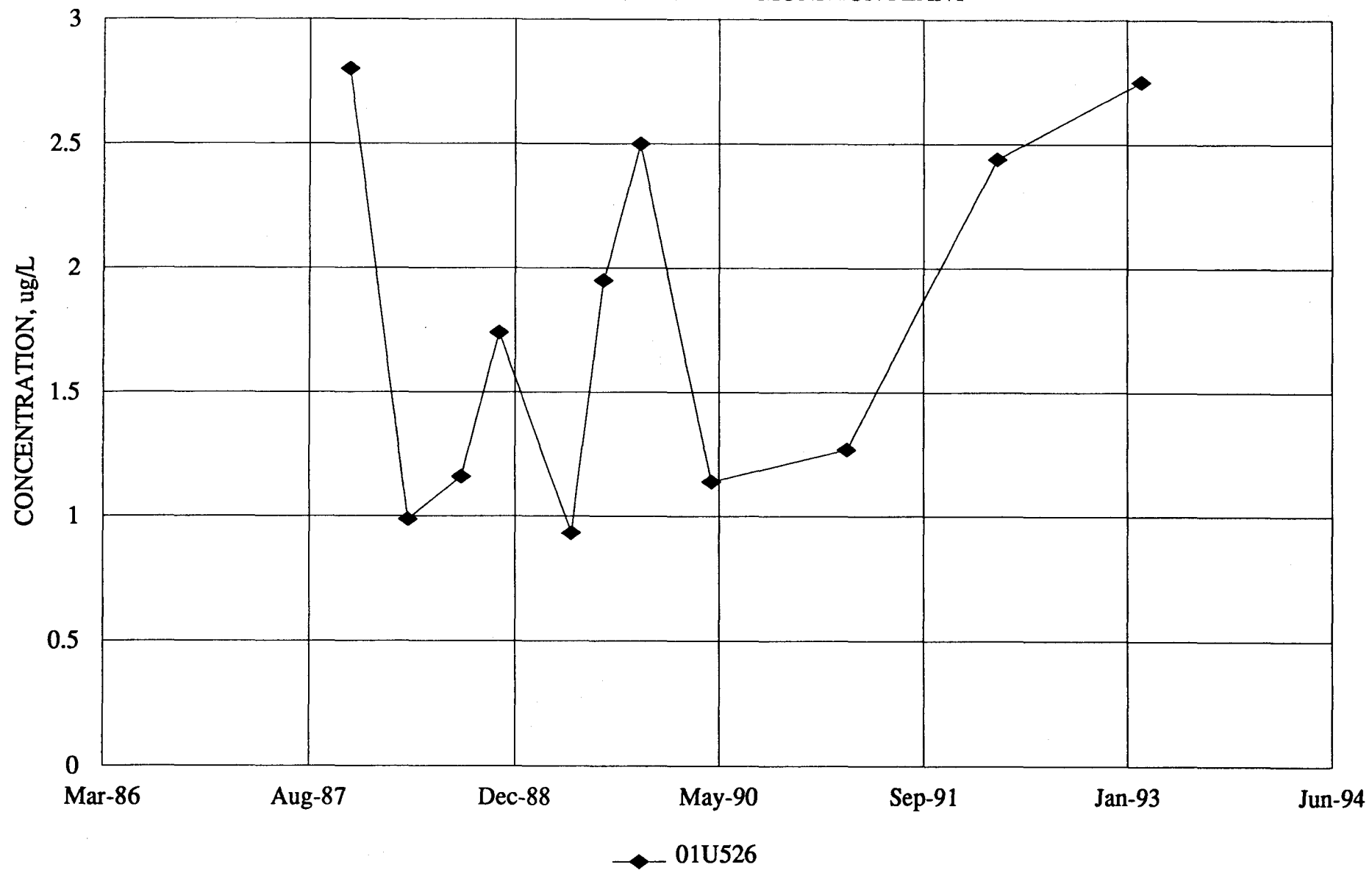


Figure VII-8, SITE J  
WENCK ASSOCIATES, INC.

## TRCLE AND 111TCE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

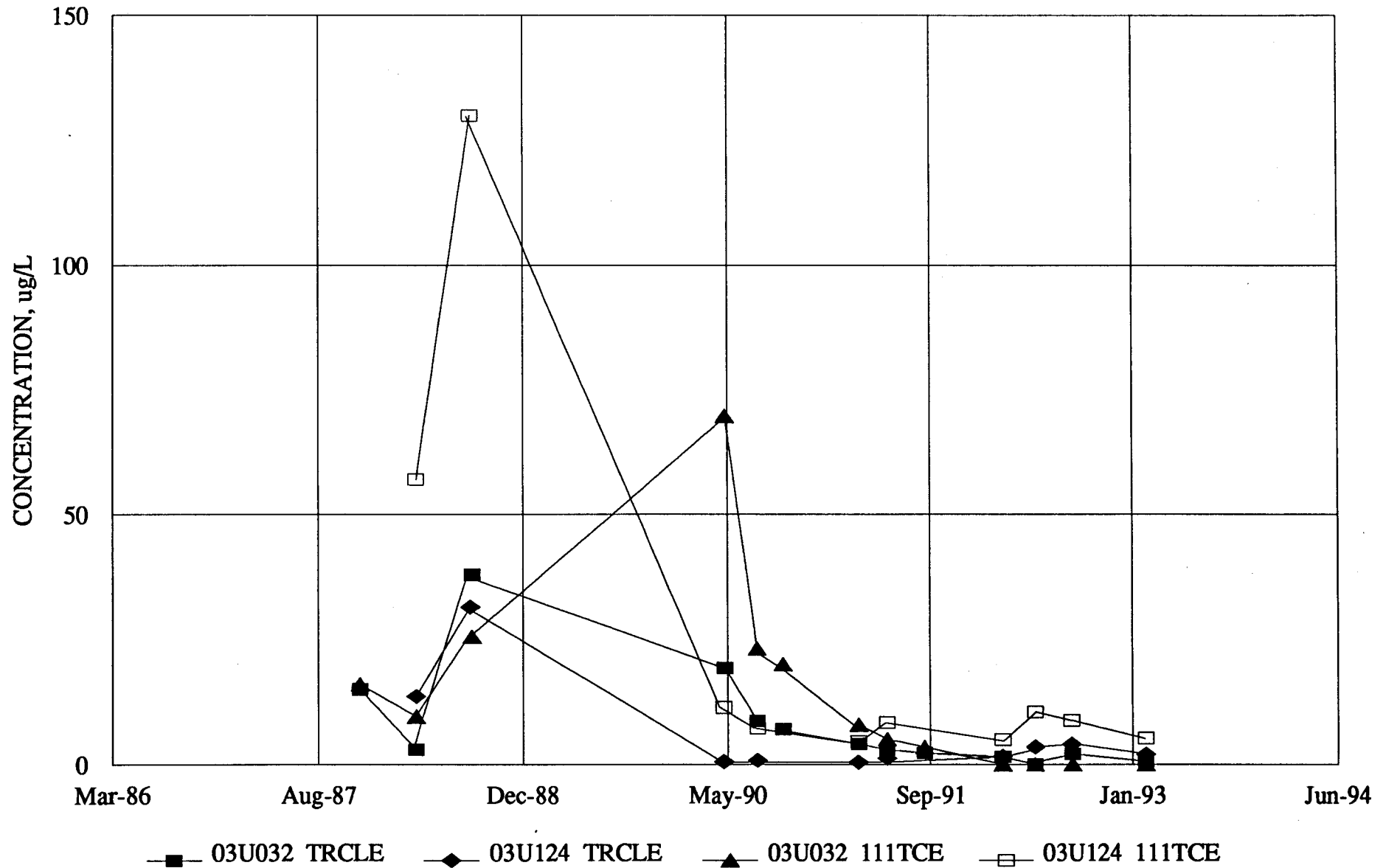


Figure VII-9, SITE 129-15  
WENCK ASSOCIATES, INC.

TRCLE is TRICHLOROETHENE 111TCE is 1,1,1-TRICHLOROETHANE



# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

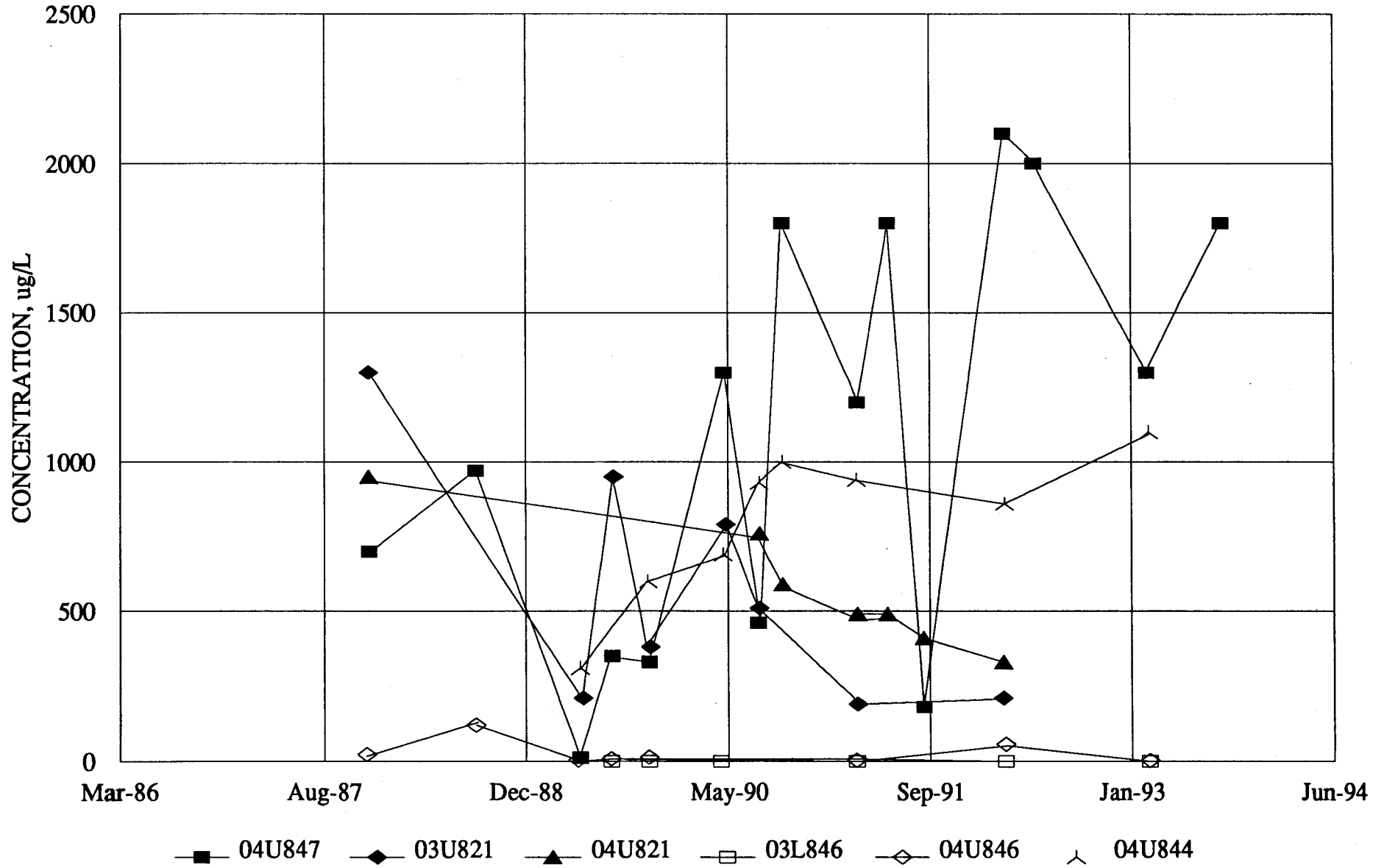


Figure VII-10, OFF-POST, NORTH PLUME  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

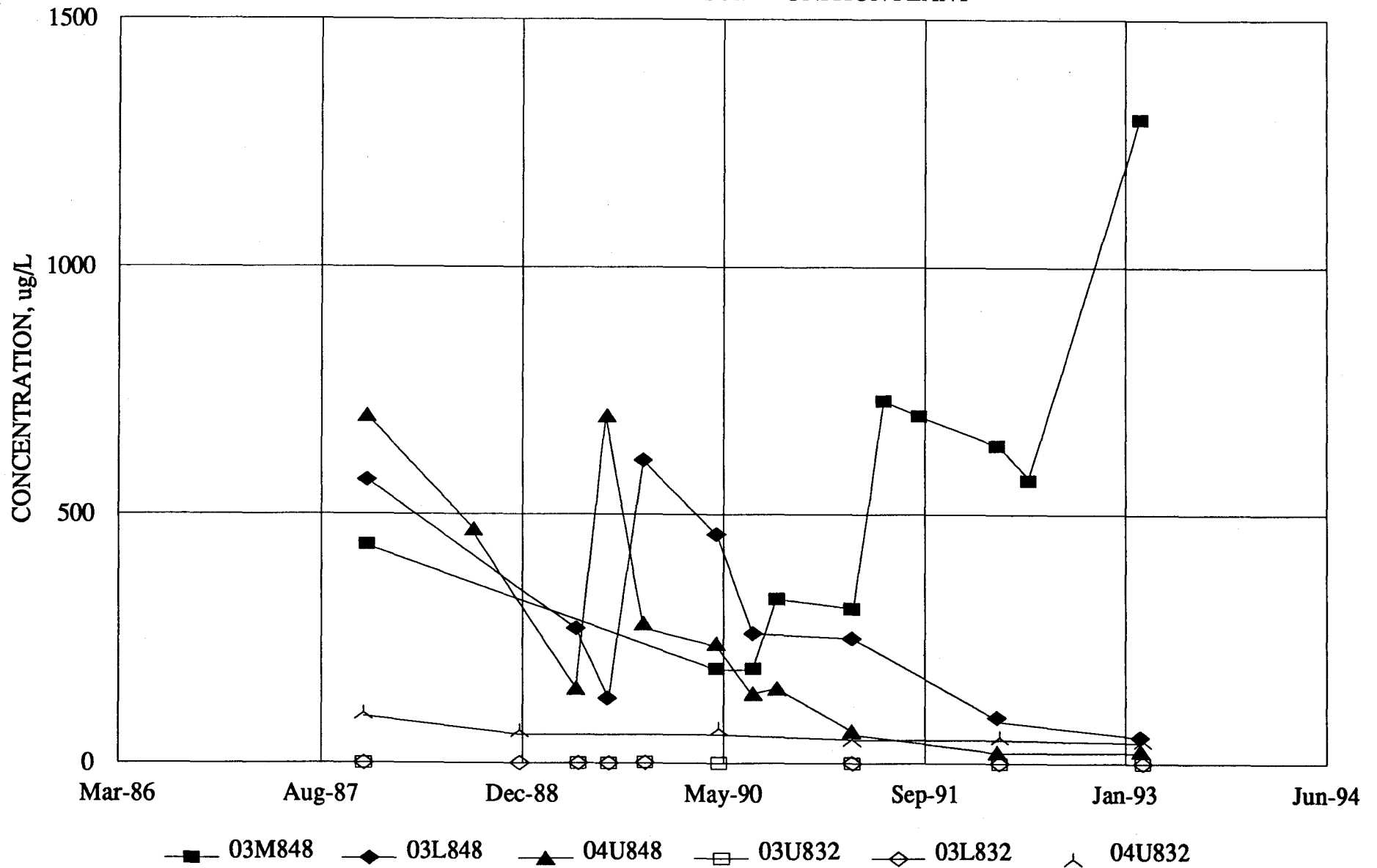


Figure VII-11, OFF-POST, SOUTH PLUME  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

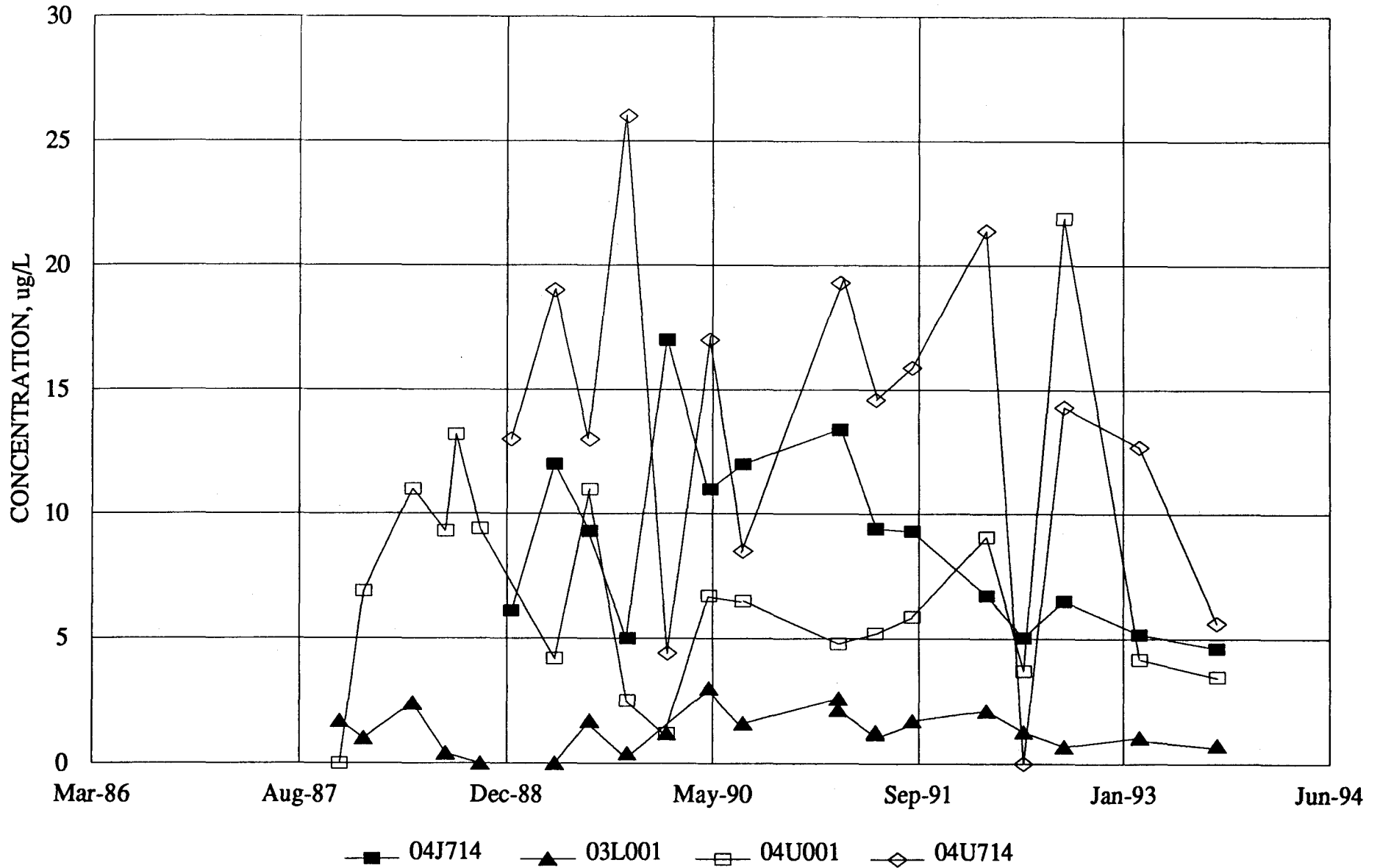


Figure VII-12, 001 AND 714 Well Nests  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

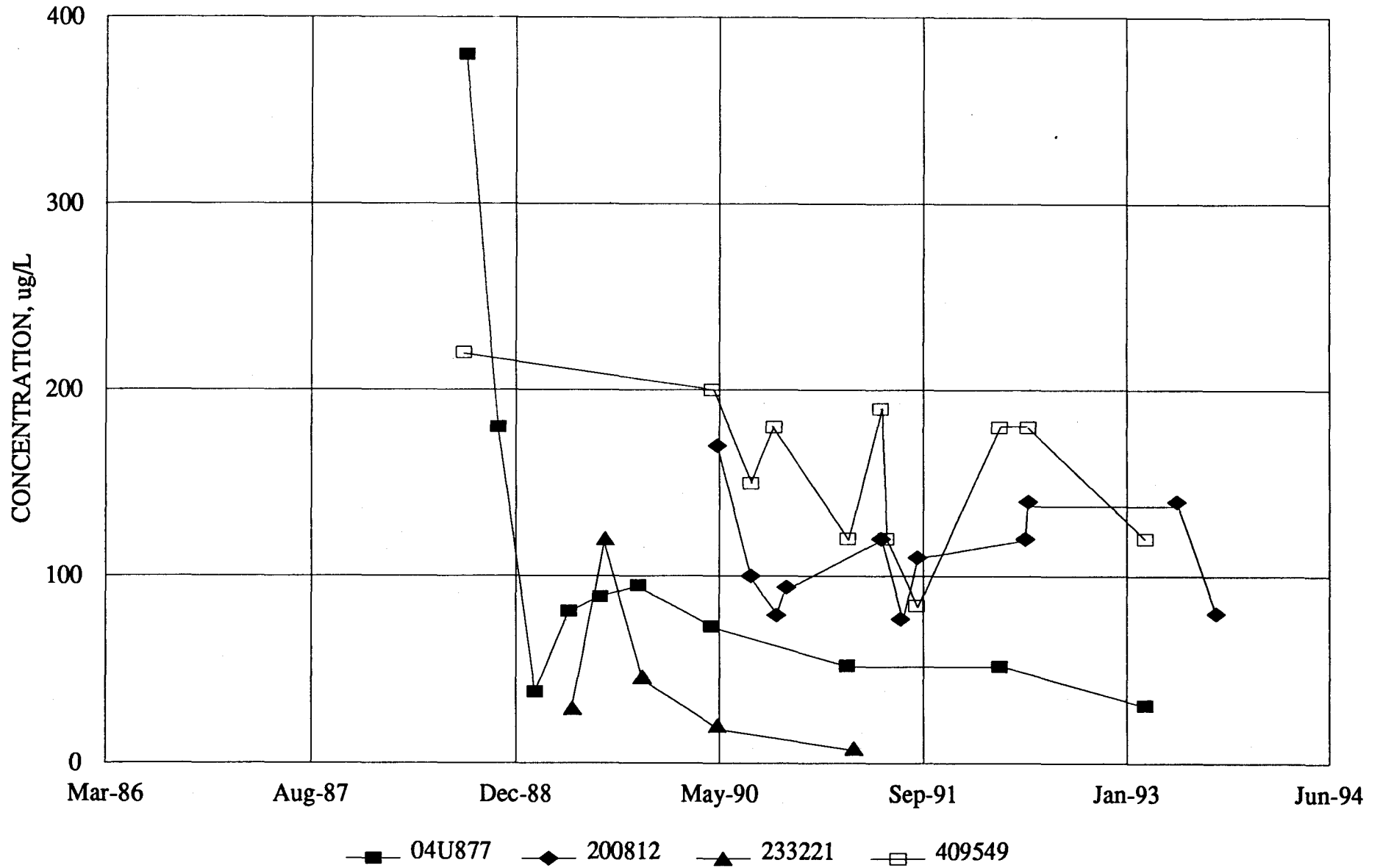


Figure VII-13, OFF-POST  
WENCK ASSOCIATES, INC.

# TRICHLOROETHENE WATER QUALITY TRENDS TWIN CITIES ARMY AMMUNITION PLANT

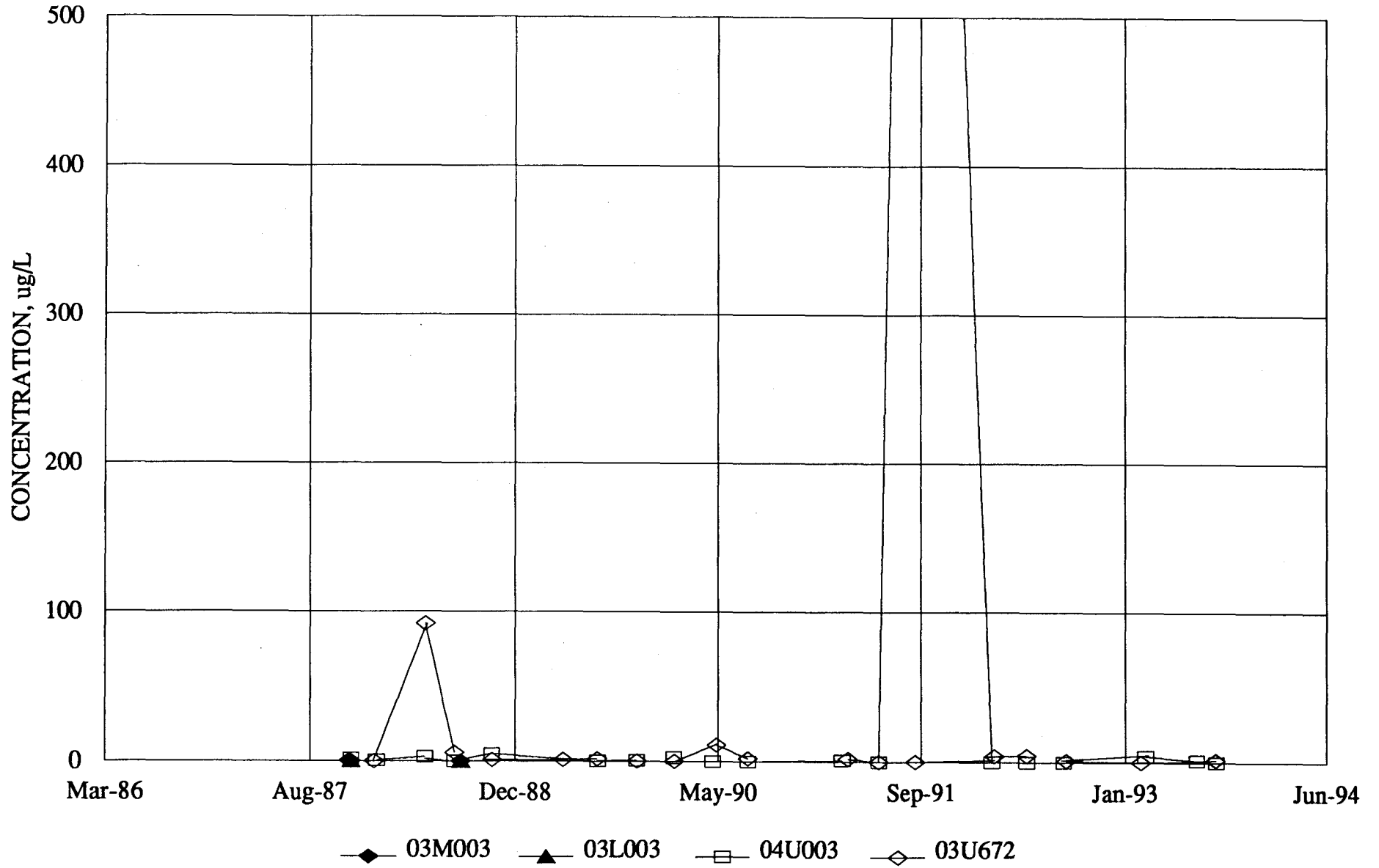
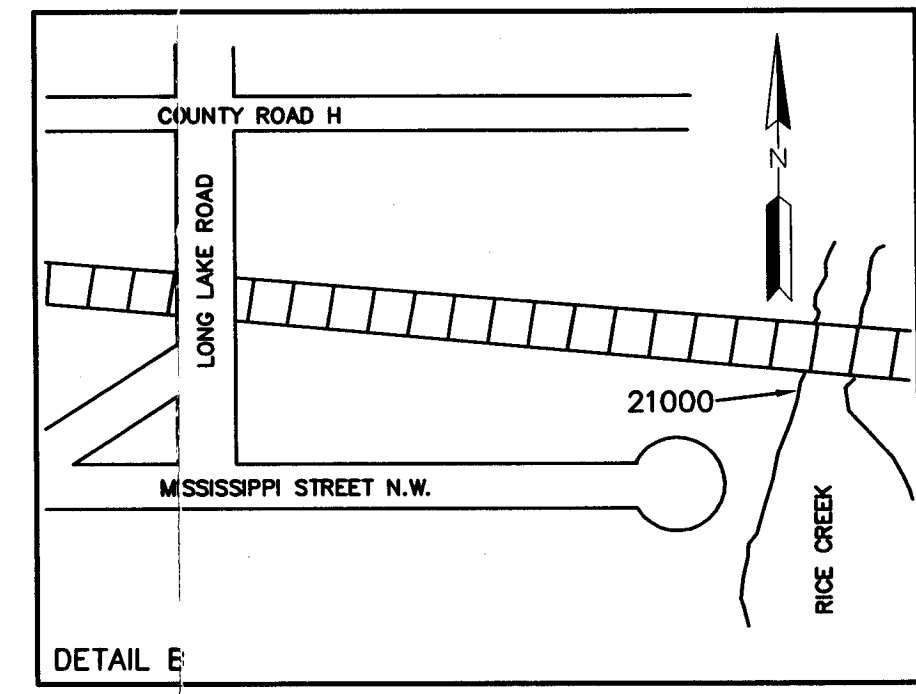
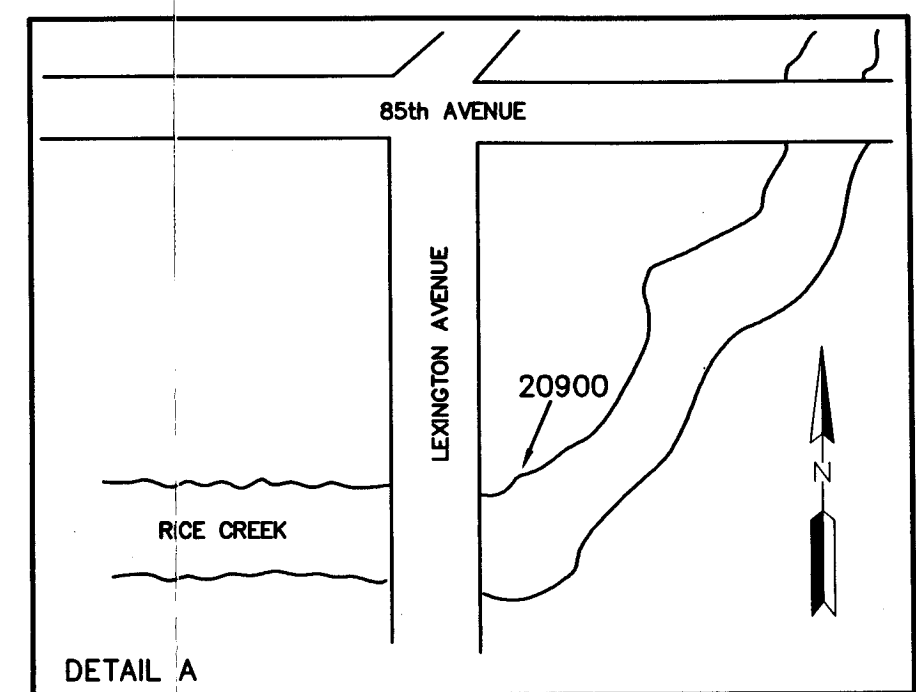
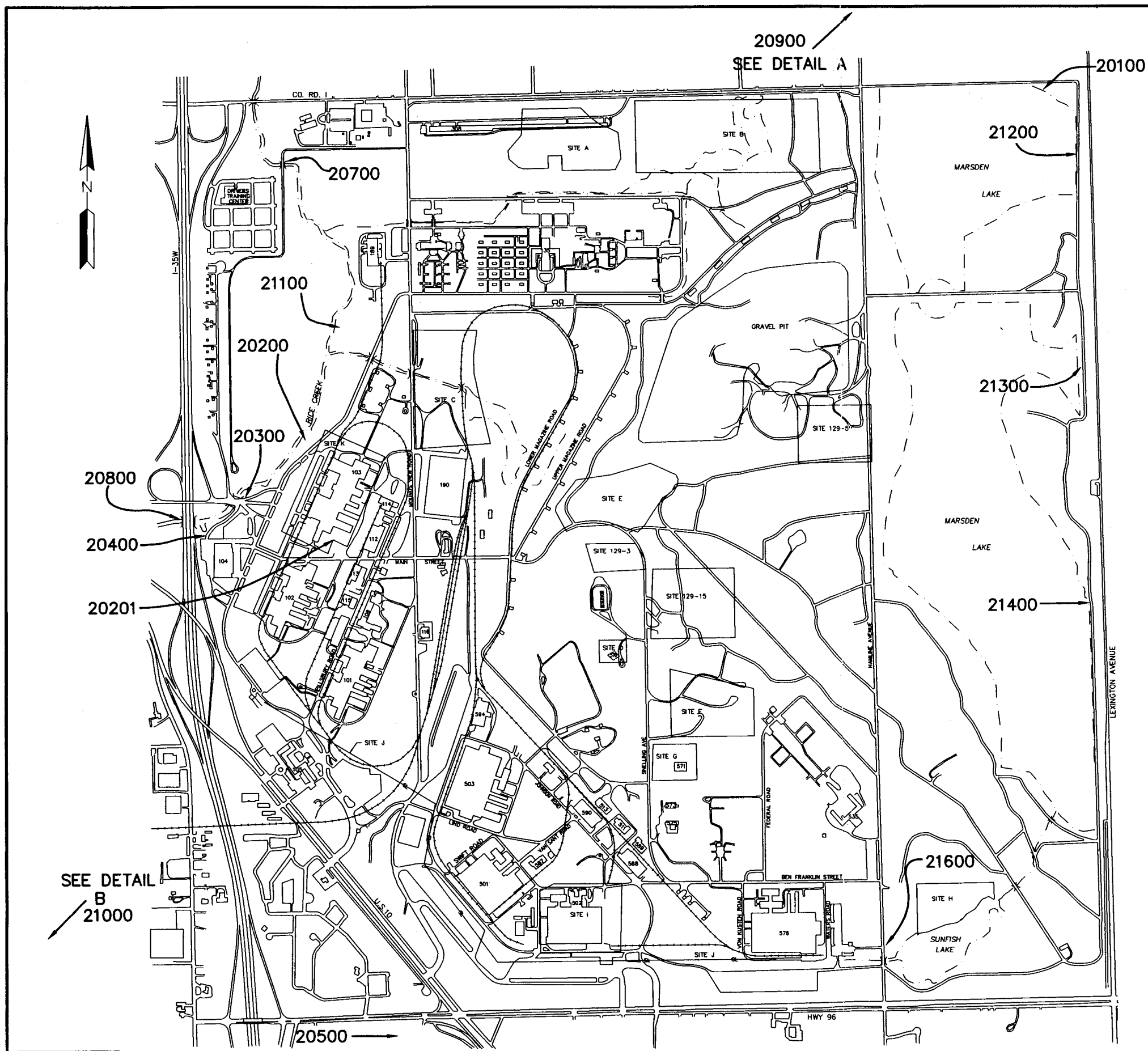


Figure VII-14, 003 Well Nest and 03U672  
WENCK ASSOCIATES, INC.

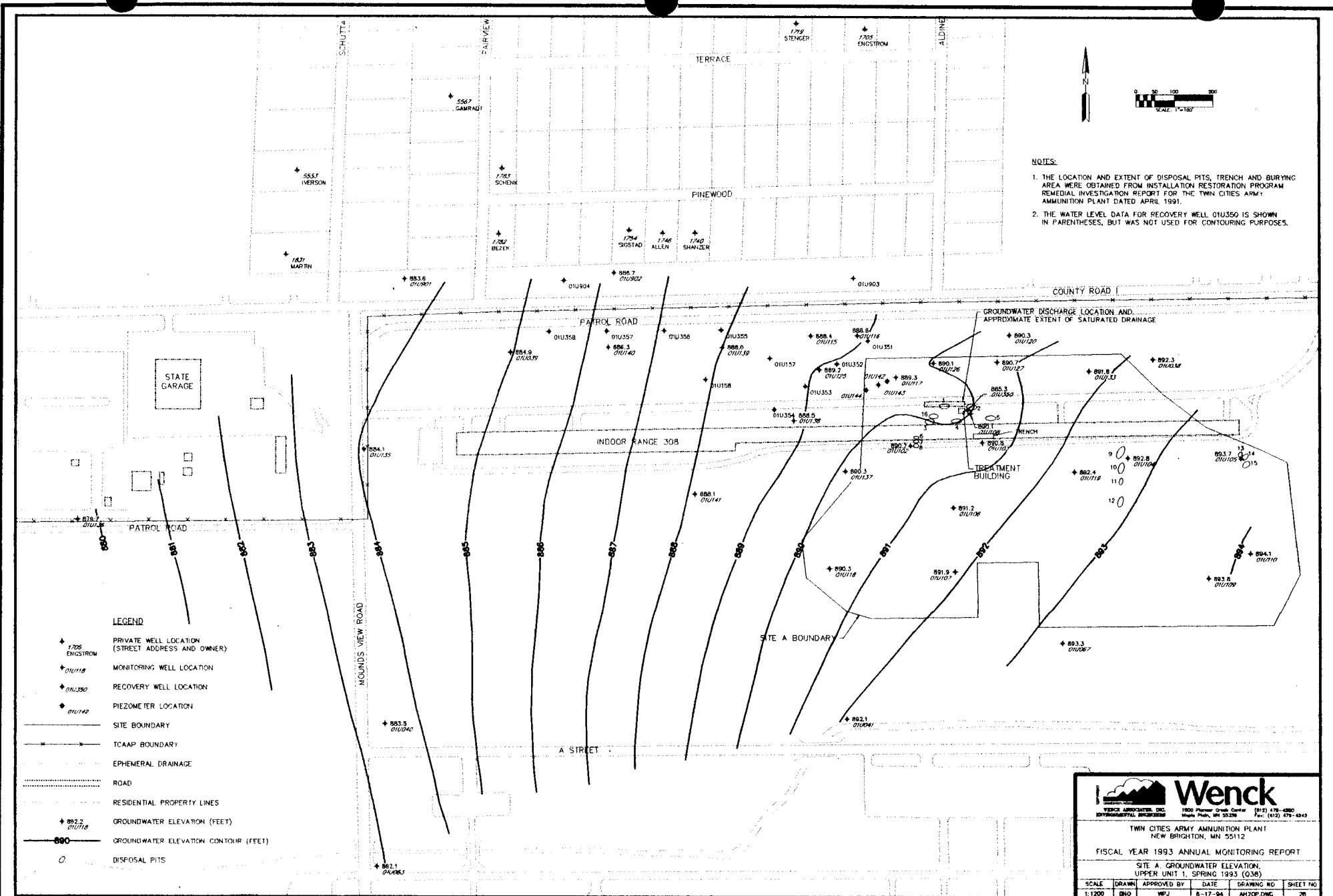


FILE NPDES.DWG  
DATE 02-04-94 DLM

TWIN CITIES ARMY AMMUNITION PLANT  
National Pollutant Discharge Elimination System (NPDES) Monitoring Plan

Wenck  
Wenck Associates, Inc. 1800 Pioneer Creek Center  
Environmental Engineers Maple Plain, MN 55359

FEB. 1994  
Figure No. VIII-1



**TWIN CITIES ARMY AMMUNITION PLANT**

Site A, Groundwater Elevations, Unit 1, Spring 1993 (Q38)

**Wenck**  
 WENCK ASSOCIATES, INC. 1800 Pioneer Creek Center (812) 478-6300  
 ENVIRONMENTAL ENGINEERS Maple Plain, MN 55359 Fax: (612) 478-6343

TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112

FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 SITE A, GROUNDWATER ELEVATION,  
 UPPER UNIT 1, SPRING 1993 (Q38)

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:1200	BNQ	WPU	5-17-94	AMZOP.DWG	28

**Wenck**  
 Wenck Associates, Inc. 1800 Pioneer Creek Ctr.  
 Environmental Engineers Maple Plain, MN 55359

**JUNE 1994**  
 Figure IX-1

# GROUNDWATER HYDROGRAPHS

## TWIN CITIES ARMY AMMUNITION PLANT

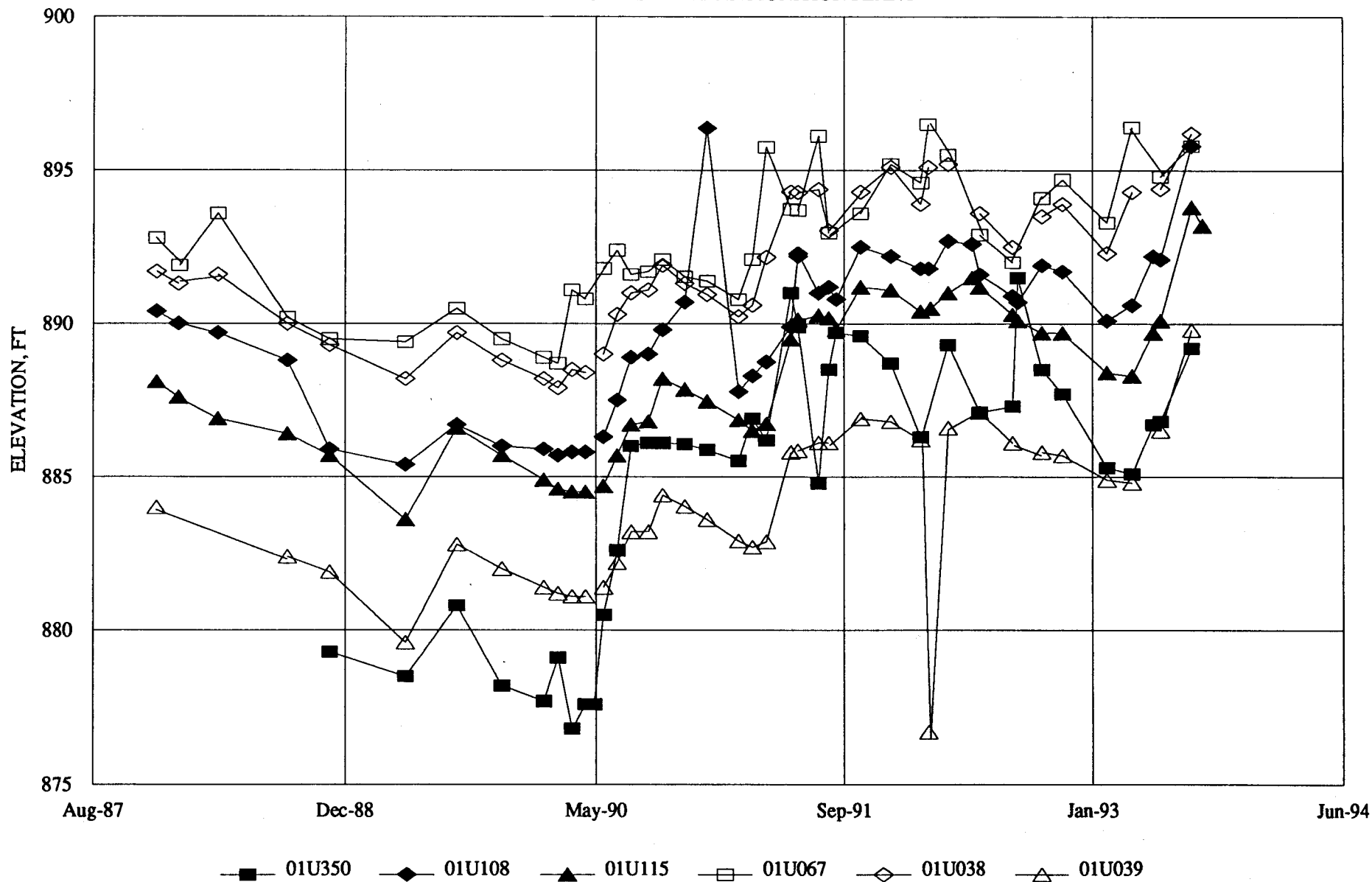
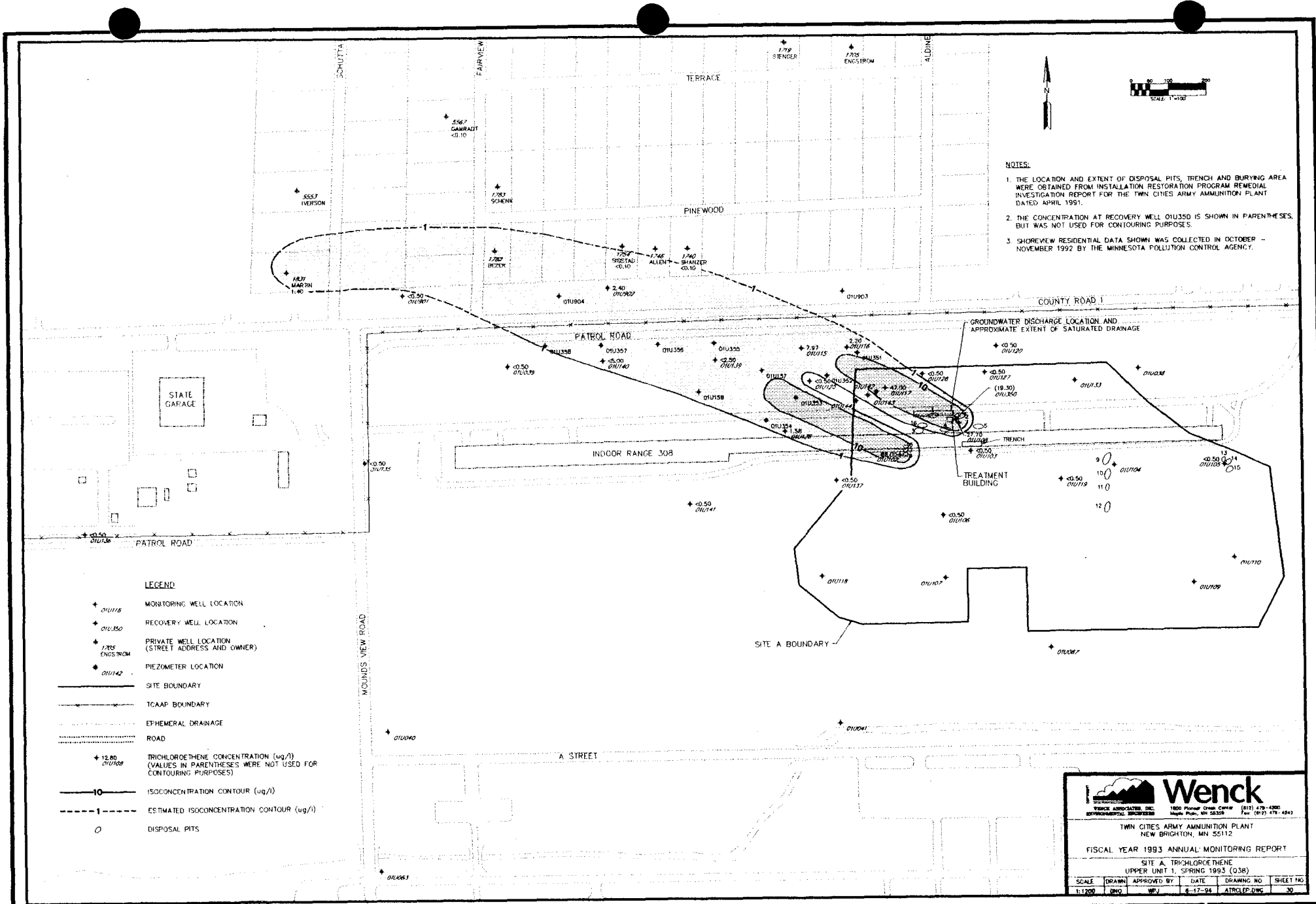


Figure IX-2, SITE A  
WENCK ASSOCIATES, INC.







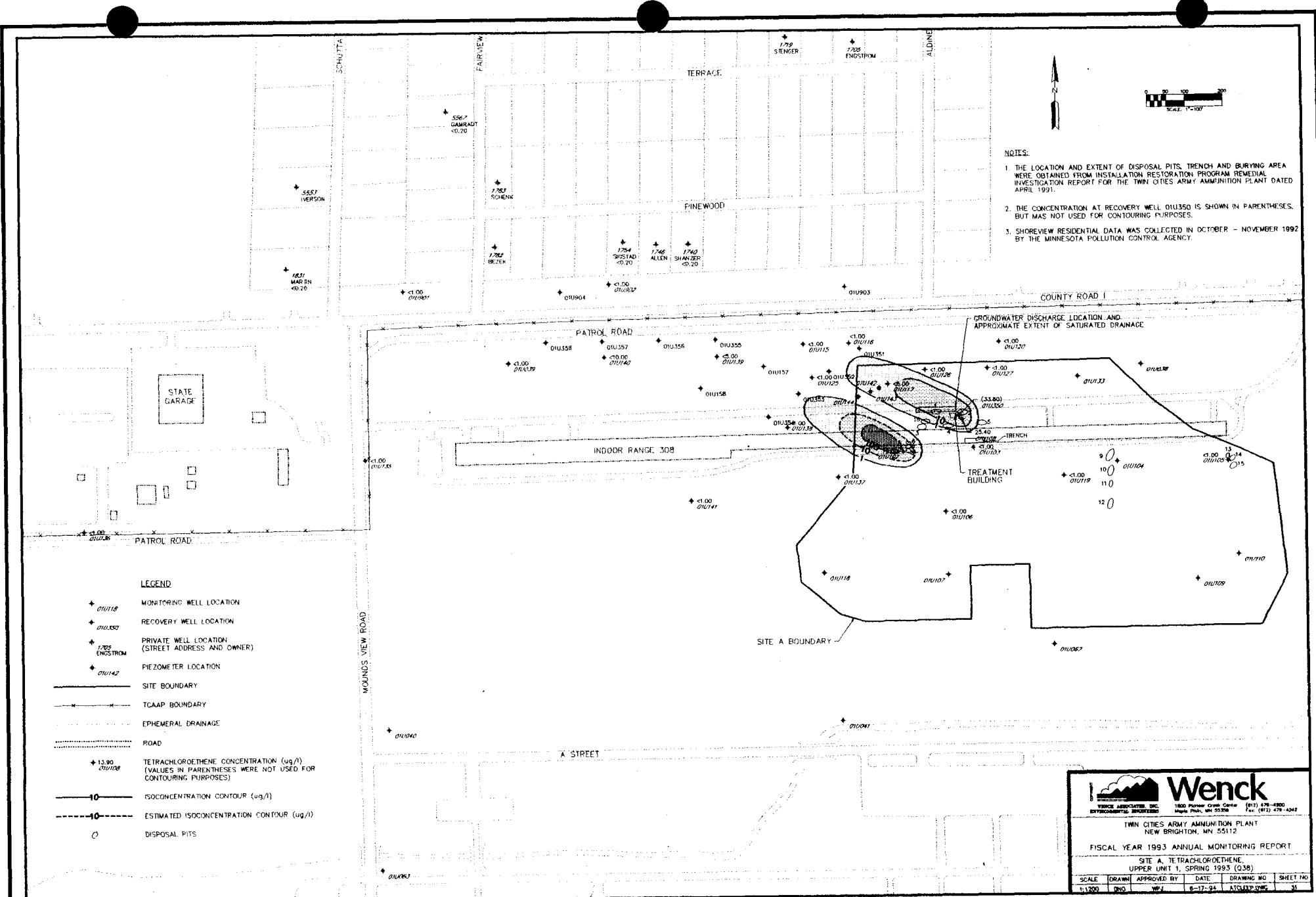
**TWIN CITIES ARMY AMMUNITION PLANT**  
 Site A, Trichloroethene, Unit 1, Spring 1993 (Q38)

**Wenck**  
 Wenck Associates, Inc. 1800 Pioneer Creek Ctr.  
 Environmental Engineers Maple Plain, MN 55359

**JUNE 1994**  
 Figure IX-4

**Wenck**  
 TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112  
 FISCAL YEAR 1993 ANNUAL MONITORING REPORT  
 SITE A TRICHLOROETHENE  
 UPPER UNIT 1, SPRING 1993 (Q38)

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:1200	DMV	WEV	4-12-94	ATRCLEP.DWG	30



- NOTES:
1. THE LOCATION AND EXTENT OF DISPOSAL PITS, TRENCH AND BURYING AREA WERE OBTAINED FROM INSTALLATION RESTORATION PROGRAM REMEDIAL INVESTIGATION REPORT FOR THE TWIN CITIES ARMY AMMUNITION PLANT DATED APRIL 1991.
  2. THE CONCENTRATION AT RECOVERY WELL 01U350 IS SHOWN IN PARENTHESES, BUT WAS NOT USED FOR CONTOURING PURPOSES.
  3. SHOREVIEW RESIDENTIAL DATA WAS COLLECTED IN OCTOBER - NOVEMBER 1992 BY THE MINNESOTA POLLUTION CONTROL AGENCY.

- LEGEND
- + 01U118 MONITORING WELL LOCATION
  - + 01U350 RECOVERY WELL LOCATION
  - + 1705 ENCOSTROM PRIVATE WELL LOCATION (STREET ADDRESS AND OWNER)
  - + 01U142 PIEZOMETER LOCATION
  - SITE BOUNDARY
  - x-x- TCAAP BOUNDARY
  - - - EPHEMERAL DRAINAGE
  - ROAD
  - + 13.90 01U108 TETRACHLOROETHENE CONCENTRATION (ug/l) (VALUES IN PARENTHESES WERE NOT USED FOR CONTOURING PURPOSES)
  - 10 — ISOCENTRATION CONTOUR (ug/l)
  - - - 10 - - ESTIMATED ISOCENTRATION CONTOUR (ug/l)
  - DISPOSAL PITS

**Wenck**  
 WENCK ASSOCIATES, INC. 1800 Pioneer Creek Center (RT) 478-4900  
 ENVIRONMENTAL ENGINEERS Maple Plain, MN 55358 Fax: (612) 478-4242

TWIN CITIES ARMY AMMUNITION PLANT  
 NEW BRIGHTON, MN 55112

FISCAL YEAR 1993 ANNUAL MONITORING REPORT

SITE A, TETRACHLOROETHENE,  
 UPPER UNIT 1, SPRING 1993 (Q38)

SCALE	DRAWN	APPROVED BY	DATE	DRAWING NO.	SHEET NO.
1:1200	DWG	WJL	6-17-94	ATQ182-DWG	31

**TWIN CITIES ARMY AMMUNITION PLANT**  
 Site A, Tetrachloroethene, Unit 1, Spring 1993 (Q38)

**Wenck**  
 Wenck Associates, Inc. 1800 Pioneer Creek Ctr.  
 Environmental Engineers Maple Plain, MN 55359

JUNE 1994  
 Figure IX-5

# TCLEE, TRCLE, AND 1,2-DCE WATER QUALITY TRENDS

TWIN CITIES ARMY AMMUNITION PLANT

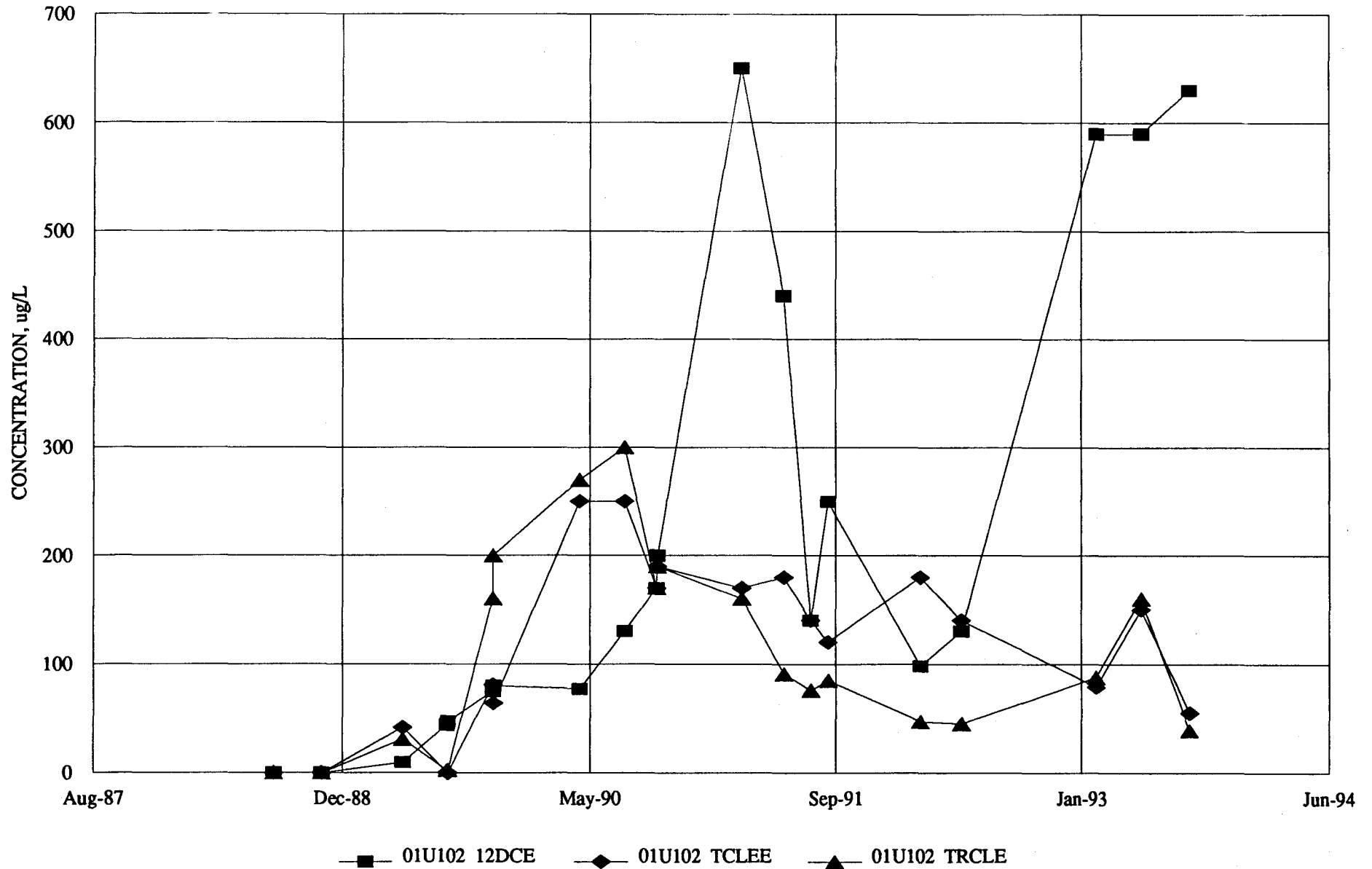


Figure IX-6, SITE A, Well 01U102  
 WENCK ASSOCIATES, INC. 12DCE is 1,2-DICHLOROETHENE TCLEE is TETRACHLOROETHENE TRCLE is TRICHLOROETHENE

# 1,2-DICHLOROETHENE WATER QUALITY TRENDS

## TWIN CITIES ARMY AMMUNITION PLANT

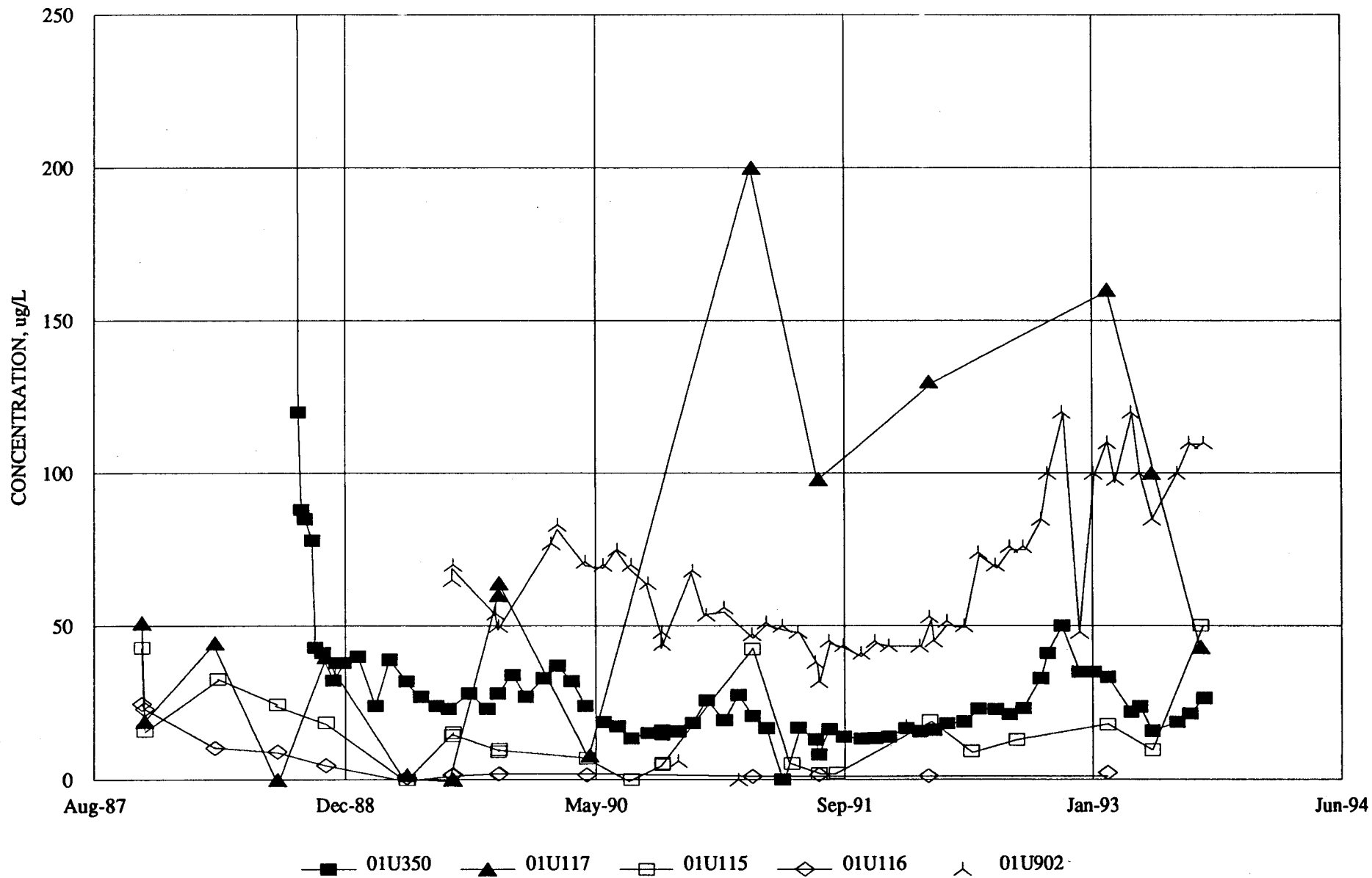


Figure IX-7, SITE A  
WENCK ASSOCIATES, INC.

# TCLEE, TRCLE, AND 1,2-DCE WATER QUALITY TRENDS

## TWIN CITIES ARMY AMMUNITION PLANT

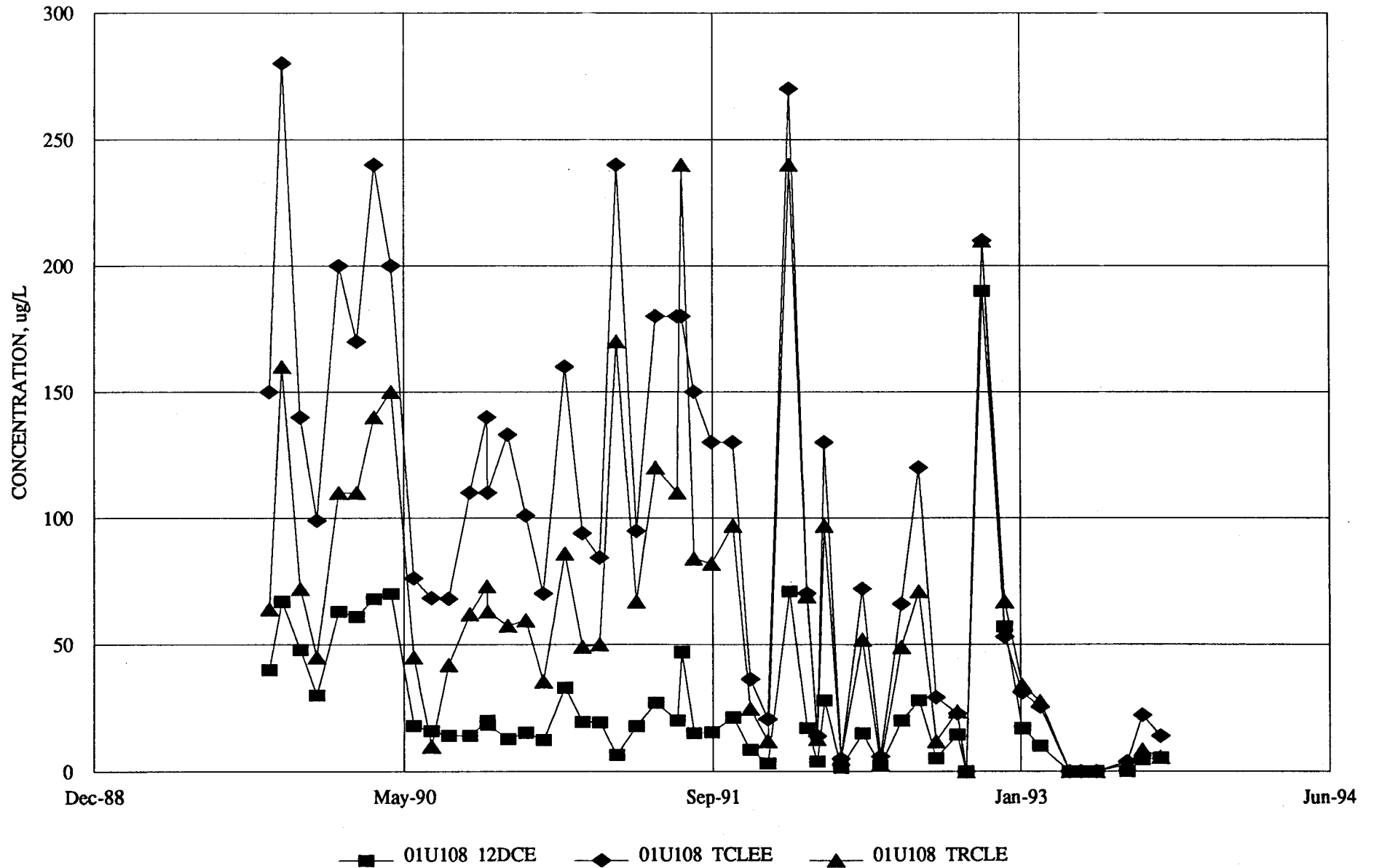


Figure IX-8, SITE A, Well 01U108  
 WENCK ASSOCIATES, INC. 12DCE is 1,2-DICHLOROETHENE TCLEE is TETRACHLOROETHENE TRCLE is TRICHLOROETHENE

# TRICHLOROETHENE WATER QUALITY TRENDS

TWIN CITIES ARMY AMMUNITION PLANT

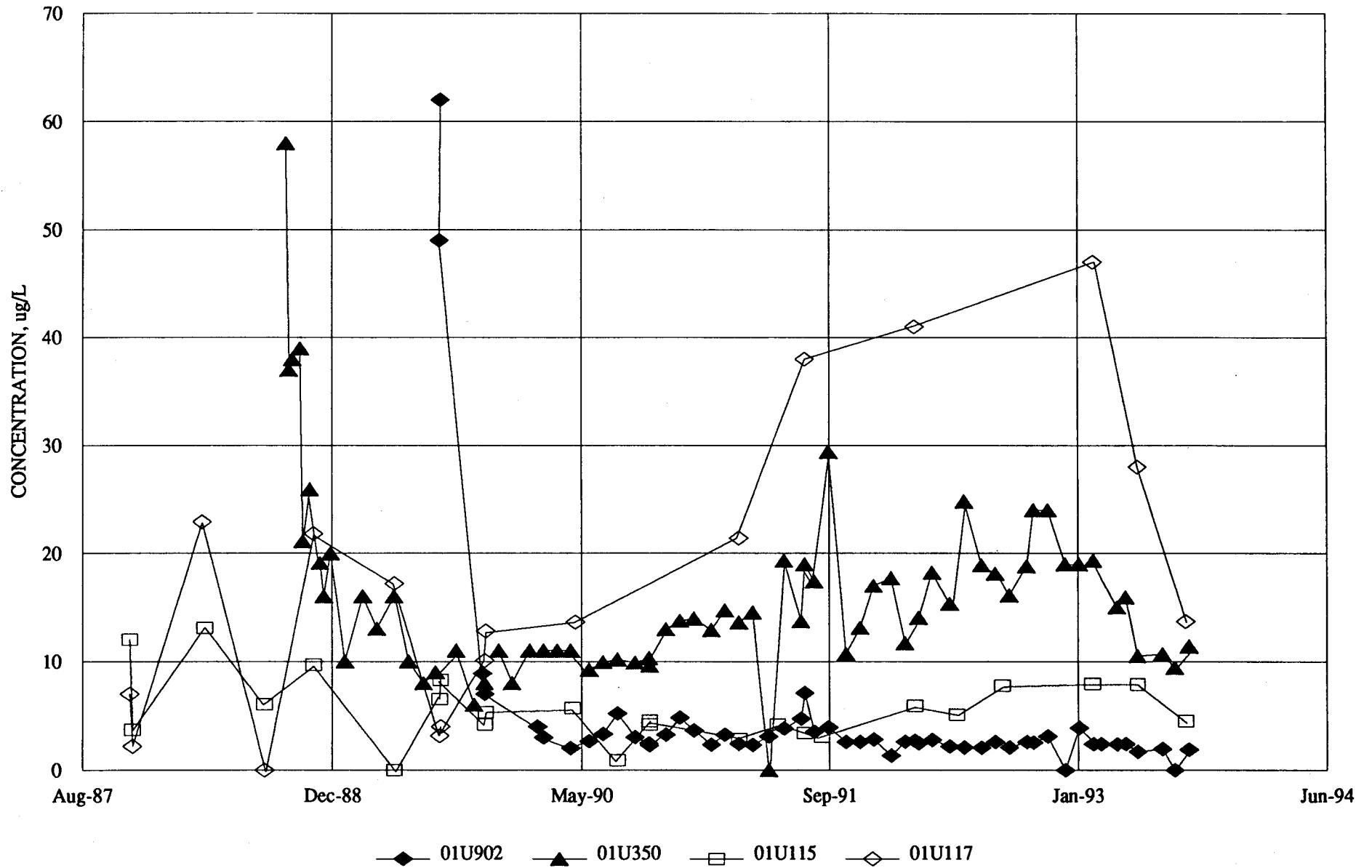


Figure IX-9, SITE A  
WENCK ASSOCIATES, INC.

# TETRACHLOROETHENE WATER QUALITY TRENDS

TWIN CITIES ARMY AMMUNITION PLANT

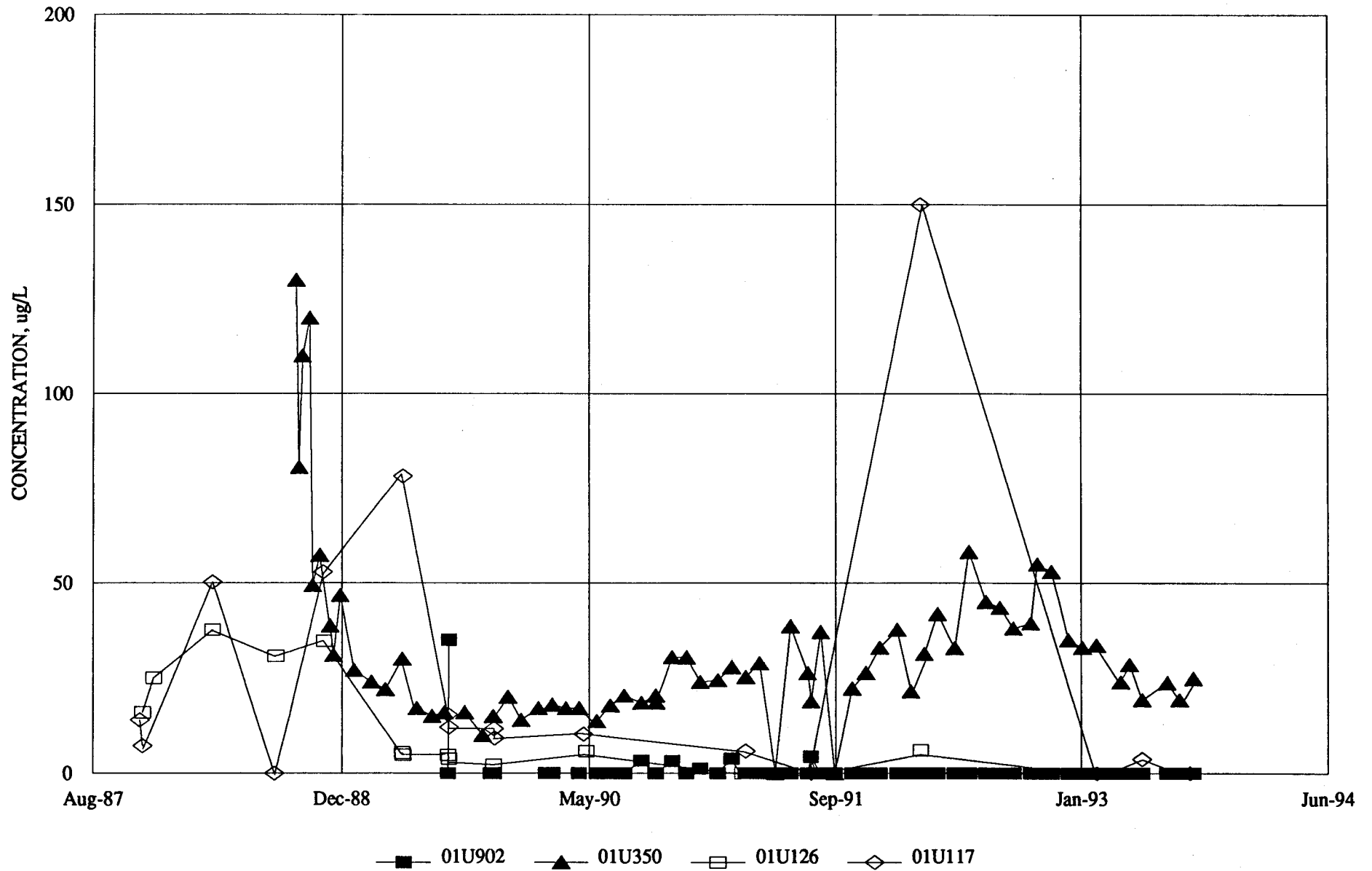
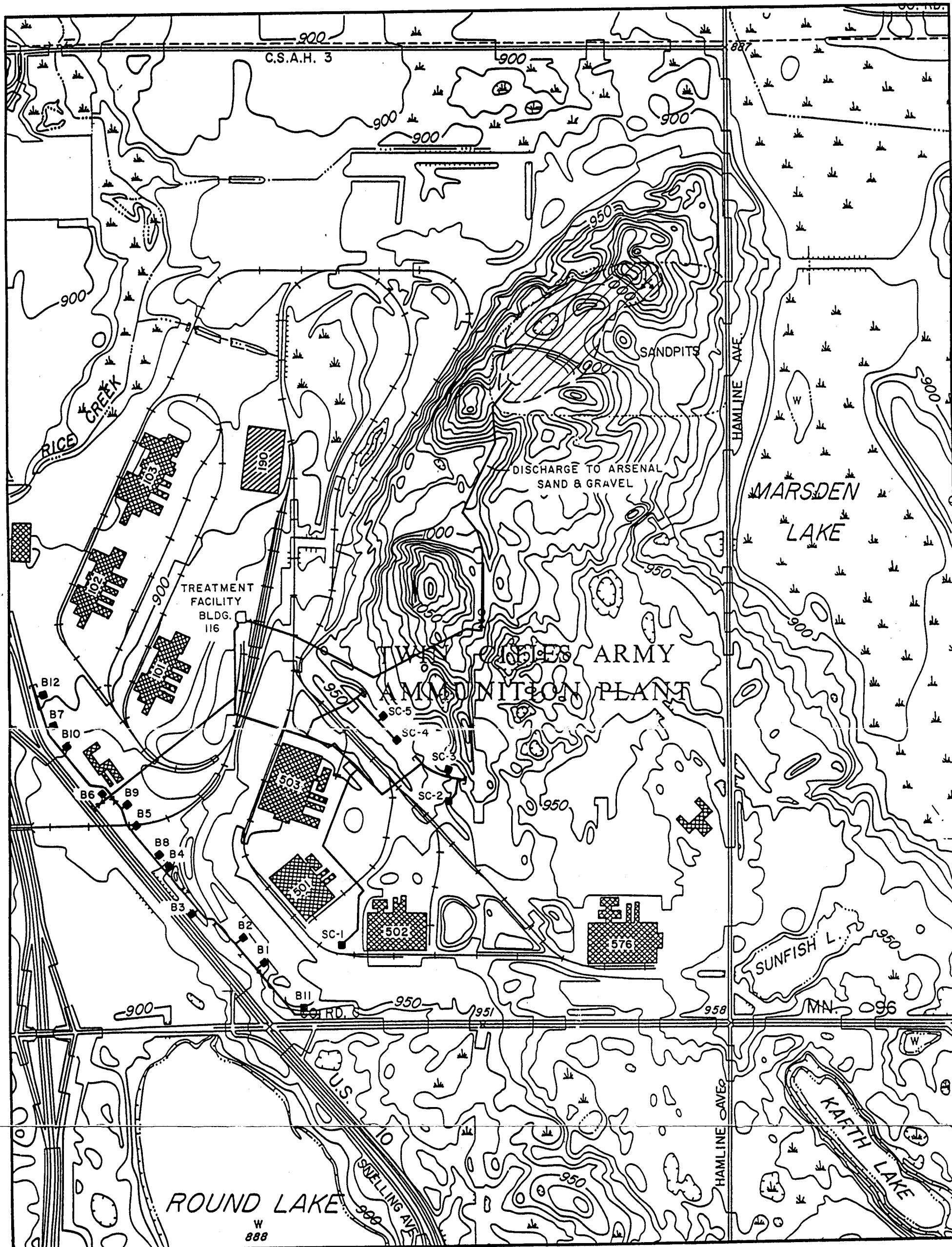


Figure IX-10, SITE A  
WENCK ASSOCIATES, INC.





**LEGEND**

- EXTRACTION WELL LOCATION
- ▨ ARSENAL SAND AND GRAVEL PIT

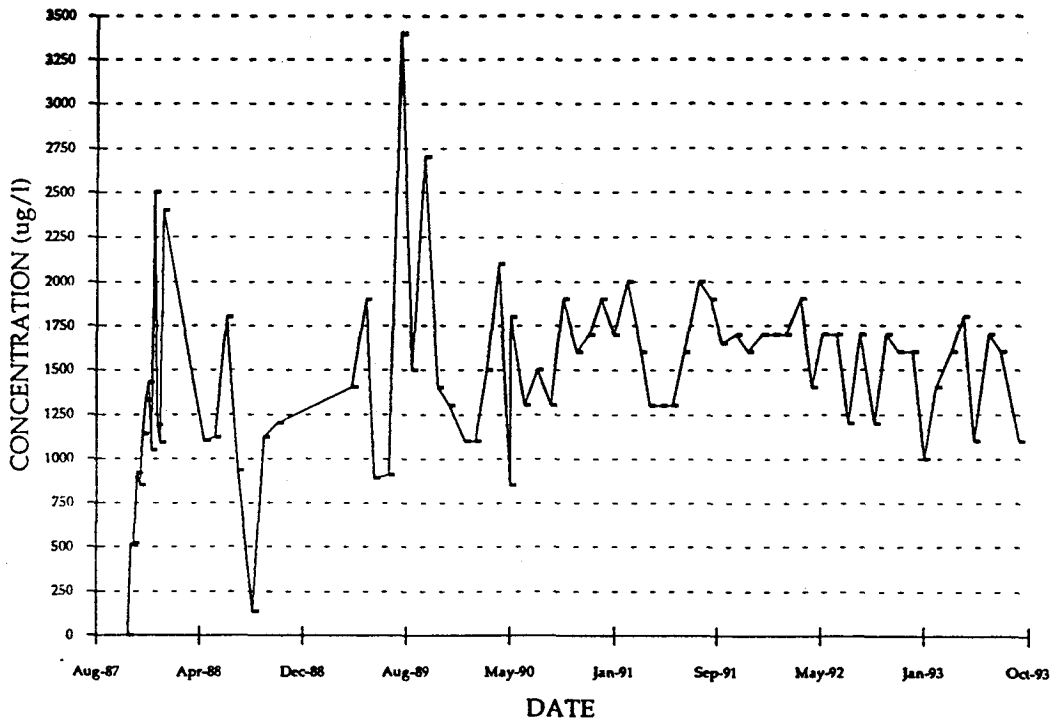


SCALE: 1" = 1000'

CRA

figure X-1  
TGRS LAYOUT  
Twin Cities Army Ammunition Plant

TRCLE vs. TIME -INFLUENT



TRCLE vs. TIME -EFFLUENT

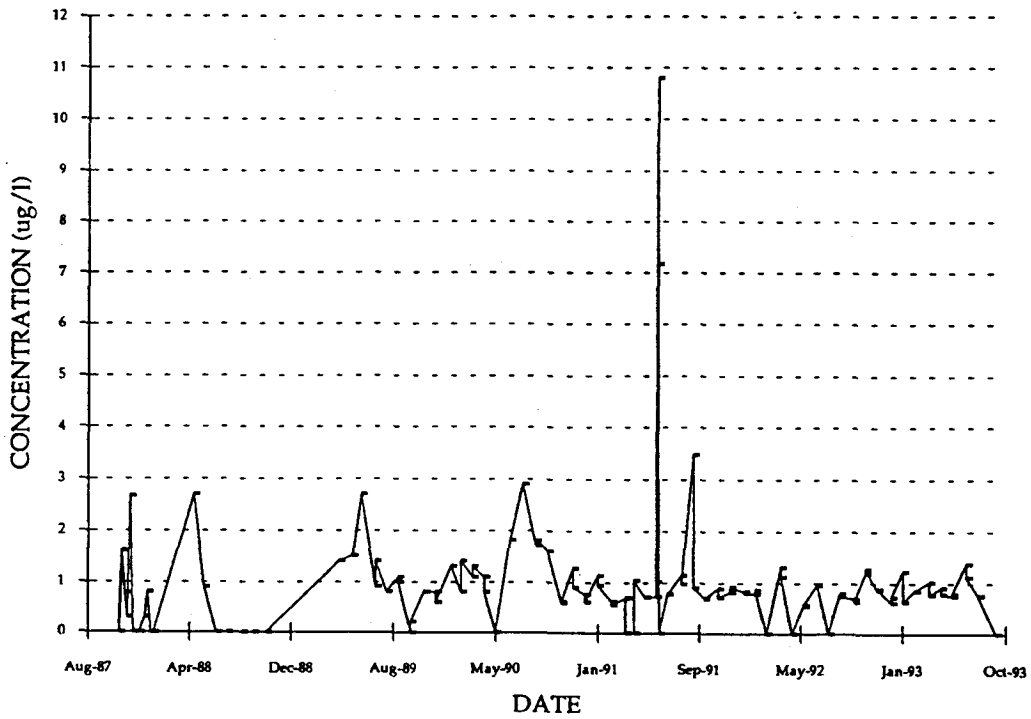


figure X-2  
TGRS TREATMENT SYSTEM PERFORMANCE  
*Twin Cities Army Ammunition Plant*

CRA

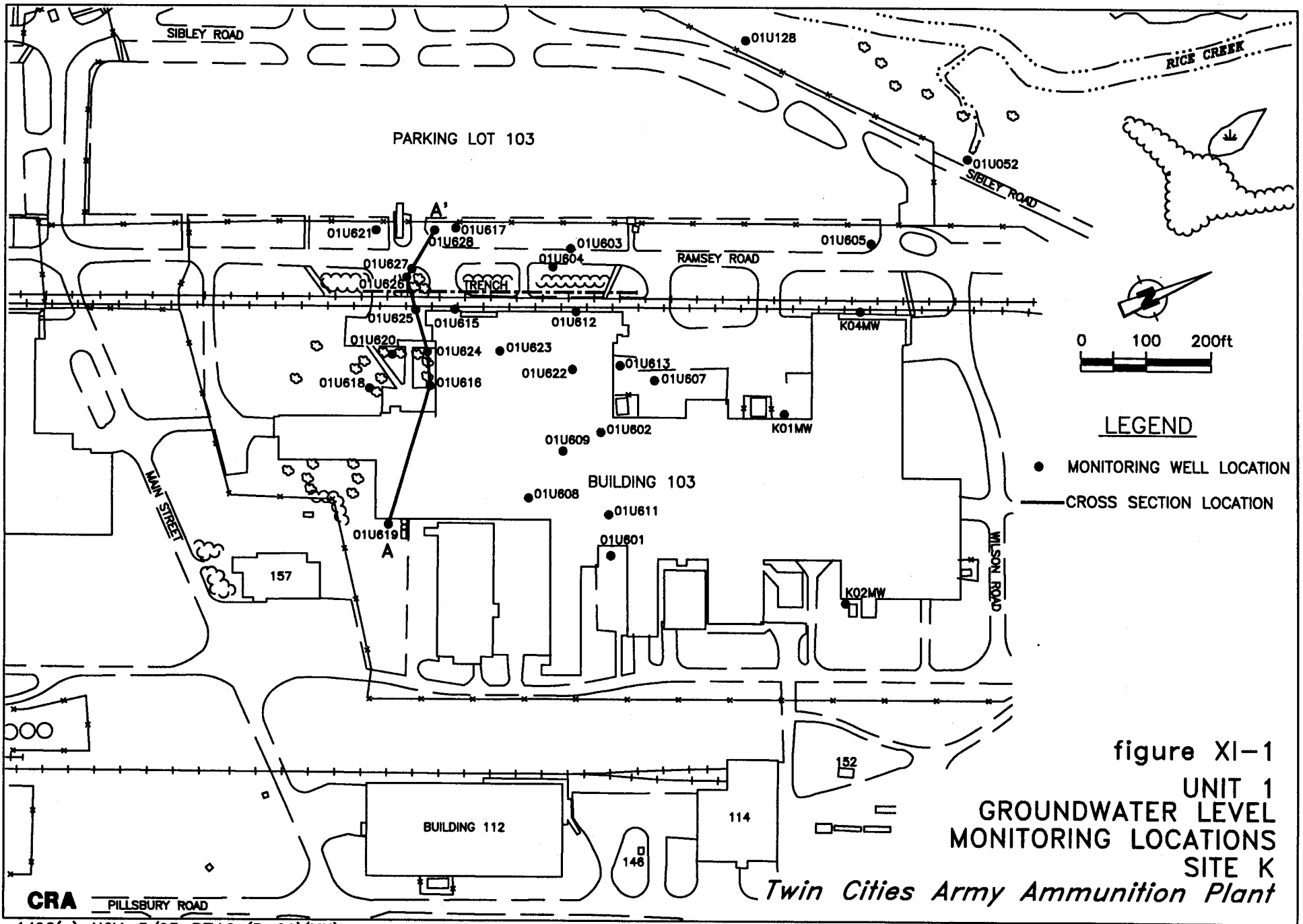
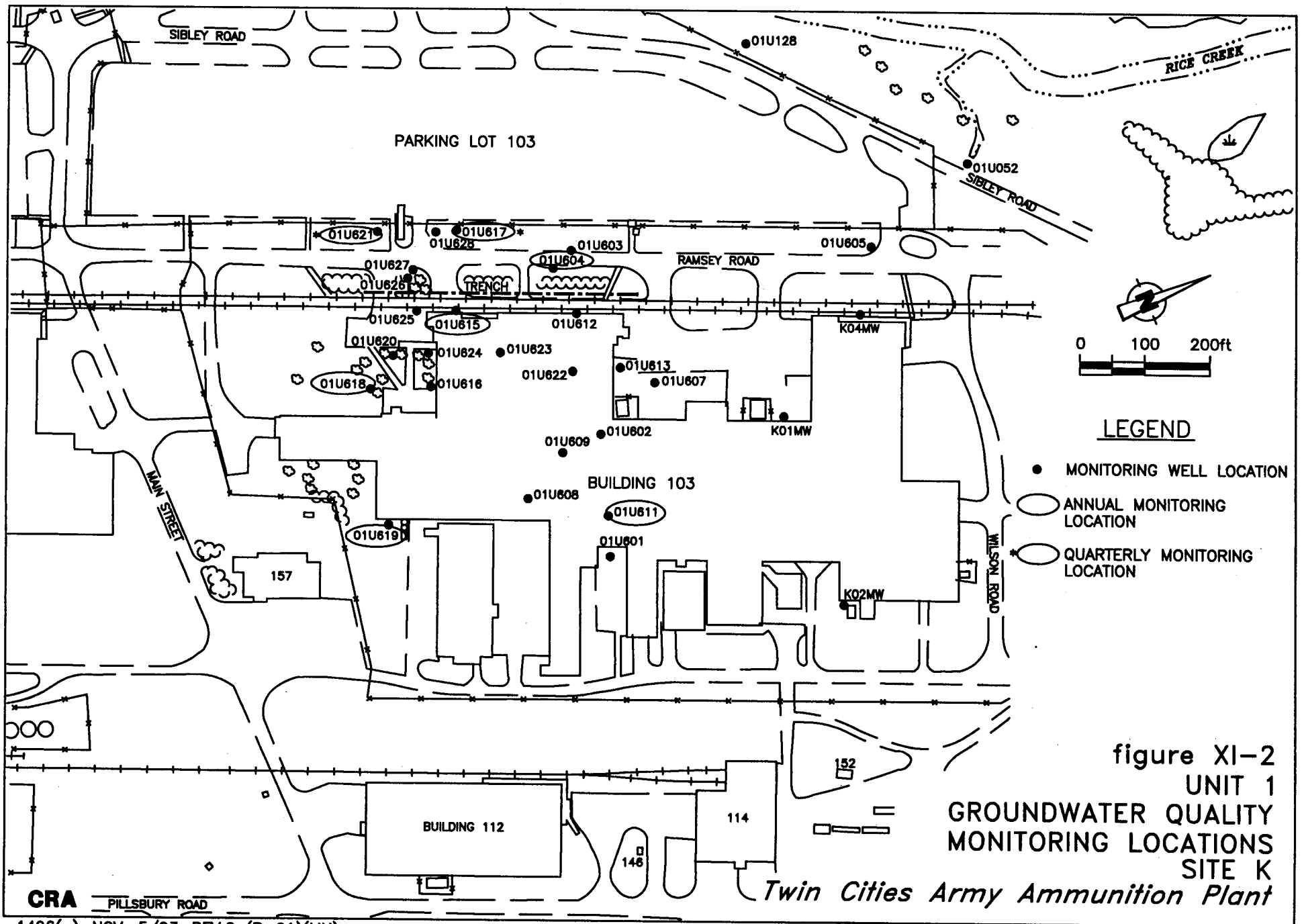
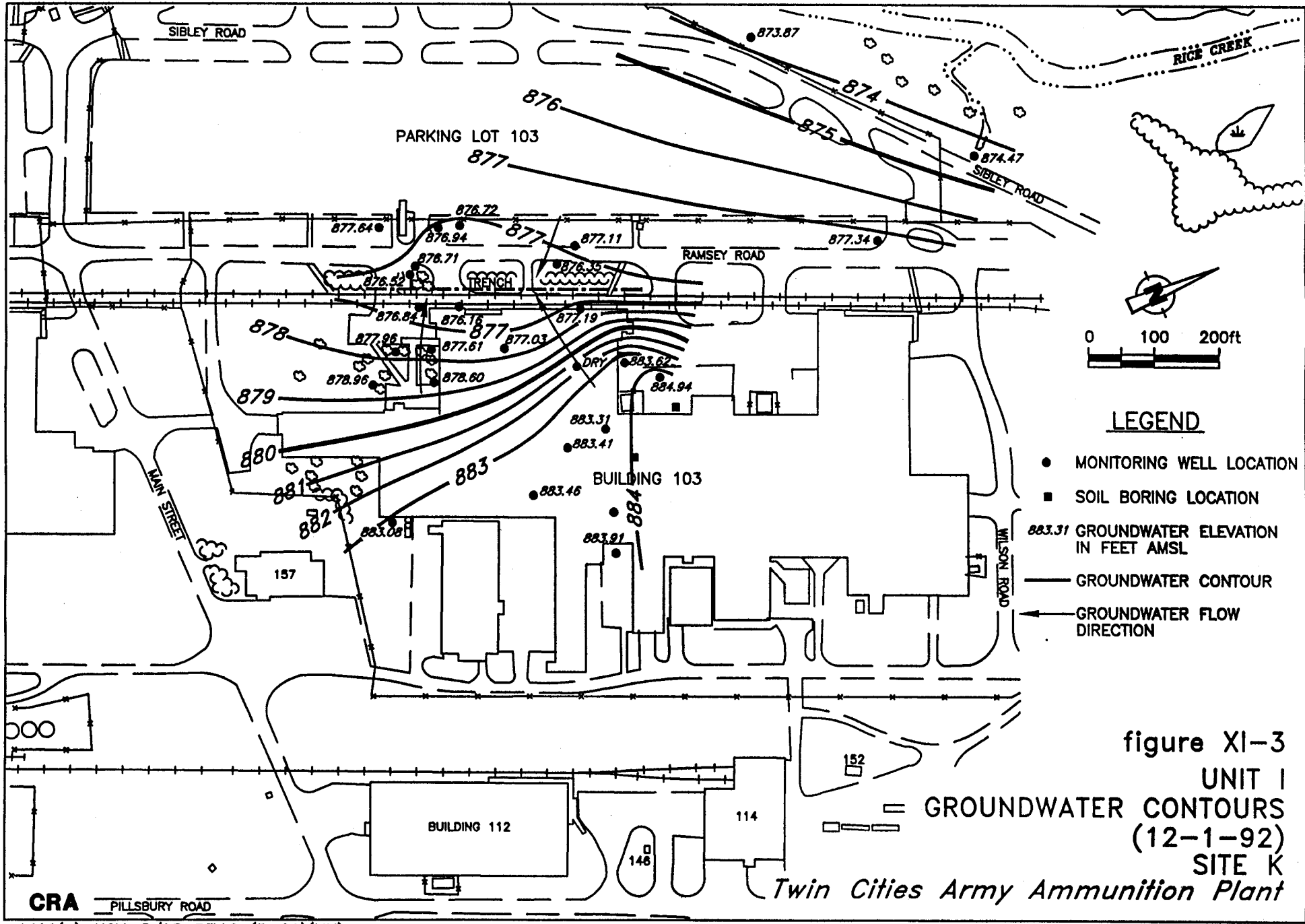


figure XI-1  
 UNIT 1  
 GROUNDWATER LEVEL  
 MONITORING LOCATIONS  
 SITE K  
 Twin Cities Army Ammunition Plant



- LEGEND**
- MONITORING WELL LOCATION
  - ANNUAL MONITORING LOCATION
  - ◌ QUARTERLY MONITORING LOCATION

figure XI-2  
 UNIT 1  
 GROUNDWATER QUALITY  
 MONITORING LOCATIONS  
 SITE K  
*Twin Cities Army Ammunition Plant*



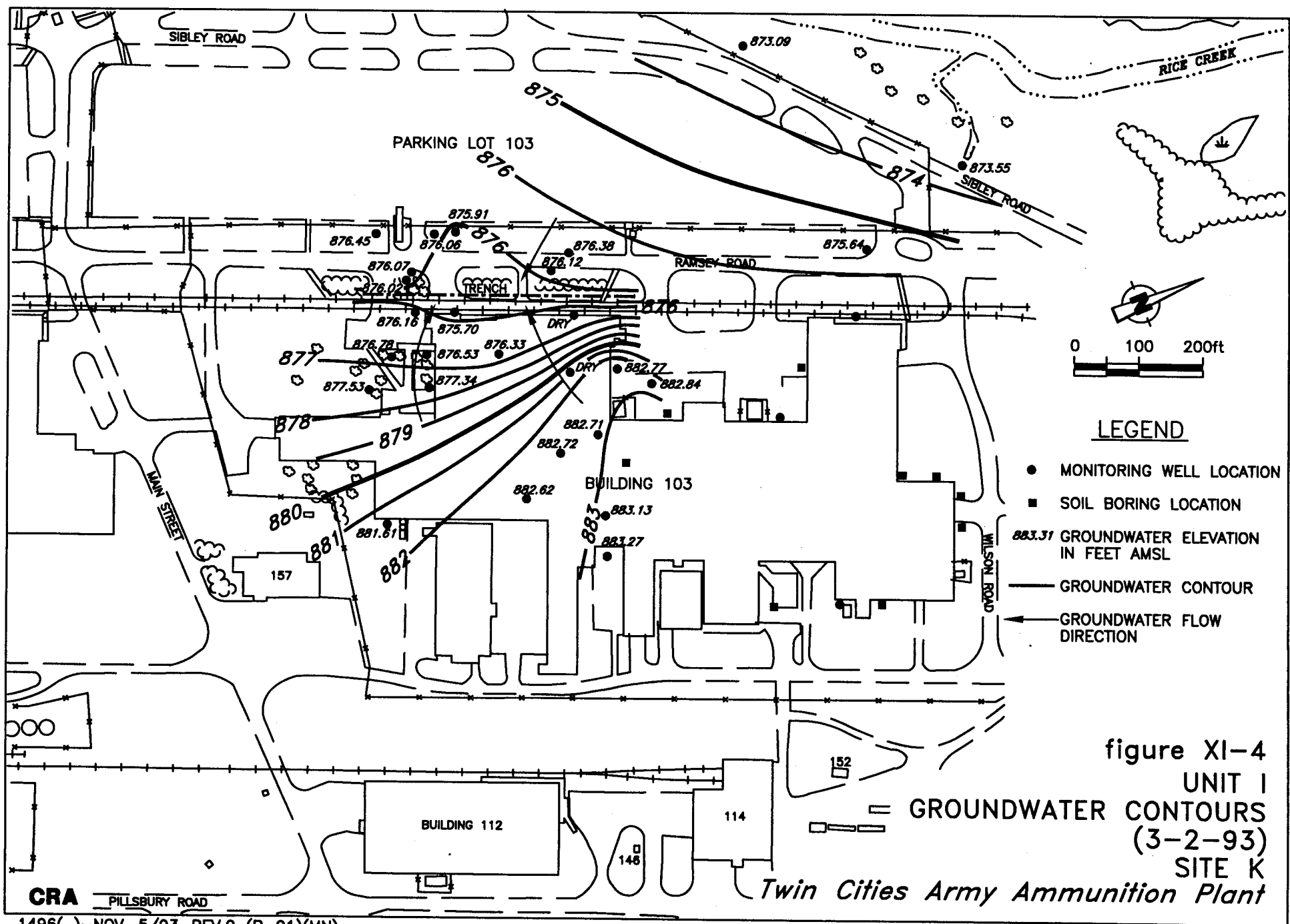
**LEGEND**

- MONITORING WELL LOCATION
- SOIL BORING LOCATION
- 883.31 GROUNDWATER ELEVATION IN FEET AMSL
- GROUNDWATER CONTOUR
- ← GROUNDWATER FLOW DIRECTION

figure XI-3  
 UNIT I  
 GROUNDWATER CONTOURS  
 (12-1-92)  
 SITE K

*Twin Cities Army Ammunition Plant*

**CRA** PILLSBURY ROAD



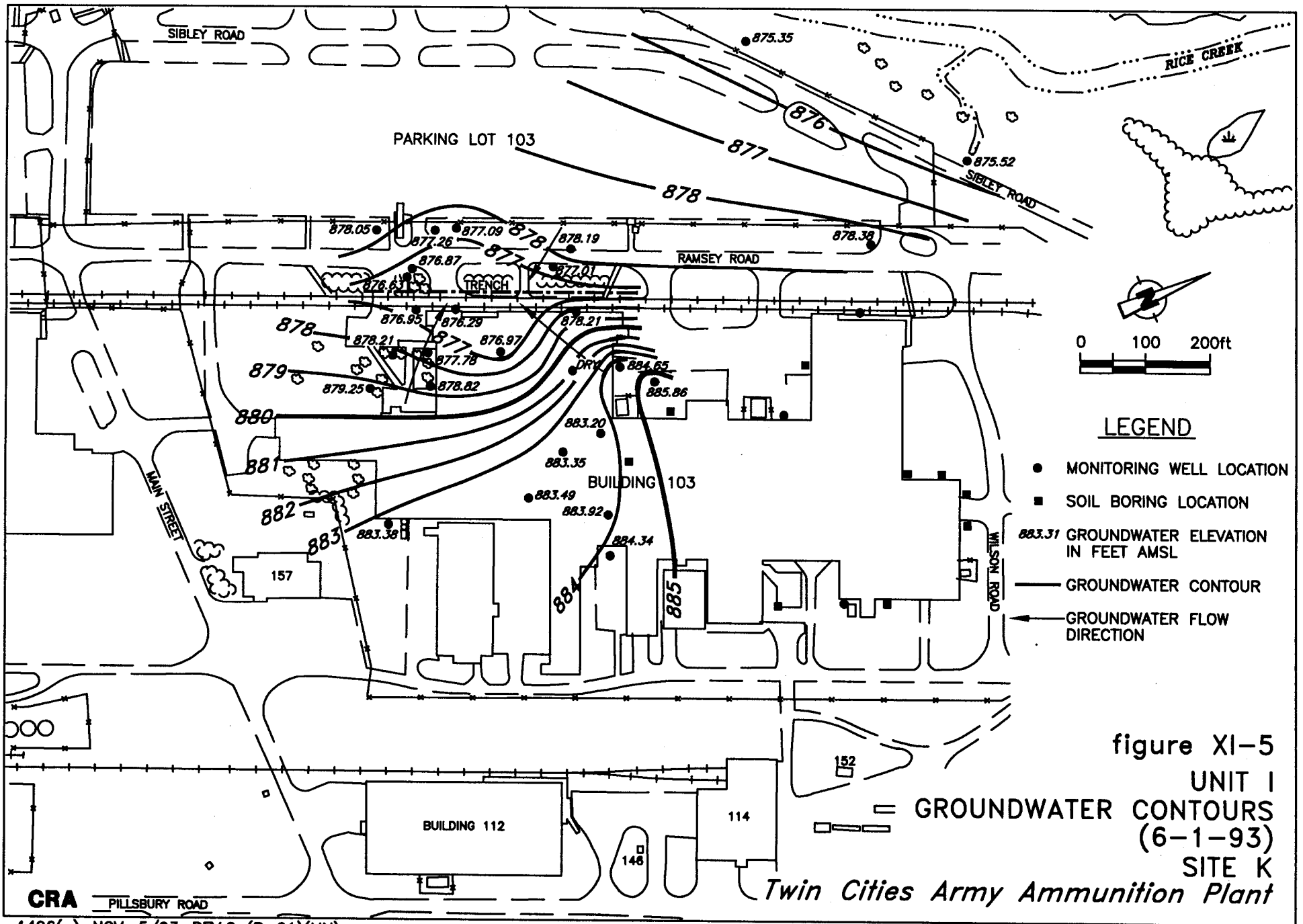
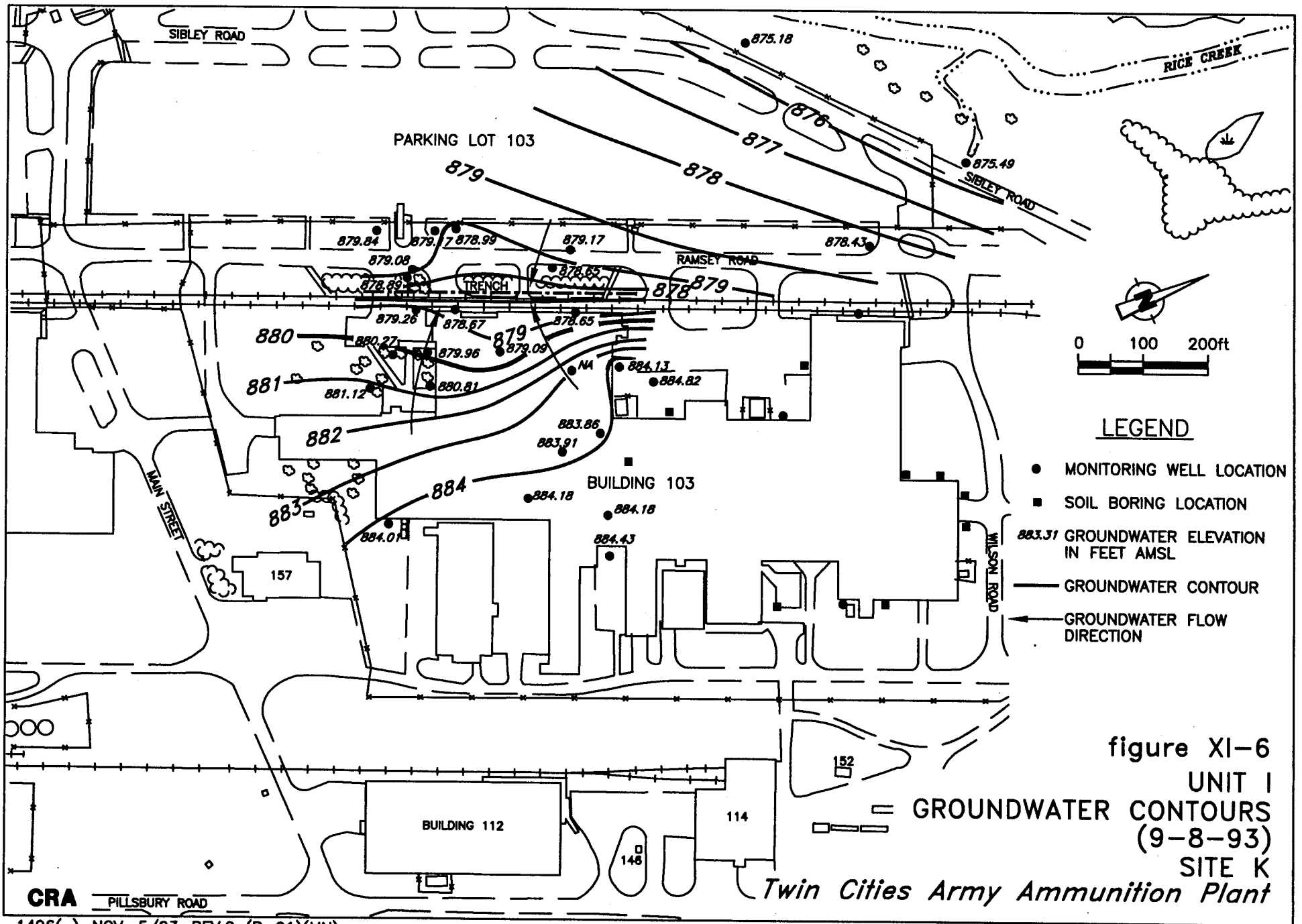


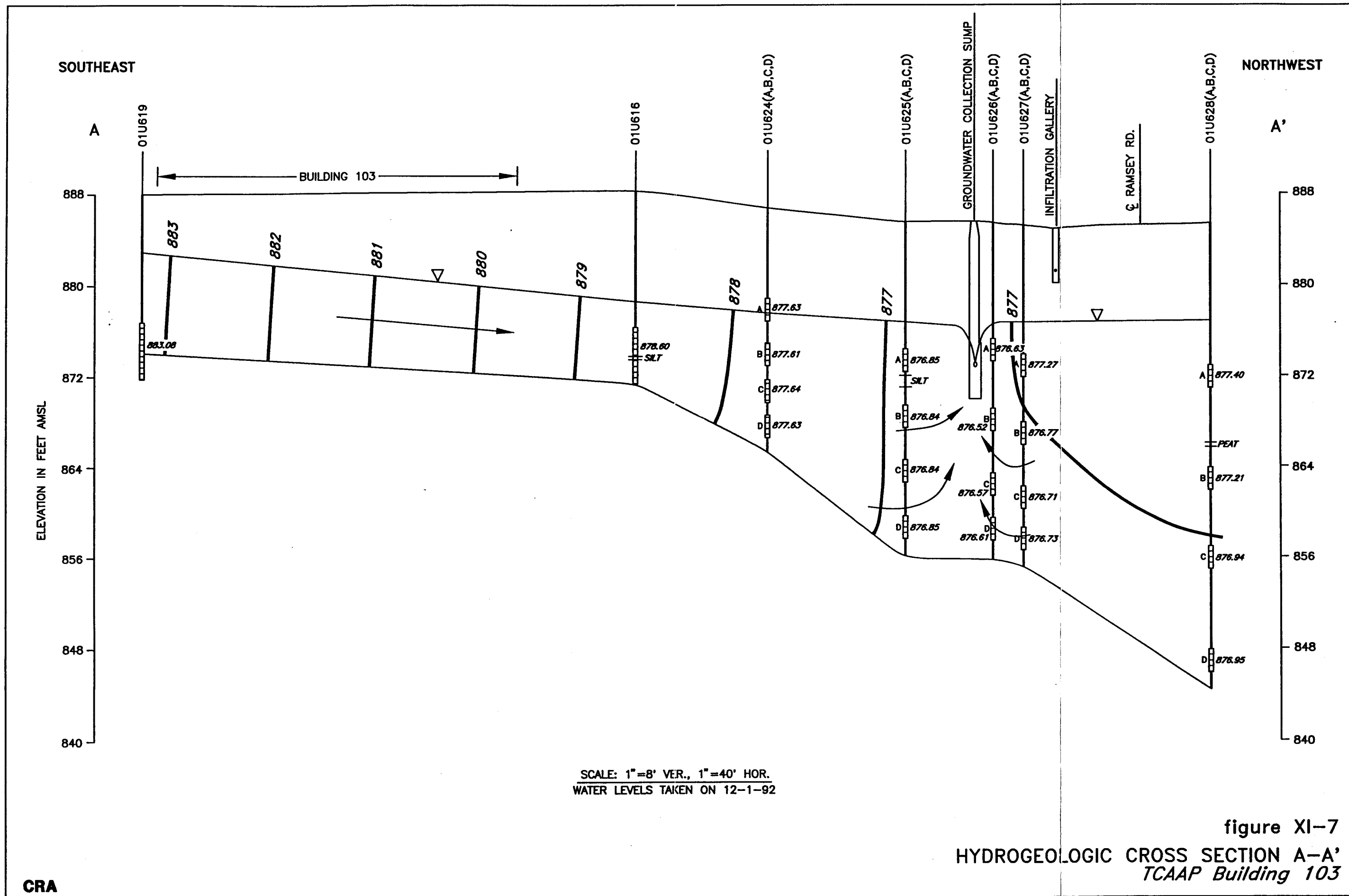
figure XI-5  
 UNIT I  
 = GROUNDWATER CONTOURS  
 (6-1-93)  
 SITE K  
 Twin Cities Army Ammunition Plant



**CRA**

PILLSBURY ROAD





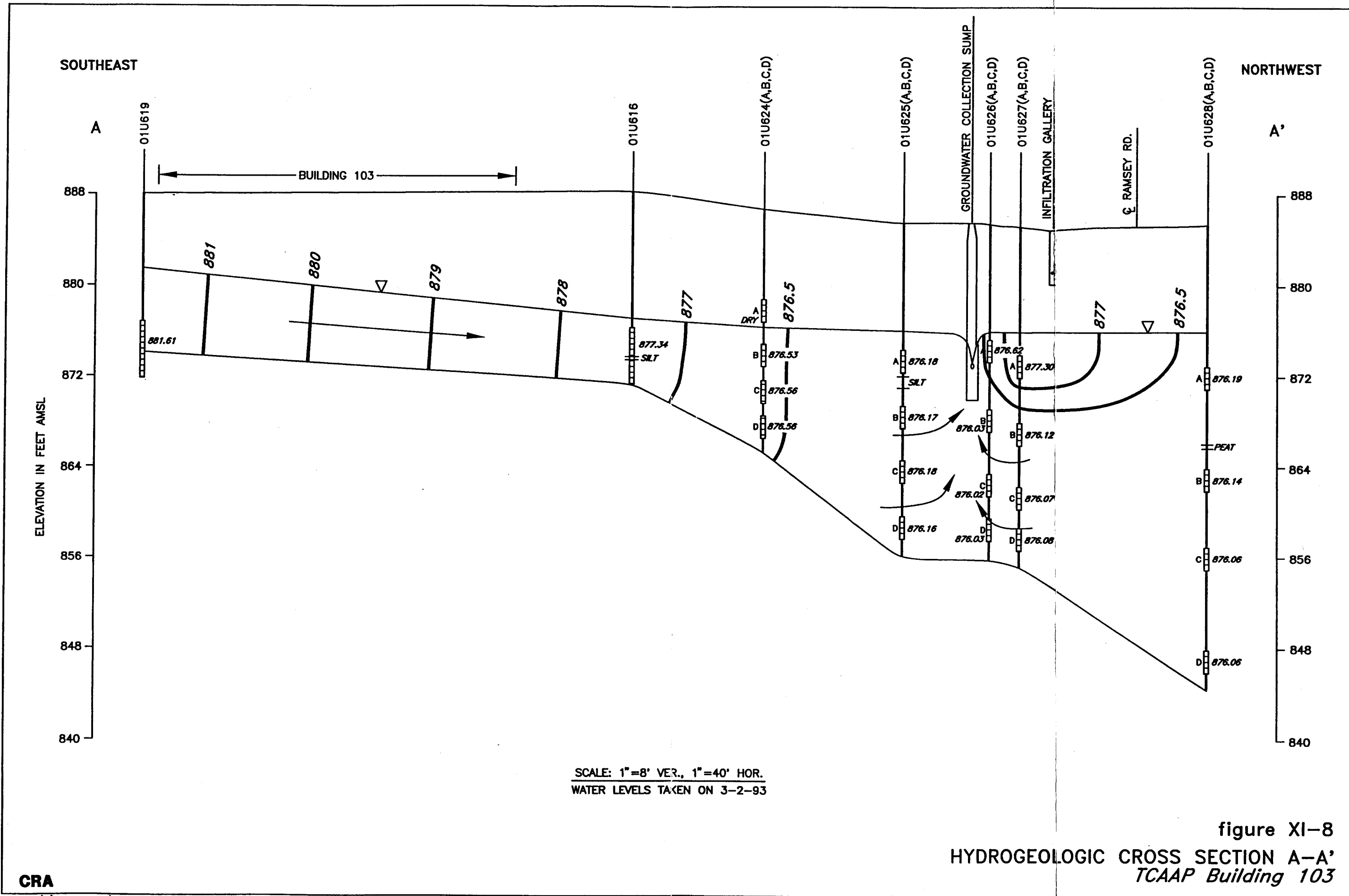
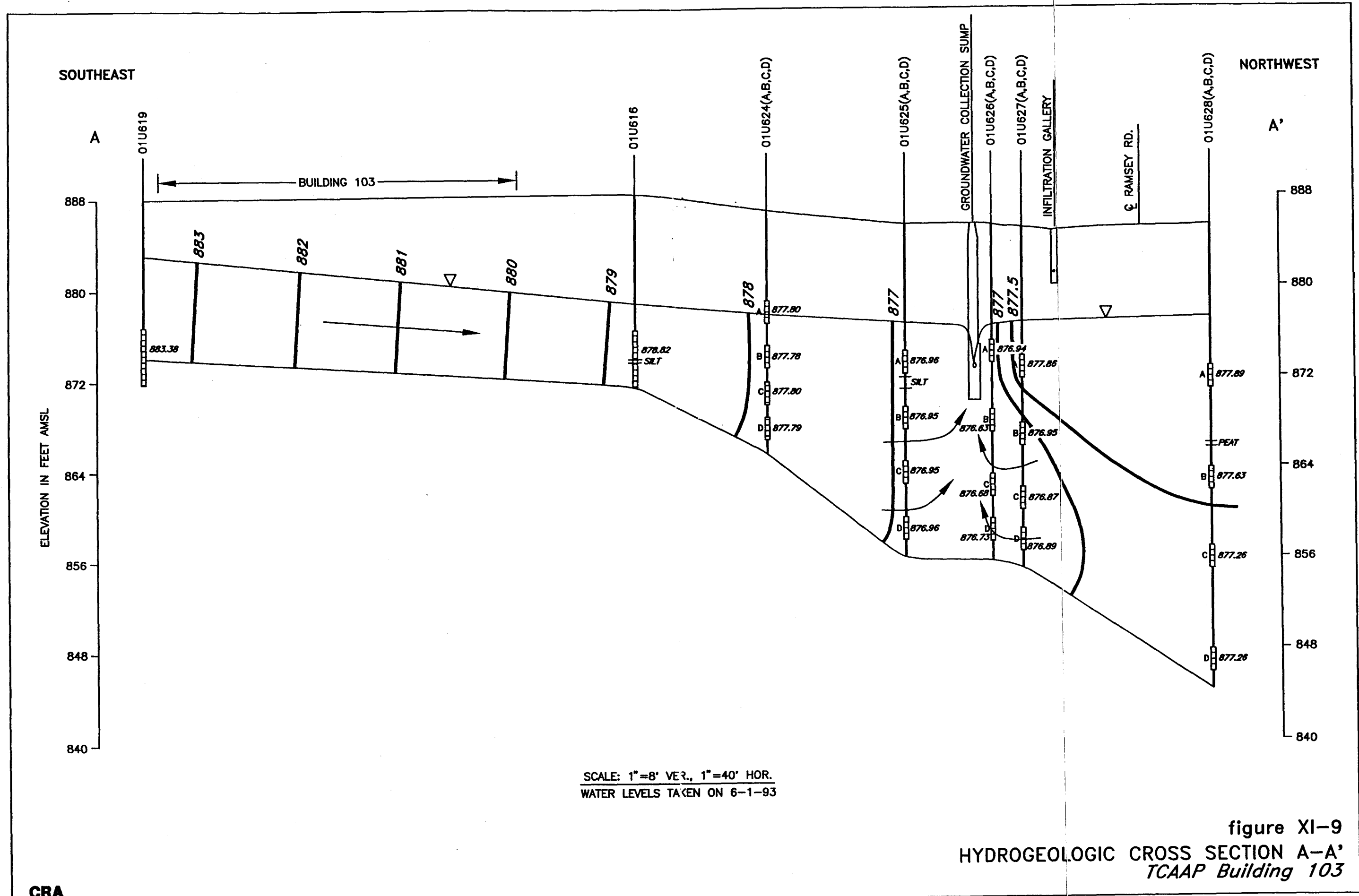


figure XI-8  
HYDROGEOLOGIC CROSS SECTION A-A'  
TCAAP Building 103

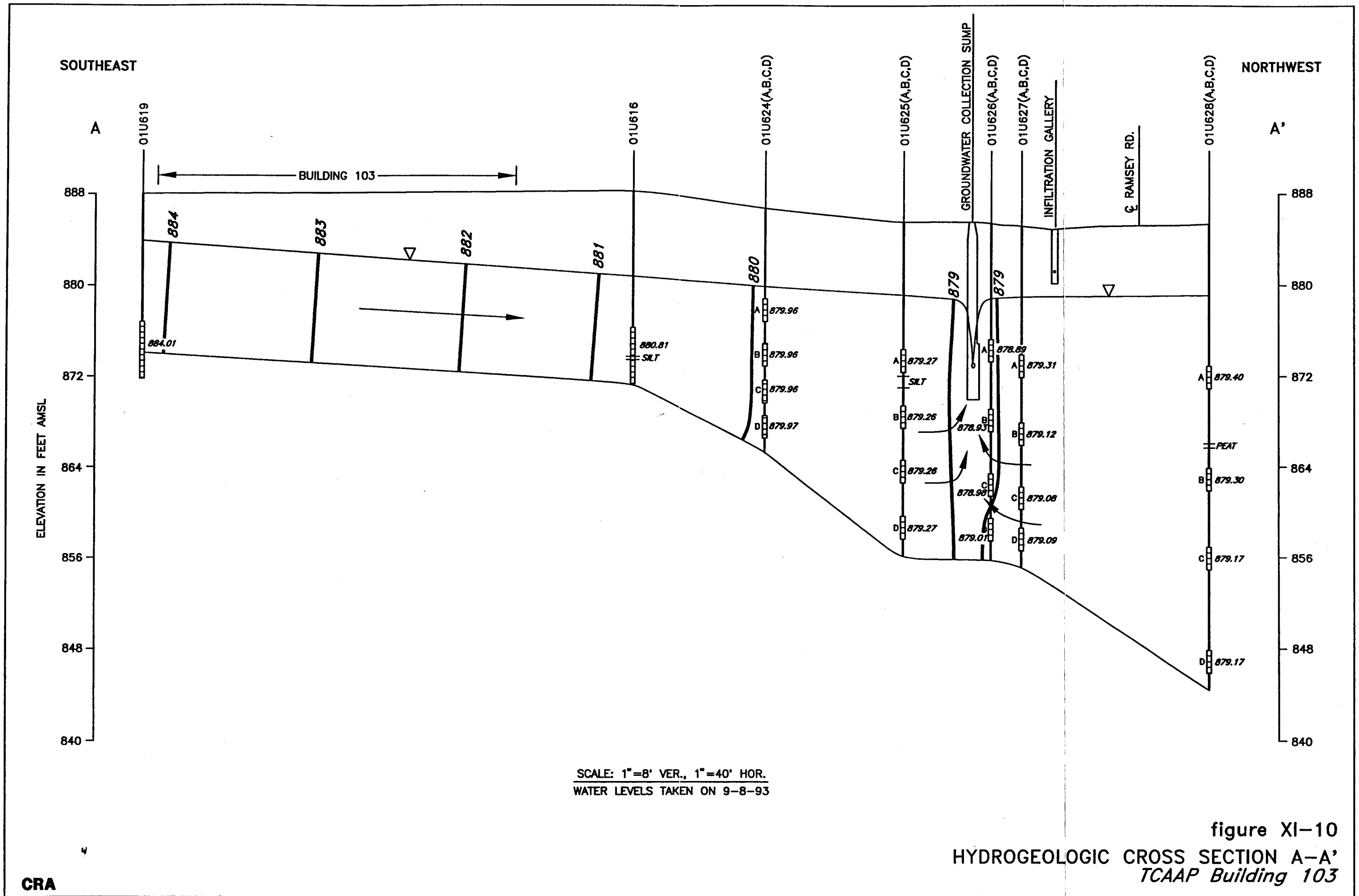
CRA



SCALE: 1"=8' VER., 1"=40' HOR.  
 WATER LEVELS TAKEN ON 6-1-93

figure XI-9  
 HYDROGEOLOGIC CROSS SECTION A-A'  
 TCAAP Building 103

CRA



SCALE: 1"=8' VER., 1"=40' HOR.  
 WATER LEVELS TAKEN ON 9-8-93

figure XI-10  
 HYDROGEOLOGIC CROSS SECTION A-A'  
 TCAAP Building 103

CRA

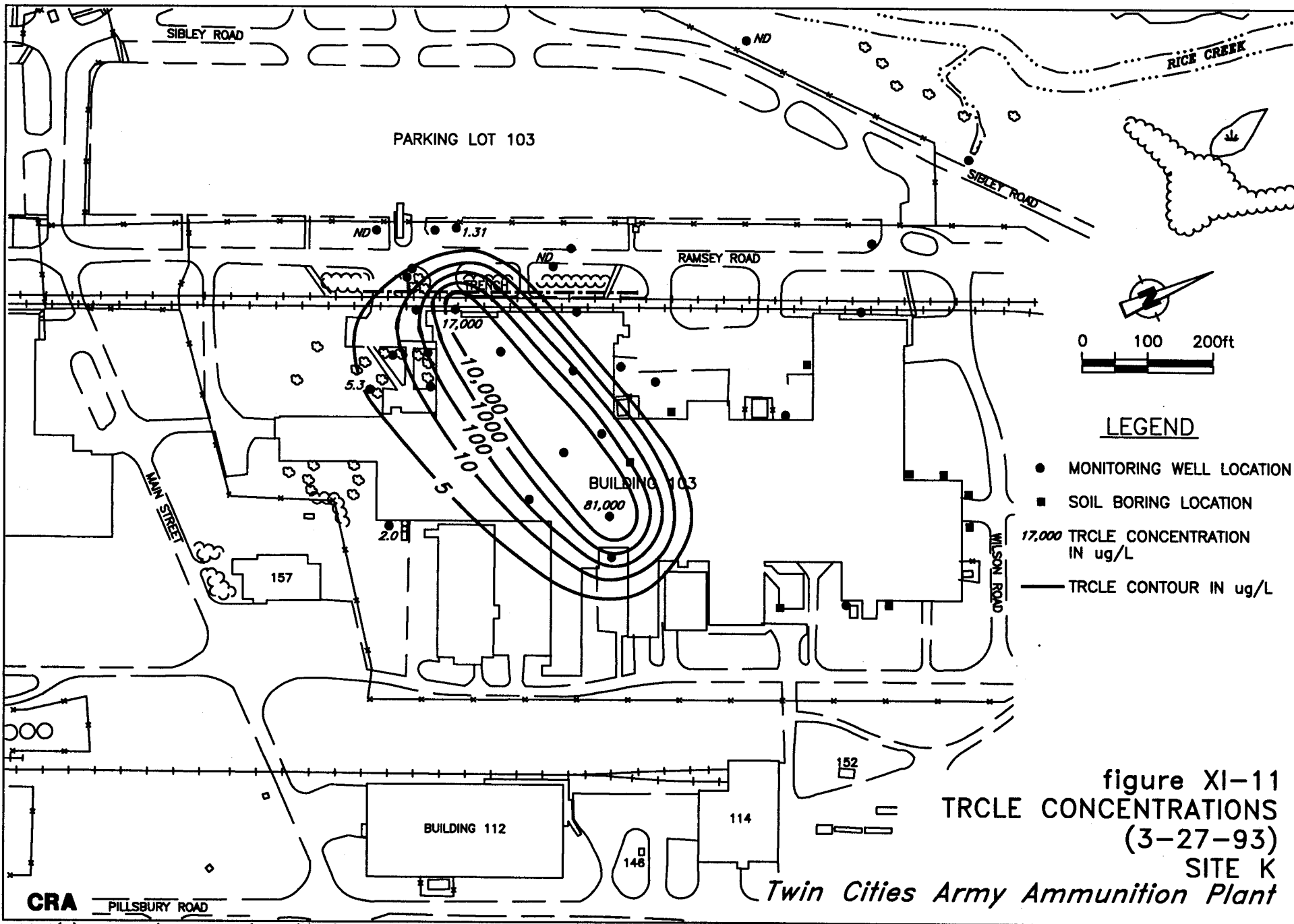
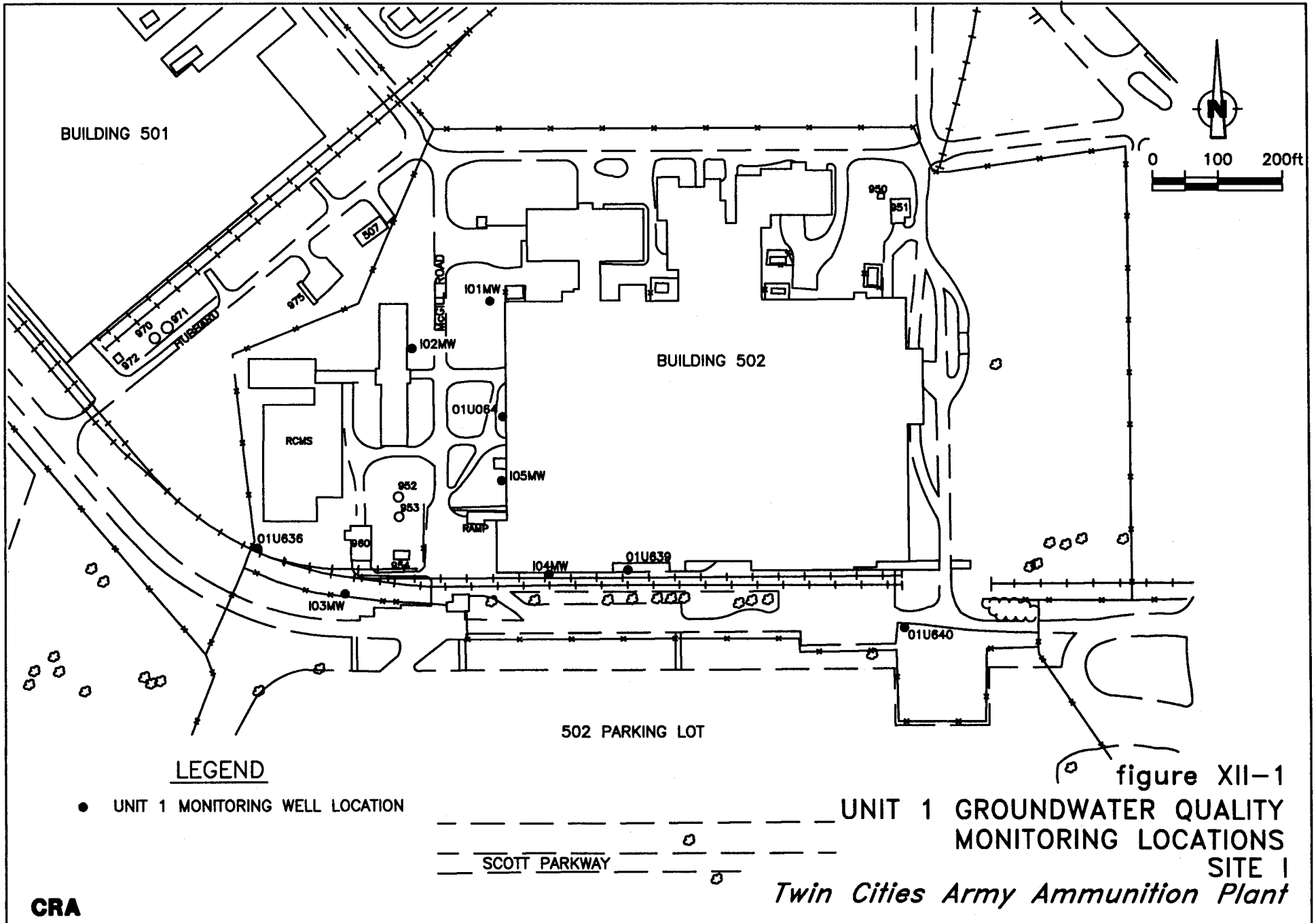


figure XI-11  
 TRCLE CONCENTRATIONS  
 (3-27-93)  
 SITE K  
 Twin Cities Army Ammunition Plant



**CRA**

## APPENDIX A

---

## **Appendix A**

---

### **Select Correspondence**



**Appendix A.1**

**MPCA/EPA Approval Letter for  
FY 93 Annual Monitoring Plan**



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

REPLY TO THE ATTENTION OF:

HSRM-6J

OCT 08 1992

Mr. Martin R. McCleery  
Remedial Project Manager  
Twin Cities Army Ammunition Plant  
New Brighton, Minnesota 55112-5700

Re: Consistency Test for the Fiscal Year 1991 Annual Monitoring Report/Fiscal Year 1993 Annual Monitoring Plan for the Twin Cities Army Ammunition Plant

Dear Mr. McCleery:

Staff at the U.S. Environmental Protection Agency (EPA) and the Minnesota Pollution Control Agency (MPCA) have reviewed the subject document. You are hereby advised that, in accordance with Chapter XIV of the Federal Facility Agreement, the Fiscal Year 1991 Annual Monitoring Report/Fiscal Year 1993 Annual Monitoring Plan for the Twin Cities Army Ammunition Plant passes the Consistency Test.

If you have any questions, please contact Tom Barounis of the EPA at (312) 353-5577 or Dagmar Romano of the MPCA at (612) 296-7776.

Sincerely,

Tom Barounis  
Tom Barounis  
Remedial Project Manager  
U.S. EPA

Tom Barounis  
Dagmar Romano  
Project Manager  
MPCA

## **Appendix A.2**

### **Documentation of Missing Data Points**

November 11, 1993

Contracting Officer's Representative  
Twin Cities Army Ammunition Plant  
Department of the Army  
New Brighton, Minnesota 55112

Attention: SMCTC-EV

Dear Sir:

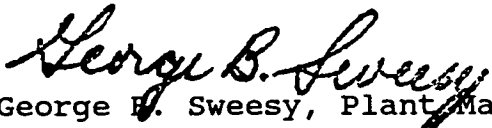
Subject: NPDES Third Quarter CY1993 Radiological Data

Attached are lab results for the above referenced radiological data. Sampling points 20200 and 20400 were substituted for points 20100 and 20500 due to flooding/insufficient flow.

The POC is J. Sandstrom, ext. 464.

Very truly yours,

FEDERAL CARTRIDGE COMPANY  
Twin Cities Army Ammunition Plant

  
George B. Sweesy, Plant Manager

GBS/JS/10

Attachments

cc: D. L. Terho, w/o Attach.  
B. Manderfeld, w/o Attach.  
Environmental Files, w/Attach.

disk #2/0

May 10, 1993

Contracting Officer's Representative  
Twin Cities Army Ammunition Plant  
Department of the Army  
New Brighton, Minnesota 55112

Attention: SMCTC-EV

Dear Sir:

Subject: Quarter 38 Monitoring

Sampling for the second quarter of FY93 (Quarter 38) was completed March 23, 1993.

Attached are copies of the groundwater level measurements, sampling sequence sheets, analytical results, chain of custody forms, and field logs/notes. These should be forwarded to the MPCA and EPA per the Federal Facility Agreement.

The analysis for Site A March Sampling which is part of the FY93 Monitoring Plan (01U108 - Cat. 1, 01U350 - Cat. 1 & 2, 01U902 - Cat. 1) is also attached.

All wells included in the FY93 Monitoring Plan were sampled and/or had water levels measured with the following exceptions:

Water Quality

well 206791	Not in operation
well 206787	Not in operation
well 200812	Not in operation
well 03U824	Could not locate
well 409556	Obstruction in well
well 233221	Permission denied

Water Levels

well 206791	No access for measurement
well 200812	No access for measurement
well 206787	No access for measurement
well 234547	No access for measurement
well 234546	No access for measurement
well 405651	No access for measurement
well 03U824	Could not locate
well 409556	Obstruction in well
well 01L816	Could not locate
well 233221	Permission denied

Contracting Officer's  
Representative

-2-

May 10, 1993

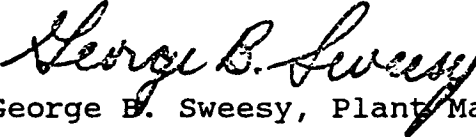
The laboratory data packages for Quarter 36 can be reviewed at  
Pace.

Additional quality assurance data will be forwarded as it is  
received.

The POC is Bridgette Manderfeld, ext. 460.

Very truly yours,

FEDERAL CARTRIDGE COMPANY  
Twin Cities Army Ammunition Plant

  
George B. Sweesy, Plant Manager

GBS/BM/lo

Attachments

cc: D. L. Terho, w/o Attach.  
Environmental Files, w/Attach. (Q38 Corresp.)

disk #2/o

MN FILE COPY

CONESTOGA-ROVERS & ASSOCIATES  
1801 Old Highway 8, Suite 114  
St. Paul, Minnesota 55112  
(612) 639-0913 Fax: (612) 639-0923

April 2, 1993

Reference No. 5142-30

Mr. Douglas J. Fullen  
MN29-3553  
ALLIANT TECHSYSTEMS  
Twin City Army Ammunition Plant  
Building 103  
New Brighton, Minnesota 55112

Dear Doug:

Re: Annual Sampling Summary: TGRS, Site I and Site K

Attached is the sampling summary and supporting documentation for the TGRS, Site I and Site K for the annual round conducted during March 1993. All required water levels and samples were collected with the exception of dry Unit 1 wells at Site I and Site K.

If you have any questions, please call.

Sincerely,

CONESTOGA-ROVERS AND ASSOCIATES



Brian C. Boevers

Enc.  
BCB/jm

**CRA**

**CONESTOGA-ROVERS & ASSOCIATES**

1801 Old Highway 8, Suite 114

St. Paul, Minnesota 55112

(612) 639-0913

Fax: (612) 639-0923

February 9, 1994

Reference No. 5142-40

Mr. Martin McCleery  
TWIN CITIES ARMY AMMUNITION PLANT  
Attn: SMCTC-EV  
Building 105  
New Brighton, Minnesota 55112

Dear Mr. McCleery:

Re: Data Exceptions - Sites I and K September 1993 Monitoring Event

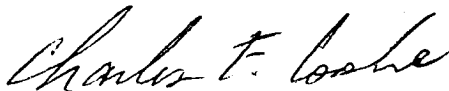
At Site I, well 01U639, it was not possible to measure the water level in the well or collect a water quality sample because the well was dry.

At Site K, well 01U622, it was not possible to measure the water level in the well as construction activities precluded access to the well.

If you have any questions, please do not hesitate to contact us.

Very Truly Yours,

CONESTOGA-ROVERS & ASSOCIATES



Charles F. Cooke, P.E.

CFC/kjs

c.c.: S. Roberts; Alliant Techsystems Inc.

B. Manderfeld; FCC

L. Olson; Wenck

B. Boevers; CRA



**Appendix A.3**

**Well Abandonment Records**

#6

Minnesota Well and Boring Sealing No

H 34638

206753

WELL OR BORING LOCATION

MINNESOTA DEPARTMENT OF HEALTH

WELL AND BORING SEALING RECORD

Minnesota Unique No or W-series No

County Name: RAYSEY

Well Name: NEW BRIGHTON Township No: 30N Range No: 23 Section No: 16 Fraction: S 1/4

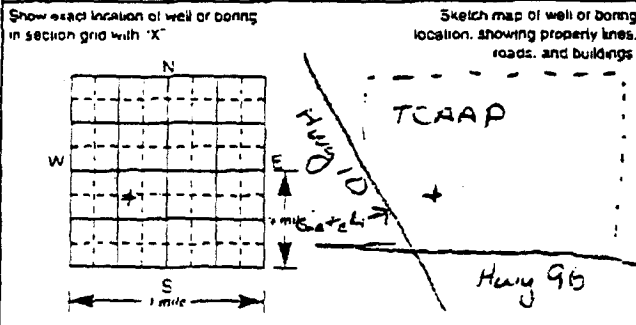
Date Sealed: 7-20-93

Approximate Date Well or Boring Constructed: 7-20-42

Numerical Street Address or Fire Number and City of Well or Boring Location: TWIN CITY ARSENAL PLANT

Depth Before Sealing: 385 ft

Original Depth: 385 ft



Static Water Level: 81 ft below land surface

Single Aquifer: [ ] Multi-aquifer: [X]

PROPERTY OWNER'S NAME: TWIN CITY ARSENAL PLANT

CASING TYPE: [X] Steel [ ] Plastic [ ] Tile [ ] Other

Screen from 244.7 to 385 ft

Federal Cartridge Company TCAAP New Brighton, MN 55112-5795

OBSTRUCTION/DEBRIS/FILL: [X] Fill

SAND & SMALL ROCK BAILED OUT 28'

Table with columns: GEOLOGICAL MATERIAL, COLOR, HARDNESS OF FORMATION, FROM, TO. Rows include CLAY DRIFT, SAND - GRAVEL, DOLOMITE, SANDSTONE, SILTSTONE.

PUMP: [X] Removed [ ] Not Present [ ] Other

CASING: Diameter 24 in, Depth 0 to 181 ft

CASING: Diameter 18 in, Depth 0 to 244.7 ft

METHOD USED TO SEAL ANNULAR SPACE BETWEEN 2 CASINGS, OR CASING AND BORE HOLE: [X] No Annular Space Exists

CASING GROUTED IN PLACE WHEN INSTALLED

GROUTING MATERIAL: NEET GROUT from 385 to 0 ft, 45 yards, 1035 bags

REMARKS, SOURCE OF DATA, DIFFICULTIES IN SEALING: DRILLERS LOG DATED 8-15-42

Type of perforator: [ ] Perforated [ ] Removed

Type of perforator: [ ] Perforated [ ] Removed

UNSEALED WELLS AND BORINGS: Other unsealed well or boring on property? [X] Yes [ ] No

LICENSED OR REGISTERED CONTRACTOR CERTIFICATION: LAYNE MINNESOTA COMPANY 27010

Authorized Representative Signature: [Signature]

Date: [Blank]

#7

MINNESOTA DEPARTMENT OF HEALTH

Minnesota Well and Boring Sealing No

H 34639

WELL OR BORING LOCATION

County Name: RAMSEY

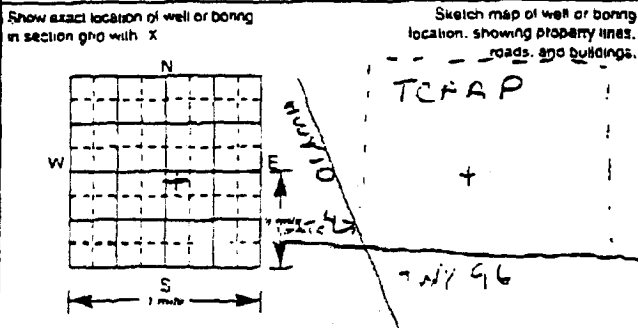
WELL AND BORING SEALING RECORD

Minnesota Unique No or W-series No

206755

Well Name: NEW BRIGHTON 30 N L 23 Section No: 16 Date Sealed: 7-22-93

Approximate Date Well or Boring Constructed: 8-4-42 Depth Before Sealing: 388.6 ft Original Depth: 390 ft



Static Water Level: Accurate 88 ft below land surface

PROPERTY OWNER'S NAME: TWIN CITY ARSENAL PLANT FEDERAL CARTRIDGE COMPANY TCAAP NEW BRIGHTON, MN 55112-5795

CASING TYPE: Steel Screen from 202.7 to 390 ft

Table with columns: GEOLOGICAL MATERIAL, COLOR, HARDNESS OF FORMATION, FROM, TO. Rows include DRIFT, CLAY, SAND, GRAVEL, DOLOMITE, SANDSTONE, SILTSTONE.

OBSTRUCTION/DEBRIS/FILL: NONE

CASING: Diameter 24 in. Depth 0 to 202 ft. Annular space initially grouted? No

METHOD USED TO SEAL ANNULAR SPACE BETWEEN 2 CASINGS, OR CASING AND BORE HOLE: No Annular Space Exists

GROUTING MATERIAL: NEET GROUT from 390 to 62 ft. 1426 bags

REMARKS. SOURCE OF DATA. DIFFICULTIES IN SEALING: MINNESOTA GEOLOGICAL SURVEY 5-30-86

UNSEALED WELLS AND BORINGS: Other unsealed well or boring on property? Yes

LICENSED OR REGISTERED CONTRACTOR CERTIFICATION: This well or boring was sealed in accordance with Minnesota Rules, Chapter 4725.

LAYNE MINNESOTA COMPANY 27010 Authorized Representative Signature: [Signature] Date: 8-3-93

#8

MINNESOTA DEPARTMENT OF HEALTH

Minnesota Well and Boring Sealing No

H 34640  
206759

WELL AND BORING SEALING RECORD  
Minnesota Statutes Chapter 1031

WELL OR BORING LOCATION  
County Name  
**RAMSEY**

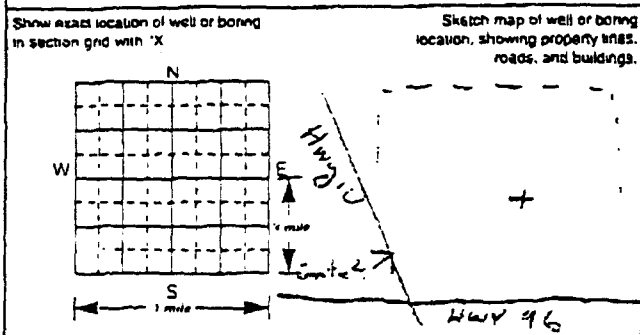
Well Name  
**NEW BRIGHTON 30 N.**  
Township No. **30 N.**  
Range No. **23**  
Section No. **16**

Date Sealed  
**8-2-93**

Approximate Date Well or Boring Constructed  
**10-10-42**

Numerical Street Address or Fire Number and City of Well or Boring Location  
**TWIN CITY ARSENAL PLANT**

Depth Before Sealing **365** ft. Original Depth **385** ft.



Static Water Level  Accurate  Approximate  
**95** ft. **X** below above land surface

PROPERTY OWNER'S NAME  
**TWIN CITY ARSENAL PLANT**

CASING TYPE  
 Steel  Plastic  Tile  Other  
Screen from \_\_\_\_\_ to \_\_\_\_\_ ft. Open Hole from **212** to **405** ft.

Mailing Address if different than property address indicated above.  
**FEDERAL CARTRIDGE COMPANY  
TCAAP  
NEW BRIGHTON, MN 55112-5795**

OBSTRUCTION/DEBRIS/FILL  
 Obstruction  Debris  Fill  
Type of debris/obstruction **SAND & SMALL ROCK BAILED OUT 20'**  
Obstruction/Debris/Fill removed?  Yes  No

GEOLOGICAL MATERIAL	COLOR	HARDNESS OF FORMATION	FROM	TO
CLAY			0	10
CLAY	BLUE		10	25
CLAY			25	72
SAND, GRAVEL			72	99
CLAY			99	136
SAND			136	148
SAND			148	187
SAND, GRAVEL			187	207
DOLOMITE		VERY HARD	207	240
DOLOMITE			240	311
SANDSTONE			311	400
SHALE			400	405

PUMP  
 Removed  Not Present  Other

CASING  
Diameter **24** in. Depth **0** to **212** ft.  
Set in oversize hole?  Yes  No  
Annular space initially grouted?  Yes  No  Unknown

METHOD USED TO SEAL ANNULAR SPACE BETWEEN 2 CASINGS, OR CASING AND BORE HOLE:  
 No Annular Space Exists  
 Annular space grouted with frame pipe  
 Casing Perforation/Removal  
\_\_\_\_\_ in. from \_\_\_\_\_ to \_\_\_\_\_ ft.  Perforated  Removed  
\_\_\_\_\_ in. from \_\_\_\_\_ to \_\_\_\_\_ ft.  Perforated  Removed  
Type of perforator \_\_\_\_\_  
 Other \_\_\_\_\_

GROUTING MATERIAL  
Grouting material **NEET GROUT** from **405** to **0** ft. **81** yards **1863** bags  
\_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yards \_\_\_\_\_ bags  
\_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yards \_\_\_\_\_ bags  
\_\_\_\_\_ from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yards \_\_\_\_\_ bags

REMARKS, SOURCE OF DATA, DIFFICULTIES IN SEALING  
**SOURCE OF DATA-KEYS WELL CO. & MINNESOTA GEOLOGICAL SURVEY**  
**5-30-86**

UNSEALED WELLS AND BORINGS  
Other unsealed well or boring on property?  Yes  No

LICENSED OR REGISTERED CONTRACTOR CERTIFICATION  
This well or boring was sealed in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

**LAYNE MINNESOTA COMPANY** **27010**  
Contractor Business Name License or Registration No.  
Authorized Representative Signature Date

## APPENDIX B

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## **Appendix B**

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### **Well Designation Cross Reference Guide**

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
03L001	S1L3	234137	
03M001	S1M3	234136	
03U001	S1U3	234135	
04U001	S1U4	234138	
03L002	S2L3	234141	
03M002	S2M3	234140	
03U002	S2U3	234139	
04U002	S2U4	234194	
01U003	S3U1	236176	
03L003	S3L3	234144	
03M003	S3M3	234143	
03U003	S3U3	234142	
04U003	S3U4	234193	
PJ#003	S3PJ	236468	
01U004	S4U1	234198	
03M004	S4M3	234146	
03L004	S4L3	234147	
03U004	S4U3	234145	
03L005	S5L3	236079	
03M005	S5M3	440885	
03U005	S5U3	234148	
03U006	S6U3	234149	
03L007	S7L3	234152	
03M007	S7M3	234151	
03U007	S7U3	234150	
04U007	S7U4	234195	
03U008	S8U3	234153	
03U009	S9U3	234154	
03L010	S10L3	234157	
03M010	S10M3	234156	
03U010	S10U3	234155	
01U011	S11U1	234199	
03U011	S11U3	234158	
01U012	S12U1	234200	
03L012	S12L3	234161	
03M012	S12M3	234160	
03U012	S12U3	234159	
04U012	S12U4	234196	
03L013	S13L3	234164	
03M013	S13M3	234163	
03U013	S13U3	234162	
03L014	S14L3	235748	
03U014	S14U3	234165	
03U015	S15U3	234166	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
03U016	S16U3	234167	
03L017	S17L3	234170	
03M017	S17M3	234169	
03U017	S17U3	234168	
03L018	S18L3	235749	
03U018	S18U3	234171	
03U019	S19U3	234172	
03L020	S20L3	234175	
03M020	S20M3	234174	
03U020	S20U3	234173	
04U020	S20U4	234197	
03L021	S21L3	235750	
03U021	S21U3	234176	
01U022	S22U1	234201	
03U022	S22U3	236178	
03U023	S23U3	236179	
03U024	S24U3	236180	
03U025	S25U3	236181	
03U026	S26U3	236182	
03L027	S27L3	235751	
03U027	S27U3	236183	
04U027	S27U4	242138	
PJ#027	S27PJ	236469	
03L028	S28L3	235752	
03U028	S28U3	236184	
03L029	S29L3	235753	
03U029	S29U3	236185	
03U030	S30U3	236186	
03U031	S31U3	236187	
03U032	S32U3	236188	
01U033	S33U1	234202	
01U034	S34U1	234204	
01U035	S35U1	234205	
01U036	S36U1	234206	
01U037	S37U1	234207	
01U038	S38U1	234208	
01U039	S39U1	234209	
01U040	S40U1	234210	
01U041	S41U1	234211	
01U043	S43AU1	236177	
01U044	S44U1	234212	
01U045	S45U1	234215	
01U046	S46U1	234216	
01U047	S47U1	234217	



USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
01U048	S48U1	234218	
01U050	S50AU1	234221	
01U051	S51U1	234222	
01U052	S52U1	234223	
01U053	S53AU1	234225	
01U054	S54AU1	234227	
01U060	S60U1	234235	
01U062	S62U1	234237	
01U063	S63U1	234239	
01U064	S64U1	234240	
01U065	S65U1	234241	
01U067	S67U1	234243	
01U072	S72AU1	234250	
PJ#074	S74PJ	235565	
03U075	S75U3	236078	
03U076	S76U3	236077	
03L077	S77L3	236076	
03U077	S77U3	236075	
04J077			
04U077	S77U4	426877	
03L078	S78L3	236074	
03U078	S78U3	236073	
03L079	S79L3	242160	
03U079	S79U3	236072	
03L080	S80L3	236071	
03L081	S81L3	236070	
03U082	S82U3	236476	
03U083	S83U3	236478	
03L084	S84L3	440887	
03U084	S84U3	236069	
01U085	S85U1	236479	
03L086	S86L3	236068	
03U087	S87U3	236480	
03U088	S88U3	236482	
03U089	S89U3	236483	
03U090	S90U3	236485	
03L091	S91L3	236067	
03U092	S92U3	236487	
03U093	S93U3	236489	
03U094	S94U3	236066	
03U096	S96U3	236491	
03U097	S97U3	236493	
01U098	S98U1	236494	
03U099	S99U3	236495	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
01U100	S100U1	236497	
01U101	S101U1	236498	
01U102	S102U1	236499	
01U103	S103U1	236500	
01U104	S104U1	236501	
01U105	S105U1	236502	
01U106	S106U1	236503	
01U107	S170U1	236504	
01U108	S108U1	236505	
01U109	S109U1	236506	
01U110	S110U1	236507	
03U111	S111U3	236508	
03U112	S112U3	236510	
03L113	WFIL3	236080	
03U113	WF1U3	242124	
03U114	WF2U3	242125	
01U115		472411	
01U116		427412	
01U117		427413	
01U118		427414	
01U119		427415	
01U120		427410	
03U121		440884	
01U122		440888	
03U124		440896	
01U125		440889	
01U126		440890	
01U127		440891	
01U128		440892	
03U129		440886	
01U130		440895	
01U131			
01U132			
01U133		440893	
01U135		447998	
01U136		447999	
01U137		505189	
03L137			
01U138		505190	
03L138			
01U139		505191	
01U140		505192	
01U141		505193	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
03U301	SC1		
03F302	B1	426842	
03F303	B2	426843	
03F304	B3	426844	
03F305	B4	426845	
03F306	B5	426846	
03F307	B6	426847	
03F308	B7		
PJ#309	B8		
PJ#310	B9		
PJ#311	B10		
03F312	B11		
PJ#313	B12		
03U314	SC-2		
03U315	SC-3		
03U316	SC-4		
03U317	SC-5		
PJ#318	318U4	447894	
04U322	322U4	508115	
01U350			
04U414	414U4	500691	
PJ#501		206754	
PJ#502		206756	
PJ#503		206758	
PJ#504		206724	Abandoned
03M505		231857	Abandoned
PJ#506			
PJ#507		206755	
PJ#508		206759	
03M509		206760	
04U510		231742	
03U521		114410	
03L522	Gravel Pit	221854	Abandoned 8/92
03L523	Gravel Pit	221855	Abandoned 8/92
01U524	FA4U1	236194	
01U525	FW5U1	236196	
01U526	FV12U1	236197	
01U527	FV8U1	236195	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
01U601	OW101U1	236189	
01U602	OW102U1	236190	
01U603	OW103U1	236191	
01U604	OW104U1	236192	
01U605	OW10571	236193	
01U607	OW107U1	242127	
01U608	OW108U1	242128	
01U609	OW109U1	242129	
01U611	OW111U1	242131	
01U612	OW112U1	194758	
01U613	OW113U1	194759	
01U615	OW115U1	194760	
01U616	OW116U1	194761	
01U617	OW117U1	194770	
01U618	OW118U1	194771	
01U619	PW119U1	194772	
01U620	OW120U1	194701	
01U621	PW121U1	194702	
01U622	OW122U1	194703	
01U623	OW123U1	194704	
01U624A	BP185A	242182	
01U624B	BP185B	242183	
01U624C	BP185C	242184	
01U624D	BP185D	242185	
01U625A	BP285A	242186	
01U625B	BP285B	242187	
01U625C	BP285C	242188	
01U625D	BP285D	242189	
01U626A	BP385A	242190	
01U626B	BP385B	242191	
01U626C	BP385C	242192	
01U626D	BP385D	242193	
01U627A	BP485A	242194	
01U627B	BP485B	242195	
01U627C	BP485C	242196	
01U627D	BP485D	242197	
01U628A	BP585A	242198	
01U628B	BP585B	242199	
01U628C	BP585C	242200	
01U628D	BP585D	242201	
01U631	OW501U1	194720	
01U632	OW502U1	194721	
01U634	OW504U1	194716	
01U635	OW505U1	194722	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
01U636	OW506U1	194723	
01U638	OW508U1	194717	
01U639	OW509U1	194718	
01U640	OW510U1	194719	
01U642	OW512U1	194724	
03U647		242132	
03U648		242133	
01U652	OW522U1	242134	
03U658		421426	
03U659		421425	
01U666	OW536U1	242135	
01U667	OW537U1	242136	
01U668	OW538U1	242137	
03U671	PO-1	421438	
03U672	PD2U3	421440	
03L673	PD3L3	426815	
03U673	PD3U3	421441	
04U673	PD3U4	426867	
03U674	OW541U3		
03U675			
03U676			
03U701	701U3	426848	
04U701	701U4	426849	
03U702	702U3	426850	
04J702			
04U702	702U4	426876	
03U703	703U3	426878	
03U704	704U3	426883	
03U705	705U3	426884	
03U706	706U3	426885	
03U707	707U3	426886	
03U708	708U3	426879	
04J708			
04U708	708U4	426880	
03U709	709U3	426881	
04U709	709U4	426882	
03U710	710U3	434032	
03U711	711U3	434033	
04U711	711U4	434031	
03M713			
04J713			
04U713			
04J714			

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
04U714			
03U715	SM1		
03U716	SM2		
03L801	321L3	434039	
03U801	T1U3	236449	
03L802	T2L3	426817	
03M802	T2M3	426818	
04U802	T2U4	236450	
PJ#802	T2PJ	421437	
01U803	T3U1	424053	
03U803	T3U3	421434	
03U804	T4U3	421433	
01U805	T5U1	424060	
03U805	T5U3	421432	
01U806	T6U1	424058	
03L806	T6L3	421429	
03M806	T6M3	421430	
03U806	T6U3	421431	
04U806	T6U4	421428	
PJ#806	T6PJ	421427	
01U807	T7U1	424059	
01U808	T8U1	424057	
03L809	T9L3	426868	
01L811	H1L1	424055	
03L811	H1L3	426809	
03U811	H1U3	426808	
01L813	H3L1	424062	
01U813		242153	
03L813	H3L3	426816	
03U815	H5U3	426862	
01L816	H6L1	424056	Abandoned
01L821	NW1L1	424054	
03U821	NW1U3	426810	
04U821	NW1U4	426811	
01L822	NW2L1	424052	
03L822	NW2L3	426813	
03U822	NW2U3	426812	
01L823	NW3L1	424061	
03U824	NW4U3	426814	
03U831	OM1U3	426863	
03L832	OM2L3	426865	
03U832	OM2U3	426864	
04U832	OM2U4	426866	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
03L841	301L3	434037	
04U841	301U4	426851	
03M843	303M3	426852	
04U843	303U4	426853	
04U844	304U4	426854	
04U845	305U4	426855	
03L846	306L3	447899	
04U846	306U4	426856	
04U847	307U4	426857	
03L848	308L3	416199	
03M848	308M3	416051	
04U848	308U4	416078	
04U849	309U4	416082	
04U850	310U4	416200	
04U851	311U4	406198	
04U852	312U4	416080	
03L853	313L3	426858	
03L854	314L3	426859	
04U854	314U4	439701	
04U859	315U4	426860	
03L856	316L3	426861	
03L858	318L3	416081	
03L859	319L3	434040	
04U859	319U4	434036	
03L860	320L3	434038	
04U860	320U4	434035	
03L861	321L3	434039	
04U861	321U4	434034	
04U871	401U4	447889	
04U872	402U4	447988	
04U875	405U4	447898	
04U877	407U4	447896	
04U879	409U4	447900	
04U880	410U4	447895	
04U881	411U4	447891	
04U882	412U4	447890	
04U883	413U4	447892	
01U901	H3U1	505210	
01U902		505209	

USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
	BOYLE		
	SEUTTER	134318	
	MODEL STONE	191942	
	OLD DUTCH	200076	
	PAPER CALMERSON	200148	Pump Decommissioned
	U OF M GOLF COURSE	200154	
		200264	1620 Central
	ST. ANTHONY #5	200524	
	ST. ANTHONY #4	200803	
	ST. ANTHONY #3	200804	
	GROSS GOLF COURSE	200812	
	AMERICAN LINEN	200814	
	CLOVER POND WELL	206688	
	MOUNDSVIEW H.S.	206787	
	NEW BRIGHTON #7	206791	
	NEW BRIGHTON #3	206793	
	NEW BRIGHTON #6	206797	
	MNDOT	231845	
	MENGELKOCH #2	231878	
	REUBEN MEAT	233221	
	LOWRY GROVE TRAILER	233222	
	ROSELAWN CEMETARY	233533	
	HIDE & TALLOW #1	234319	
	MENGELKOCH #1	234335	
	MENGELKOCH #3	234337	
	LENTSCH'S ICE WK.	234353	
	NORDQUIST P43	234356	
	PHILLIPS PET P46	234357	
	HIDE & TALLOW	234409	
	KEN GEREBI	234425	Formerly Jack Lee
	CMIEL	234430	
	KEN SOLIE	234463	
	HONEYWELL RIDGEWAY	234546	
	HONEYWELL RIDGEWAY	234547	
	OLD HOTEL	235539	
	SHRINERS HOSPITAL	235619	
	NWR	236122	Abandoned
	METAL-MATIC INC.	405651	
	PCA2L3	409546	
	PCA1U4	409547	
	PCA2U4	409548	
	PCA3U4	409549	
	PCA6U3	409550	
	PCA5U4	409555	



USATHAMA IRDMIS Designation	Common Name	Minnesota Unique Number	Comments
	PCA4L3	409556	
	PCA1L3	409557	
	B109U3	409595	Abandoned
	B118U3	409596	
	B118L3	409597	
	B117U3	409598	Abandoned
04U414	EZ SELF SERVICE	500691	
04U322		508115	

## APPENDIX C

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**Appendix C**

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**FY 1993 Groundwater Level Monitoring Plan**

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)											
			Q37			Q38			Q39			Q40		
			10/92	11/92	12/92	1/93	2/93	3/93	4/93	5/93	6/93	7/93	8/93	9/93
A	01U038		X	--	X	--	X	X	X	--	X	--	X	--
	01U039		X	--	X	--	X	X	X	--	X	--	X	--
	01U040		X	--	X	--	X	X	X	--	X	--	X	--
	01U041		X	--	X	--	X	X	X	--	X	--	X	--
	01U063		X	--	X	--	X	X	X	--	X	--	X	--
	01U067		X	--	X	--	X	X	X	--	X	--	X	--
	01U102		X	--	X	--	X	X	X	--	X	--	X	X
	01U103		X	--	X	--	X	X	X	--	X	--	X	--
	01U104		X	--	X	--	X	X	X	--	X	--	X	--
	01U105		X	--	X	--	X	X	X	--	X	--	X	--
	01U106		X	--	X	--	X	X	X	--	X	--	X	--
	01U107		X	--	X	--	X	X	X	--	X	--	X	--
	01U108		X	--	X	--	X	X	X	--	X	--	X	X
	01U109		X	--	X	--	X	X	X	--	X	--	X	--
	01U110		X	--	X	--	X	X	X	--	X	--	X	--
	01U115		X	--	X	--	X	X	X	--	X	--	X	X
	01U116		X	--	X	--	X	X	X	--	X	--	X	--
	01U117		X	--	X	--	X	X	X	--	X	--	X	--
	01U118		X	--	X	--	X	X	X	--	X	--	X	--
	01U119		X	--	X	--	X	X	X	--	X	--	X	--
	01U120		X	--	X	--	X	X	X	--	X	--	X	--
	01U125		X	--	X	--	X	X	X	--	X	--	X	--
	01U126		X	--	X	--	X	X	X	--	X	--	X	--
	01U127		X	--	X	--	X	X	X	--	X	--	X	--
	01U133		X	--	X	--	X	X	X	--	X	--	X	--
	01U135		X	--	X	--	X	X	X	--	X	--	X	--
	01U136		X	--	X	--	X	X	X	--	X	--	X	--
	01U350		X	--	X	--	X	X	X	--	X	--	X	X
	01U901		X	--	X	--	X	X	X	--	X	--	X	--
	01U902		X	--	X	--	X	X	X	--	X	--	X	X
	03U023		--	--	--	--	--	X	--	--	--	--	--	X (A)
	134318		--	--	--	--	--	--	--	--	--	--	--	--
	MNDOT		Not Accessible											

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
B	01U011		--	X	--	--
	01U022		--	X	--	--
	01U033		--	X	--	--
	01U034		--	X	--	--
	01U035		--	X	--	--
	01U036		--	X	--	--
	01U037		--	X	--	--
	01U100		--	X	--	--
	01U101		--	X	--	--
	01U122		--	X	--	--
	03U011		--	X	--	X(A)
	03U022		--	X	--	X(A)
	03U082		--	X	--	X(A)
C	01U043		--	X	--	--
	01U045		--	X	--	--
	01U046		--	X	--	--
	01U085		--	X	--	--
	03U024		--	X	--	X(A)
	03U025		--	X	--	X(A)
	03U083		--	X	--	X(A)
D	03U017		--	X(A)	--	X(A)
	03U018		--	X(A)	--	X(A)
	03U093		--	X(A)	--	X(A)
	03U096		--	X(A)	--	X(A)
	03U316		--	X(A)	--	X(A)
	03U317		--	X(A)	--	X(A)
	03U716		--	X(A)	--	X(A)
	03M017		--	X(A)	--	X(A)
	03L017		--	X(A)	--	X(A)
	03L018		--	X(A)	--	X(A)

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
E	03U015		--	X	--	X(A)
	03U088		--	X	--	X(A)
	03U089		--	X	--	X(A)
	03U704		Refer to Gravel Pit area			
F	03U019		--	X	--	X(A)
	03U026		--	X	--	--
	03U090		Refer to Site 129-15			
	03U092		--	X	--	X
	03U112		--	X	--	X(A)
	03U113		--	X	--	X(A)
	03U114		--	X	--	X
	03U121		--	X	--	--
	03L113		--	X	--	X(A)
	03L137		Refer to Bedrock Valley			
G	03U014		--	X(A)	--	X(A)
	03U020		--	X(A)	--	X(A)
	03U094		--	X(A)	--	X(A)
	03U314		--	X(A)	--	X(A)
	03U315		--	X(A)	--	X(A)
	03U715		--	X(A)	--	X(A)
	03M020		--	X(A)	--	X(A)
	03L014		--	X(A)	--	X(A)
	03L020		--	X(A)	--	X(A)
	04U020		--	X(A)	--	X(A)
	PJ#074		--	--	--	--
	PJ#508		Refer to Misc. Wells			

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
H	01U060		---	X	---	---
	01U098		---	X	---	---
	03U099		---	X	---	---
I	01U003		Refer to Site J			
	01U004		---	---	---	---
	01U053		Refer to Site J			
	01U054		---	---	---	---
	01U064		---	X(A)	---	X(A)
	01U132		---	---	---	---
	01U631		---	---	---	---
	01U632		---	---	---	---
	01U634		---	---	---	---
	01U635		---	---	---	---
	01U636		---	X(A)	---	X(A)
	01U638		---	---	---	---
	01U639		---	X(A)	---	X(A)
	01U640		---	X(A)	---	X(A)
	01U642		---	---	---	---
	01U652		---	---	---	---
	01U666		---	---	---	---
	01U667		---	---	---	---
	01U668		---	---	---	---
	01U675		---	---	---	---
	03U003		Refer to SW Boundary			
	03U004		---	X(A)	---	X(A)
	03U027		---	X(A)	---	X(A)
	03U028		---	X(A)	---	X(A)
	03U029		---	X(A)	---	X(A)
	03U030		---	X(A)	---	X(A)
	03U078		Refer to SW Boundary			
	03U079		Refer to SW Boundary			
	03U301		---	X(A)	---	X(A)
OW543U3		---	X(A)	---	X(A)	

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
I (CONT.)	03U647		---	X(A)	---	X(A)
	03U648		---	X(A)	---	X(A)
	03U658		---	X(A)	---	X(A)
	03U659		---	X(A)	---	X(A)
	03U672		Refer to SW Boundary			
	03U674		---	X(A)	---	X(A)
	03U675		---	---	---	---
	03U676		---	---	---	---
	03U703		Refer to SW Boundary			
	03U710		Refer to SW Boundary			
	03M003		Refer to SW Boundary			
	03M004		---	X(A)	---	X(A)
	03L003		Refer to SW Boundary			
	03L004		---	X(A)	---	X(A)
	03L027		---	X(A)	---	X(A)
	03L028		---	X(A)	---	X(A)
	03L029		---	X(A)	---	X(A)
	03L078		Refer to SW Boundary			
	03L079		Refer to SW Boundary			
	03L080		---	X(A)	---	X(A)
	03F302		---	X(A)	---	X(A)
	03F303		---	X(A)	---	X(A)
	03F312		---	X(A)	---	X(A)
	04U003		Refer to SW Boundary			
	04U027		---	X(A)	---	X(A)
	PJ#003		Refer to SW Boundary			
	PJ#027		---	X(A)	---	X(A)



## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
J	01U003		--	X	--	--
	01U050		--	X	--	--
	01U051		--	X	--	--
	01U053		--	X	--	--
	01U054		--	X	--	--
	01U062		--	X	--	--
	01U524		--	X	--	--
	01U525		--	X	--	--
	01U526		--	X	--	--
	01U527		--	X	--	--
K	01U047		--	X(A)	--	X(A)
	01U048		--	X(A)	--	X(A)
	01U052		--	X(A)	--	X(A)
	01U065		--	X(A)	--	X(A)
	01U128		--	X(A)	--	X(A)
	01U601		--	X(A)	--	X(A)
	01U602		--	X(A)	--	X(A)
	01U603		--	X(A)	--	X(A)
	01U604		--	X(A)	--	X(A)
	01U605		--	X(A)	--	X(A)
	01U607		--	X(A)	--	X(A)
	01U608		--	X(A)	--	X(A)
	01U609		--	X(A)	--	X(A)
	01U611		--	X(A)	--	X(A)
	01U612		--	X(A)	--	X(A)
	01U613		--	X(A)	--	X(A)
	01U615		--	X(A)	--	X(A)
	01U616		--	X(A)	--	X(A)
	01U617		--	X(A)	--	X(A)
	01U618		--	X(A)	--	X(A)
	01U619		--	X(A)	--	X(A)
	01U620		--	X(A)	--	X(A)
	01U621		--	X(A)	--	X(A)
	01U622		--	X(A)	--	X(A)
	01U623		--	X(A)	--	X(A)
	01U624		--	X(A)	--	X(A)
	01U625		--	X(A)	--	X(A)
	01U626		--	X(A)	--	X(A)
01U627		--	X(A)	--	X(A)	
01U628		--	X(A)	--	X(A)	

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
K (CONT.)	03U013		---	X(A)	---	X(A)
	03U075		---	X(A)	---	X(A)
	03U076		---	X(A)	---	X(A)
	03M013		---	X(A)	---	X(A)
	03L013		---	X(A)	---	X(A)
129-3	03U087		---	X	---	X(A)
	03U521		---	X	---	---
129-5	01U072		---	X	---	---
	03U097		---	X	---	---
	03U111		---	X	---	X(A)
	03U129		---	X	---	---
129-15	03U016		---	X	---	X(A)
	03U032		---	X	---	X
	03U090		---	X	---	X(A)
	03U124		---	X	---	X
	03L091		---	X	---	---
SOUTHWEST BOUNDARY	01U050		Refer to Site J			
	01U051		Refer to Site J			
	01U053		Refer to Site J			
	01U062		---	X	---	---
	01U803		---	---	---	---
	01U805		---	---	---	---
	01U806		---	---	---	---
	01U807		---	---	---	---
	03U001		---	X(A)	---	X(A)
	03U002		---	X(A)	---	X(A)
	03U003		---	X(A)	---	X(A)
	03U021		---	X(A)	---	X(A)
	03U077		---	X(A)	---	X(A)
	03U078		---	X(A)	---	X(A)
03U079		---	X(A)	---	X(A)	
03U084		---	X(A)	---	X(A)	

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)				
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93	
SOUTHWEST BOUNDARY (CONT.)	03U671		---	X(A)	---	X(A)	
	03U672		---	X(A)	---	X(A)	
	03U673		---	X(A)	---	X(A)	
	03U701		---	X(A)	---	X(A)	
	03U702		---	X(A)	---	X(A)	
	03U703		---	X(A)	---	X(A)	
	03U708		---	X(A)	---	X(A)	
	03U709		---	X(A)	---	X(A)	
	03U710		---	X(A)	---	X(A)	
	03U711		---	X(A)	---	X(A)	
	03U801		---	X(A)	---	X(A)	
	03U803		---	---	---	---	
	03U804		---	X(A)	---	X(A)	
	03U805		---	X(A)	---	X(A)	
	03U806		---	X(A)	---	X(A)	
	03U809		---	X(A)	---	X(A)	
	234357	Phillips Pet.	Refer to Off-Post				
	409550	PCA 6U3	---	X	---	X(A)	
		03M001		---	X(A)	---	X(A)
		03M002		---	X(A)	---	X(A)
		03M003		---	X(A)	---	X(A)
		03M713		---	X(A)	---	X(A)
		03M802		---	X(A)	---	X(A)
		03M806		---	X(A)	---	X(A)
		03L001		---	X(A)	---	X(A)
		03L002		---	X(A)	---	X(A)
		03L003		---	X(A)	---	X(A)
		03L021		---	X(A)	---	X(A)
		03L077		---	X(A)	---	X(A)
	03L078		---	X(A)	---	X(A)	
	03L079		---	X(A)	---	X(A)	
	03L084		---	X(A)	---	X(A)	
	03L673		---	X(A)	---	X(A)	
	03L802		---	X(A)	---	X(A)	
	03L806		---	X(A)	---	X(A)	

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
SOUTHWEST BOUNDARY (CONT.)	03F302		--	X(A)	--	X(A)
	03F303		--	X(A)	--	X(A)
	03F304		--	X(A)	--	X(A)
	03F305		--	X(A)	--	X(A)
	03F306		--	X(A)	--	X(A)
	03F307		--	X(A)	--	X(A)
	03F308		--	X(A)	--	X(A)
	03F312		--	X(A)	--	X(A)
	04U001		--	X(A)	--	X(A)
	04U002		--	X(A)	--	X(A)
	04U003		--	X(A)	--	X(A)
	04U077		--	X(A)	--	X(A)
	04U673		--	X(A)	--	X(A)
04U701		--	X(A)	--	X(A)	
04U702		--	X(A)	--	X(A)	
04U708		--	X(A)	--	X(A)	
04U709		--	X(A)	--	X(A)	
04U711		--	X(A)	--	X(A)	
04U713		--	X(A)	--	X(A)	
04U714		--	X(A)	--	X(A)	
04U802		--	X(A)	--	X(A)	
04U806		--	X(A)	--	X(A)	
234319	Hide & Tallow #1		Refer to Off-Post			
	04J077		--	X(A)	--	X(A)
	04J702		--	X(A)	--	X(A)
	04J708		--	X(A)	--	X(A)
	04J713		--	X(A)	--	X(A)
	04J714		--	X(A)	--	X(A)
	PJ#003		--	X(A)	--	X(A)
	PJ#309		--	X(A)	--	X(A)
	PJ#310		--	X(A)	--	X(A)
	PJ#311		--	X(A)	--	X(A)
	PJ#313		--	X(A)	--	X(A)
	PJ#802		--	X(A)	--	X(A)
	PJ#806		--	X(A)	--	X(A)

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)				
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93	
GRAVEL PIT	03U704		--	X(A)	--	X(A)	
	03U705		--	X(A)	--	X(A)	
	03U706		--	X(A)	--	X(A)	
	03U707		--	X(A)	--	X(A)	
	03L522		To Be Abandoned				
	03L523		To Be Abandoned				
		Staff Guage 1		X(A)		X(A)	
		Staff Guage 2		X(A)		X(A)	
		Staff Guage 3		X(A)		X(A)	
	BEDROCK VALLEY	03U005		--	X	--	--
03M005			--	X	--	--	
03L005			--	X	--	--	
03L081			--	X	--	--	
03L137			--	X	--	X	
03L138			--	X	--	X	
MISC. WELLS	01U012		--	X	--	--	
	01U044		--	X	--	--	
	01U130		--	X	--	--	
	01U131		--	--	--	--	
	03U006		--	X	--	X(A)	
	03U007		--	X	--	X(A)	
	03U008		--	X	--	X(A)	
	03U009		--	X	--	X(A)	
	03U010		--	X	--	X(A)	
	03U012		--	X(A)	--	X(A)	
	03U031		--	X(A)	--	X(A)	
		03M007		--	X	--	X(A)
		03M010		--	X	--	--
		03M012		--	X(A)	--	X(A)

FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
MISC. WELLS (CONT.)	03L007		---	X	---	X(A)
	03L010		---	X	---	---
	03L012		---	X(A)	---	X(A)
	03L086		---	X	---	---
	04U007		---	X	---	X(A)
	04U012		---	X(A)	---	X(A)
	04U510		---	X	---	---
	PJ#501		---	---	---	---
	PJ#502		---	---	---	---
	PJ#503		---	---	---	---
	PJ#506		---	---	---	---
	PJ#507		---	---	---	---
	PJ#508		---	---	---	---
OFF-POST  (Lacustrine) (Deposits)	01U803		---	---	---	---
	01U807		---	---	---	---
	01U813		---	---	---	---
	01U901		Refer to Site A			
	01U902		Refer to Site A			
	01L811		---	X	---	---
	01L813		---	X	---	---
	01L816		---	X	---	---
	01L821		---	X	---	---
	01L822		---	X	---	---
01L823		---	X	---	---	
(Hillside) (Formation)	234353	Lentsch Ice	---	---	---	---
	234356	Nordquist P43	---	---	---	---
	234357	Phillips Pet.	---	---	---	---
	234425	Lee	Denied Access			
	234430	Cmiel	---	---	---	---
	234463		---	---	---	---

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST (CONT.)						
(Upper)	03U672		Refer to SW Boundary Area			
(Hillside)	03U673		Refer to SW Boundary Area			
(Formation)	03U711		Refer to SW Boundary Area			
	03U801		Refer to SW Boundary Area			
	03U803		Refer to SW Boundary Area			
	03U804		Refer to SW Boundary Area			
	03U805		Refer to SW Boundary Area			
	03U806		Refer to SW Boundary Area			
	03U811		---	X	---	---
	03U815		---	X	---	---
	03U821		---	X	---	---
	03U822		---	X	---	---
	03U824		---	X	---	---
	03U831		---	X	---	---
	03U832		---	X	---	---
	409550	PCA6U3	Refer to SW Boundary Area			
	409596	BS118U3	---	X	---	---
(Middle)	03M802		Refer to SW Boundary Area			
(Hillside)	03M806		Refer to SW Boundary Area			
(Formation)	03M843		---	X	---	X
	03M848		---	X	---	X

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST (CONT.)	03L673		Refer to SW Boundary Area			
	03L802		Refer to SW Boundary Area			
	03L806		Refer to SW Boundary Area			
(Lower)	03L809		--	X	--	X(A)
(Hillside)	03L811		--	X	--	--
(Formation)	03L813		--	X	--	--
	03L822		--	X	--	--
	03L832		--	X	--	--
	03L841		--	X	--	X(A)
	03L846		--	X	--	--
	03L848		--	X	--	--
	03L853		--	X	--	--
	03L854		--	X	--	--
	03L856		--	X	--	--
	03L858		--	X	--	--
	03L859		--	X	--	--
	03L860		--	X	--	--
	03L861		--	X	--	--
	409546	PCA2L3	--	X	--	--
	409556	PCA4L3	--	X	--	--
	409557	PCA1L3	--	X	--	--
	409597	BS118L3	--	X	--	--
(St.)	200814	Amer. Linen	--	--	--	--
(Peter)						
(Formation)						
(Prairie)	04U673		Refer to SW Boundary Area			
(du Chien)	04U711		Refer to SW Boundary Area			
(Formation)	04U802		Refer to SW Boundary Area			
	04U806		Refer to SW Boundary Area			
	04U821		--	X	--	X
	04U832		--	X	--	--
	04U841		--	X	--	X(A)
	04U843		--	X	--	--
	04U844		--	X	--	--
	04U845		--	X	--	--
	04U846		--	X	--	--
	04U847		--	X	--	X
	04U848		--	X	--	--
	04U849		--	X	--	--



## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST	04U850		---	X	---	---
(CONT.)	04U851		---	X	---	---
	04U852		---	X	---	---
	04U854		---	X	---	---
	04U855		---	X	---	---
	04U859		---	X	---	---
	04U860		---	X	---	---
	04U861		---	X	---	---
	04U871		---	X	---	---
	04U872		---	X	---	---
	04U875		---	X	---	---
	04U877		---	X	---	---
	04U879		---	X	---	---
	04U880		---	X	---	---
	04U881		---	X	---	---
	04U882		---	X	---	---
	04U883		---	X	---	---
	139035	Watergate Marina	---	---	---	---
	191942	Model Stone	---	---	---	---
	200154	UM Golf Course	---	---	---	---
	200524	St. Anthony #5	Denied Access			
	200803	St. Anthony #4	Denied Access			
	200804	St. Anthony #3	Denied Access			
	200812	Gross Golf	Not Accessible			
	206787	MV High School	Not Accessible			
	206791	New Brighton #7	Not Accessible			
	206793	New Brighton #3	Not Accessible			
	206797	New Brighton #6	---	X(2)	---	---
	233221	Reuben Meats	Not Accessible			
	233533	Roselawn Cem.	---	---	---	---
	234319	Hide & Tallow #1	---	---	---	---
	234337		---	---	---	---
	234547	Hnywell Ridgway	Not Accessible			
	409547	PCA1U4	---	X	---	---
	409548	PCA2U4	---	X	---	---
	409549	PCA3U4	---	X	---	X
	409555	PCA5U4	---	X	---	---
	500691	04U414	---	X	---	---
	508115	04U322	---	X	---	---

## FISCAL YEAR 1993 GROUNDWATER LEVEL MONITORING PLAN

Site	Well I.D.	Common Name	Frequency (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST (CONT.)						
(Prairie)	PJ#318		---	X	---	---
(du Chien)	PJ#802		Refer to SW Boundary Area			
(/Jordan)	PJ#806		Refer to SW Boundary Area			
(Formation)	200148	Paper Calmerson	Pump Decommissioned - No Access			
(Jordan)	201082	NW Hospital	---	---	---	---
(Formation)						
(Unknown)	134318	Seutter	---	---	---	---
(Formation)	200264		---	---	---	---
	206688	Cloverpond	Denied Access			
	233222	Lowry Gr. Trail.	---	---	---	---
	234335	Mengelkoch #1	---	---	---	---
	234546	Hnywell Ridgway	Not Accessible			
	235539		---	---	---	---
	235735	Flour City Arch	---	---	---	---
	405651	Metal-Matic	Not Accessible			
	BOYLE		---	---	---	---

## NOTES:

- (1) "X" denotes a water level measurement.  
(2) Water level will be measured if the wellhead is accessible.  
(A) Indicates that the sampling will be conducted by Alliant Techsystems, Inc.  
 Indicates that the water level measurement was not collected.  
Documentation for the missing data is provided in Appendix A.2.

## APPENDIX D

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**Appendix D**

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**FY 1993 Groundwater Quality Monitoring Plan**

FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Frequency and Parameters (1)

Site	Well I.D.	Common Name	Q37			Q38			Q39			Q40		
			10/92	11/92	12/92	1/93	2/93	3/93	4/93	5/93	6/93	7/93	8/93	9/93
A	01U038		--	--	--	--	--	--	--	--	--	--	--	--
	01U039		--	--	--	--	--	1	--	--	--	--	--	--
	01U040		--	--	--	--	--	--	--	--	--	--	--	--
	01U041		--	--	--	--	--	--	--	--	--	--	--	--
	01U063		--	--	--	--	--	--	--	--	--	--	--	--
	01U067		--	--	--	--	--	--	--	--	--	--	--	--
	01U102		--	--	--	--	--	1,7	--	--	1,7	--	--	1
	01U103		--	--	--	--	--	1	--	--	--	--	--	1
	01U104		--	--	--	--	--	--	--	--	--	--	--	--
	01U105		--	--	--	--	--	1	--	--	--	--	--	--
	01U106		--	--	--	--	--	1	--	--	--	--	--	--
	01U107		--	--	--	--	--	--	--	--	--	--	--	--
	01U108		1	1	1	1	1	1	1	1	1	1	1	1
	01U109		--	--	--	--	--	--	--	--	--	--	--	--
	01U110		--	--	--	--	--	--	--	--	--	--	--	--
	01U115		--	--	--	--	--	1	--	--	1	--	--	1
	01U116		--	--	--	--	--	1	--	--	--	--	--	--
	01U117		--	--	--	--	--	1,7	--	--	1	--	--	1
	01U118		--	--	--	--	--	--	--	--	--	--	--	--
	01U119		--	--	--	--	--	1	--	--	--	--	--	--
	01U120		--	--	--	--	--	1	--	--	--	--	--	--
	01U125		--	--	--	--	--	1	--	--	--	--	--	--
	01U126		--	--	--	--	--	1	--	--	--	--	--	--
	01U127		--	--	--	--	--	1	--	--	--	--	--	--
	01U133		--	--	--	--	--	--	--	--	--	--	--	--
	01U135		--	--	--	--	--	1	--	--	--	--	--	--
	01U136		--	--	--	--	--	1	--	--	--	--	--	--
	01U137		--	--	--	--	--	1	--	--	--	--	--	--
	01U138		--	--	--	--	--	1	--	--	--	--	--	--
	01U139		--	--	--	--	--	1,7	--	--	--	--	--	1
	01U140		--	--	--	--	--	1,7	--	--	--	--	--	1
	01U141		--	--	--	--	--	1	--	--	--	--	--	--
	01U350(2)		1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2	1,2
	01U901		--	--	--	--	--	1	--	--	--	--	--	1
	01U902		1	1	1	1	1	1,7	1	1	1	1	1	1
	03U023		--	--	--	--	--	1	--	--	--	--	--	--
	134318		--	--	--	--	--	--	--	--	--	--	--	--
	MNDOT		--	--	--	--	--	--	--	--	--	--	--	--

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)				
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93	
B	01U011		---	---	---	---	
	01U022		---	---	---	---	
	01U033		---	---	---	---	
	01U034		---	---	---	---	
	01U035		---	---	---	---	
	01U036		---	1	---	---	
	01U037		---	---	---	---	
	01U100		---	---	---	---	
	01U101		---	---	---	---	
	01U122		---	---	---	---	
	03U011		---	---	---	---	
	03U022		---	---	---	---	
	03U082(4)		---	---	---	---	
	C	01U043		---	---	---	---
		01U045(3)		---	4	---	---
01U046			---	---	---	---	
01U085			---	1	---	---	
03U024			---	---	---	---	
03U025			---	---	---	---	
03U083			---	1,7	---	---	
D	03U017		---	1(A)	---	---	
	03U018		---	1(A)	---	---	
	03U093		---	1(A)	---	1(A)	
	03U096		---	1(A)	---	---	
	03U316		---	1(A)	---	1(A)	
	03U317		---	1(A)	---	1(A)	
	03U716		---	---	---	---	
	03M017		---	1(A)	---	---	
	03L017		---	1(A)	---	---	
	03L018		---	1(A)	---	---	

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FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
E	03U015		---	1	---	---
	03U088		---	---	---	---
	03U089		---	1	---	---
	03U704		Refer to Gravel Pit Area			
F	03U019		---	1	---	---
	03U026		---	1	---	---
	03U090		Refer to Site 129-15			
	03U092		---	1	---	---
	03U112		---	1,4	---	---
	03U113		---	1	---	---
	03U114		---	1	---	---
	03U121		---	1,4	---	---
	03L113		---	1	---	---
	03L137		Refer to Bedrock Valley			
G	03U014		---	1(A)	---	---
	03U020		---	1(A)	---	---
	03U094		---	1(A)	---	---
	03U314		---	1(A)	---	1(A)
	03U315		---	1(A)	---	1(A)
	03U715		---	---	---	---
	03M020		---	1(A)	---	---
	03L014		---	---	---	---
	03L020		---	---	---	---
	04U020		---	1(A)	---	---
PJ#074		---	---	---	---	
PJ#508		Refer to Misc. Wells				

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
H	01U060		---	---	---	---
	01U098		---	1	---	---
	03U099		---	1	---	---
I	01U003		Refer to Site J			
	01U004		---	---	---	---
	01U053		Refer to Site J			
	01U054		---	---	---	---
	01U064		---	1(A)	---	---
	01U132		---	---	---	---
	01U631		---	---	---	---
	01U632		---	---	---	---
	01U634		---	---	---	---
	01U635		---	---	---	---
	01U636		---	1,5(A)	---	---
	01U638		---	---	---	---
	01U639		---	1(A)	---	---
	01U640		---	1,5(A)	---	---
	01U642		---	---	---	---
	01U652		---	---	---	---
	01U666		---	---	---	---
	01U667		---	---	---	---
	01U668		---	---	---	---
	01U675		---	---	---	---
	03U003		Refer to SW Boundary			
	03U004		---	1(A)	---	---
	03U027		---	1(A)	---	---
	03U028		---	1(A)	---	---
	03U029		---	1(A)	---	---
	03U030		---	1(A)	---	---
	03U078		Refer to SW Boundary			
	03U079		Refer to SW Boundary			
	03U301		---	1(A)	---	1(A)



## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
I (CONT.)	03U647		---	---	---	---
	03U648		---	---	---	---
	03U658		---	1(A)	---	---
	03U659		---	1(A)	---	---
	03U672		Refer to SW Boundary			
	03U674		---	---	---	---
	03U675		---	---	---	---
	03U676		---	---	---	---
	03U703		Refer to SW Boundary			
	03U710		Refer to SW Boundary			
	03M003		Refer to SW Boundary			
	03M004		---	---	---	---
	03L003		Refer to SW Boundary			
	03L004		---	---	---	---
	03L027		---	---	---	---
	03L028		---	---	---	---
	03L029		---	---	---	---
	03L078		Refer to SW Boundary			
	03L079		Refer to SW Boundary			
	03L080		---	1(A)	---	---
	03F302		Refer to SW Boundary			
	03F303		Refer to SW Boundary			
	03F312		Refer to SW Boundary			
	04U003		Refer to SW Boundary			
	04U027		---	1(A)	---	---
	PJ#003		Refer to SW Boundary			
	PJ#027		---	---	---	---

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FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
J	01U003		---	---	---	---
	01U050		---	---	---	---
	01U051		---	---	---	---
	01U053		---	---	---	---
	01U054		---	---	---	---
	01U062		---	---	---	---
	01U524		---	---	---	---
	01U525		---	---	---	---
	01U526		---	1	---	---
	01U527		---	---	---	---
K	01U047		---	---	---	---
	01U048		---	---	---	---
	01U052		---	---	---	---
	01U065		---	---	---	---
	01U128		---	1(A)	---	---
	01U601		---	---	---	---
	01U602		---	---	---	---
	01U603		---	---	---	---
	01U604		---	1(A)	---	---
	01U605		---	---	---	---
	01U607		---	---	---	---
	01U608		---	---	---	---
	01U609		---	---	---	---
	01U611		---	1(A)	---	---
	01U612		---	---	---	---
	01U613		---	---	---	---
	01U615		---	1(A)	---	---
	01U616		---	---	---	---
	01U617		---	1(A)	---	1(A)
	01U618		---	1(A)	---	---
	01U619		---	1(A)	---	---
	01U620		---	---	---	---
	01U621		---	1(A)	---	1(A)
01U622		---	---	---	---	
01U623		---	---	---	---	

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FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)				
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93	
K (CONT.)	01U624		---	---	---	---	
	01U625		---	---	---	---	
	01U626		---	---	---	---	
	01U627		---	---	---	---	
	01U628		---	---	---	---	
	03U013		---	---	---	---	
	03U075		---	1(A)	---	---	
	03U076		---	---	---	---	
	03M013		---	---	---	---	
	03L013		---	---	---	---	
	129-3	03U087		---	1,4	---	---
		03U521		---	---	---	---
	129-5	01U072		---	---	---	---
03U097			---	1	---	---	
03U111			---	---	---	---	
03U129			---	---	---	---	
129-15	03U016		---	1	---	---	
	03U032		---	1	---	---	
	03U090		---	1	---	---	
	03U124		---	1	---	---	
	03L091		---	1	---	---	

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)				
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93	
SOUTHWEST BOUNDARY	01U050		Refer to Site J				
	01U051		Refer to Site J				
	01U053		Refer to Site J				
	01U062		---	---	---	---	
	01U803		---	---	---	---	
	01U805		---	---	---	---	
	01U806		---	---	---	---	
	01U807		---	---	---	---	
	03U001		---	---	---	---	
	03U002		---	---	---	---	
	03U003		---	1(A)	1(A)	1(A)	
	03U021		---	1(A)	---	---	
	03U077		---	1(A)	---	---	
	03U078		---	1(A)	---	---	
	03U079		---	1(A)	---	---	
	03U084		---	1(A)	---	---	
	03U671		---	1(A)	---	---	
	03U672		---	1(A)	---	1(A)	
	03U673		---	1(A)	---	1(A)	
	03U701		---	1(A)	---	---	
	03U702		---	1(A)	---	---	
	03U703		---	1(A)	---	---	
	03U708		---	1(A)	---	---	
	03U709		---	1(A)	---	---	
	03U710		---	1(A)	---	---	
	03U711		---	1(A)	---	1(A)	
	03U801		---	1(A)	---	---	
	03U803		---	---	---	---	
	03U804		---	1(A)	---	---	
	03U805		---	1(A)	---	---	
	03U806		---	1(A)	---	1(A)	
	234357	Phillips Pet.		Refer to Off-Post			

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
SOUTHWEST BOUNDARY (CONT.)	03M001		---	---	---	---
	03M002		---	---	---	---
	03M003		---	---	---	---
	03M713		---	1(A)	---	---
	03M802		---	1(A)	---	---
	03M806		---	1(A)	---	---
	03L001		---	1(A)	---	1(A)
	03L002		---	1(A)	---	---
	03L003		---	---	---	---
	03L021		---	1(A)	---	---
	03L077		---	1(A)	---	---
	03L078		---	1(A)	---	---
	03L079		---	1(A)	---	---
	03L084		---	1(A)	---	---
	03L673		---	1(A)	---	---
	03L802		---	1(A)	---	1(A)
	03L806		---	1(A)	---	1(A)
	03F302		---	1(A)	---	1(A)
	03F303		---	1(A)	---	1(A)
	03F304		---	1(A)	---	1(A)
	03F305		---	1(A)	---	1(A)
	03F306		---	1(A)	---	1(A)
	03F307		---	1(A)	---	1(A)
	03F308		---	1(A)	---	1(A)
	03F312		---	1(A)	---	1(A)

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
SOUTHWEST BOUNDARY (CONT.)	04U001		---	1(A)	---	1(A)
	04U002		---	1(A)	---	---
	04U003		---	1(A)	---	1(A)
	04U077		---	1(A)	---	---
	04U673		---	1(A)	---	1(A)
	04U701		---	1(A)	---	---
	04U702		---	1(A)	---	---
	04U708		---	1(A)	---	---
	04U709		---	1(A)	---	---
	04U711		---	1(A)	---	1(A)
	04U713		---	1(A)	---	---
	04U714		---	1(A)	---	1(A)
	04U802		---	1(A)	---	---
	04U806		---	1(A)	---	1(A)
	234319	Hide & Tallow #1	Refer to Off-Post			
	04J077		---	1(A)	---	---
	04J702		---	1(A)	---	---
	04J708		---	1(A)	---	---
	04J713		---	1(A)	---	---
	04J714		---	1(A)	---	1(A)
	PJ#003		---	1(A)	---	---
	PJ#309		---	1(A)	---	1(A)
	PJ#310		---	1(A)	---	1(A)
	PJ#311		---	1(A)	---	1(A)
	PJ#313		---	1(A)	---	1(A)
	PJ#802		---	---	---	---
	PJ#806		---	1(A)	---	---
GRAVEL PIT	03U704		---	1(A)	---	---
	03U705		---	1(A)	---	1(A)
	03U706		---	1(A)	---	---
	03U707		---	1(A)	---	---
	03L522		To Be Abandoned			
	03L523		To Be Abandoned			

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FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
BEDROCK VALLEY	03U005		---	1	---	---
	03M005		---	1	---	---
	03L005		---	1	---	---
	03L081		---	1	---	---
	03L137		---	---	---	---
	03L138		---	1	---	---
MISC. WELLS	01U012		---	---	---	---
	01U044		---	---	---	---
	01U130		Refer to SW Boundary Area			
	01U131		---	---	---	---
	03U006		---	---	---	---
	03U007(4)		---	---	---	---
	03U008		---	---	---	---
	03U009(4)		---	---	---	---
	03U010		---	---	---	---
	03U012		---	---	---	---
	03U031		---	1(A)	---	---
	03M007		---	---	---	---
	03M010		---	---	---	---
	03M012		---	---	---	---
	03L007(4)		---	---	---	---
	03L010		---	---	---	---
	03L012		---	---	---	---
	03L086		---	---	---	---
	04U007(4)		---	---	---	---
	04U012		---	---	---	---
04U510(4)		---	---	---	---	

9/4/92

FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
MISC. WELLS (CONT.)	PJ#501		---	---	---	---
	PJ#502		---	---	---	---
	PJ#503		---	---	---	---
	PJ#506		---	---	---	---
	PJ#507		---	---	---	---
	PJ#508		---	---	---	---
OFF-POST	01U803		---	---	---	---
	01U807		---	---	---	---
	01U813		---	---	---	---
	01U901		Refer to Site A			
	01U902		Refer to Site A			
(Lacustrine) (Deposits)	01L811		---	---	---	---
	01L813		---	---	---	---
	01L816		---	---	---	---
	01L821		---	---	---	---
	01L822		---	---	---	---
	01L823		---	---	---	---
(Hillside) (Formation)	234353	Lentsch Ice	---	---	---	---
	234356	Nordquist P43	---	---	---	---
	234357	Phillips Pet.	---	---	---	---
	234425	Lee	Denied Access		---	---
	234430	Cmiel	---	---	---	---
	234463		---	---	---	---



FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST (CONT.)          (Upper) (Hillside) (Formation)	03U672		Refer to SW Boundary Area			
	03U673		Refer to SW Boundary Area			
	03U711		Refer to SW Boundary Area			
	03U801		Refer to SW Boundary Area			
	03U803		Refer to SW Boundary Area			
	03U804		Refer to SW Boundary Area			
	03U805		Refer to SW Boundary Area			
	03U806		Refer to SW Boundary Area			
	03U811		---	1	---	---
	03U815		---	---	---	---
	03U821		---	1	---	---
	03U822		---	1	---	---
	03U824		---	1	---	---
	03U831		---	1	---	---
	03U832		---	1	---	---
409550	PCA6U3	---	1	---	1	
409596	BS118U3	---	1	---	---	
(Middle) (Hillside) (Formation)	03M802		Refer to SW Boundary Area			
	03M806		Refer to SW Boundary Area			
	03M843		---	1	---	---
	03M848		---	1	---	---
(Lower) (Hillside) (Formation)	03L673		Refer to SW Boundary Area			
	03L802		Refer to SW Boundary Area			
	03L806		Refer to SW Boundary Area			
	03L809		---	1	---	---
	03L811		---	1	---	---
	03L813		---	---	---	---
	03L822		---	1	---	---
	03L832		---	1	---	---
03L841		---	1	---	---	

9/4/92

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST (CONT.)						
(Lower)	03L846		---	1	---	---
(Hillside)	03L848		---	1	---	---
(Formation)	03L853		---	1	---	---
	03L854		---	1	---	---
	03L856		---	1	---	---
	03L858		---	1	---	---
	03L859		---	1	---	---
	03L860		---	1	---	---
	03L861		---	1	---	---
	409546	PCA2L3	---	1	---	---
	409556	PCA4L3	---	1	---	---
	409557	PCA1L3	---	1	---	---
	409597	BS118L3	---	1	---	---
(St.)						
(Peter)	200814	Amer. Linen	---	---	---	---
(Formation)						
(Prairie)	04U673		Refer to SW Boundary Area			
(du Chien)	04U711		Refer to SW Boundary Area			
(Formation)	04U802		Refer to SW Boundary Area			
	04U806		Refer to SW Boundary Area			
	04U821		---	1	---	---
	04U832		---	1	---	---
	04U841		---	1	---	---
	04U843		---	1	---	---
	04U844		---	1	---	---
	04U845		---	1	---	---
	04U846		---	1	---	---
	04U847		---	1	---	1
	04U848		---	1	---	---
	04U849		---	1	---	---

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST	04U850		---	1	---	---
(CONT.)	04U851		---	1	---	---
	04U852		---	1	---	---
	04U854		---	1	---	---
	04U855		---	1	---	---
	04U859		---	1	---	---
	04U860		---	1	---	---
	04U861		---	1	---	---
	04U871		---	1	---	---
	04U872		---	1	---	---
	04U875		---	1	---	---
	04U877		---	1	---	---
	04U879		---	1	---	---
	04U880		---	1	---	---
	04U881		---	1	---	---
	04U882		---	1	---	1
	04U883		---	1	---	---
	139035	Watergate Marina	---	---	---	---
	191942	Model Stone	---	---	---	---
	200154	UM Golf Course	---	---	---	---
	200524	St. Anthony #5	---	Denied Access	---	---
	200803	St. Anthony #4	---	Denied Access	---	---
	200804	St. Anthony #3	---	Denied Access	---	---
	200812	Gross Golf	---	1	1	1
	206787	MV High School	---	1	---	---
	206791	New Brighton #7	---	1	---	---
	206793	New Brighton #3	---	1	---	---
	206797	New Brighton #6	---	1	---	---
	233221	Reuben Meats	---	1	---	---
	233533	Roselawn Cem.	---	---	---	---
	234319	Hide & Tallow #1	---	---	---	---
	234337	Mengelkoch #3	---	---	---	---
	234547	Hnywell Ridgway	---	1	---	---
	409547	PCA1U4	---	1	---	---
	409548	PCA2U4	---	1	---	---
	409549	PCA3U4	---	1	---	---
	409555	PCA5U4	---	1	---	---
	500691	04U414	---	1	---	---
	508115	04U322	---	1	---	---

## FISCAL YEAR 1993 GROUNDWATER QUALITY MONITORING PLAN

Site	Well I.D.	Common Name	Frequency and Parameters (1)			
			Q37 12/92	Q38 3/93	Q39 6/93	Q40 9/93
OFF-POST (CONT.)						
(Prairie)	PJ#318		---	1	---	
(du Chien)	PJ#802		Refer to SW Boundary Area			
(/Jordan)	PJ#806		Refer to SW Boundary Area			
(Formation)	200148	Paper Calmerson	Pump Decommissioned - No Access			
(Jordan)	201082	NW Hospital	---	---	---	---
(Formation)						
(Unknown)	134318	Seutter	---	---	---	---
(Formation)	200264		---	---	---	---
	206688	Cloverpond	Denied Access			
	233222	Lowry Gr. Trail.	---	---	---	---
	234335	Mengelkoch #1	---	---	---	---
	234546	Hnywell Ridgway	---	1	---	---
	235539		---	---	---	---
	235735	Flour City Arch	---	---	---	---
	405651	Metal-Matic	---	1	---	---
	BOYLE		---	---	---	---

## NOTES:

- (1) The numbers represent analytical parameter categories. The individual parameters within each category are outlined in Appendix E.
- (2) The following metals; Arsenic, Barium, Cadmium, Chromium, Lead and Nickel are being sampled for and not the entire Category 2 parameter list.
- (3) Just Total Phosphates from Category 4 will be analyzed.
- (4) Monitoring for Category 1 to be conducted once every other year, with the next sampling event scheduled for FY 94.

(A) Indicates that the sampling will be conducted by Alliant Techsystems, Inc.

Indicates that the water sample was not collected.

Documentation for the missing data is provided in Appendix A.2.

## APPENDIX E

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## Appendix E

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### Groundwater Monitoring Chemical Analysis Categories

## USATHAMA CHEMICAL ANALYSIS CATEGORIES

### CATEGORY 1

Carbon Tetrachloride	CCL4
Chloroform	CHCL3
Methylene Chloride	CH2CL2
Vinyl Chloride	C2H3CL
Tetrachloroethylene	TCLEE
Trichloroethylene	TRCLE
1,1-Dichloroethylene	11DCE
1,1-Dichloroethane	11DCLE
1,1,1-Trichloroethane	111TCE
1,1,2-Trichloroethane	112TCE
1,1,2-Trichlorotrifluoroethane	TCLTFE
1,2-Dichloroethylene	12DCE
1,2-Dichloroethane	12DCLE
1,2-Dichloropropane	12DCLP

### CATEGORY 2

Antimony	SB
Arsenic	AS
Barium	BA
Beryllium	BE
Cadmium	CD
Chromium	CR
Copper	CU
Lead	PB
Manganese	MN
Nickel	NI
Selenium	SE
Silver	AG
Thallium	TL

### CATEGORY 3

Mercury	HG
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### CATEGORY 4

Cyanide	CYN
Nitrate/Nitrite	NIT
Orthophosphate	PO4ORT
Total Phosphates	TPO4

USATHAMA CHEMICAL ANALYSIS CATEGORIES  
(continued)

**CATEGORY 5**

Dibutylchloronadate	DBUCLE
PCB1016	PCB016
PCB1242	PCB242
PCB1248	PCB248
PCB1254	PCB254
PCB1260	PCB260

**CATEGORY 6**

Nitrobenzene	NBD5
Phenol-D6	PHEND6
Terphenyl-D14	TRPD14
Toluene	MEC6D8
2-Fluorobiphenyl	2FBP
2-Fluorophenol	2FP
1,2-Dichloroethane-D4	12DCD4
4-Bromofluorobenzene	4BFB
2,4,6-Tribromophenol	246TBP

**CATEGORY 7**

Benzene	C6H6
Toluene	MEC6H5
Total Xylenes	TXYLEN

**CATEGORY 8**

Radionuclides

**CATEGORY 9**

Zinc	Zn
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**CATEGORY 10**

Miscellaneous, Non-Specific



## APPENDIX F

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## **Appendix F**

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### **TGRS Hydraulic Data**

**Appendix F.1**  
**Groundwater Elevation Database**

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88	
03U001	891.20	852.02		849.70	849.31	849.70	849.42	849.72	849.46	848.82	846.24	845.16	844.82	
03M001	890.76	852.63	849.40	849.77	849.36	849.76	849.47	849.88	849.52	848.90	846.44	845.51	845.06	
03L001	891.37	852.69	849.42	849.70	849.32	849.71	849.41	849.67	849.52	848.87	846.42	845.22	844.86	
04U001	891.28	852.04		849.58	849.21	849.58	849.28	849.55	849.38	848.73	846.28	845.12	844.76	
03U002	919.89	855.62	852.55	851.34	850.94	851.00	850.76	851.20	851.53	850.84	850.22	848.91	847.51	
03M002	922.40	855.29	852.50	850.67	850.35		850.35	850.66	850.94	850.43	849.46	848.35	847.89	
03L002	922.21	855.24	852.44	850.60	850.26	850.68	850.29	850.61	850.90	850.34	849.38	848.30	847.84	
04U002	923.18	855.02	852.33	850.55	850.22	850.57	850.23	850.58	850.82	850.29	849.26	848.09	847.73	
03U003	945.00			852.82	852.47	852.56	852.42	852.26	853.42	852.77	852.34	850.84	849.44	
03M003	945.55	856.93	854.24	852.75	849.50		852.40	852.35	853.31	852.68	852.15	850.75	849.35	
03L003	946.83	857.01	854.24	852.78	852.65	852.63	852.48	852.62	853.20	852.68	851.95	850.55	849.27	
04U003	946.07	853.95	850.93	849.92	849.75	849.84	849.65	850.02	850.08	849.62	848.44	847.59	846.45	
PJ#003	946.47						849.20		849.60	849.05	946.47	846.50	845.77	
03U004	953.00	860.67	857.42	857.02	856.77	856.94	856.72	857.05	857.32	856.90	855.93	854.55	853.34	
03M004	952.55	859.00	856.12	855.67	855.39	855.56	855.35	855.74	855.91	855.50	854.49	853.10	851.95	
03L004	952.02	857.98	855.09	854.63	854.37	854.54	854.32	854.69	854.89	854.46	853.46	852.07	850.92	
03U005	973.07	860.51					857.22	857.04		857.39	857.00	855.85	854.32	853.42
03M005	974.52								857.46	857.05	856.30	854.32	853.43	
03L005	974.08	860.44				857.31	857.13		857.48	857.08	855.40	854.35	853.43	853.43
03U006	969.09	862.36	858.91		858.12	858.64	858.29	858.94	858.84	858.50	857.42	856.09	854.94	854.94
03U007	902.63	863.23	859.27		859.40	859.88	859.62	860.13	859.68	859.33	856.95	855.45	855.07	855.07
03M007	903.77				859.33		859.57	860.06	859.61	859.27	856.92	855.42	855.03	855.03
03L007	904.41				859.00		859.25	859.70	859.20	858.92	856.52	855.09	854.86	854.86
04U007	905.50	862.38			858.70	859.24	858.90	859.29	858.77	858.60	856.30	854.90	854.66	854.66
03U008	917.36	867.30	862.85		863.66	864.14	864.04	864.61	863.57	862.93	858.46	856.72	857.76	857.76
03U009	915.25	868.42			865.59	865.97	865.90	866.36	864.90	864.43	859.08	857.47	859.50	859.50
03U010	891.00	868.57	869.24		865.55	865.87	865.85	866.27	864.95	864.48	859.15	857.65	859.48	859.48
03M010	891.46				865.51		865.81	866.23	864.91	864.46	859.11	857.63	859.49	859.49
03L010	891.76				865.60		865.86	866.27	864.91	864.45	859.11	857.66	859.51	859.51
03U011	902.99	865.74	861.67		862.89	863.14	863.30	863.56	862.78	862.35	858.28	856.64	857.47	857.47
03U012	882.83	862.24	858.28	859.58	859.54	859.89	859.80	860.12	859.28	858.80	854.67	853.50	854.29	854.29
03M012	882.73			859.67	859.53		859.78	860.15	859.26	858.78	854.65	853.48	854.28	854.28
03L012	882.63			859.61	859.48		859.75	860.00	859.21	858.73	854.61	853.43	854.25	854.25
04U012	882.78	862.12		859.56	859.42	859.77	859.67	860.00	859.15	858.67	854.56	853.38	854.18	854.18
03U013	893.02	855.52	852.08	852.72	852.41	852.77	852.59	852.86	852.42	851.89	849.04	847.87	847.90	847.90
03M013	892.40		852.00	852.65	852.33		852.52	852.78	852.34	851.81	848.95	847.78	847.80	847.80
03L013	892.60		851.88	852.48	852.15		852.33	851.83	852.15	851.65	848.76	847.63	847.65	847.65
03U014	990.27	860.25	856.99	856.67	856.55	856.62	856.77	856.83	857.01	855.46	855.72	854.22	853.05	853.05
03L014	991.57		856.93	856.86	856.72		857.00	857.03	857.12	857.96	855.44	853.96	852.95	852.95
03U015	937.68	859.96	856.58	856.87	856.78	856.91	857.02	857.18	857.12	856.69	854.84	853.46	852.68	852.68
03U016	950.05	862.13			858.95	859.02	859.20	859.35	859.19	858.90	857.14	855.34	854.70	854.70
03U017	941.31	857.76	854.64	854.22	853.95		854.27	854.27	854.44	853.95	852.71	851.21	850.14	850.14
03M017	941.93	857.61	854.64	854.22	853.93			854.24	854.41	853.92	852.67	851.22	850.13	850.13

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03L017	942.07	857.62	854.63	854.20	853.83		854.24	866.42	854.42	853.91	852.67	851.12	850.12
03U018	991.62	859.96	856.66		856.48	856.54	856.67	856.77	856.90	856.53	855.34	853.81	852.67
03L018	991.49	859.68	856.54		856.36	856.42	856.52	856.67	856.77	856.38	855.10	853.59	852.57
03U019	946.54	860.88			857.58	857.68	857.69	857.94	857.94	857.64	856.55	854.97	853.90
03U020	955.70	858.27	854.79	854.57	854.44	854.44	854.34	854.64	854.95	854.42	853.48	851.95	850.75
03M020	957.03	858.10	855.07	854.56	854.43	854.45	854.33	854.56	854.88	854.38	853.39	851.91	850.73
03L020	956.73	858.01	854.96	854.47	854.35	854.34	854.23	854.48	854.80	854.31	853.31	851.83	850.68
04U020	957.86	857.72	854.49	854.13	854.00	854.00	853.94	853.56	854.33	853.82	851.97	852.11	850.16
03U021	947.30	856.82				852.96	852.55		853.18	947.30	947.30	947.30	947.30
03L021	946.74				852.43		852.27	852.49	852.79	852.23	851.34	849.92	849.03
03U022	901.88	862.98	858.98		860.19	860.43	860.54	860.76	860.24	859.88	856.56	855.05	855.26
03U023	901.51	862.88	858.81		860.04	860.35	860.35	860.62	859.91	859.49	856.71	854.41	854.96
03U024	896.99	861.71	857.80		858.94	859.17	859.25	859.49	859.02	858.67	855.67	854.25	854.29
03U025	889.07	860.01		857.31	857.16	858.43	857.43	857.62	857.22	856.84	853.91	852.56	852.60
03U027	968.80	858.58	855.41	854.83	854.68	854.77	854.69	855.00	855.20	854.70	853.82	852.31	851.12
03L027	969.42		855.31	854.74	854.59	854.68	854.59	854.80	855.10	854.60	853.70	852.22	851.03
04U027	969.49	856.96	854.13	853.52	853.39	853.48	853.39	830.51	853.73	853.24	852.09	850.69	849.76
PJ#027	970.05		854.07	853.47	853.30	853.35	853.30	853.16	853.66	853.15	852.00	850.60	849.71
03U028	959.76	858.02	855.08	854.26		854.18	854.06	854.29	854.66	854.18	853.37	851.86	850.61
03L028	958.93	857.98	855.03	854.18		854.11	854.03	854.29	854.58	854.09	853.23	851.13	850.55
03U029	957.27	857.60	854.07	853.73		853.58	852.50	852.70	854.22	853.69	853.10	851.53	849.79
03L029	956.95	857.58				853.34	853.35	853.67	853.82	853.35	852.60	851.08	849.86
03U030	961.42	859.08		855.44		855.40	855.34	855.52	855.78	855.38	854.38	852.92	851.77
03U031	900.94	857.83	854.93	854.96	854.77	854.92	854.88	855.04	854.66	854.64	852.84	851.54	850.56
03U032	1006.57	860.93	857.50		857.79	857.85	858.00	858.21	858.09	857.77	856.13	854.54	853.70
03U075	887.03	854.77	851.49	852.01			852.01	852.08	851.72	851.20	848.56	847.45	847.38
03U076	891.41	853.46	850.18	850.68			850.64	850.77	850.37	849.79	847.19	846.11	846.05
03U077	914.94	853.86	850.94	849.86	849.58	849.81	849.54	849.76	849.99	849.39	847.94	847.31	846.24
03L077	914.88	853.77	850.97	848.80	848.60	849.78	848.52	848.70	849.00	848.39	846.91	847.23	846.33
04U077	914.57	854.15	851.21	849.21	848.93	849.09	846.77	849.12	849.23	848.63	847.37	847.36	846.37
04J077	914.60						-0.18			914.60	914.60	914.60	914.60
03U078	929.85	856.69	853.71	850.15	849.63	849.77	849.74	850.30	851.21	850.22	850.38	848.15	847.45
03L078	930.18	855.78	852.85	850.47	850.18	850.33	850.12	850.61	850.80	850.26	849.52	848.15	848.07
03U079	925.99	856.67	853.72	849.71	849.79	849.71	849.49	849.99	850.51	849.79	849.78	847.61	847.16
03L079	926.29	856.34	853.39	850.53	851.22	850.49	850.29	850.64	850.95	850.39	849.73	848.23	847.22
03L080	963.45		856.03			855.49	854.65	855.65	855.90	855.44	854.45	852.97	851.82
03L081	948.96						857.31	857.62	857.59	857.25	855.87	854.40	853.46
03U082	901.00	864.95	860.95		862.13	862.39	862.52	862.75	862.07	861.70	857.88	856.26	856.85
03U083	893.90	860.04			857.08	857.29	857.35	857.45	857.19	856.90	854.42	852.92	852.63
03U084	900.98	853.88	850.70	850.23	849.90	850.20	849.94	850.01	850.30	849.74	848.01	846.77	846.18
03L084	900.58								850.56	849.98	848.26	846.88	846.39
03U087	1006.79	860.83	857.35		857.83	857.93	858.11	858.29	858.14	857.79	855.94	854.34	871.63
03U088	986.36						858.47	858.61	858.44	858.11	856.06	854.48	853.86

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03U089	975.30	860.93			858.13	858.24	858.44	859.13	858.40	858.08	856.05	854.49	853.85
03U090	984.92						857.38	857.56	857.57	857.24	984.92	854.32	853.37
03U092	963.30						856.75		856.98	856.70	855.76	854.15	853.03
03U093	996.01	859.66			856.50	856.56	856.65	856.82	856.87	856.50	855.28	853.04	852.71
03U094	999.64		857.13				857.00	857.06	857.22	856.89	855.89	854.37	853.24
03U096	997.02	859.77			856.44	856.48	856.60	856.72	856.08	856.39	854.93	853.40	852.48
03U111	927.69	864.11			861.53	861.71	862.03	862.19	861.71	861.50	858.86	856.78	856.70
03U112	980.80	860.95	857.61		857.55	857.63	857.75	857.89	857.93	857.63	856.49	854.85	853.80
03U113	976.83	860.97					858.09		858.22	857.93	976.83	854.83	853.98
03L113	977.15								858.11	857.80	977.15	977.15	853.83
03U301(SC1)	957.41								854.17	889.76	853.16	851.46	849.79
03F302(B1)	929.86	867.70	853.59		850.52	844.70	844.38	844.53	844.73	844.20	843.61	842.40	840.01
03F303(B2)	925.04	859.80	853.46		829.72	829.74	830.74		831.18	829.58	836.29	825.55	847.59
03F304(B3)	920.09	859.06	852.32		848.45	849.76	848.56	848.78	849.01	848.44	847.63	846.46	847.59
03F305(B4)	915.75	850.14	852.06		844.50	844.82	844.75	844.88	844.75	915.75	848.80	847.78	847.33
03F306(B5)	919.13								841.87	841.08	839.25	847.53	848.45
03F307(B6)	913.46	839.95	848.55		821.56	821.91	821.11	821.29	822.23	821.04	822.43	844.87	913.46
03F308(B7)	900.79									900.79	900.79	900.79	900.79
PJ#309(B8)	914.35									914.35	914.35	914.35	914.35
PJ#310(B9)	915.80									915.80	915.80	915.80	915.80
PJ#311(B10)	905.97									905.97	905.97	905.97	905.97
03F312(B11)	944.24									944.24	944.24	944.24	944.24
PJ#313(B12)	895.63									895.63	895.63	895.63	895.63
03U314(SC2)	978.02									978.02	978.02	978.02	978.02
03U315(SC3)	965.27									965.27	965.27	965.27	965.27
03U316(SC4)	957.13									957.13	957.13	957.13	957.13
03U317(SC5)	952.62									952.62	952.62	952.62	952.62
04U510	911.19								864.18	863.71	911.19	857.04	858.89
OW543U3	958.99								854.78	854.31	853.55	851.97	850.69
03U647	962.25		855.63				854.90		855.40	854.99	854.10	852.58	851.39
03U648	963.14		855.84				854.29	855.29	855.60	855.20	854.31	852.76	851.59
03U658	966.24		856.32				855.77	855.96	856.13	855.79	854.76	853.33	852.18
03U659	958.62		855.00				853.85	854.02	854.64	854.16	853.54	851.92	850.52
03U671	933.13	856.69	853.65		851.48	851.56	851.55	851.82	852.60	851.72	851.41	849.90	848.37
03U674	957.21						852.63		854.16	853.46	853.16	851.43	849.76
03U701	911.10	853.52	850.20	849.06	849.18	849.42	849.18	849.59	849.57	848.96	847.25	846.50	845.57
04U701	911.24	853.59	850.49	848.82	848.95	849.17	848.92	849.33	849.32	848.70	846.97	846.69	845.79
03U702	910.53	852.93	849.71	848.68	848.83	849.12	848.83	849.28	849.19	848.55	846.76	845.97	845.08
04U702	910.44	853.74	850.52	848.99	849.15	849.38	849.14	849.63	849.49	848.83	847.09	846.73	845.66
04J702	910.51									910.51	910.51	910.51	910.51
03U703	921.25	856.63	853.69	848.96	849.20	849.31	849.48	849.75	850.68	849.59	849.66	847.35	847.40
03U704	978.47	861.56	857.79		859.09	859.19	859.45	859.65	859.33	859.02	856.61	855.07	854.59
03U705	1049.55	861.71	857.95		859.32	859.43	859.65	859.92	859.60	859.27	856.85	855.22	854.75

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03U706	920.63	861.84	858.11		859.23	859.40	859.57	859.78	859.37	859.08	856.28	854.82	854.61
03U707	918.28	862.30	858.42		859.63	859.84	860.00	860.19	859.78	859.41	856.43	854.91	854.86
03U708	921.97	856.26	853.27	851.47	851.01	851.08	850.84	851.32	852.05	851.18	850.89	849.50	847.91
04U708	921.66	854.87	852.03	850.11	849.80	849.95	849.85	850.16	850.34	849.85	848.86	847.72	847.36
04J708	922.04									922.04	922.04	922.04	922.04
03U709	912.63	855.04	852.01	850.21	850.20	850.28	850.21	850.47	850.76	850.08	849.43	848.31	846.85
04U709	912.52	854.74	851.93	849.42	849.47	850.13	849.62	849.90	850.02	849.42	848.56	847.73	847.20
03U710	946.76	856.79		851.26	851.41	851.51	851.31	851.74	852.44	851.69	851.54	849.85	848.46
03U711	908.81		851.74		849.81	849.76	849.51	850.07	850.14	849.60	848.88	848.13	846.83
04U711	908.73		850.68	849.01	849.00	849.01	848.78	849.75	849.20	848.64	847.38	847.63	843.18
03M713	898.41									898.41	898.41	898.41	898.41
04U713	897.73									897.73	897.73	897.73	897.73
04J713	898.38									898.38	898.38	898.38	898.38
04U714	893.89									893.89	893.89	893.89	893.89
04J714	894.19									894.19	894.19	894.19	894.19
03U715	963.59									963.59	963.59	963.59	963.59
03U716	952.10									952.10	952.10	952.10	952.10
S.G. #1	860.42			862.72			862.96		858.33	858.20	860.42	860.42	860.42
S.G. #2	862.84			DRY			863.08		DRY	862.74	862.84	862.84	862.84
S.G. #3	865.29			DRY			DRY		DRY	865.29	865.29	865.29	865.29
OFF TCAAP													
MPCA6	914.40	850.43		846.97	846.84	846.93	846.97	847.36	846.81	846.26	844.25	843.41	843.03
03U672 (PD2U3)	923.72	857.40	854.74	853.62	847.19	846.62	846.62	847.19	846.29	846.89	846.54	845.48	844.59
03U673 (PD3U3)	897.84	850.51	847.79	847.19	846.62	846.99	847.19	846.29	846.89	846.54	845.48	844.59	843.66
03L673 (PD3L3)	898.44	848.90	845.84	845.37	845.04	845.29	844.83	844.99	845.37	844.93	843.46	842.49	841.66
04U673 (PD3U4)	898.34	848.96	845.86	844.41	845.09	845.34	844.88	845.06	845.40	844.95	843.42	842.47	841.68
03U801 (T1U3)	914.82	855.71	852.85	850.09	850.47	850.10	849.88	850.72	850.67	850.04	849.39	848.72	847.07
03M802 (T2M3)	907.38	855.93	853.08	851.34	851.64	851.39	851.80	850.72	851.34	850.67	850.33	848.99	847.61
03L802 (T2L3)	907.93	856.52	853.77	851.29	851.75	851.29	850.45	851.63	851.05	850.50	849.61	848.98	847.23
04U802 (T2U4)	905.95	854.04	851.02	849.63	849.61	849.60	849.30	849.75	849.90	849.38	848.17	847.31	853.21
PJ#802 (T2PJ)	905.07	853.47	850.57	849.58	849.40	849.37	849.10	849.49	849.67	849.16	847.84	846.97	845.94
03U803 (T3U3)	900.89	853.41	851.05	849.68	849.55	849.45	848.82	848.89	849.55	849.13	848.29	847.65	846.54
03U804 (T4U3)	913.02	855.16	851.87		849.98	849.77	849.54	850.66	850.15	849.66	848.87	848.50	847.18
03U805 (T5U3)	908.23	853.31	850.18	848.60	848.66		848.23	849.32	848.62	848.11	908.23	846.52	845.52
03U806 (T6U3)	911.96	852.79	849.56	848.78	848.88	848.71	848.44	849.01	848.76	848.19	846.51	845.81	845.10
03M806 (T6M3)	911.87	853.02	849.84	848.42	848.80	848.33	848.08	849.25	848.44	847.89	846.32	846.13	845.33
03L806 (T6L3)	912.16	852.93	849.72	848.36	848.89	848.28	848.28	849.10	848.38	847.81	846.24	845.99	845.22
04U806 (T6U4)	912.12	852.64	849.42	848.32	848.62	848.26	848.00	848.89	848.29	847.74	846.09	845.69	844.97
PJ#806 (T6PJ)	911.03	852.57	849.37	848.93	848.53	848.28	848.01	848.83	848.30	847.75	846.05	845.62	844.95
03L809 (T9L3)	914.32	853.30	850.14	849.42	849.37	849.36	849.02	850.12	849.34	848.78	847.02	846.34	845.84

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	04/02/87	09/08/87	11/17/87	11/24/87	11/30/87	12/14/87	01/11/88	05/02/88	05/20/88	06/23/88	07/27/88	09/01/88
03L841 (301L3)	911.91									911.91	911.91	911.91	911.91
03U841 (301U4)	913.77									913.77	913.77	913.77	913.77
04U847 (307U4)	916.10									916.10	916.10	916.10	916.10
PJ#074	956.46						854.08	839.57	854.40	853.90	852.59	851.13	849.35
03U026	977.84				857.12	857.20	857.32	857.45	857.53	857.20	854.09	854.49	853.45



HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03U001	891.20	844.92	845.46	846.41	846.55	844.09	891.20	841.44	841.39	841.43	841.67	841.34	842.28
03M001	890.76	844.99	845.54	846.51	846.62	844.03	890.76	841.28	841.26	841.26	841.53	841.27	842.11
03L001	891.37	845.00	845.52	846.45	846.61	843.68	841.38	841.17	841.05	841.07	841.33	841.02	841.90
04U001	891.28	844.88	845.38	846.36	846.49	843.59	841.28	841.05	840.93	840.98	841.22	840.91	841.78
03U002	919.89	847.20	847.13	848.59	849.59	845.37	844.15	843.45	842.68	842.51	842.65	842.41	843.09
03M002	922.40	847.59	847.04	848.67	848.12	844.58	843.09	842.60	841.91	841.80	841.93	841.73	842.36
03L002	922.21	847.55	846.96	848.62	848.06	844.49	842.98	842.49	841.84	841.71	841.81	841.62	842.26
04U002	923.18	847.44	846.88	848.48	847.93	843.76	834.38	841.88	841.18	841.06	841.21	841.03	841.64
03U003	945.00	849.18	848.80	849.76	849.68	846.74	845.50	844.85	844.50	844.10	844.15	843.73	844.48
03M003	945.55	849.08	848.75	849.79	849.56	846.28	844.95	844.27	844.30	843.84	843.87	843.52	844.27
03L003	946.83	849.01	848.78	849.91	849.46	845.63	844.15	843.47	844.13	843.55	843.63	843.33	844.04
04U003	946.07	846.07	846.19	847.19	846.77	844.42	843.05	842.37	842.09	841.72	841.90	841.58	842.37
PJ#003	946.47	845.42	845.67	846.59	846.25	844.12	946.47	841.89	841.51	840.66	841.49	841.18	841.91
03U004	953.00	853.09	852.83	853.10	853.40	852.15	953.00	849.94	849.57	849.38	849.32	953.00	849.80
03M004	952.55	851.68	851.51	851.82	852.12	850.71	952.55	848.41	848.11	847.93	847.83	952.55	848.34
03L004	952.02	850.62	850.47	850.81	851.07	849.66	952.02	847.37	847.12	846.90	846.81	952.02	847.32
03U005	973.07	853.03	853.14	852.76	853.22	852.49	973.07	850.65	850.04	849.94	849.77	973.07	850.30
03M005	974.52	853.08	853.61	852.78	853.27	853.04	974.52	851.13	850.56	850.47	850.31	974.52	850.38
03L005	974.08	853.08	852.73	852.83	853.33	852.08	974.08	850.21	849.63	849.54	849.38	974.08	850.41
03U006	969.09	854.29	854.58	854.41	854.74	853.99	969.09	851.75	851.46	851.27	851.20	969.09	851.78
03U007	902.63	854.78	855.19	855.67	855.95	855.43	853.68	852.78	852.90	852.78	852.47	852.36	853.43
03M007	903.77	854.74	855.14	855.62	855.90	855.37	903.77	852.73	852.82	852.72	852.39	852.27	853.35
03L007	904.41	854.41	854.79	855.39	855.61	855.02	904.41	852.38	852.47	852.36	852.01	851.83	853.07
04U007	905.50	854.20	854.50	855.08	855.30	854.65	852.59	852.02	852.05	851.95	851.58	851.31	852.68
03U008	917.36	858.11	858.95	859.91	860.20	860.90	917.36	857.57	858.31	858.31	857.91	917.36	859.51
03U009	915.25	859.90	860.83	861.86	861.94	862.78	915.25	859.22	860.14	860.25	859.90	915.25	870.37
03U010	891.00	859.95	860.88	861.75	861.84	862.95	891.00	859.34	860.32	860.45	860.06	891.00	861.48
03M010	891.46	859.96	860.90	861.74	861.85	862.92	891.46	859.33	860.30	860.46	891.46	891.46	891.46
03L010	891.76	859.96	860.91	861.75	861.84	862.96	891.76	859.31	860.30	860.45	891.76	891.76	891.76
03U011	902.99	857.71	858.27	858.79	859.09	860.78	902.99	857.29	858.04	858.15	857.72	902.99	859.06
03U012	882.83	854.57	855.25	855.79	856.18	856.48	853.51	853.11	853.83	854.03	853.63	853.60	854.87
03M012	882.73	854.55	855.23	855.77	856.18	856.48	882.73	853.11	853.83	854.03	853.62	853.59	854.87
03L012	882.63	854.50	855.19	855.64	856.15	856.42	882.63	853.07	853.82	853.98	853.60	853.54	854.80
04U012	882.78	854.44	855.13	855.67	856.07	856.33	853.37	852.97	853.70	853.88	853.49	853.46	854.73
03U013	893.02	847.87	848.34	848.97	849.57	847.97	893.02	845.19	845.42	845.63	845.44	893.02	846.20
03M013	892.40	847.79	848.27	848.90	849.50	847.90	892.40	845.12	845.40	845.58	845.40	892.40	846.20
03L013	892.60	847.61	848.10	848.76	849.38	847.75	892.60	844.93	845.20	845.45	845.24	892.60	846.06
03U014	990.27	852.72	852.44	852.68	852.77	852.00	990.27	849.72	849.44	849.25	849.15	848.99	849.79
03L014	991.57	852.77	852.61	852.88	852.96	852.27	991.57	849.93	849.77	849.57	849.50	991.57	850.22
03U015	937.68	852.45	852.53	852.83	853.02	852.73	937.68	850.13	850.11	850.03	849.99	937.68	850.82
03U016	950.05	854.64	854.57	854.78	854.97	855.35	950.05	852.75	852.67	864.70	852.59	950.05	853.48
03U017	941.31	850.12	849.93	850.64	850.93	849.06	941.31	846.98	846.36	846.21	846.36	941.31	847.01
03M017	941.93	850.11	849.93	850.62	850.93	849.03	941.93	846.97	846.32	846.23	846.33	941.93	846.97

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03L017	942.07	850.09	849.92	850.62	850.88	849.07	942.07	846.94	846.14	846.22	846.32	942.07	846.97
03U018	991.62	852.53	852.35	852.60	852.82	851.98	991.62	849.72	849.25	849.24	849.19	991.62	849.90
03L018	991.49	852.39	852.21	852.52	852.74	851.82	991.49	849.55	849.09	849.07	849.04	991.49	849.76
03U019	946.54	853.62	853.41	853.54	853.83	853.44	946.54	851.09	850.87	850.73	850.63	946.54	851.34
03U020	955.70	850.63	850.34	851.02	850.83	849.35	848.20	847.18	846.63	846.51	846.65	846.45	847.18
03M020	957.03	850.61	850.36	850.98	851.08	849.27	848.06	847.08	846.79	846.52	846.60	846.39	847.09
03L020	956.73	850.52	850.27	850.93	851.03	849.27	848.02	847.03	846.58	846.52	846.55	846.36	847.10
04U020	957.86	850.06	849.91	850.61	850.70	848.91	846.87	846.05	846.21	846.16	846.28	846.09	846.80
03U021	947.30	947.30	947.30	947.30	949.69	847.25	947.30	845.20	844.55	844.50	844.51	947.30	844.98
03L021	946.74	848.84	848.37	849.63	849.41	846.79	946.74	844.84	844.19	844.12	844.14	946.74	844.60
03U022	901.88	855.34	855.72	855.97	856.23	857.43	901.88	854.24	854.78	854.86	854.53	901.88	855.73
03U023	901.51	855.12	855.67	856.06	856.28	857.13	901.51	853.87	854.51	854.63	854.25	901.51	855.50
03U024	896.99	854.31	854.61	854.77	855.04	855.84	896.99	852.77	853.17	853.29	852.99	896.99	854.06
03U025	889.07	852.51	852.90	853.24	853.72	853.55	889.07	850.61	850.96	851.07	850.81	889.07	851.83
03U027	968.80	850.90	850.60	851.25	851.50	849.71	968.80	846.53	847.17	846.87	846.97	968.80	847.52
03L027	969.42	850.80	850.51	851.17	851.43	849.61	969.42	847.40	847.07	846.84	846.85	969.42	847.37
04U027	969.49	849.44	849.31	850.14	850.39	848.19	969.49	845.81	845.63	845.44	845.44	969.49	845.96
PJ#027	970.05	849.38	849.28	850.10	850.34	848.18	970.05	845.76	845.57	845.40	845.46	970.05	845.95
03U028	959.76	850.39	850.12	850.58	850.86	848.92	959.76	846.87	846.52	846.35	846.23	959.76	846.72
03L028	958.93	850.31	850.08	850.55	850.82	848.86	958.93	846.78	846.43	846.31	846.18	958.93	846.67
03U029	957.27	849.95	848.62	850.07	850.42	847.13	957.27	845.73	844.84	844.73	845.52	957.27	844.93
03L029	956.95	849.70	849.40	850.05	850.10	847.68	956.95	845.60	845.45	956.95	845.15	956.95	845.59
03U030	961.42	851.52	851.32	851.47	851.85	850.47	961.42	848.33	848.02	847.85	847.71	961.42	848.26
03U031	900.94	850.49	850.66	850.79	851.34	850.14	900.94	847.69	847.65	847.54	847.54	900.94	848.30
03U032	1006.57	853.59	853.46	853.65	853.82	853.90	1006.57	851.36	851.35	851.22	851.09	1006.57	851.97
03U075	887.03	847.16	847.67	848.47	848.54	846.98	887.03	844.28	844.43	844.72	844.52	887.03	845.25
03U076	891.41	845.79	846.36	847.27	847.30	845.41	891.41	842.74	842.86	843.16	842.98	891.41	843.65
03U077	914.94	846.02	846.09	847.44	847.31	842.31	914.94	841.74	841.86	841.12	841.28	914.94	841.78
03L077	914.88	846.08	845.48	847.45	847.24	843.73	914.88	840.16	839.53	839.51	839.66	914.88	840.18
04U077	914.57	845.28	845.69	847.59	914.57	914.57	914.57	840.36	839.57	839.51	839.67	914.57	840.19
04J077	914.60	847.15	914.60	847.59	847.22	840.02	914.60	837.71	836.53	836.50	837.10	914.60	837.90
03U078	929.85	846.83	846.45	849.19	847.95	844.45	929.85	842.91	842.20	841.80	841.24	929.85	841.67
03L078	930.18	847.80	846.93	848.83	847.88	844.55	930.18	842.68	842.16	841.83	841.70	930.18	842.24
03U079	925.99	847.36	845.89	849.25	847.04	843.64	925.99	841.94	842.61	840.87	840.78	925.99	841.08
03L079	926.29	848.04	846.67	849.14	847.34	844.34	926.29	842.48	843.01	841.69	841.69	926.29	842.09
03L080	963.45	851.58	851.33	851.83	852.09	850.61	963.45	848.36	848.06	847.90	847.84	963.45	848.38
03L081	948.96	853.16	853.10	853.34	853.65	852.96	948.96	850.61	850.41	850.26	850.17	948.96	850.92
03U082	901.00	857.08	857.57	857.95	858.15	859.90	901.00	856.53	857.18	857.29	856.92	901.00	858.21
03U083	893.90	852.50	852.74	852.90	853.50	853.15	893.90	850.35	850.53	850.60	850.36	893.90	851.31
03U084	900.98	846.10	846.27	847.38	847.37	843.98	900.98	841.93	841.47	841.48	841.62	900.98	842.24
03L084	900.58	846.30	846.47	847.56	900.58	844.03	900.58	842.05	841.58	841.58	841.72	900.58	842.31
03U087	1006.79	853.53	853.44	853.60	853.79	854.11	1006.79	851.49	851.58	851.48	851.34	1006.79	852.23
03U088	986.36	853.77	853.75	853.86	854.06	854.60	986.36	851.88	852.01	851.91	851.76	986.36	852.72

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03U089	975.30	853.75	853.75	853.86	854.10	854.55	975.30	851.85	851.97	851.90	851.73	975.30	852.69
03U090	984.92	853.13	852.97	853.15	853.30	853.07	984.92	850.66	850.47	850.39	850.25	984.92	850.99
03U092	963.30	852.74	852.45	852.70	852.93	852.08	963.30	849.76	849.28	849.28	849.20	963.30	849.87
03U093	996.01	852.49	852.26	852.56	852.79	852.01	996.01	849.31	849.27	849.26	849.21	849.16	849.97
03U094	999.64	852.92	852.65	852.84	852.94	852.34	999.64	850.07	849.76	849.60	849.40	999.64	850.10
03U096	997.02	852.37	852.21	852.54	852.81	852.06	997.02	849.79	849.35	849.34	849.32	997.02	850.09
03U111	927.69	856.94	857.12	857.43	857.74	859.62	927.69	856.58	856.75	856.99	856.90	927.69	858.31
03U112	980.80	853.55	853.40	853.50	853.66	853.45	980.80	851.10	850.91	850.79	850.65	980.80	851.37
03U113	976.83	853.77	853.65	853.76	853.93	853.93	976.83	851.48	851.38	851.23	851.14	976.83	851.91
03L113	977.15	853.65	977.15	977.15	853.85	853.85	977.15	851.36	851.30	851.15	851.06	977.15	851.84
03U301(SC1)	957.41	849.91	833.28	850.09	850.36	830.51	957.41	831.41	827.06	831.01	845.46	829.41	828.41
03F302(B1)	929.86	847.71	840.66	849.16	839.81	848.62	929.86	837.06	929.86	855.26	836.66	835.86	836.46
03F303(B2)	925.04	847.14	827.95	848.94	828.25	827.49	925.04	828.34	830.44	828.64	821.24	820.94	820.44
03F304(B3)	920.09	847.41	846.62	848.40	847.65	842.59	920.09	840.49	840.09	839.89	840.09	839.59	840.39
03F305(B4)	915.75	847.16	840.98	848.20	841.69	837.55	915.75	836.35	836.25	834.55	834.35	835.45	835.15
03F306(B5)	919.13	838.18	919.13	919.13	919.13	919.13	919.13	834.43	833.03	832.43	832.73	832.23	833.48
03F307(B6)	913.46	820.02	913.46	913.46	913.46	828.59	913.46	827.16	826.76	826.36	825.76	826.26	826.36
03F308(B7)	900.79	900.79	900.79	846.07	845.92	834.87	900.79	832.79	832.49	832.29	831.69	830.29	830.99
PJ#309(B8)	914.35	914.35	914.35	848.10	847.55	840.05	914.35	834.95	807.55	838.25	838.95	838.85	838.35
PJ#310(B9)	915.80	915.80	915.80	847.69	847.30	838.10	915.80	835.30	833.90	833.90	835.10	835.20	836.00
PJ#311(B10)	905.97	905.97	905.97	905.97	905.97	839.26	905.97	838.77	838.87	844.27	837.37	838.07	836.87
03F312(B11)	944.24	944.24	944.24	851.05	850.40	837.50	944.24	834.74	834.54	828.14	838.04	838.84	838.44
PJ#313(B12)	895.63	895.63	895.63	835.55	846.83	839.68	895.63	837.93	836.93	836.63	895.63	837.83	837.63
03U314(SC2)	978.02	978.02	978.02	852.19	978.02	842.54	978.02	841.52	842.32	841.32	839.92	843.42	846.02
03U315(SC3)	965.27	965.27	965.27	852.29	852.47	845.18	965.27	844.67	842.77	842.47	842.87	842.37	841.17
03U316(SC4)	957.13	957.13	957.13	851.64	851.81	835.26	957.13	836.13	836.63	826.23	830.03	833.73	831.73
03U317(SC5)	952.62	952.62	952.62	851.54	851.76	845.58	952.62	844.62	843.72	843.62	843.42	851.92	843.12
04U510	911.19	859.39	859.95	860.97	861.08	862.05	911.19	858.48	859.32	859.39	859.11	911.19	860.57
OW543U3	958.99	850.58	850.16	850.49	850.88	849.09	958.99	847.02	846.65	846.48	846.38	958.99	846.77
03U647	962.25	851.14	850.89	851.04	851.45	849.78	962.25	847.85	847.50	847.36	847.23	962.25	847.75
03U648	963.14	851.34	851.10	851.30	851.69	850.19	963.14	848.07	847.73	847.59	847.44	963.14	847.99
03U658	966.24	851.92	851.68	852.04	852.32	851.02	966.24	848.76	848.48	848.24	848.18	966.24	848.71
03U659	958.62	850.51	849.89	850.42	850.78	848.57	958.62	846.65	846.20	846.00	846.05	958.62	846.34
03U671	933.13	848.04	847.81	849.08	849.16	846.18	933.13	844.40	843.19	843.33	843.28	933.13	843.63
03U674	957.21	849.97	848.85	850.04	850.35	847.31	957.21	845.47	844.99	844.86	845.40	957.21	845.06
03U701	911.10	845.40	845.49	846.56	846.83	843.40	911.10	841.18	840.75	840.99	841.01	911.10	841.45
04U701	911.24	845.21	845.55	846.90	846.99	842.92	911.24	839.80	839.00	839.27	839.43	911.24	839.80
03U702	910.53	845.04	845.09	846.16	846.43	843.03	910.53	840.75	839.89	840.63	840.66	910.53	841.08
04U702	910.44	845.32	845.54	846.83	847.04	842.77	910.44	840.49	840.24	840.09	840.14	910.44	840.48
04J702	910.51	910.51	910.51	846.86	847.04	842.41	910.51	840.16	839.36	839.61	839.74	910.51	840.11
03U703	921.25	847.00	845.81	849.18	847.08	843.71	921.25	842.13	842.05	841.15	840.68	921.25	841.09
03U704	978.47	854.53	854.57	854.42	854.77	846.82	978.47	854.58	853.02	853.22	853.17	853.01	853.19
03U705	1049.55	854.75	854.74	1049.55	1049.55	1049.55	1049.55	853.41	853.72	853.60	853.46	1049.55	854.53

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	09/21/88	10/14/88	12/02/88	01/13/89	03/31/89	07/07/89	10/05/89	12/21/89	01/11/90	05/16/90	07/16/90	02/28/91
03U706	920.63	854.56	854.77	854.69	855.03	856.18	854.58	853.16	853.53	853.58	853.37	853.51	854.37
03U707	918.28	854.88	855.17	855.30	855.58	856.81	918.28	853.73	854.18	854.24	854.03	918.28	855.10
03U708	921.97	847.52	847.39	848.90	848.82	845.62	921.97	843.87	842.86	842.67	842.70	921.97	843.02
04U708	921.66	847.10	846.54	848.11	847.55	844.45	921.66	842.08	841.35	841.16	841.36	921.66	841.78
04J708	922.04	922.04	922.04	847.35	847.40	843.74	922.04	841.64	840.86	840.68	840.83	922.04	841.26
03U709	912.63	846.36	846.56	848.13	848.03	844.53	912.63	842.63	841.79	841.68	841.86	912.63	842.25
04U709	912.52	846.86	846.26	848.07	847.57	844.08	912.52	841.04	841.36	840.22	840.37	912.52	840.76
03U710	946.76	848.25	847.82	849.38	848.91	845.57	946.76	843.80	843.47	842.88	842.86	946.76	843.16
03U711	908.81	846.25	846.36	847.54	847.60	843.85	842.60	841.93	841.21	841.01	841.29	840.00	841.69
04U711	908.73	845.22	845.58	846.92	846.68	842.78	841.23	840.68	840.19	839.93	840.34	840.90	840.52
03M713	898.41	898.41	898.41	846.41	846.40	842.11	840.21	840.06	839.56	839.61	839.81	839.59	840.31
04U713	897.73	897.73	897.73	848.34	848.35	844.08	842.45	842.55	841.82	841.83	841.99	841.81	842.58
04J713	898.38	898.38	898.38	847.03	846.95	842.08	840.22	840.04	839.30	839.38	839.67	839.41	839.98
04U714	893.89	893.89	893.89	846.50	846.68	843.13	840.99	840.80	840.54	840.59	840.83	840.54	841.33
04J714	894.19	894.19	894.19	846.63	846.68	843.19	840.86	840.68	840.40	840.48	840.71	840.47	841.18
03U715	963.59	963.59	963.59	852.16	852.36	850.99	850.07	848.76	848.24	848.19	848.20	848.06	848.79
03U716	952.10	952.10	952.10	851.55	839.30	849.75	848.56	847.69	847.00	846.95	847.05	846.89	847.68
S.G. #1	860.42	860.42	860.42	860.42	860.42	854.79	860.42	857.16	860.42	860.42	856.22	860.42	855.62
S.G. #2	862.84	862.84	862.84	862.84	862.84	862.84	862.84	862.79	862.84	862.84	860.94	862.84	860.64
S.G. #3	865.29	865.29	865.29	865.29	865.29	865.29	865.29	865.29	865.29	865.29	865.29	865.29	865.05

OFF TCAAP

MPCA6	914.40	842.78	843.11	914.40	844.14	841.30	914.40	839.10	838.65	838.95	839.01	914.40	839.26
03U672 (PD2U3)	923.72	851.04	849.59	849.82	850.23	847.85	846.72	845.86	845.55	845.42	845.31	844.92	845.68
03U673 (PD3U3)	897.84	843.24	843.44	843.39	843.80	841.95	840.46	840.09	839.13	839.33	839.14	838.84	839.13
03L673 (PD3L3)	898.44	841.35	841.65	842.03	842.36	840.38	838.59	838.35	837.75	837.94	837.94	837.51	837.95
04U673 (PD3U4)	898.34	841.40	841.69	842.12	838.43	840.45	838.79	838.43	837.84	838.03	838.04	837.60	838.08
03U801 (T1U3)	914.82	846.68	846.89	848.25	847.22	844.13	914.82	842.20	842.07	841.81	841.50	841.21	841.89
03M802 (T2M3)	907.38	847.38	847.11	848.68	847.63	843.93	907.38	842.73	842.68	842.28	841.88	841.50	842.36
03L802 (T2L3)	907.93	846.90	847.34	848.32	847.43	845.16	843.11	842.44	842.52	842.13	841.93	841.54	842.29
04U802 (T2U4)	905.95	845.81	846.00	846.65	846.61	844.07	905.95	841.93	841.65	841.65	841.65	841.25	841.94
PJ#802 (T2PJ)	905.07	845.62	845.78	846.42	846.42	843.97	905.07	841.95	841.49	841.52	841.57	841.13	841.73
03U803 (T3U3)	900.89	845.94	845.99	846.43	846.54	843.89	900.89	841.65	841.19	841.29	841.03	900.89	841.21
03U804 (T4U3)	913.02	846.48	846.88	847.92	847.57	843.87	913.02	841.90	841.36	841.39	841.27	913.02	841.61
03U805 (T5U3)	908.23	844.73	845.26	846.37	846.21	842.48	908.23	840.32	839.82	840.01	840.03	908.23	840.31
03U806 (T6U3)	911.96	844.70	844.90	845.96	846.26	842.71	911.96	840.48	840.02	840.28	840.35	839.93	840.74
03M806 (T6M3)	911.87	844.43	845.01	846.21	846.07	842.16	911.87	839.91	839.41	839.66	839.72	839.31	840.06
03L806 (T6L3)	912.16	844.37	844.95	846.11	846.01	842.10	912.16	839.86	839.36	839.61	839.68	839.26	840.01
04U806 (T6U4)	912.12	844.29	844.72	845.87	845.91	841.97	912.12	839.73	839.21	839.47	839.57	839.14	839.86
PJ#806 (T6PJ)	911.03	844.29	844.71	845.87	845.88	841.95	911.03	839.74	839.16	839.43	839.52	839.13	839.84
03L809 (T9L3)	914.32	845.29	845.79	846.57	846.57	843.56	914.32	841.17	840.92	841.17	841.22	914.32	841.46

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

<i>Well I.D.</i>	<i>TOC Elevation</i>	<i>09/21/88</i>	<i>10/14/88</i>	<i>12/02/88</i>	<i>01/13/89</i>	<i>03/31/89</i>	<i>07/07/89</i>	<i>10/05/89</i>	<i>12/21/89</i>	<i>01/11/90</i>	<i>05/16/90</i>	<i>07/16/90</i>	<i>02/28/91</i>
03L841 (301L3)	911.91	911.91	911.91	911.91	911.91	911.91	911.91	911.91	911.91	911.91	837.39	911.91	837.41
03U841 (301U4)	913.77	913.77	913.77	913.77	913.77	913.77	913.77	913.77	913.77	913.77	838.79	913.77	838.77
04U847 (307U4)	916.10	916.10	916.10	916.10	916.10	916.10	916.10	916.10	916.10	916.10	838.20	916.10	838.38
Pj#074	956.46	850.04	849.13	850.65	850.76	848.99	956.46	845.96	846.28	846.24	956.46	956.46	956.46
03U026	977.84	853.18	852.98	853.14	853.29	852.89	977.84	850.54	850.34	850.24	977.84	977.84	977.84

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	06/01/92	09/01/92	10/08/92	03/02/93	09/10/93
03U001	891.20	842.00	841.05	841.70	843.01	843.51	843.25	842.79	843.62	844.75	846.23
03M001	890.76	841.81	840.89	841.54	842.83	843.31	843.14	842.66	843.48	844.60	846.06
03L001	891.37	841.64	840.71	841.30	842.60	843.12	842.90	842.45	843.26	844.35	845.81
04U001	891.28	841.55	840.58	841.20	842.50	842.99	842.79	842.33	843.14	844.26	845.70
03U002	919.89	842.89	842.36	842.59	843.84	844.49	844.97	844.54	844.82	845.75	847.13
03M002	922.40	842.20	841.75	841.95	843.18	843.84	844.25	843.80	844.18	845.07	846.40
03L002	922.21	842.10	841.49	841.85	843.10	843.75	844.15	843.70	844.09	844.99	846.31
04U002	923.18	841.44	840.90	841.18	842.46	843.08	843.43	843.00	843.42	844.32	845.50
03U003	945.00	844.20	843.75	843.89	845.14	845.66	846.50	846.26	846.52	847.23	848.30
03M003	945.55	844.02	843.55	843.70	844.96	845.51	846.37	846.14	846.41	847.14	848.16
03L003	946.83	843.78	843.32	843.49	844.70	845.23	846.01	845.73	846.07	846.83	847.73
04U003	946.07	842.16	841.62	841.85	843.11	843.64	844.10	843.81	844.33	845.16	846.43
PJ#003	946.47	841.66	841.06	841.37	842.63	843.20	843.45	843.16	843.70	844.54	845.68
03U004	953.00	953.00	953.00	849.35	953.00	851.30	953.00	953.00	851.97	852.72	853.78
03M004	952.55	952.55	952.55	847.87	952.55	849.82	952.55	952.55	850.48	851.23	852.32
03L004	952.02	952.02	952.02	846.83	952.02	848.81	952.02	952.02	849.47	850.22	851.29
03U005	973.07	973.07	973.07	849.85	973.07	851.27	973.07	973.07	852.72	853.21	854.00
03M005	974.52	974.52	974.52	849.83	974.52	851.84	974.52	974.52	852.74	853.23	854.07
03L005	974.08	974.08	974.08	849.86	974.08	851.90	974.08	974.08	852.78	853.30	854.14
03U006	969.09	969.09	969.09	850.94	969.09	853.28	969.09	969.09	854.20	854.70	855.18
03U007	902.63	853.10	852.51	852.88	854.61	855.23	855.28	854.88	855.64	856.18	857.25
03M007	903.77	853.03	852.42	852.78	854.52	855.14	855.21	854.81	855.57	856.11	857.17
03L007	904.41	852.69	852.14	852.31	854.18	854.71	854.70	854.31	855.12	855.75	856.75
04U007	905.50	852.37	851.88	851.85	853.74	854.12	854.25	853.83	854.66	855.37	856.30
03U008	917.36	917.36	917.36	859.45	917.36	861.49	917.36	917.36	861.10	862.10	863.66
03U009	915.25	915.25	915.25	861.88	915.25	863.62	915.25	915.25	863.16	863.93	865.97
03U010	891.00	891.00	891.00	862.08	891.00	863.84	891.00	891.00	863.21	864.05	865.98
03M010	891.46	891.46	891.46	862.08	891.46	863.68	891.46	891.46	863.18	864.02	865.95
03L010	891.76	891.76	891.76	862.18	891.76	863.74	891.76	891.76	863.18	864.03	865.91
03U011	902.99	902.99	902.99	859.27	902.99	861.19	902.99	902.99	860.61	861.73	863.34
03U012	882.83	855.15	853.83	854.93	856.21	856.84	856.21	855.25	856.26	857.40	858.97
03M012	882.73	855.13	853.83	854.92	856.20	856.83	856.19	855.24	856.24	857.39	858.94
03L012	882.63	855.08	853.78	854.86	856.16	856.81	856.18	855.18	856.19	857.35	858.90
04U012	882.78	855.00	853.68	854.76	856.06	856.68	856.06	855.09	856.09	857.24	858.79
03U013	893.02	893.02	893.02	845.86	893.02	847.83	893.02	893.02	847.69	848.79	850.11
03M013	892.40	892.40	892.40	845.85	892.40	847.84	892.40	892.40	847.66	848.77	850.10
03L013	892.60	892.60	892.60	845.67	892.60	847.65	892.60	892.60	847.51	848.61	849.93
03U014	990.27	849.78	849.30	849.48	850.59	851.57	852.19	851.33	851.96	852.73	853.97
03L014	991.57	850.15	849.58	849.84	851.05	851.92	852.47	851.90	852.30	853.12	854.38
03U015	937.68	937.68	937.68	850.62	937.68	852.64	937.68	937.68	852.70	853.70	855.02
03U016	950.05	950.05	950.05	853.35	950.05	855.40	950.05	950.05	855.43	856.42	857.80
03U017	941.31	941.31	941.31	846.64	941.31	848.51	941.31	941.31	848.89	849.78	851.07
03M017	941.93	941.93	941.93	846.62	941.93	848.48	941.93	941.93	848.87	849.76	851.05

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	06/01/92	09/01/92	10/08/92	03/02/93	09/10/93
03L017	942.07	942.07	942.07	846.64	942.07	848.51	942.07	942.07	848.84	849.76	851.06
03U018	991.62	991.62	991.62	849.62	991.62	852.26	991.62	991.62	851.95	852.84	854.17
03L018	991.49	991.49	991.49	849.44	991.49	851.47	991.49	991.49	851.78	852.66	854.01
03U019	946.54	946.54	946.54	851.09	946.54	853.10	946.54	946.54	853.44	854.29	855.55
03U020	955.70	847.11	846.63	846.83	848.01	848.80	849.36	848.84	849.11	850.05	851.31
03M020	957.03	847.06	846.52	846.73	847.93	848.68	849.28	848.73	849.05	849.94	851.23
03L020	956.73	847.03	846.53	846.73	847.93	848.71	849.26	848.74	849.05	849.95	851.23
04U020	957.86	846.82	846.25	846.56	847.82	848.50	848.97	848.36	848.76	849.70	851.07
03U021	947.30	947.30	947.30	844.76	947.30	846.45	947.30	947.30	846.80	847.73	849.05
03L021	946.74	946.74	946.74	843.99	946.74	846.09	946.74	946.74	846.46	847.38	848.67
03U022	901.88	901.88	901.88	855.81	901.88	857.75	901.88	901.88	857.35	858.46	859.96
03U023	901.51	901.51	901.51	855.58	901.51	857.53	901.51	901.51	857.05	858.17	859.67
03U024	896.99	896.99	896.99	854.09	896.99	856.04	896.99	896.99	855.74	856.85	858.29
03U025	889.07	889.07	889.07	851.76	889.07	853.71	889.07	889.07	853.47	854.56	855.99
03U027	968.80	968.80	968.80	847.12	968.80	849.08	968.80	968.80	849.47	850.36	851.56
03L027	969.42	969.42	969.42	846.97	969.42	848.98	969.42	969.42	849.36	850.25	851.46
04U027	969.49	969.49	969.49	845.61	969.49	847.55	969.49	969.49	847.87	848.76	849.94
PJ#027	970.05	970.05	970.05	845.58	970.05	847.55	970.05	970.05	847.87	848.75	849.94
03U028	959.76	959.76	959.76	846.31	959.76	848.28	959.76	959.76	848.72	849.57	850.72
03L028	958.93	958.93	958.93	846.26	958.93	848.23	958.93	958.93	848.68	849.52	850.65
03U029	957.27	957.27	957.27	844.47	957.27	846.27	957.27	957.27	846.87	847.69	848.87
03L029	956.95	956.95	956.95	845.11	956.95	847.03	956.95	956.95	847.61	848.41	849.44
03U030	961.42	961.42	961.42	847.88	961.42	849.85	961.42	961.42	850.36	851.12	852.23
03U031	900.94	900.94	900.94	848.00	900.94	850.04	900.94	900.94	850.05	851.07	852.51
03U032	1006.57	1006.57	1006.57	851.73	1006.57	853.81	1006.57	1006.57	853.93	854.89	856.18
03U075	887.03	887.03	887.03	844.87	887.03	846.82	887.03	887.03	840.67	847.85	849.40
03U076	891.41	891.41	891.41	843.19	891.41	844.97	891.41	891.41	845.05	846.22	847.73
03U077	914.94	914.94	914.94	841.19	914.94	843.19	914.94	914.94	843.45	844.41	845.74
03L077	914.88	914.88	914.88	839.64	914.88	841.69	914.88	914.88	841.84	842.78	844.11
04U077	914.57	914.57	914.57	839.67	914.57	841.68	914.57	914.57	841.92	842.83	844.15
04J077	914.60	914.60	914.60	837.38	914.60	839.11	914.60	914.60	839.42	840.17	841.40
03U078	929.85	929.85	929.85	840.56	929.85	842.33	929.85	929.85	843.13	844.06	845.48
03L078	930.18	930.18	930.18	841.84	930.18	843.77	930.18	930.18	844.26	845.14	846.43
03U079	925.99	925.99	925.99	840.31	925.99	842.16	925.99	925.99	843.00	843.72	845.22
03L079	926.29	926.29	926.29	841.69	926.29	843.40	926.29	926.29	844.19	844.94	846.20
03L080	963.45	963.45	963.45	847.99	963.45	849.99	963.45	963.45	850.44	851.28	852.45
03L081	948.96	948.96	948.96	850.49	948.96	852.58	948.96	948.96	852.97	853.76	854.86
03U082	901.00	901.00	901.00	858.36	901.00	860.29	901.00	901.00	859.76	860.90	862.49
03U083	893.90	893.90	893.90	851.20	893.90	853.15	893.90	893.90	853.08	854.13	855.51
03U084	900.98	900.98	900.98	841.67	900.98	843.58	900.98	900.98	843.83	844.78	846.10
03L084	900.58	900.58	900.58	841.75	900.58	843.64	900.58	900.58	843.89	844.86	846.18
03U087	1006.79	1006.79	1006.79	852.07	1006.79	881.09	1006.79	1006.79	854.19	875.20	856.54
03U088	986.36	986.36	986.36	852.61	986.36	854.69	986.36	986.36	854.67	855.69	857.07

HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	06/01/92	09/01/92	10/08/92	03/02/93	09/10/93
03U089	975.30	975.30	975.30	852.58	975.30	854.62	975.30	975.30	854.61	855.64	857.01
03U090	984.92	984.92	984.92	850.81	984.92	852.88	984.92	984.92	853.05	853.98	855.31
03U092	963.30	963.30	963.30	849.61	963.30	851.64	963.30	963.30	851.98	852.86	854.12
03U093	996.01	849.98	849.50	849.66	850.85	851.71	852.31	851.65	851.98	852.91	854.21
03U094	999.64	999.64	999.64	849.84	999.64	851.99	999.64	999.64	852.31	853.00	854.32
03U096	997.02	997.02	997.02	849.78	997.02	851.84	997.02	997.02	852.06	852.99	854.33
03U111	927.69	927.69	927.69	858.19	927.69	860.36	927.69	927.69	859.84	861.03	862.51
03U112	980.80	980.80	980.80	851.18	980.80	853.21	980.80	980.80	853.47	854.37	855.72
03U113	976.83	976.83	976.83	851.72	976.83	853.79	976.83	976.83	853.95	854.90	856.19
03L113	977.15	977.15	977.15	851.63	977.15	853.67	977.15	977.15	853.71	854.83	856.07
03U301(SC1)	957.41	826.86	829.41	829.16	830.41	827.01	829.11	828.41	829.25	829.81	839.71
03F302(B1)	929.86	834.96	835.24	835.26	836.46	837.06	837.56	838.06	866.86	838.36	840.46
03F303(B2)	925.04	817.64	810.69	806.44	806.54	806.14	806.54	821.14	821.04	821.54	821.24
03F304(B3)	920.09	839.89	839.68	840.04	841.49	842.09	842.39	841.89	843.09	843.09	844.39
03F305(B4)	915.75	836.01	835.45	835.50	836.55	837.35	837.85	837.45	836.75	839.15	840.95
03F306(B5)	919.13	832.08	831.83	831.98	832.83	838.93	834.13	833.63	834.13	834.53	836.53
03F307(B6)	913.46	826.46	913.46	825.96	827.16	830.36	826.66	826.76	858.46	826.56	827.26
03F308(B7)	900.79	826.24	900.79	823.29	824.19	823.59	822.09	821.79	820.79	821.49	815.69
PJ#309(B8)	914.35	838.15	838.25	838.65	839.55	840.35	840.85	840.15	839.35	841.55	842.35
PJ#310(B9)	915.80	835.70	835.65	835.70	836.80	837.40	837.50	837.20	836.80	838.60	839.70
PJ#311(B10)	905.97	837.72	905.97	837.02	838.77	839.27	838.47	838.52	837.97	840.27	841.47
03F312(B11)	944.24	838.86	838.34	838.49	839.64	840.24	841.14	841.04	841.24	842.44	842.04
PJ#313(B12)	895.63	837.43	836.53	836.91	838.03	838.73	838.83	838.13	807.63	839.63	841.63
03U314(SC2)	978.02	845.10	840.07	840.60	846.22	841.32	846.72	848.22	845.02	846.52	844.22
03U315(SC3)	965.27	842.25	842.42	842.62	843.87	844.77	845.47	844.27	828.27	845.07	845.57
03U316(SC4)	957.13	831.93	832.13	832.63	833.63	836.53	838.53	839.53	843.13	836.83	841.73
03U317(SC5)	952.62	843.92	842.72	842.22	843.82	844.12	844.42	843.72	843.62	844.92	844.82
04U510	911.19	911.19	911.19	860.83	911.19	862.56	911.19	911.19	862.18	863.12	865.00
OW543U3	958.99	958.99	958.99	846.86	958.99	848.59	958.99	958.99	848.68	849.56	850.79
03U647	962.25	962.25	962.25	847.35	962.25	849.31	962.25	962.25	849.84	850.61	851.70
03U648	963.14	963.14	963.14	847.59	963.14	849.56	963.14	963.14	850.07	850.87	851.97
03U658	966.24	966.24	966.24	848.29	966.24	850.28	966.24	966.24	850.86	851.63	852.76
03U659	958.62	958.62	958.62	845.89	958.62	847.80	958.62	958.62	848.36	849.15	850.26
03U671	933.13	933.13	933.13	842.99	933.13	844.82	933.13	933.13	845.39	846.24	847.53
03U674	957.21	957.21	957.21	844.56	957.21	846.42	957.21	957.21	846.97	847.82	848.97
03U701	911.10	911.10	911.10	840.80	911.10	842.75	911.10	911.10	843.02	843.98	845.28
04U701	911.24	911.24	911.24	839.19	911.24	841.06	911.24	911.24	841.26	842.13	843.44
03U702	910.53	910.53	910.53	840.42	910.53	842.35	910.53	910.53	842.61	843.58	844.87
04U702	910.44	910.44	910.44	839.87	910.44	841.82	910.44	910.44	842.00	842.95	844.26
04J702	910.51	910.51	910.51	839.53	910.51	841.46	910.51	910.51	841.56	842.49	843.80
03U703	921.25	921.25	921.25	840.10	921.25	841.90	921.25	921.25	842.69	843.55	845.01
03U704	978.47	854.25	853.57	854.02	855.25	856.04	856.47	855.45	855.97	857.01	858.41
03U705	1049.55	854.80	854.05	854.55	855.80	856.64	857.03	855.98	856.53	857.54	858.80



HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

Well I.D.	TOC Elevation	06/03/91	09/03/91	09/27/91	12/06/91	03/24/92	06/01/92	09/01/92	10/08/92	03/02/93	09/10/93
03U706	920.63	854.65	853.87	854.45	855.59	856.39	854.57	855.61	856.21	857.27	858.73
03U707	918.28	918.28	918.28	855.14	918.28	857.11	918.28	918.28	856.80	857.88	859.37
03U708	921.97	921.97	921.97	842.42	921.97	844.22	921.97	921.97	844.83	845.67	847.02
04U708	921.66	921.66	921.66	841.35	921.66	843.23	921.66	921.66	843.62	844.52	845.81
04J708	922.04	922.04	922.04	840.81	922.04	842.63	922.04	922.04	843.00	843.88	845.03
03U709	912.63	912.63	912.63	841.74	912.63	843.64	912.63	912.63	844.00	844.91	846.29
04U709	912.52	912.52	912.52	840.32	912.52	842.20	912.52	912.52	842.51	843.44	844.66
03U710	946.76	946.76	946.76	842.54	946.76	844.32	946.76	946.76	845.14	845.90	847.11
03U711	908.81	841.33	839.64	839.95	842.59	843.50	843.40	842.99	843.42	844.26	845.68
04U711	908.73	840.28	840.73	840.84	841.44	841.91	842.17	841.78	842.32	843.19	844.37
03M713	898.41	840.03	839.15	839.60	840.89	841.47	841.44	840.99	841.71	842.74	844.00
04U713	897.73	842.42	841.70	842.06	843.35	844.01	844.15	843.65	844.21	845.16	846.48
04J713	898.38	839.74	838.88	839.34	840.65	841.20	841.14	840.71	841.38	842.38	844.02
04U714	893.89	841.08	840.15	840.70	841.98	842.54	842.32	841.94	842.69	843.77	845.20
04J714	894.19	840.94	840.05	840.57	841.88	842.42	842.29	841.84	842.59	843.68	845.10
03U715	963.59	848.83	848.32	848.50	849.70	850.50	851.26	850.69	850.95	851.84	853.04
03U716	952.10	847.63	847.10	847.30	848.57	849.18	849.88	849.31	849.68	850.48	851.87
S.G. #1	860.42	860.42	860.42	865.66	860.42	867.57	860.42	860.42	854.27	866.92	867.87
S.G. #2	862.84	862.84	862.84	865.89	862.84	867.81	862.84	862.84	858.87	868.14	868.14
S.G. #3	865.29	865.29	865.29	866.04	865.29	867.47	865.29	865.29	864.11	867.59	867.59
OFF TCAAP											
MPCA6	914.40	914.40	914.40	838.60	914.40	840.55	914.40	914.40	840.78	841.80	843.15
03U672 (PD2U3)	923.72	845.36	845.11	845.05	846.32	846.90	847.68	847.34	847.76	848.40	849.51
03U673 (PD3U3)	897.84	838.73	838.19	838.39	839.50	840.08	840.61	840.11	840.82	841.53	842.74
03L673 (PD3L3)	898.44	837.67	836.99	837.29	838.54	838.66	839.48	838.96	839.68	840.46	841.67
04U673 (PD3U4)	898.34	837.79	837.12	837.44	838.69	839.82	839.59	839.10	839.79	840.62	841.82
03U801 (T1U3)	914.82	842.12	841.17	841.28	842.52	843.15	843.73	843.47	843.87	844.62	846.01
03M802 (T2M3)	907.38	841.80	841.43	841.51	842.76	843.30	844.01	843.83	844.15	844.86	846.29
03L802 (T2L3)	907.93	841.92	841.53	841.69	842.93	843.51	844.11	843.87	844.29	845.00	846.33
04U802 (T2U4)	905.95	841.68	841.20	841.44	842.67	843.22	843.67	843.38	843.89	844.70	845.93
PJ#802 (T2PJ)	905.07	841.49	840.97	841.21	842.43	842.95	843.14	842.95	843.54	844.30	845.51
03U803 (T3U3)	900.89	900.89	900.89	840.49	900.89	842.25	900.89	900.89	843.08	843.79	845.11
03U804 (T4U3)	913.02	913.02	913.02	841.13	913.02	843.07	913.02	913.02	843.51	844.34	845.77
03U805 (T5U3)	908.23	908.23	908.23	839.76	908.23	841.73	908.23	908.23	842.01	842.93	844.26
03U806 (T6U3)	911.96	840.44	839.70	840.06	841.39	842.04	842.10	841.66	842.29	843.25	844.57
03M806 (T6M3)	911.87	839.72	839.07	839.42	840.73	841.45	841.47	841.03	841.63	842.57	843.91
03L806 (T6L3)	912.16	839.74	839.02	839.38	840.70	841.42	841.43	841.00	841.60	842.57	843.89
04U806 (T6U4)	912.12	839.57	838.86	839.23	840.55	841.22	841.22	840.77	841.41	842.37	843.67
PJ#806 (T6PJ)	911.03	839.55	838.83	839.20	840.52	841.17	841.16	840.73	841.38	842.33	843.67
03L809 (T9L3)	914.32	914.32	914.32	840.83	914.32	842.80	914.32	914.32	843.02	843.99	845.32

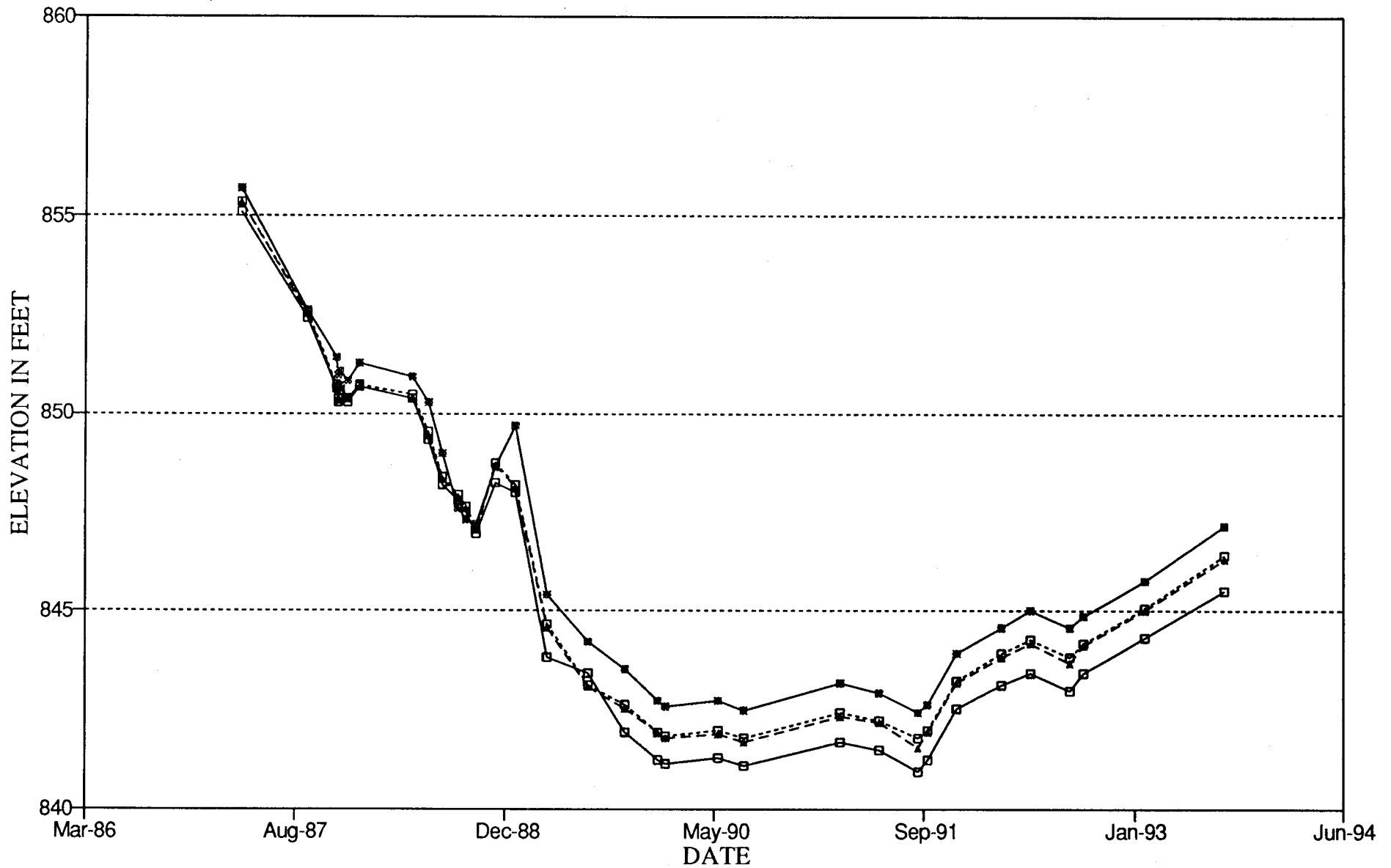
HISTORICAL TGRS GROUNDWATER ELEVATIONS (FT. AMSL)

<i>Well I.D.</i>	<i>TOC Elevation</i>	<i>06/03/91</i>	<i>09/03/91</i>	<i>09/27/91</i>	<i>12/06/91</i>	<i>03/24/92</i>	<i>06/01/92</i>	<i>09/01/92</i>	<i>10/08/92</i>	<i>03/02/93</i>	<i>09/10/93</i>
03L841 (301L3)	911.91	911.91	911.91	836.66	911.91	838.61	911.91	911.91	838.99	839.85	841.05
03U841 (301U4)	913.77	913.77	913.77	838.10	913.77	840.05	913.77	913.77	840.42	841.28	842.50
04U847 (307U4)	916.10	916.10	916.10	837.70	916.10	839.65	916.10	916.10	839.91	840.93	842.22
PJ#074	956.46	956.46	956.46	956.46	956.46		956.46	956.46			
03U026	977.84	977.84	977.84	977.84	977.84		977.84	977.84			

**Appendix F.2**

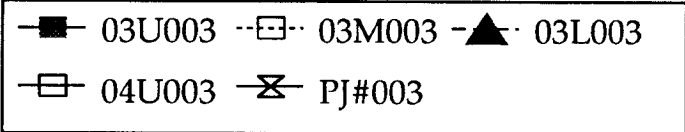
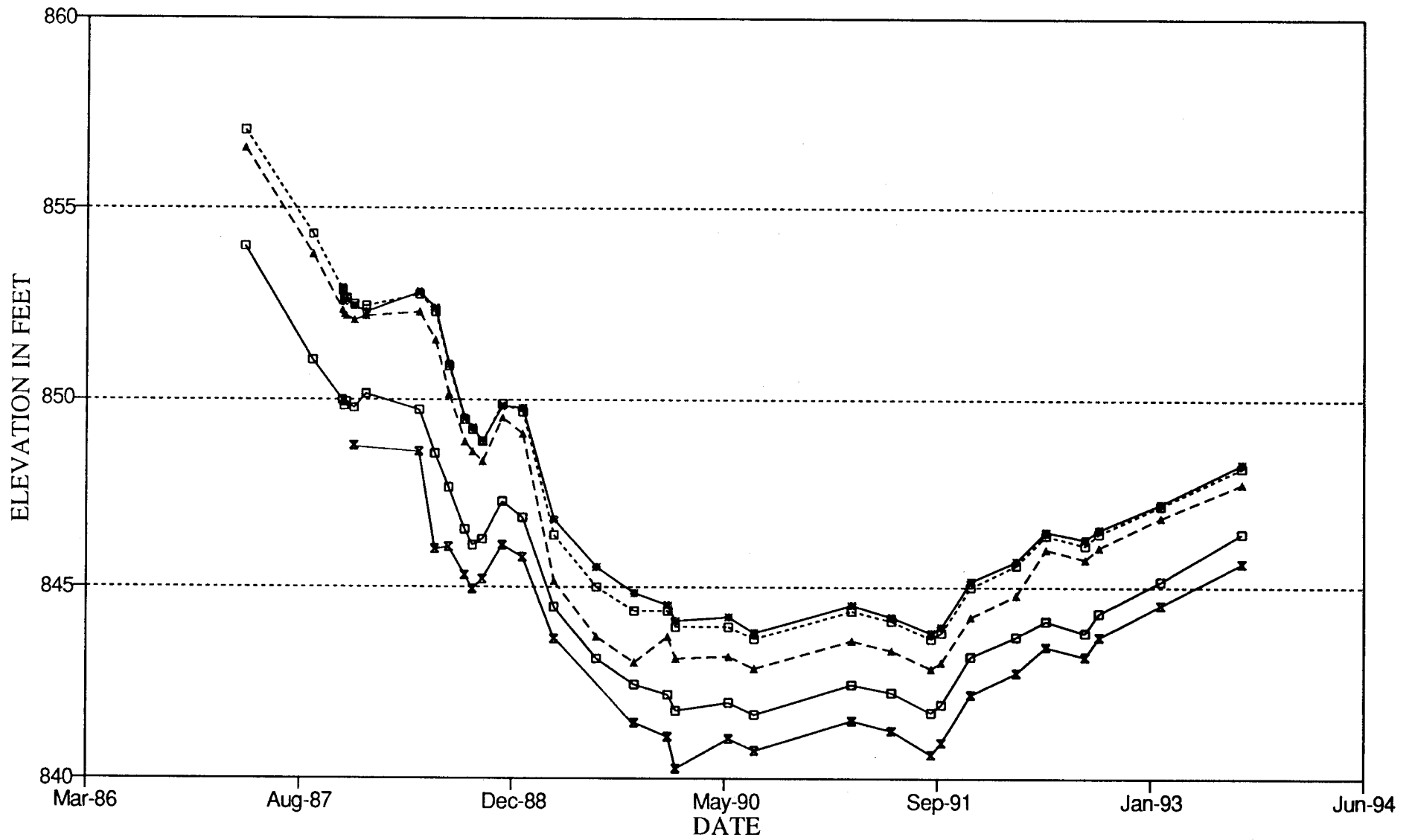
**Hydrographs**

# HYDROGRAPH - 002 NEST

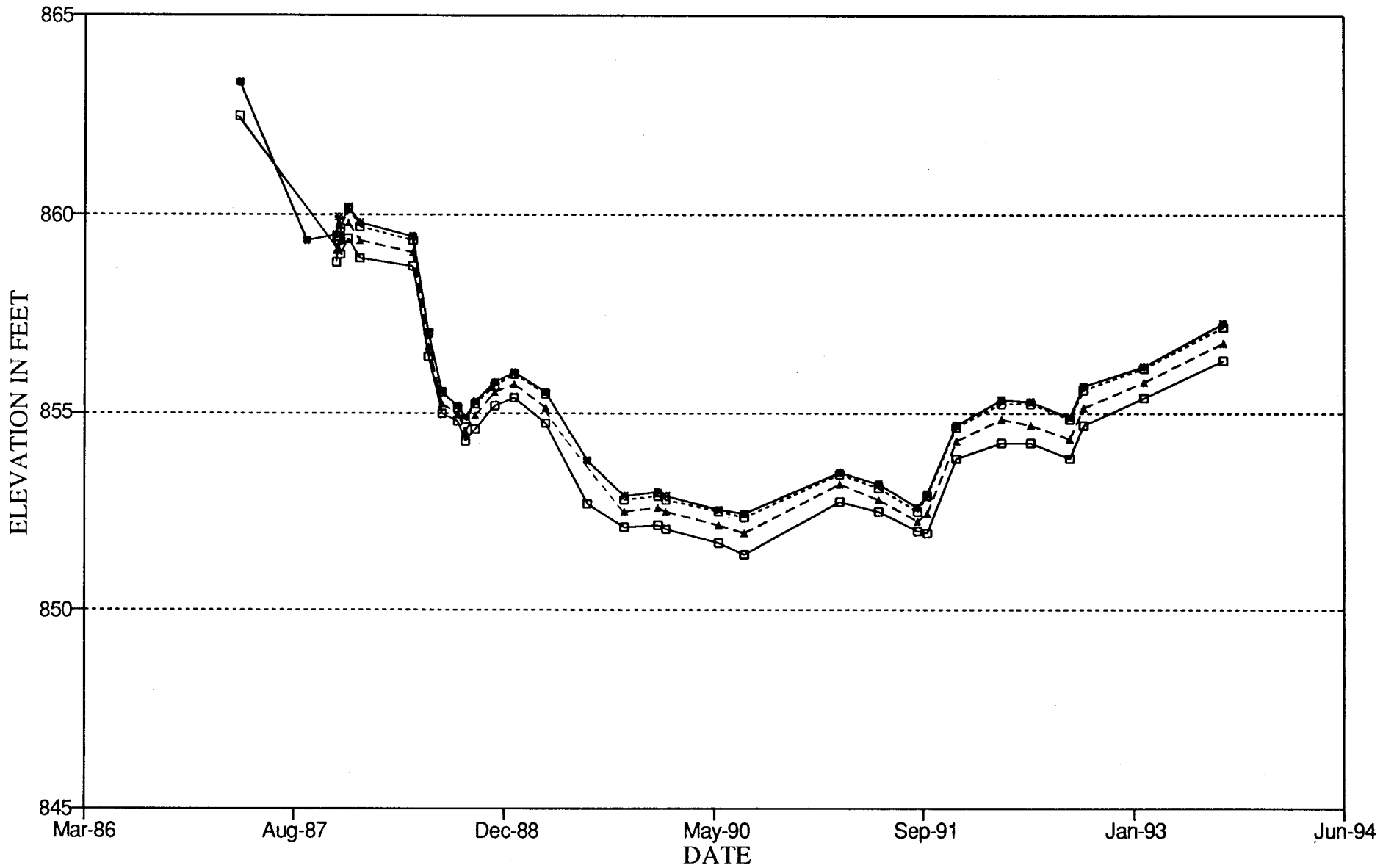


—■— 03U002    - - □ - - 03M002    -▲- 03L002    -□- 04U002

# HYDROGRAPH - 003 NEST

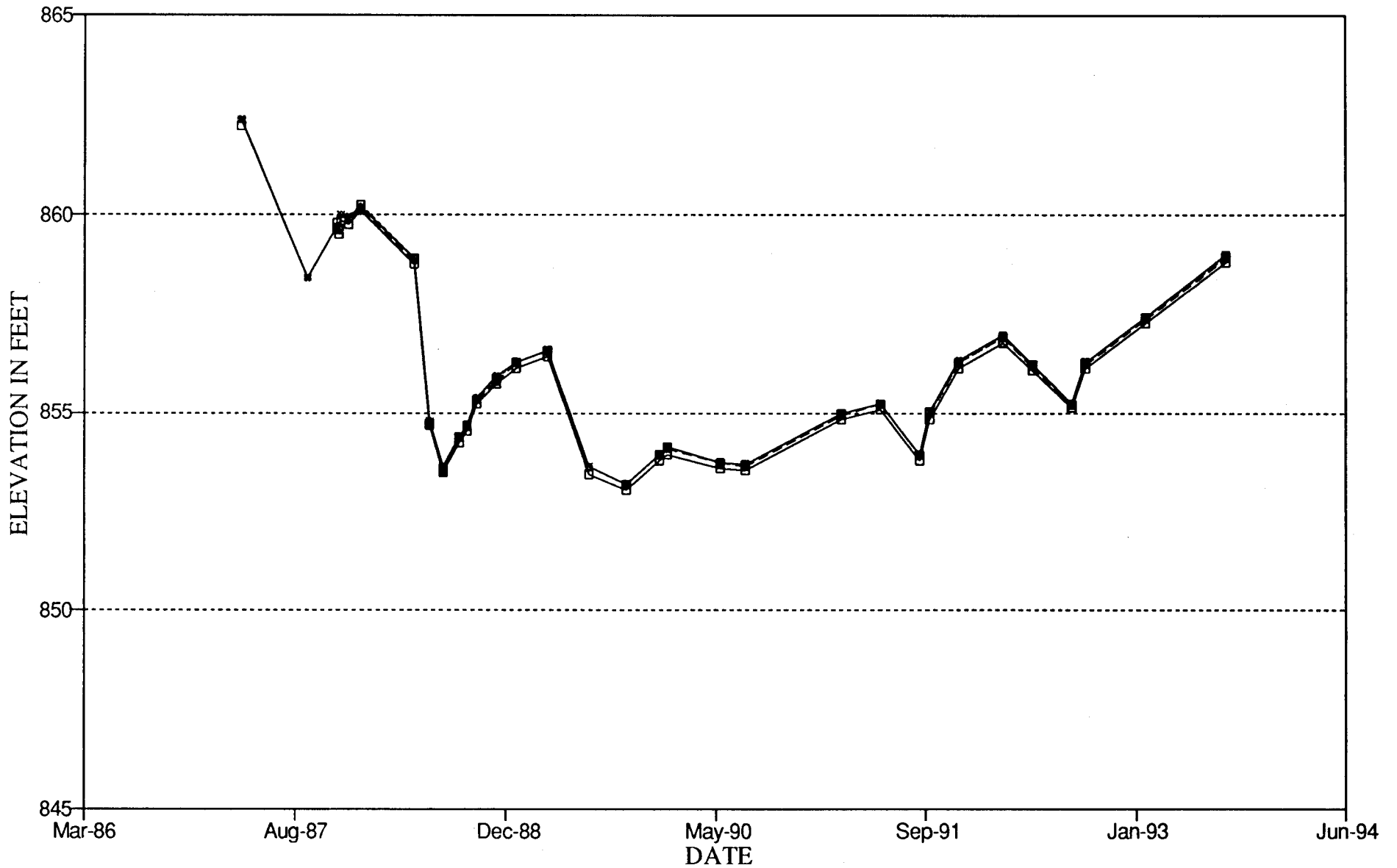


# HYDROGRAPH - 007 NEST



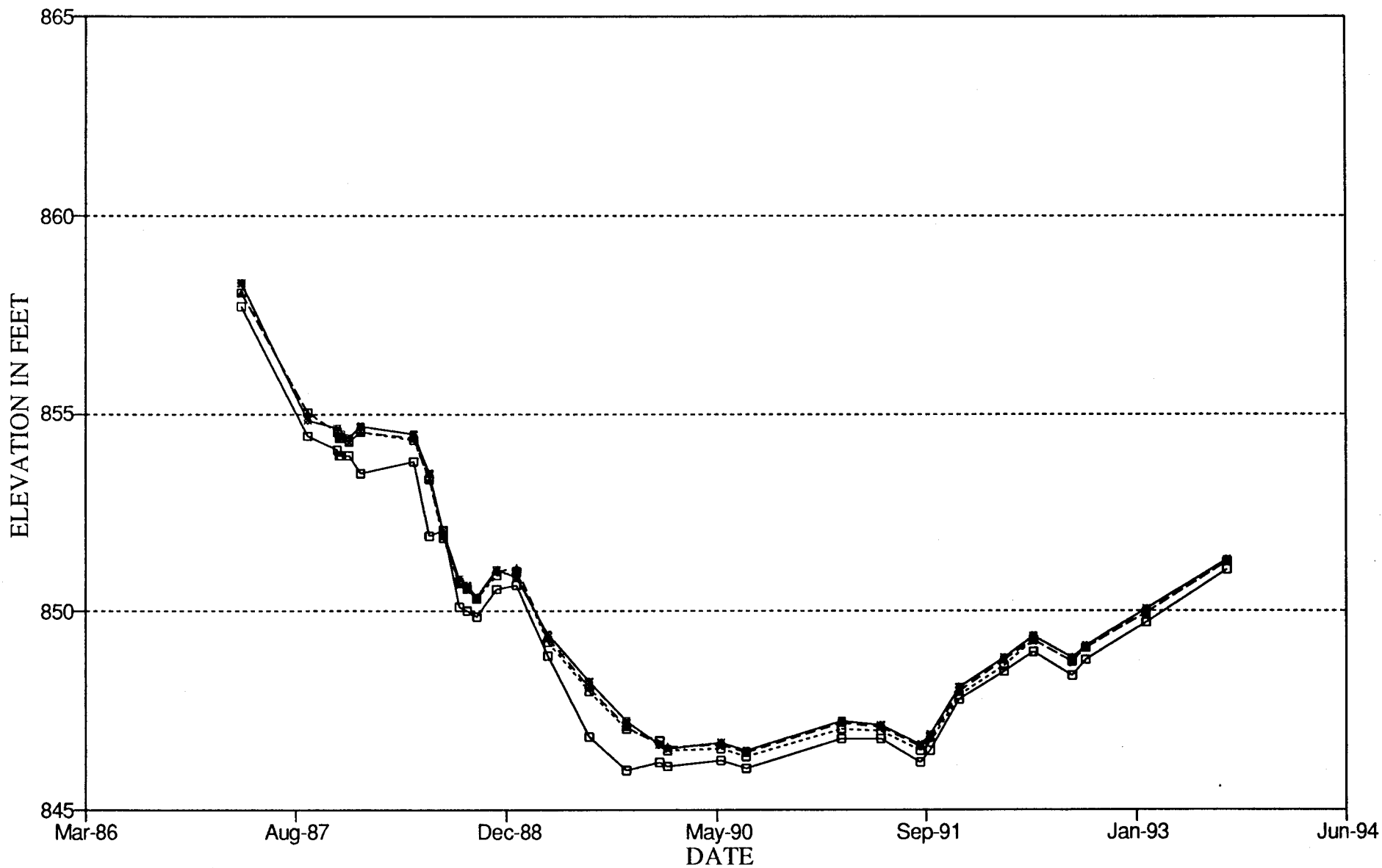
—■— 03U007    - - □ - - 03M007    -▲- 03L007    -□- 04U007

# HYDROGRAPH - 012 NEST



—■— 03U012    -□- 03M012    -▲- 03L012    -□- 04U012

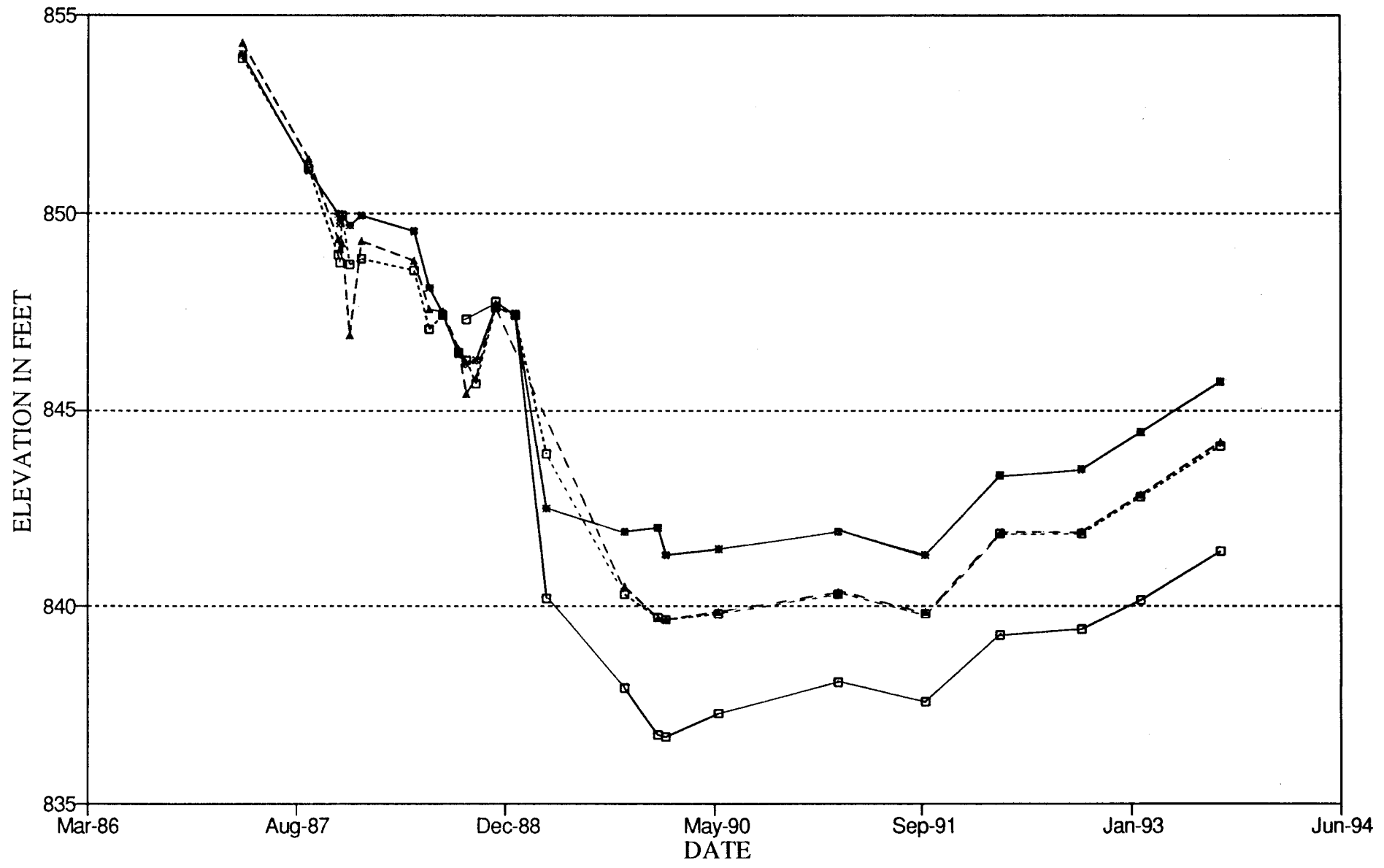
# HYDROGRAPH - 020 NEST



—■— 03U020    - - □ - - 03M020    -▲- 03L020    -□- 04U012

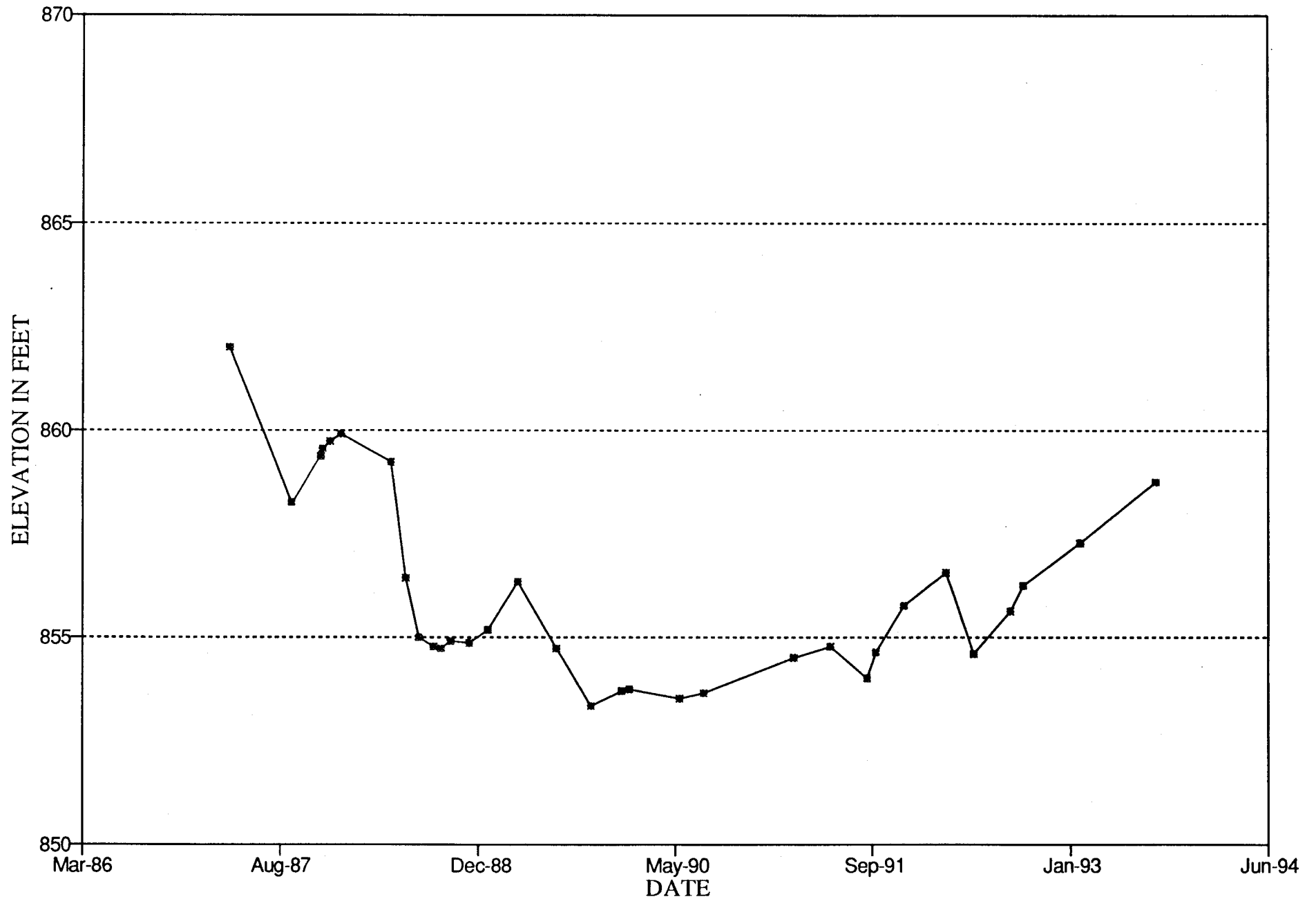


# HYDROGRAPH - 077 NEST



—■— 03U077    -□- 03L077    -▲- 04U077    -□- 04J077

# HYDROGRAPH - 706 WELL



## APPENDIX G

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## Appendix G

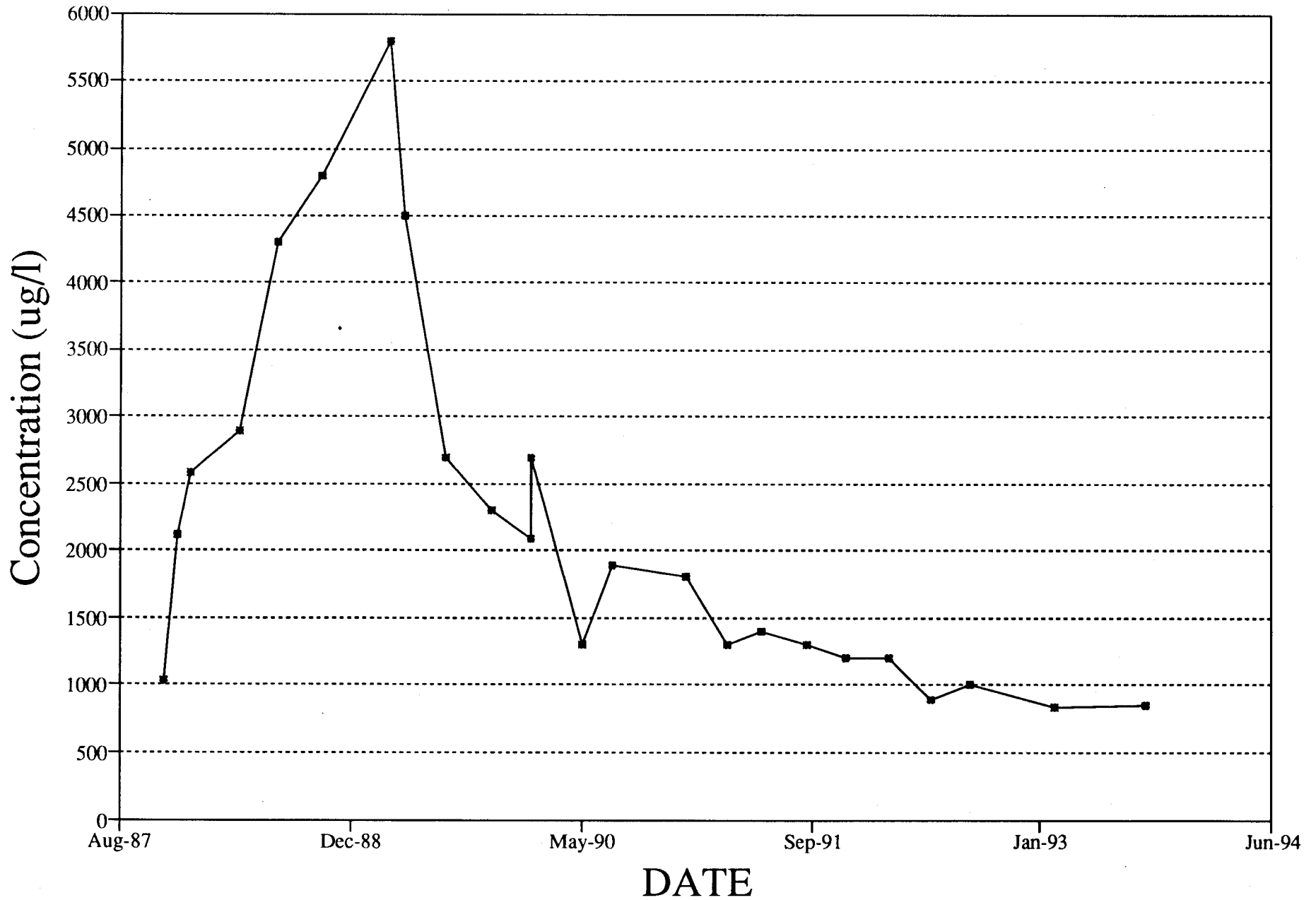
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### TGRS Chemical Data

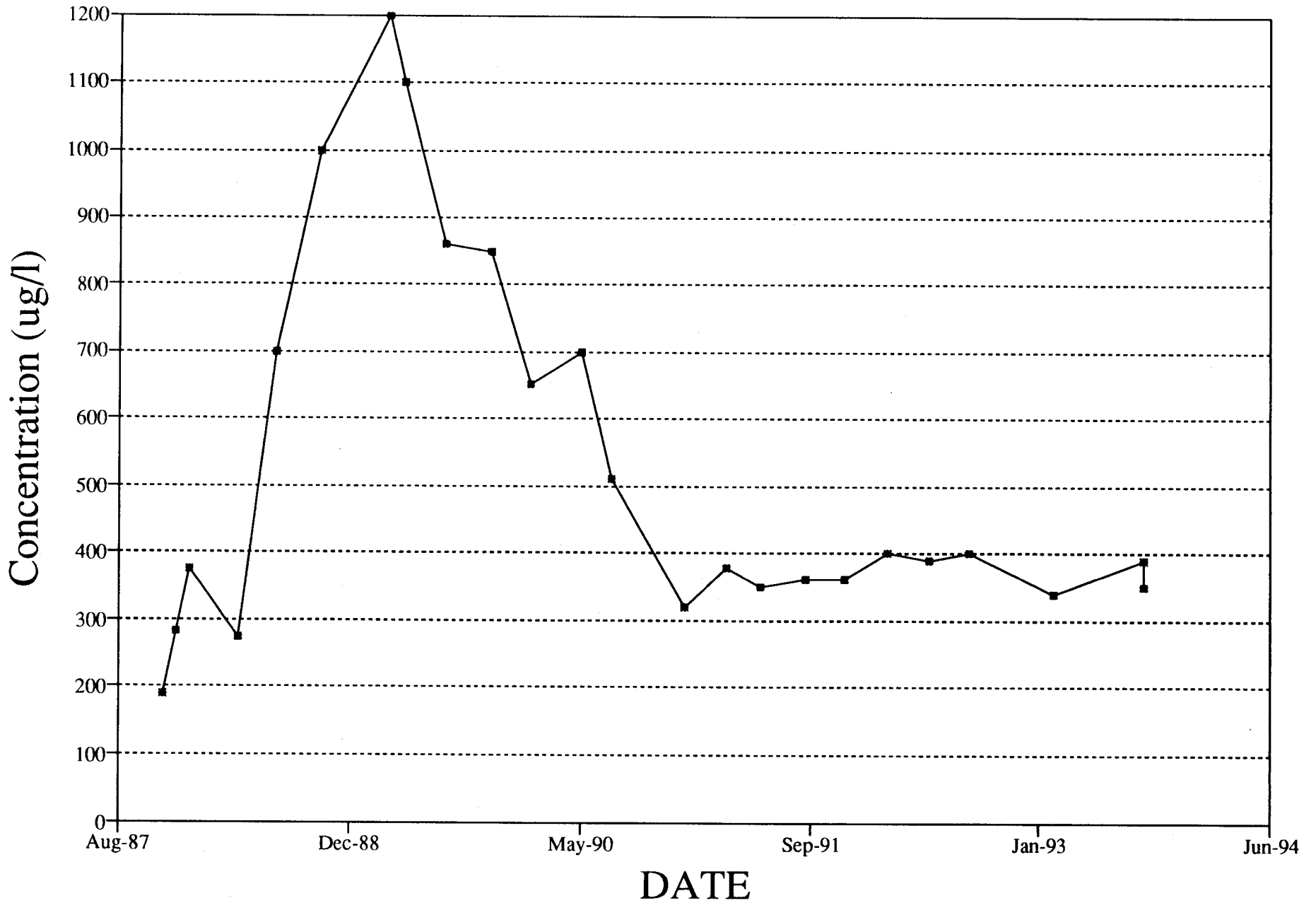
**Appendix G.1**

**Extraction Well TRCLE vs. Time Graphs**

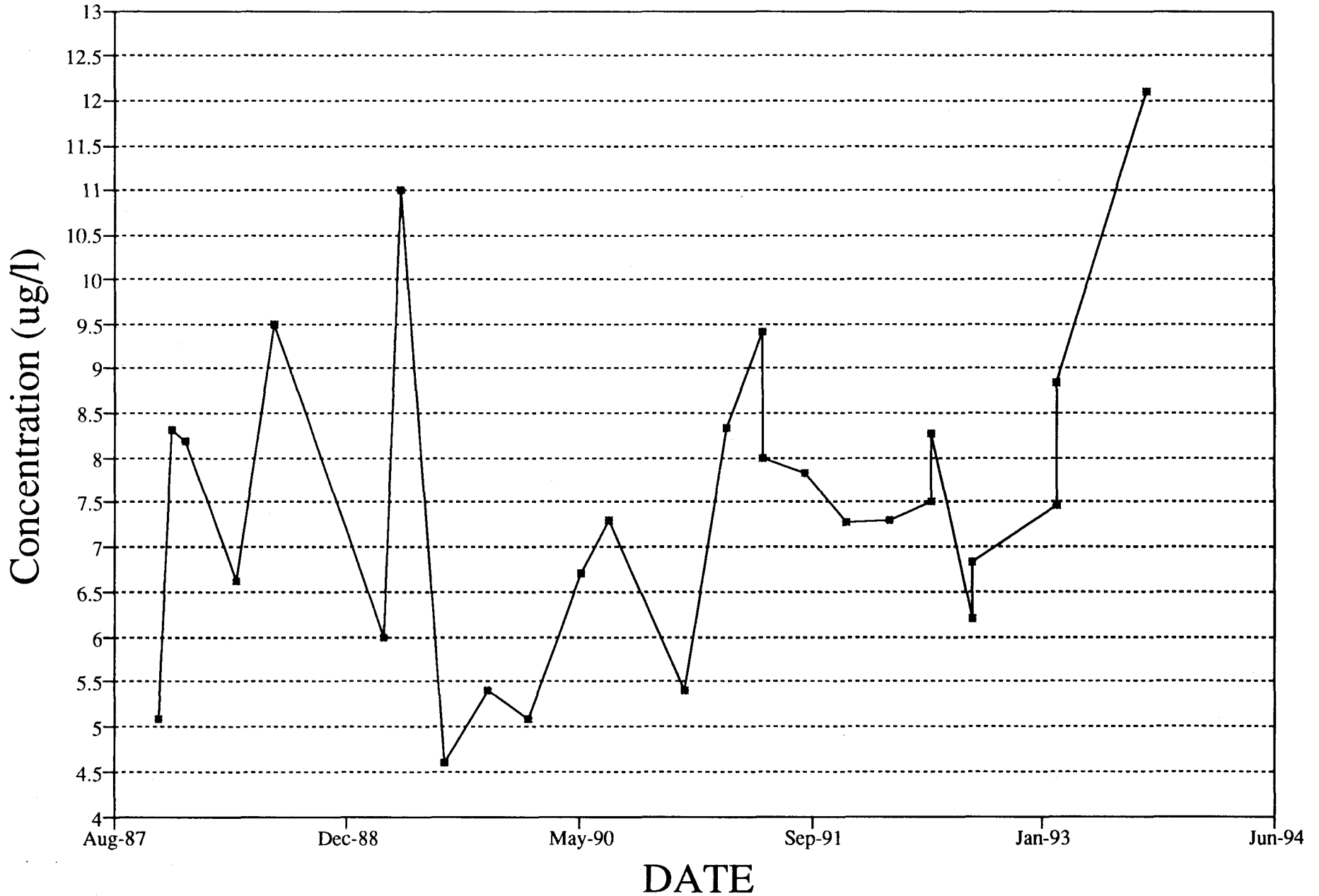
# EXTRACTION WELL B1 - TRCLE vs. TIME



# EXTRACTION WELL B2 - TRCLE vs. TIME

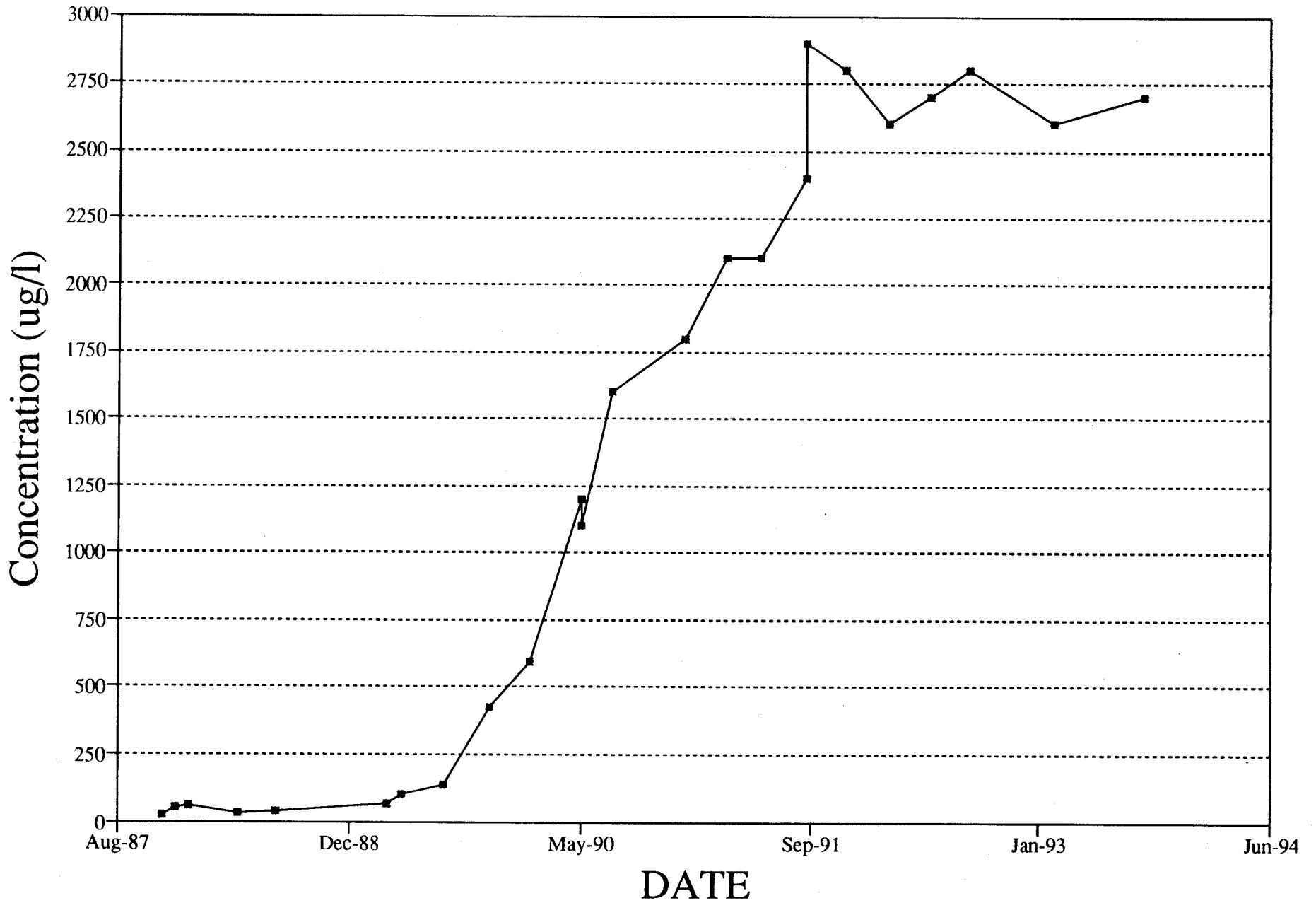


# EXTRACTION WELL B3 - TRCLE vs. TIME

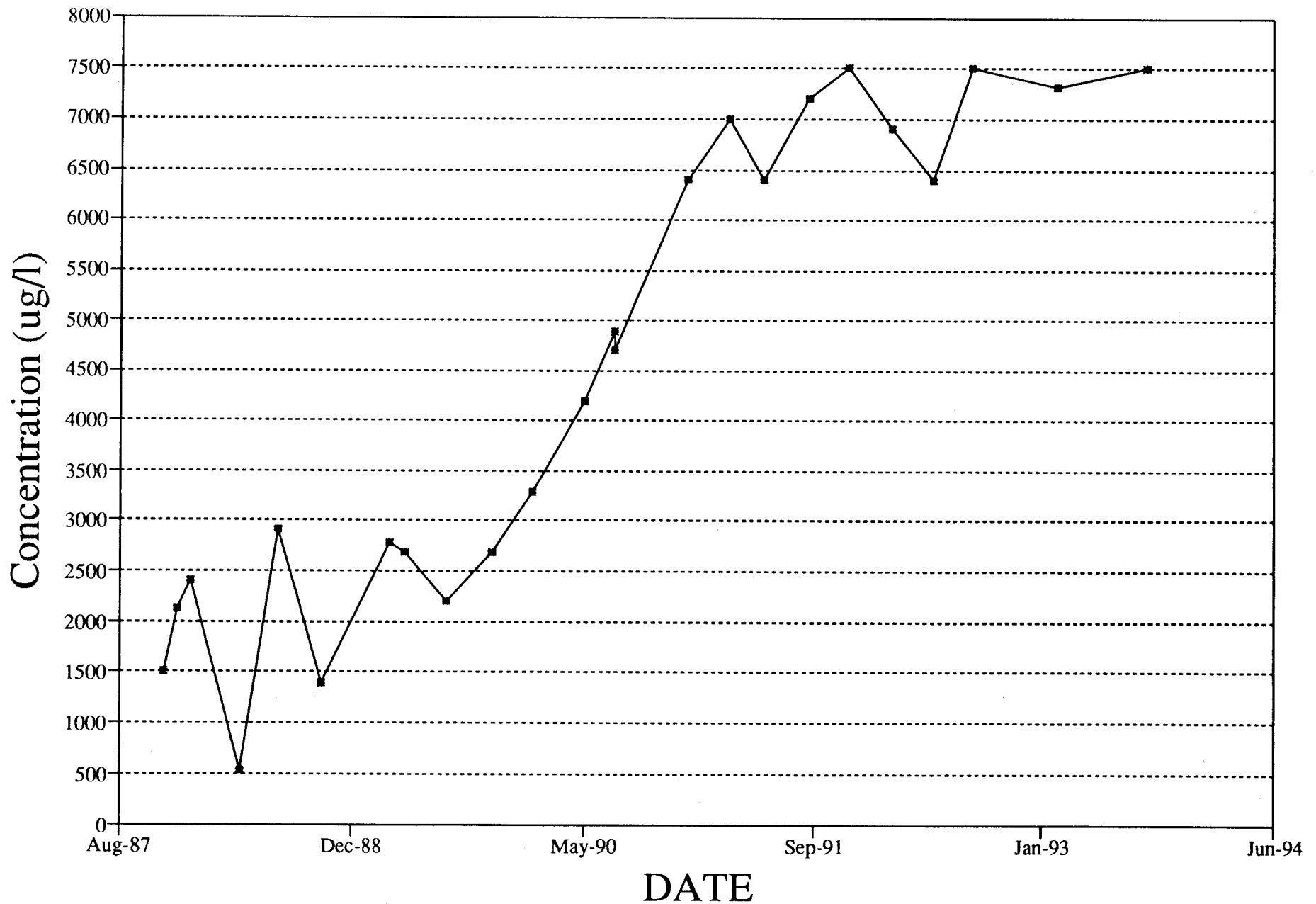




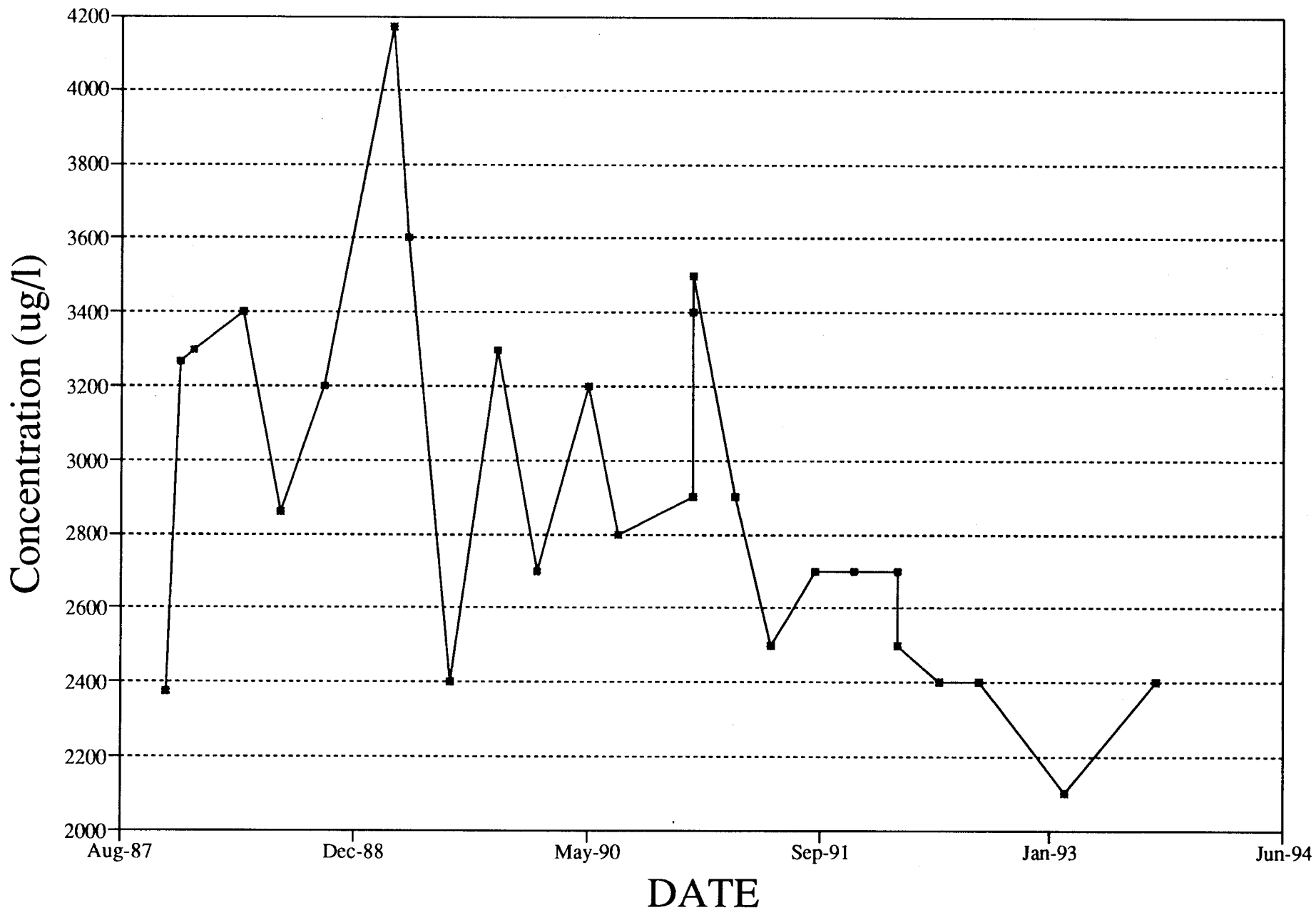
# EXTRACTION WELL B4 - TRCLE vs. TIME



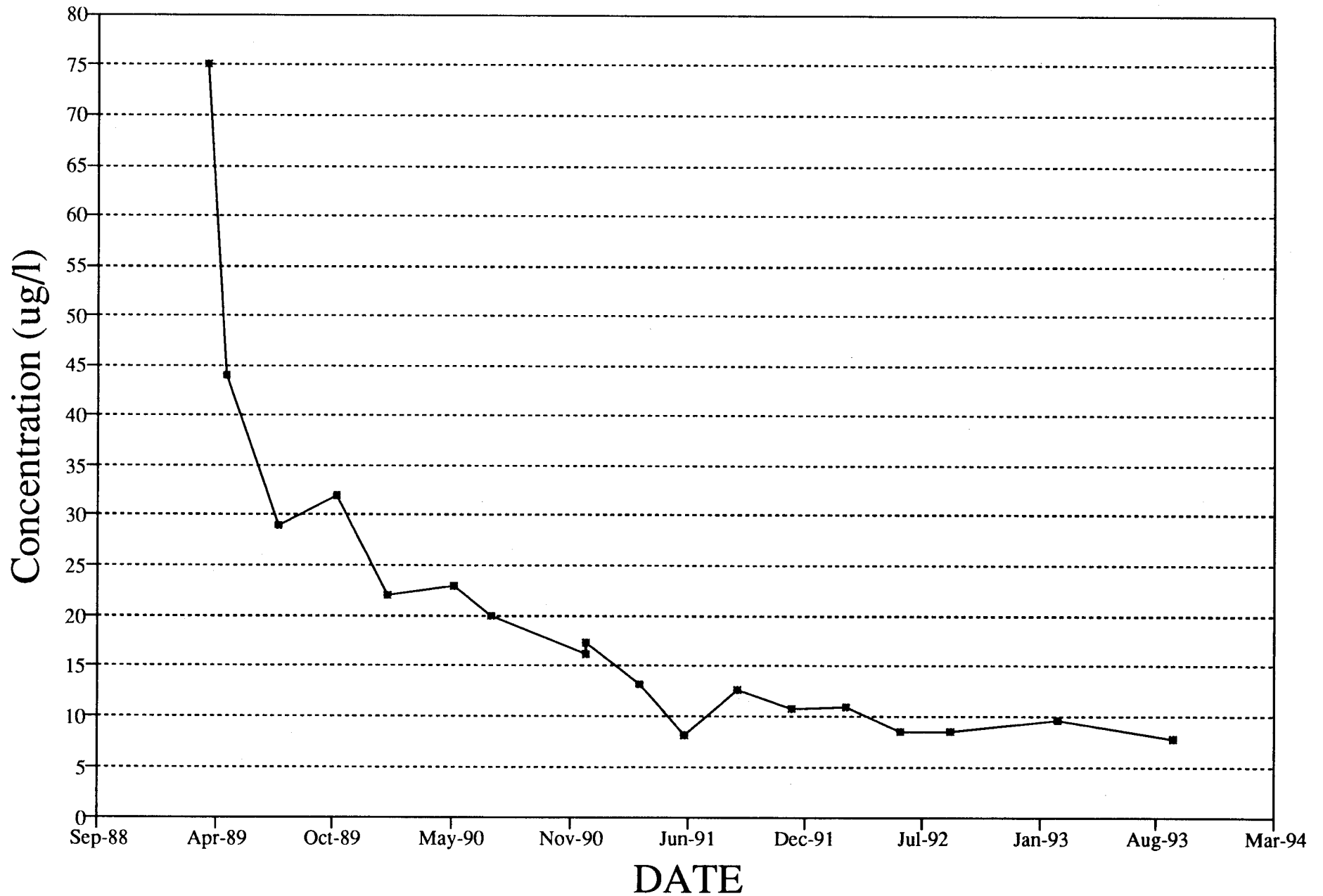
# EXTRACTION WELL B5 - TRCLE vs. TIME



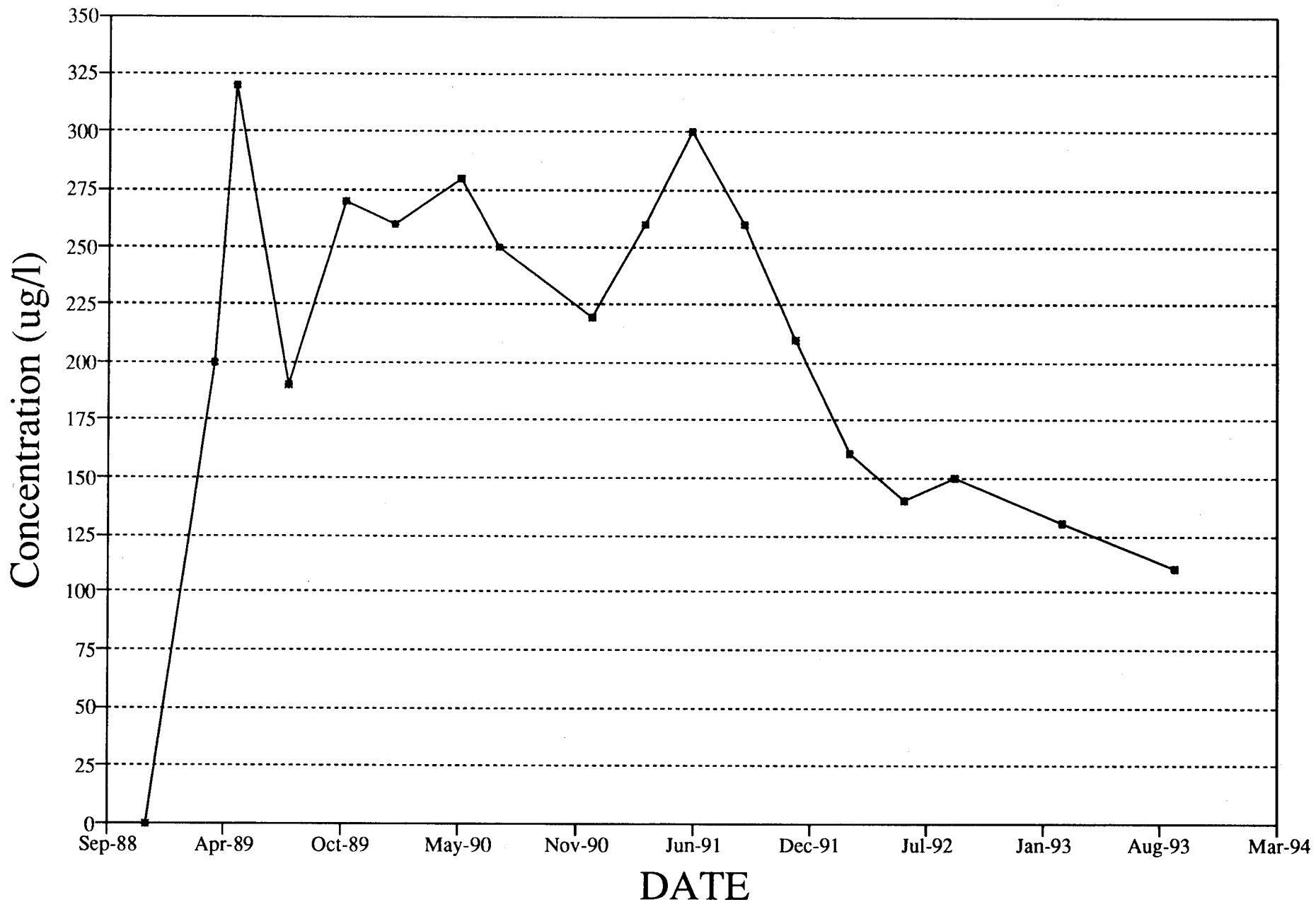
# EXTRACTION WELL B6 - TRCLE vs. TIME



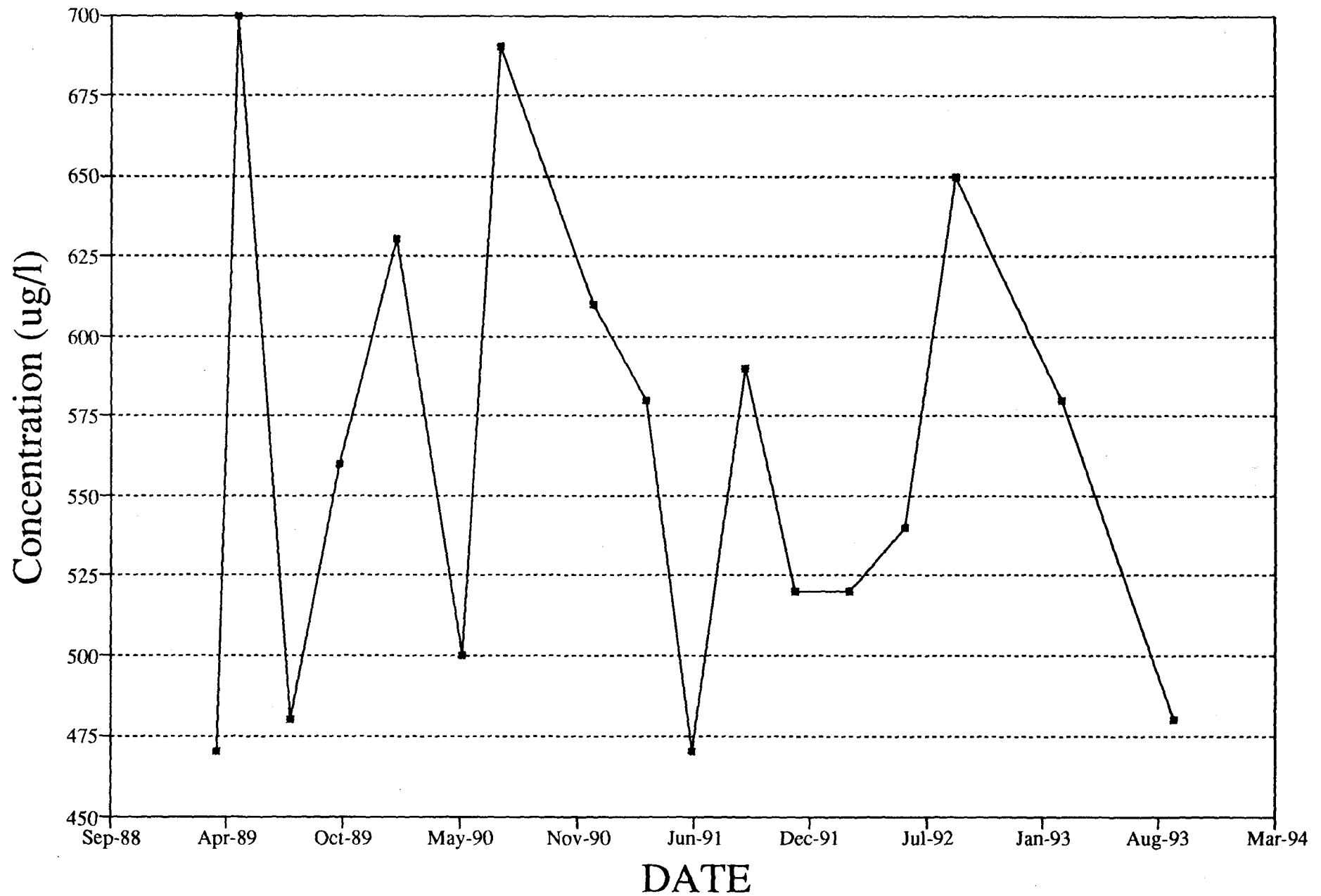
# EXTRACTION WELL B7 - TRCLE vs. TIME



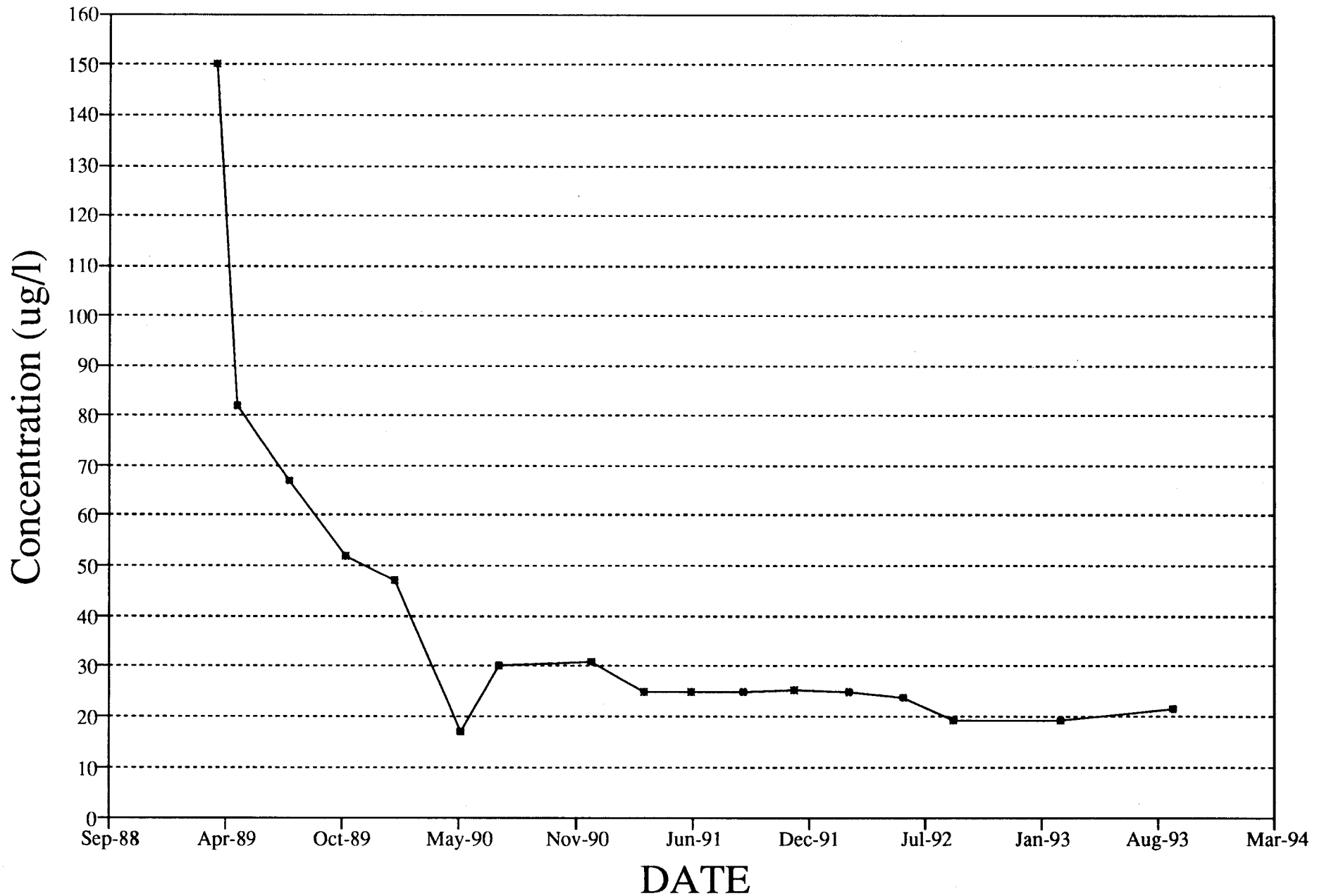
# EXTRACTION WELL B8 - TRCLE vs. TIME



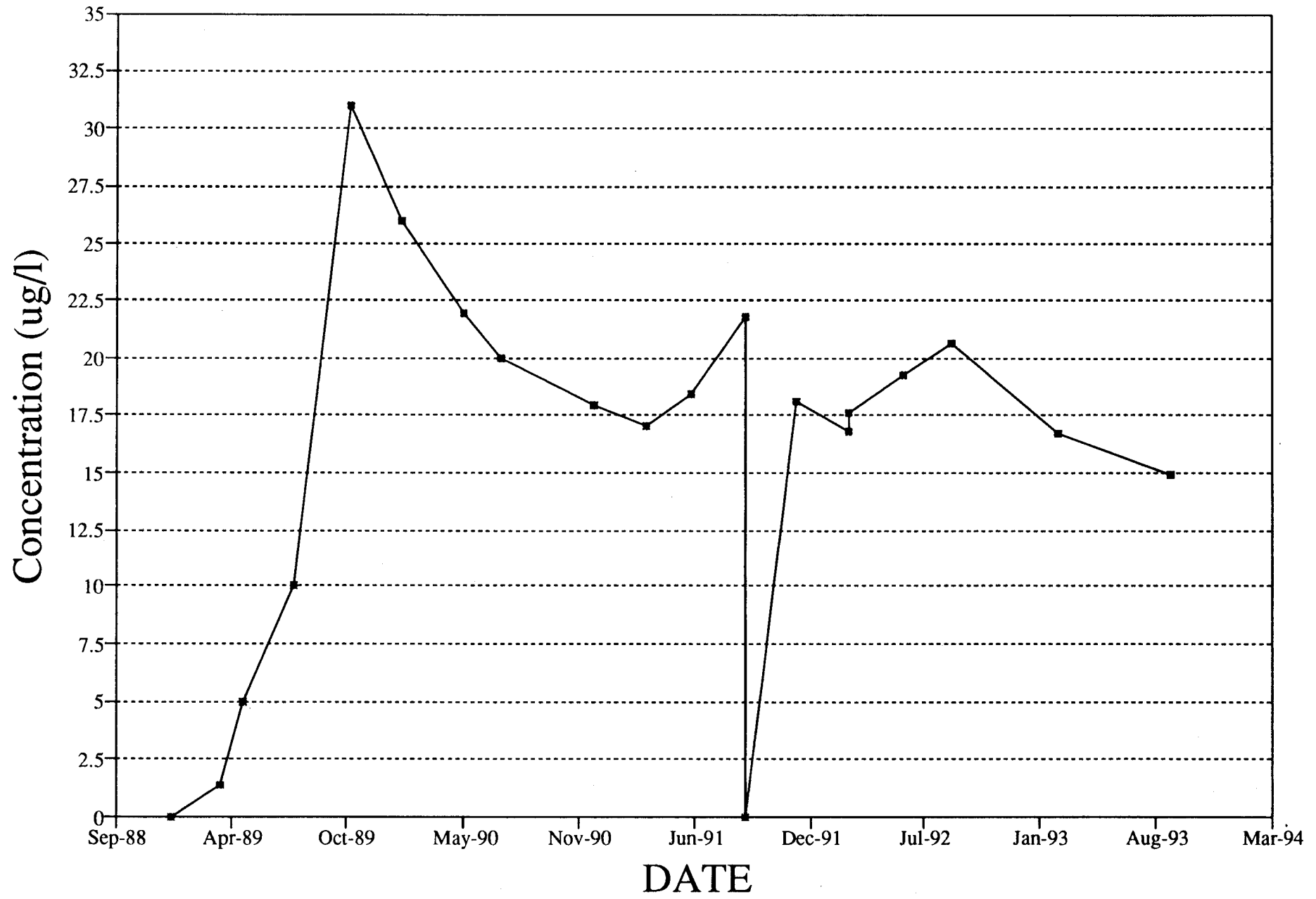
# EXTRACTION WELL B9 - TRCLE vs. TIME



# EXTRACTION WELL B10 - TRCLE vs. TIME

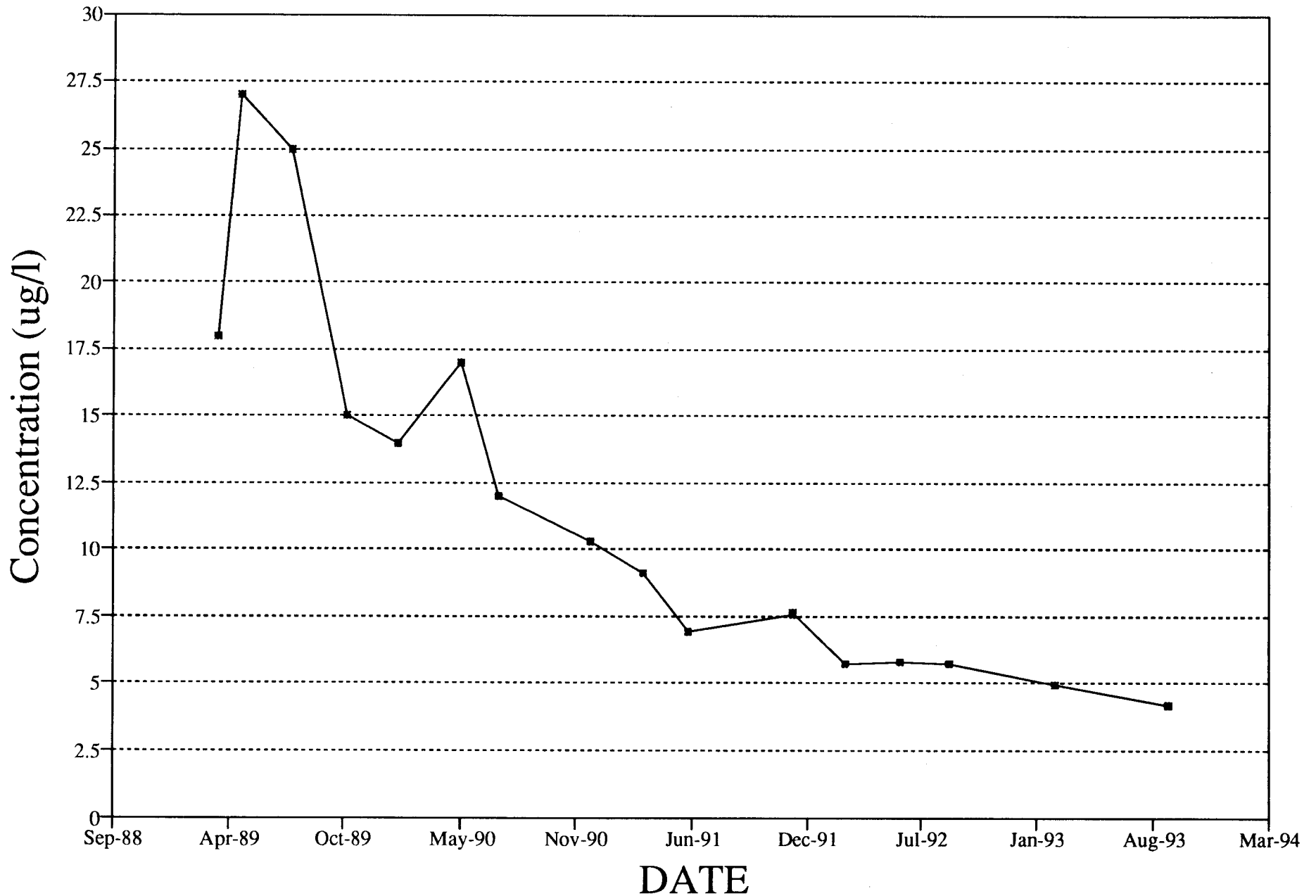


# EXTRACTION WELL B11 - TRCLE vs. TIME

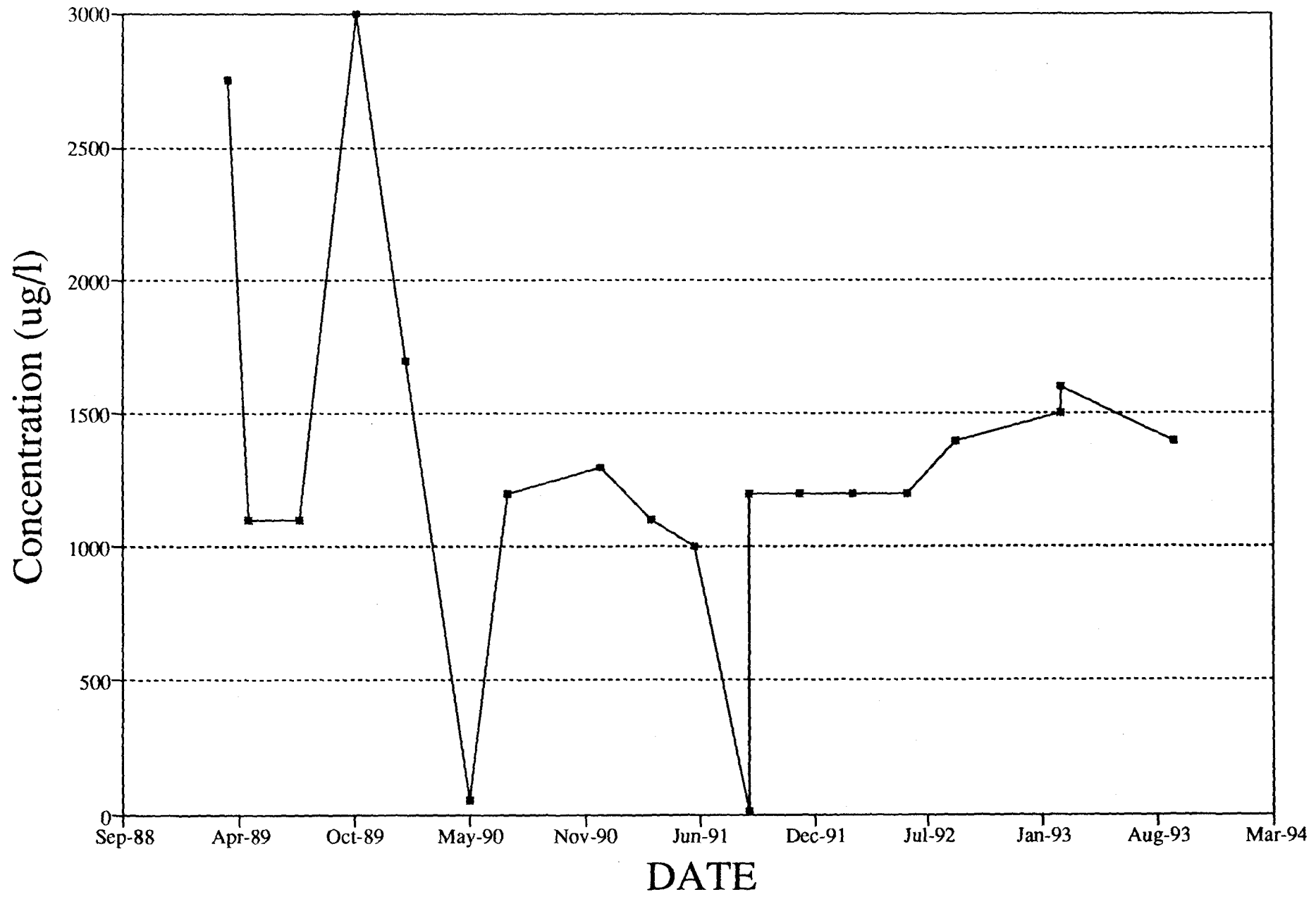




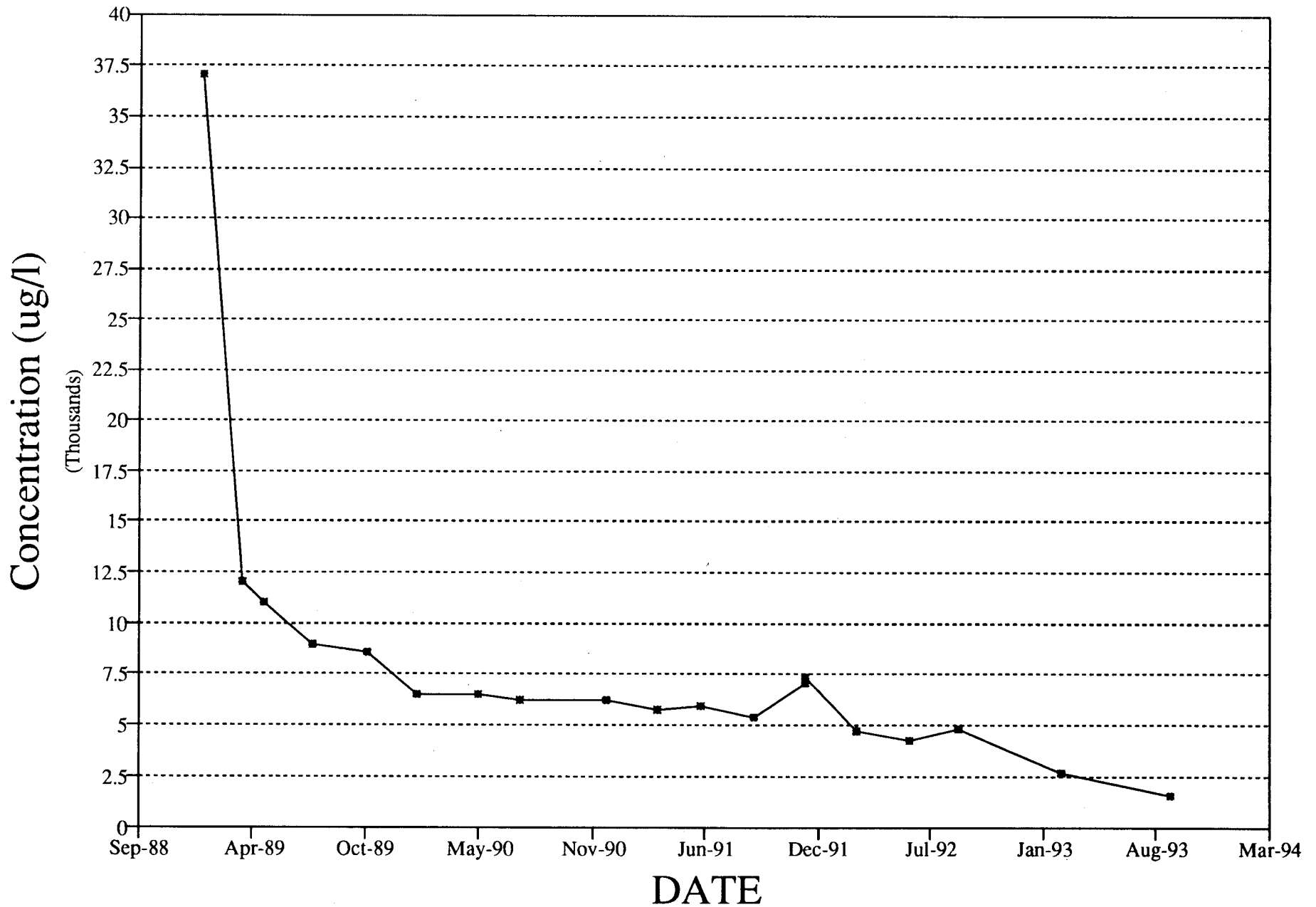
# EXTRACTION WELL B12 - TRCLE vs. TIME



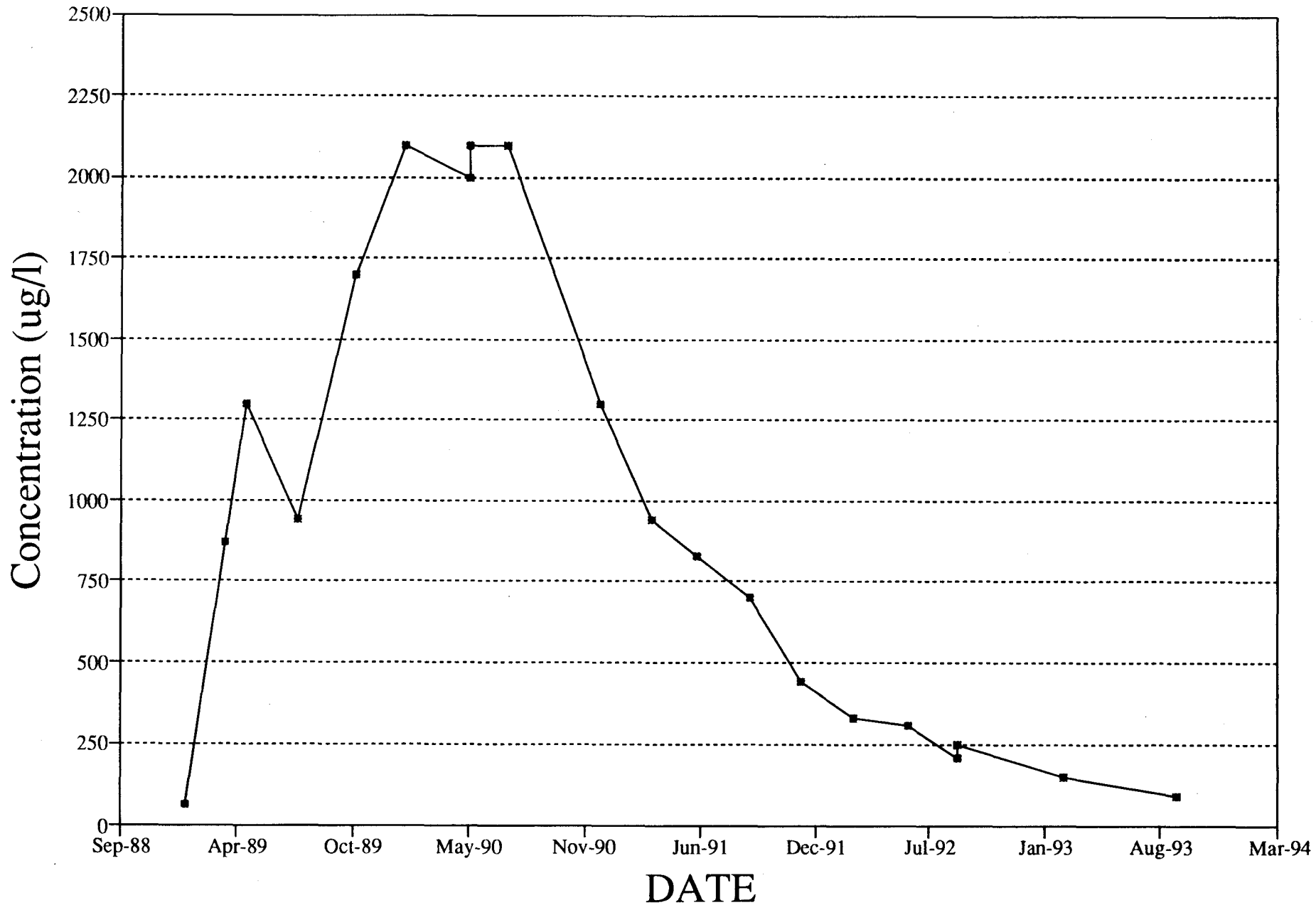
# EXTRACTION WELL SC1 - TRCLE vs. TIME



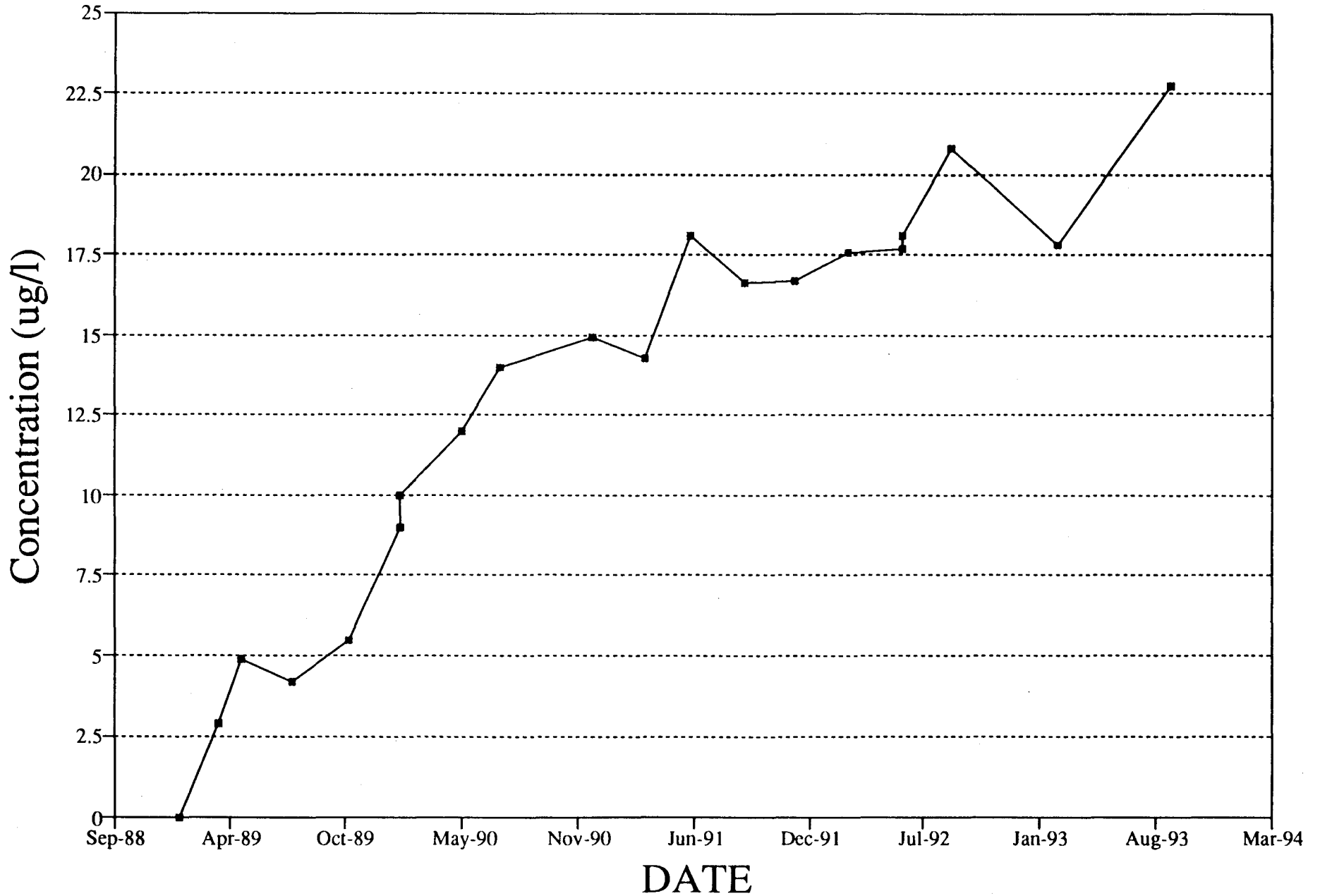
# EXTRACTION WELL SC2 - TRCLE vs. TIME



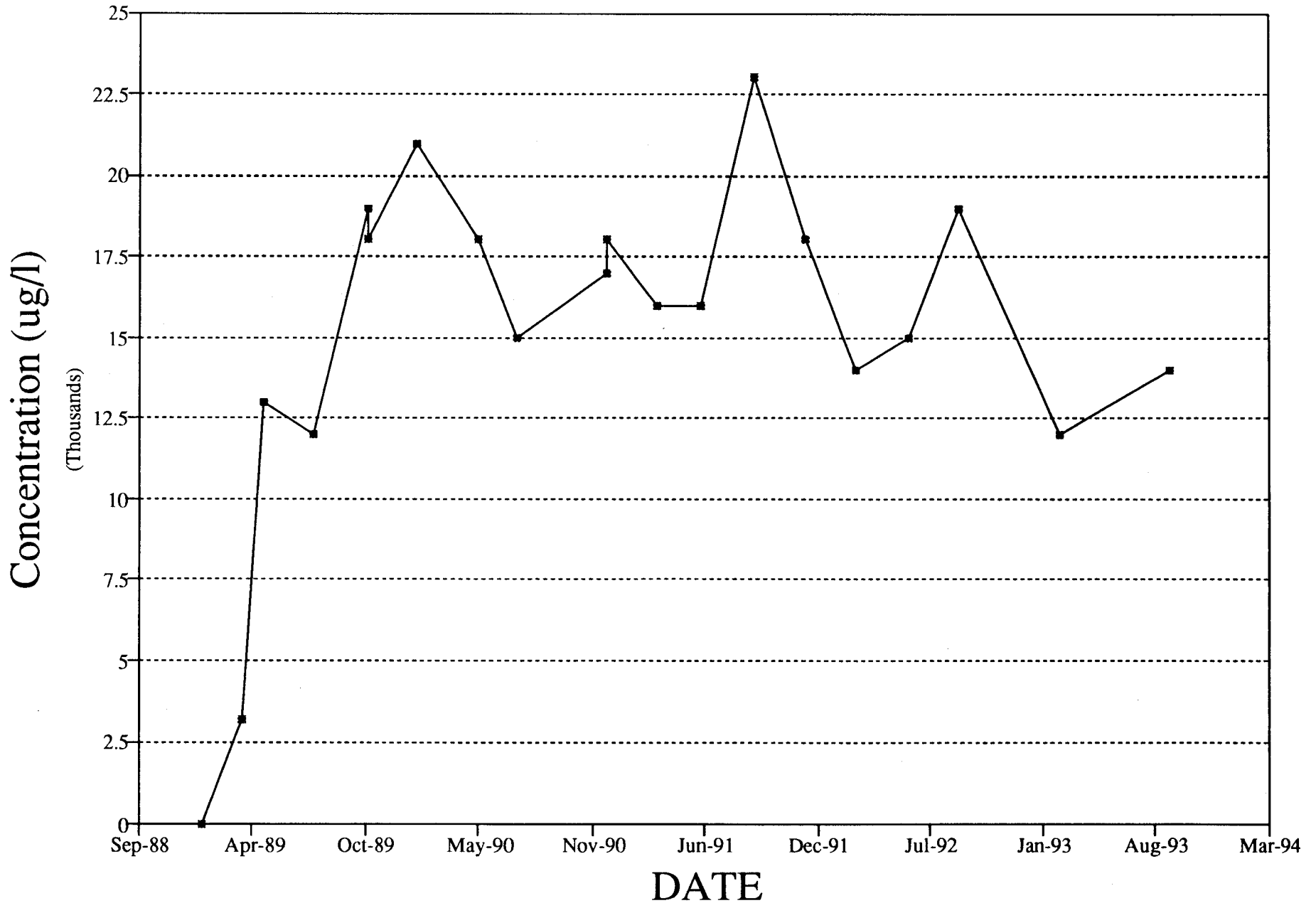
# EXTRACTION WELL SC3 - TRCLE vs. TIME



# EXTRACTION WELL SC4 - TRCLE vs. TIME



# EXTRACTION WELL SC5 - TRCLE vs. TIME



**Appendix G.2**

**1993 TGRS Influent/Effluent Database**

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	921006	111TCE	PC	<	1.000	UGL	
TGRSE	921006	111TCE	PC	<	1.000	UGL	D
TGRSE	921103	111TCE	PC	<	1.000	UGL	
TGRSE	921103	111TCE	PC	<	1.000	UGL	D
TGRSE	921201	111TCE	PC	<	1.000	UGL	
TGRSE	921201	111TCE	PC	<	1.000	UGL	D
TGRSE	930105	111TCE	PC	<	1.000	UGL	
TGRSE	930105	111TCE	PC	<	1.000	UGL	D
TGRSE	930202	111TCE	PC	<	1.000	UGL	
TGRSE	930202	111TCE	PC	<	1.000	UGL	D
TGRSE	930302	111TCE	PC	<	1.000	UGL	
TGRSE	930407	111TCE	PC	<	1.000	UGL	
TGRSE	930407	111TCE	PC	<	1.000	UGL	D
TGRSE	930505	111TCE	PC	<	1.000	UGL	
TGRSE	930505	111TCE	PC	<	1.000	UGL	D
TGRSE	930601	111TCE	PC	<	1.000	UGL	
TGRSE	930601	111TCE	PC	<	1.000	UGL	D
TGRSE	930706	111TCE	PC	<	1.000	UGL	
TGRSE	930706	111TCE	PC	<	1.000	UGL	D
TGRSE	930803	111TCE	PC	<	1.000	UGL	
TGRSE	930803	111TCE	PC	<	1.000	UGL	D
TGRSE	930915	111TCE	PC	<	1.000	UGL	
TGRSE	930915	111TCE	PC	<	1.000	UGL	D
TGRSE	921006	112TCE	PC	<	1.000	UGL	
TGRSE	921006	112TCE	PC	<	1.000	UGL	D
TGRSE	921103	112TCE	PC	<	1.000	UGL	
TGRSE	921103	112TCE	PC	<	1.000	UGL	D
TGRSE	921201	112TCE	PC	<	1.000	UGL	
TGRSE	921201	112TCE	PC	<	1.000	UGL	D
TGRSE	930105	112TCE	PC	<	1.000	UGL	
TGRSE	930105	112TCE	PC	<	1.000	UGL	D
TGRSE	930202	112TCE	PC	<	1.000	UGL	
TGRSE	930202	112TCE	PC	<	1.000	UGL	D
TGRSE	930302	112TCE	PC	<	1.000	UGL	
TGRSE	930407	112TCE	PC	<	1.000	UGL	
TGRSE	930407	112TCE	PC	<	1.000	UGL	D
TGRSE	930505	112TCE	PC	<	1.000	UGL	M
TGRSE	930505	112TCE	PC	<	1.000	UGL	MD
TGRSE	930601	112TCE	PC	<	1.000	UGL	
TGRSE	930601	112TCE	PC	<	1.000	UGL	D
TGRSE	930706	112TCE	PC	<	1.000	UGL	
TGRSE	930706	112TCE	PC	<	1.000	UGL	D
TGRSE	930803	112TCE	PC	<	1.000	UGL	
TGRSE	930803	112TCE	PC	<	1.000	UGL	D
TGRSE	930915	112TCE	PC	<	1.000	UGL	



Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930915	112TCE	PC	<	1.000	UGL	D
TGRSE	921006	11DCE	PC	<	1.000	UGL	
TGRSE	921006	11DCE	PC	<	1.000	UGL	D
TGRSE	921103	11DCE	PC	<	1.000	UGL	
TGRSE	921103	11DCE	PC	<	1.000	UGL	D
TGRSE	921201	11DCE	PC	<	1.000	UGL	
TGRSE	921201	11DCE	PC	<	1.000	UGL	D
TGRSE	930105	11DCE	PC	<	1.000	UGL	
TGRSE	930105	11DCE	PC	<	1.000	UGL	D
TGRSE	930202	11DCE	PC	<	1.000	UGL	
TGRSE	930202	11DCE	PC	<	1.000	UGL	D
TGRSE	930302	11DCE	PC	<	1.000	UGL	
TGRSE	930407	11DCE	PC	<	1.000	UGL	
TGRSE	930407	11DCE	PC	<	1.000	UGL	D
TGRSE	930505	11DCE	PC	<	1.000	UGL	
TGRSE	930505	11DCE	PC	<	1.000	UGL	D
TGRSE	930601	11DCE	PC	<	1.000	UGL	
TGRSE	930601	11DCE	PC	<	1.000	UGL	D
TGRSE	930706	11DCE	PC	<	1.000	UGL	
TGRSE	930706	11DCE	PC	<	1.000	UGL	D
TGRSE	930803	11DCE	PC	<	1.000	UGL	
TGRSE	930803	11DCE	PC	<	1.000	UGL	D
TGRSE	930915	11DCE	PC	<	1.000	UGL	
TGRSE	930915	11DCE	PC	<	1.000	UGL	D
TGRSE	921006	11DCLE	PC	<	.780	UGL	
TGRSE	921006	11DCLE	PC	<	.780	UGL	D
TGRSE	921103	11DCLE	PC	<	.780	UGL	
TGRSE	921103	11DCLE	PC	<	.780	UGL	D
TGRSE	921201	11DCLE	PC	<	.780	UGL	
TGRSE	921201	11DCLE	PC	<	.780	UGL	D
TGRSE	930105	11DCLE	PC	<	.780	UGL	
TGRSE	930105	11DCLE	PC	<	.780	UGL	D
TGRSE	930202	11DCLE	PC	<	.780	UGL	
TGRSE	930202	11DCLE	PC	<	.780	UGL	D
TGRSE	930302	11DCLE	PC	<	.780	UGL	
TGRSE	930407	11DCLE	PC	<	.780	UGL	
TGRSE	930407	11DCLE	PC	<	.780	UGL	D
TGRSE	930505	11DCLE	PC	<	.780	UGL	
TGRSE	930505	11DCLE	PC	<	.780	UGL	D
TGRSE	930601	11DCLE	PC	<	.780	UGL	
TGRSE	930601	11DCLE	PC	<	.780	UGL	D
TGRSE	930706	11DCLE	PC	<	.780	UGL	
TGRSE	930706	11DCLE	PC	<	.780	UGL	D
TGRSE	930803	11DCLE	PC	<	.780	UGL	
TGRSE	930803	11DCLE	PC	<	.780	UGL	D
TGRSE	930915	11DCLE	PC	<	.780	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930915	11DCLE	PC	<	.780	UGL	D
TGRSE	930302	124TCB	PC	<	10.000	UGL	R
TGRSE	921006	12DCE	PC	<	.500	UGL	
TGRSE	921006	12DCE	PC	<	.500	UGL	D
TGRSE	921103	12DCE	PC	<	.500	UGL	
TGRSE	921103	12DCE	PC	<	.500	UGL	D
TGRSE	921201	12DCE	PC	<	.500	UGL	
TGRSE	921201	12DCE	PC	<	.500	UGL	D
TGRSE	930105	12DCE	PC	<	.500	UGL	
TGRSE	930105	12DCE	PC	<	.500	UGL	D
TGRSE	930202	12DCE	PC	<	.500	UGL	
TGRSE	930202	12DCE	PC	<	.500	UGL	D
TGRSE	930302	12DCE	PC	<	.500	UGL	
TGRSE	930407	12DCE	PC	<	.500	UGL	
TGRSE	930407	12DCE	PC	<	.500	UGL	D
TGRSE	930505	12DCE	PC	<	.500	UGL	
TGRSE	930505	12DCE	PC	<	.500	UGL	D
TGRSE	930601	12DCE	PC	<	.500	UGL	
TGRSE	930601	12DCE	PC	<	.500	UGL	D
TGRSE	930706	12DCE	PC	<	.500	UGL	
TGRSE	930706	12DCE	PC	<	.500	UGL	D
TGRSE	930803	12DCE	PC	<	.500	UGL	
TGRSE	930803	12DCE	PC	<	.500	UGL	D
TGRSE	930915	12DCE	PC	<	.500	UGL	
TGRSE	930915	12DCE	PC	<	.500	UGL	D
TGRSE	930302	12DCLB	PC	<	10.000	UGL	R
TGRSE	921006	12DCLE	PC	<	.500	UGL	
TGRSE	921006	12DCLE	PC	<	.500	UGL	D
TGRSE	921103	12DCLE	PC	<	.500	UGL	
TGRSE	921103	12DCLE	PC	<	.500	UGL	D
TGRSE	921201	12DCLE	PC	<	.500	UGL	
TGRSE	921201	12DCLE	PC	<	.500	UGL	D
TGRSE	930105	12DCLE	PC	<	.500	UGL	
TGRSE	930105	12DCLE	PC	<	.500	UGL	D
TGRSE	930202	12DCLE	PC	<	.500	UGL	
TGRSE	930202	12DCLE	PC	<	.500	UGL	D
TGRSE	930302	12DCLE	PC	<	.500	UGL	
TGRSE	930407	12DCLE	PC	<	.500	UGL	
TGRSE	930407	12DCLE	PC	<	.500	UGL	D
TGRSE	930505	12DCLE	PC	<	.500	UGL	DM
TGRSE	930505	12DCLE	PC	<	.500	UGL	M
TGRSE	930601	12DCLE	PC	<	.500	UGL	
TGRSE	930601	12DCLE	PC	<	.500	UGL	D
TGRSE	930706	12DCLE	PC	<	.500	UGL	
TGRSE	930706	12DCLE	PC	<	.500	UGL	D
TGRSE	930803	12DCLE	PC	<	.500	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930803	12DCLE	PC	<	.500	UGL	D
TGRSE	930915	12DCLE	PC	<	.500	UGL	
TGRSE	930915	12DCLE	PC	<	.500	UGL	D
TGRSE	921006	12DCLP	PC	<	1.000	UGL	
TGRSE	921006	12DCLP	PC	<	1.000	UGL	D
TGRSE	921103	12DCLP	PC	<	1.000	UGL	
TGRSE	921103	12DCLP	PC	<	1.000	UGL	D
TGRSE	921201	12DCLP	PC	<	1.000	UGL	
TGRSE	921201	12DCLP	PC	<	1.000	UGL	D
TGRSE	930105	12DCLP	PC	<	1.000	UGL	
TGRSE	930105	12DCLP	PC	<	1.000	UGL	D
TGRSE	930202	12DCLP	PC	<	1.000	UGL	
TGRSE	930202	12DCLP	PC	<	1.000	UGL	D
TGRSE	930302	12DCLP	PC	<	1.000	UGL	
TGRSE	930407	12DCLP	PC	<	1.000	UGL	
TGRSE	930407	12DCLP	PC	<	1.000	UGL	D
TGRSE	930505	12DCLP	PC	<	1.000	UGL	
TGRSE	930505	12DCLP	PC	<	1.000	UGL	D
TGRSE	930601	12DCLP	PC	<	1.000	UGL	
TGRSE	930601	12DCLP	PC	<	1.000	UGL	D
TGRSE	930706	12DCLP	PC	<	1.000	UGL	
TGRSE	930706	12DCLP	PC	<	1.000	UGL	D
TGRSE	930803	12DCLP	PC	<	1.000	UGL	
TGRSE	930803	12DCLP	PC	<	1.000	UGL	D
TGRSE	930915	12DCLP	PC	<	1.000	UGL	
TGRSE	930915	12DCLP	PC	<	1.000	UGL	D
TGRSE	930302	13DCLB	PC	<	10.000	UGL	R
TGRSE	930302	14DCLB	PC	<	10.000	UGL	R
TGRSE	930302	245TCP	PC	<	50.000	UGL	R
TGRSE	930302	246TCP	PC	<	10.000	UGL	R
TGRSE	930302	24DCLP	PC	<	10.000	UGL	R
TGRSE	930302	24DMPN	PC	<	10.000	UGL	R
TGRSE	930302	24DNP	PC	<	50.000	UGL	R
TGRSE	930302	24DNT	PC	<	10.000	UGL	R
TGRSE	930302	26DNT	PC	<	10.000	UGL	R
TGRSE	930302	2CLP	PC	<	10.000	UGL	R
TGRSE	930302	2CNAP	PC	<	10.000	UGL	R
TGRSE	930302	2MNAP	PC	<	10.000	UGL	R
TGRSE	930302	2MP	PC	<	10.000	UGL	R
TGRSE	930302	2NANIL	PC	<	50.000	UGL	R
TGRSE	930302	2NP	PC	<	10.000	UGL	R
TGRSE	930302	33DCBD	PC	<	20.000	UGL	R
TGRSE	930302	3NANIL	PC	<	50.000	UGL	R
TGRSE	930302	46DN2C	PC	<	50.000	UGL	R
TGRSE	930302	4BRPPE	PC	<	10.000	UGL	R
TGRSE	930302	4CANIL	PC	<	10.000	UGL	R

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930302	4CL3C	PC	<	10.000	UGL	R
TGRSE	930302	4CLPPE	PC	<	10.000	UGL	R
TGRSE	930302	4MP	PC	<	10.000	UGL	R
TGRSE	930302	4NANIL	PC	<	50.000	UGL	R
TGRSE	930302	4NP	PC	<	50.000	UGL	R
TGRSE	930302	ABHC	PC	<	.043	UGL	
TGRSE	930302	ACLDAN	PC	<	.020	UGL	
TGRSE	930302	AENSLF	PC	<	.009	UGL	
TGRSE	930302	AG	PC	<	12.500	UGL	
TGRSE	930302	AL	PC	<	230.000	UGL	
TGRSE	930302	ALDRN	PC	<	.064	UGL	
TGRSE	930302	ANAPNE	PC	<	10.000	UGL	R
TGRSE	930302	ANAPYL	PC	<	10.000	UGL	R
TGRSE	930302	ANTRC	PC	<	10.000	UGL	R
TGRSE	921006	AS	PC	<	6.010	UGL	
TGRSE	921201	AS	PC	<	6.010	UGL	
TGRSE	930105	AS	PC	<	6.010	UGL	
TGRSE	930202	AS	PC	<	6.010	UGL	
TGRSE	930302	AS	PC	<	6.010	UGL	
TGRSE	930407	AS	PC	<	6.010	UGL	
TGRSE	930505	AS	PC	<	6.010	UGL	
TGRSE	930601	AS	PC	<	6.010	UGL	
TGRSE	930706	AS	PC	<	6.010	UGL	
TGRSE	930803	AS	PC	<	6.010	UGL	
TGRSE	930915	AS	PC	<	6.010	UGL	
TGRSE	930302	B2CEXM	PC	<	10.000	UGL	R
TGRSE	930302	B2CIPE	PC	<	10.000	UGL	R
TGRSE	930302	B2CLEE	PC	<	10.000	UGL	R
TGRSE	930302	B2EHP	PC	<	10.000	UGL	R
TGRSE	930302	BA	PC	<	373.000	UGL	
TGRSE	930302	BAANTR	PC	<	10.000	UGL	R
TGRSE	930302	BAPYR	PC	<	10.000	UGL	R
TGRSE	930302	BBFANT	PC	<	10.000	UGL	R
TGRSE	930302	BBHC	PC	<	.011	UGL	
TGRSE	930302	BBZP	PC	<	10.000	UGL	R
TGRSE	930302	BE	PC	<	2.500	UGL	
TGRSE	930302	BENSLF	PC	<	.012	UGL	
TGRSE	930302	BENZOA	PC	<	50.000	UGL	R
TGRSE	930302	BGHIPY	PC	<	10.000	UGL	R
TGRSE	930302	BKFANT	PC	<	10.000	UGL	R
TGRSE	930302	BZALC	PC	<	10.000	UGL	R
TGRSE	921006	C2H3CL	PC	<	1.900	UGL	
TGRSE	921006	C2H3CL	PC	<	1.900	UGL	D
TGRSE	921103	C2H3CL	PC	<	1.900	UGL	
TGRSE	921103	C2H3CL	PC	<	1.900	UGL	D
TGRSE	921201	C2H3CL	PC	<	1.900	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	921201	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930105	C2H3CL	PC	<	1.900	UGL	
TGRSE	930105	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930202	C2H3CL	PC	<	1.900	UGL	
TGRSE	930202	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930302	C2H3CL	PC	<	1.900	UGL	
TGRSE	930407	C2H3CL	PC	<	1.900	UGL	
TGRSE	930407	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930505	C2H3CL	PC	<	1.900	UGL	
TGRSE	930505	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930601	C2H3CL	PC	<	1.900	UGL	
TGRSE	930601	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930706	C2H3CL	PC	<	1.900	UGL	
TGRSE	930706	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930803	C2H3CL	PC	<	1.900	UGL	
TGRSE	930803	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930915	C2H3CL	PC	<	1.900	UGL	
TGRSE	930915	C2H3CL	PC	<	1.900	UGL	D
TGRSE	930302	CA	PC		83000.000	UGL	
TGRSE	921006	CCL4	PC	<	1.300	UGL	
TGRSE	921006	CCL4	PC	<	1.300	UGL	D
TGRSE	921103	CCL4	PC	<	1.300	UGL	
TGRSE	921103	CCL4	PC	<	1.300	UGL	D
TGRSE	921201	CCL4	PC	<	1.300	UGL	
TGRSE	921201	CCL4	PC	<	1.300	UGL	D
TGRSE	930105	CCL4	PC	<	1.300	UGL	
TGRSE	930105	CCL4	PC	<	1.300	UGL	D
TGRSE	930202	CCL4	PC	<	1.300	UGL	
TGRSE	930202	CCL4	PC	<	1.300	UGL	D
TGRSE	930302	CCL4	PC	<	1.300	UGL	
TGRSE	930407	CCL4	PC	<	1.300	UGL	
TGRSE	930407	CCL4	PC	<	1.300	UGL	D
TGRSE	930505	CCL4	PC	<	1.300	UGL	
TGRSE	930505	CCL4	PC	<	1.300	UGL	D
TGRSE	930601	CCL4	PC	<	1.300	UGL	
TGRSE	930601	CCL4	PC	<	1.300	UGL	D
TGRSE	930706	CCL4	PC	<	1.300	UGL	
TGRSE	930706	CCL4	PC	<	1.300	UGL	D
TGRSE	930803	CCL4	PC	<	1.300	UGL	
TGRSE	930803	CCL4	PC	<	1.300	UGL	D
TGRSE	930915	CCL4	PC	<	1.300	UGL	
TGRSE	930915	CCL4	PC	<	1.300	UGL	D
TGRSE	921103	CD	PC	<	5.000	UGL	
TGRSE	921204	CD	PC	<	5.000	UGL	
TGRSE	930105	CD	PC	<	5.000	UGL	
TGRSE	930202	CD	PC	<	5.000	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930302	CD	PC	<	5.000	UGL	
TGRSE	930407	CD	PC	<	5.000	UGL	
TGRSE	930505	CD	PC	<	5.000	UGL	
TGRSE	930601	CD	PC	<	5.000	UGL	
TGRSE	930706	CD	PC	<	5.000	UGL	
TGRSE	930803	CD	PC	<	5.000	UGL	
TGRSE	930915	CD	PC	<	5.000	UGL	
TGRSE	921006	CH2CL2	PC	<	3.200	UGL	
TGRSE	921006	CH2CL2	PC	<	3.200	UGL	D
TGRSE	921103	CH2CL2	PC	<	3.200	UGL	
TGRSE	921103	CH2CL2	PC	<	3.200	UGL	D
TGRSE	921201	CH2CL2	PC	<	3.200	UGL	
TGRSE	921201	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930105	CH2CL2	PC	<	3.540	UGL	
TGRSE	930105	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930202	CH2CL2	PC	<	3.200	UGL	
TGRSE	930202	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930302	CH2CL2	PC	<	3.200	UGL	
TGRSE	930407	CH2CL2	PC	<	3.200	UGL	
TGRSE	930407	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930505	CH2CL2	PC	<	3.200	UGL	
TGRSE	930505	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930601	CH2CL2	PC	<	3.200	UGL	
TGRSE	930601	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930706	CH2CL2	PC	<	3.200	UGL	
TGRSE	930706	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930803	CH2CL2	PC	<	3.200	UGL	
TGRSE	930803	CH2CL2	PC	<	3.200	UGL	D
TGRSE	930915	CH2CL2	PC	<	3.200	UGL	
TGRSE	930915	CH2CL2	PC	<	3.200	UGL	D
TGRSE	921006	CHCL3	PC	<	.720	UGL	
TGRSE	921006	CHCL3	PC	<	.720	UGL	D
TGRSE	921103	CHCL3	PC	<	.720	UGL	
TGRSE	921103	CHCL3	PC	<	.720	UGL	D
TGRSE	921201	CHCL3	PC	<	.720	UGL	
TGRSE	921201	CHCL3	PC	<	.720	UGL	D
TGRSE	930105	CHCL3	PC	<	.720	UGL	
TGRSE	930105	CHCL3	PC	<	.720	UGL	D
TGRSE	930202	CHCL3	PC	<	.720	UGL	
TGRSE	930202	CHCL3	PC	<	.720	UGL	D
TGRSE	930302	CHCL3	PC	<	.720	UGL	
TGRSE	930407	CHCL3	PC	<	.720	UGL	
TGRSE	930407	CHCL3	PC	<	.720	UGL	D
TGRSE	930505	CHCL3	PC	<	.720	UGL	
TGRSE	930505	CHCL3	PC	<	.720	UGL	D
TGRSE	930601	CHCL3	PC	<	.720	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930601	CHCL3	PC	<	.720	UGL	D
TGRSE	930706	CHCL3	PC	<	.720	UGL	
TGRSE	930706	CHCL3	PC	<	.720	UGL	D
TGRSE	930803	CHCL3	PC	<	.720	UGL	
TGRSE	930803	CHCL3	PC	<	.720	UGL	D
TGRSE	930915	CHCL3	PC	<	.720	UGL	
TGRSE	930915	CHCL3	PC	<	.720	UGL	D
TGRSE	930302	CHRY	PC	<	10.000	UGL	R
TGRSE	930302	CL6BZ	PC	<	10.000	UGL	R
TGRSE	930302	CL6CP	PC	<	10.000	UGL	R
TGRSE	930302	CL6ET	PC	<	10.000	UGL	R
TGRSE	930302	CO	PC	<	25.000	UGL	
TGRSE	921103	CR	PC	<	15.000	UGL	
TGRSE	921204	CR	PC	<	15.000	UGL	
TGRSE	930105	CR	PC	<	15.000	UGL	
TGRSE	930202	CR	PC	<	15.000	UGL	
TGRSE	930302	CR	PC	<	15.000	UGL	
TGRSE	930407	CR	PC	<	15.000	UGL	
TGRSE	930505	CR	PC	<	15.000	UGL	
TGRSE	930601	CR	PC	<	15.000	UGL	
TGRSE	930706	CR	PC	<	15.000	UGL	
TGRSE	930803	CR	PC	<	15.000	UGL	
TGRSE	930915	CR	PC	<	15.000	UGL	
TGRSE	921103	CU	PC	<	20.000	UGL	
TGRSE	921204	CU	PC	<	20.000	UGL	
TGRSE	930105	CU	PC	<	20.000	UGL	
TGRSE	930202	CU	PC		24.100	UGL	
TGRSE	930302	CU	PC		95.400	UGL	
TGRSE	930407	CU	PC	<	20.000	UGL	
TGRSE	930505	CU	PC	<	20.000	UGL	
TGRSE	930601	CU	PC		36.100	UGL	
TGRSE	930706	CU	PC		123.000	UGL	
TGRSE	930803	CU	PC	<	20.000	UGL	
TGRSE	930915	CU	PC	<	20.000	UGL	
TGRSE	930302	CYN	PC	<	8.170	UGL	
TGRSE	930302	DBAHA	PC	<	10.000	UGL	R
TGRSE	930302	DBHC	PC	<	.049	UGL	
TGRSE	930302	DBZFUR	PC	<	10.000	UGL	R
TGRSE	930302	DEP	PC	<	10.000	UGL	R
TGRSE	930302	DLDRN	PC	<	.032	UGL	
TGRSE	930302	DMP	PC	<	10.000	UGL	R
TGRSE	930302	DNBP	PC	<	10.000	UGL	R
TGRSE	930302	DNOP	PC	<	10.000	UGL	R
TGRSE	930302	ENDRN	PC	<	.037	UGL	
TGRSE	930302	ENDRNA	PC	<	.070	UGL	
TGRSE	930302	ENDRNK	PC	<	.028	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930302	ESFSO4	PC	<	.020	UGL	
TGRSE	930302	FANT	PC	<	10.000	UGL	R
TGRSE	930302	FE	PC		3460.000	UGL	
TGRSE	930302	FLRENE	PC	<	10.000	UGL	R
TGRSE	930302	GCLDAN	PC	<	.045	UGL	
TGRSE	930302	HCBD	PC	<	10.000	UGL	R
TGRSE	921103	HG	PC	<	.740	UGL	
TGRSE	921201	HG	PC	<	.740	UGL	
TGRSE	930105	HG	PC	<	.740	UGL	
TGRSE	930202	HG	PC	<	.740	UGL	
TGRSE	930302	HG	PC	<	.740	UGL	
TGRSE	930407	HG	PC	<	.740	UGL	
TGRSE	930505	HG	PC	<	.740	UGL	
TGRSE	930601	HG	PC	<	.740	UGL	
TGRSE	930706	HG	PC	<	.740	UGL	
TGRSE	930803	HG	PC	<	.740	UGL	
TGRSE	930915	HG	PC	<	.740	UGL	
TGRSE	930302	HPCL	PC	<	.063	UGL	
TGRSE	930302	HPCLE	PC	<	.006	UGL	
TGRSE	930302	ICDPYR	PC	<	10.000	UGL	R
TGRSE	930302	ISOPHR	PC	<	10.000	UGL	R
TGRSE	930302	K	PC		2010.000	UGL	
TGRSE	930302	LIN	PC	<	.043	UGL	
TGRSE	930302	MEXCLR	PC	<	.267	UGL	M
TGRSE	930302	MG	PC		25000.000	UGL	
TGRSE	930302	MN	PC		11000.000	UGL	
TGRSE	930302	MO	PC	<	30.900	UGL	
TGRSE	930302	NA	PC		6790.000	UGL	
TGRSE	930302	NAP	PC	<	10.000	UGL	R
TGRSE	930302	NB	PC	<	10.000	UGL	R
TGRSE	921006	NI	PC	<	5.320	UGL	
TGRSE	921103	NI	PC	<	5.320	UGL	
TGRSE	921201	NI	PC	<	5.320	UGL	
TGRSE	930105	NI	PC	<	5.320	UGL	
TGRSE	930202	NI	PC	<	5.320	UGL	
TGRSE	930302	NI	PC	<	63.100	UGL	
TGRSE	930407	NI	PC	<	5.320	UGL	
TGRSE	930505	NI	PC	<	5.320	UGL	
TGRSE	930601	NI	PC	<	63.100	UGL	
TGRSE	930706	NI	PC	<	6.490	UGL	
TGRSE	930803	NI	PC	<	63.100	UGL	
TGRSE	930915	NI	PC	<	5.320	UGL	
TGRSE	930302	NNDNPA	PC	<	10.000	UGL	R
TGRSE	930302	NNDPA	PC	<	10.000	UGL	R
TGRSE	921006	PB	PC	<	1.260	UGL	
TGRSE	921103	PB	PC	<	1.260	UGL	



Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	921201	PB	PC	<	1.260	UGL	
TGRSE	930105	PB	PC	<	1.260	UGL	
TGRSE	930202	PB	PC	<	1.260	UGL	
TGRSE	930302	PB	PC	<	1.260	UGL	
TGRSE	930302	PB	PC	<	100.000	UGL	
TGRSE	930407	PB	PC	<	1.260	UGL	
TGRSE	930505	PB	PC	<	1.260	UGL	
TGRSE	930601	PB	PC	<	1.260	UGL	
TGRSE	930706	PB	PC	<	1.260	UGL	
TGRSE	930803	PB	PC	<	1.260	UGL	
TGRSE	930915	PB	PC	<	1.260	UGL	
TGRSE	930302	PCB016	PC	<	.100	UGL	T
TGRSE	930302	PCB221	PC	<	.200	UGL	T
TGRSE	930302	PCB232	PC	<	.100	UGL	T
TGRSE	930302	PCB242	PC	<	.100	UGL	T
TGRSE	930302	PCB248	PC	<	.100	UGL	T
TGRSE	930302	PCB254	PC	<	.100	UGL	T
TGRSE	930302	PCB260	PC	<	.100	UGL	T
TGRSE	930302	PCP	PC	<	50.000	UGL	R
TGRSE	930302	PHANTR	PC	<	10.000	UGL	R
TGRSE	930302	PHENOL	PC	<	10.000	UGL	R
TGRSE	921006	PO4ORT	PC		38.500	UGL	
TGRSE	921103	PO4ORT	PC		28.500	UGL	
TGRSE	930505	PO4ORT	PC	<	10.300	UGL	
TGRSE	930302	PPDDD	PC	<	.085	UGL	
TGRSE	930302	PPDDE	PC	<	.095	UGL	
TGRSE	930302	PPDDT	PC	<	.032	UGL	
TGRSE	930302	PYR	PC	<	10.000	UGL	R
TGRSE	930302	SB	PC	<	37.100	UGL	
TGRSE	930302	SE	PC	<	14.900	UGL	
TGRSE	930302	SE	PC	<	75.000	UGL	
TGRSE	921006	T12DCE	PC	<	.300	UGL	T
TGRSE	921006	T12DCE	PC	<	.300	UGL	T
TGRSE	921103	T12DCE	PC	<	.300	UGL	T
TGRSE	921103	T12DCE	PC	<	.300	UGL	T
TGRSE	921201	T12DCE	PC	<	.300	UGL	R
TGRSE	921201	T12DCE	PC	<	.300	UGL	R
TGRSE	930105	T12DCE	PC	<	.300	UGL	R
TGRSE	930105	T12DCE	PC	<	.300	UGL	R
TGRSE	930202	T12DCE	PC	<	.300	UGL	R
TGRSE	930202	T12DCE	PC	<	.300	UGL	R
TGRSE	930302	T12DCE	PC	<	.300	UGL	R
TGRSE	930407	T12DCE	PC	<	.300	UGL	DR
TGRSE	930407	T12DCE	PC	<	.300	UGL	R
TGRSE	930505	T12DCE	PC	<	.300	UGL	R
TGRSE	930505	T12DCE	PC	<	.300	UGL	RD

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930601	T12DCE	PC	<	.300	UGL	R
TGRSE	930601	T12DCE	PC	<	.300	UGL	RD
TGRSE	930706	T12DCE	PC	<	.300	UGL	R
TGRSE	930706	T12DCE	PC	<	.300	UGL	RD
TGRSE	930803	T12DCE	PC	<	.300	UGL	R
TGRSE	930803	T12DCE	PC	<	.300	UGL	R
TGRSE	930915	T12DCE	PC	<	.300	UGL	R
TGRSE	930915	T12DCE	PC	<	.300	UGL	RD
TGRSE	921006	TCLEE	PC	<	1.000	UGL	
TGRSE	921006	TCLEE	PC	<	1.000	UGL	D
TGRSE	921103	TCLEE	PC	<	1.000	UGL	
TGRSE	921103	TCLEE	PC	<	1.000	UGL	D
TGRSE	921201	TCLEE	PC	<	1.000	UGL	
TGRSE	921201	TCLEE	PC	<	1.000	UGL	D
TGRSE	930105	TCLEE	PC	<	1.000	UGL	
TGRSE	930105	TCLEE	PC	<	1.000	UGL	D
TGRSE	930202	TCLEE	PC	<	1.000	UGL	
TGRSE	930202	TCLEE	PC	<	1.000	UGL	D
TGRSE	930302	TCLEE	PC	<	1.000	UGL	
TGRSE	930407	TCLEE	PC	<	1.000	UGL	
TGRSE	930407	TCLEE	PC	<	1.000	UGL	D
TGRSE	930505	TCLEE	PC	<	1.000	UGL	
TGRSE	930505	TCLEE	PC	<	1.000	UGL	D
TGRSE	930601	TCLEE	PC	<	1.000	UGL	
TGRSE	930601	TCLEE	PC	<	1.000	UGL	D
TGRSE	930706	TCLEE	PC	<	1.000	UGL	
TGRSE	930706	TCLEE	PC	<	1.000	UGL	D
TGRSE	930803	TCLEE	PC	<	1.000	UGL	
TGRSE	930803	TCLEE	PC	<	1.000	UGL	D
TGRSE	930915	TCLEE	PC	<	1.000	UGL	
TGRSE	930915	TCLEE	PC	<	1.000	UGL	D
TGRSE	921006	TCLTFE	PC	<	1.000	UGL	
TGRSE	921006	TCLTFE	PC	<	1.000	UGL	D
TGRSE	921103	TCLTFE	PC	<	1.000	UGL	
TGRSE	921103	TCLTFE	PC	<	1.000	UGL	D
TGRSE	921201	TCLTFE	PC	<	1.000	UGL	
TGRSE	921201	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930105	TCLTFE	PC	<	1.000	UGL	
TGRSE	930105	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930202	TCLTFE	PC	<	1.000	UGL	
TGRSE	930202	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930302	TCLTFE	PC	<	1.000	UGL	
TGRSE	930407	TCLTFE	PC	<	1.000	UGL	
TGRSE	930407	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930505	TCLTFE	PC	<	1.000	UGL	
TGRSE	930505	TCLTFE	PC	<	1.000	UGL	D

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930601	TCLTFE	PC	<	1.000	UGL	
TGRSE	930601	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930706	TCLTFE	PC	<	1.000	UGL	
TGRSE	930706	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930803	TCLTFE	PC	<	1.000	UGL	
TGRSE	930803	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930915	TCLTFE	PC	<	1.000	UGL	
TGRSE	930915	TCLTFE	PC	<	1.000	UGL	D
TGRSE	930302	TL	PC	<	2.500	UGL	
TGRSE	930302	TL	PC	<	100.000	UGL	
TGRSE	921006	TPO4	PC		57.600	UGL	D
TGRSE	921103	TPO4	PC		41.200	UGL	
TGRSE	930505	TPO4	PC		750.000	UGL	X
TGRSE	921006	TRCLE	PC		.637	UGL	
TGRSE	921006	TRCLE	PC		.693	UGL	D
TGRSE	921103	TRCLE	PC		1.190	UGL	
TGRSE	921103	TRCLE	PC		1.270	UGL	D
TGRSE	921201	TRCLE	PC		.858	UGL	
TGRSE	921201	TRCLE	PC		.887	UGL	D
TGRSE	930105	TRCLE	PC		.611	UGL	
TGRSE	930105	TRCLE	PC		.720	UGL	D
TGRSE	930202	TRCLE	PC		.637	UGL	
TGRSE	930202	TRCLE	PC		1.220	UGL	D
TGRSE	930302	TRCLE	PC		.842	UGL	
TGRSE	930407	TRCLE	PC		.774	UGL	D
TGRSE	930407	TRCLE	PC		1.020	UGL	
TGRSE	930505	TRCLE	PC		.778	UGL	
TGRSE	930505	TRCLE	PC		.901	UGL	
TGRSE	930601	TRCLE	PC		.750	UGL	
TGRSE	930601	TRCLE	PC		.785	UGL	
TGRSE	930706	TRCLE	PC		1.120	UGL	D
TGRSE	930706	TRCLE	PC		1.360	UGL	
TGRSE	930803	TRCLE	PC		.749	UGL	D
TGRSE	930803	TRCLE	PC		.753	UGL	
TGRSE	930915	TRCLE	PC	<	.500	UGL	
TGRSE	930915	TRCLE	PC	<	.500	UGL	D
TGRSE	930302	TXPHEN	PC	<	.500	UGL	T
TGRSE	930302	UNK571	PC		5.000	UGL	S
TGRSE	930302	V	PC	<	20.000	UGL	
TGRSE	921103	ZN	PC	<	13.000	UGL	
TGRSE	921204	ZN	PC	<	13.000	UGL	
TGRSE	930105	ZN	PC		30.500	UGL	
TGRSE	930202	ZN	PC		40.700	UGL	
TGRSE	930302	ZN	PC		192.000	UGL	
TGRSE	930407	ZN	PC		15.300	UGL	
TGRSE	930505	ZN	PC		23.400	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSE	930601	ZN	PC		91.600	UGL	
TGRSE	930706	ZN	PC		205.000	UGL	
TGRSE	930803	ZN	PC		15.300	UGL	
TGRSE	930915	ZN	PC		40.700	UGL	
TGRSI	921006	111TCE	PC		330.000	UGL	
TGRSI	921103	111TCE	PC		420.000	UGL	
TGRSI	921201	111TCE	PC		410.000	UGL	
TGRSI	930105	111TCE	PC		470.000	UGL	
TGRSI	930202	111TCE	PC		250.000	UGL	
TGRSI	930302	111TCE	PC		410.000	UGL	
TGRSI	930407	111TCE	PC		360.000	UGL	
TGRSI	930505	111TCE	PC		370.000	UGL	
TGRSI	930601	111TCE	PC		300.000	UGL	
TGRSI	930706	111TCE	PC		330.000	UGL	
TGRSI	930803	111TCE	PC		310.000	UGL	
TGRSI	930915	111TCE	PC		250.000	UGL	
TGRSI	921006	112TCE	PC	<	50.000	UGL	
TGRSI	921103	112TCE	PC	<	50.000	UGL	
TGRSI	921201	112TCE	PC	<	25.000	UGL	
TGRSI	930105	112TCE	PC	<	50.000	UGL	
TGRSI	930202	112TCE	PC	<	1.000	UGL	
TGRSI	930302	112TCE	PC	<	20.000	UGL	
TGRSI	930407	112TCE	PC		2.300	UGL	
TGRSI	930505	112TCE	PC	<	50.000	UGL	M
TGRSI	930601	112TCE	PC	<	50.000	UGL	
TGRSI	930706	112TCE	PC	<	50.000	UGL	
TGRSI	930803	112TCE	PC	<	25.000	UGL	
TGRSI	930915	112TCE	PC	<	25.000	UGL	
TGRSI	921006	11DCE	PC	<	50.000	UGL	
TGRSI	921103	11DCE	PC	<	50.000	UGL	
TGRSI	921201	11DCE	PC		35.000	UGL	
TGRSI	930105	11DCE	PC	<	50.000	UGL	
TGRSI	930202	11DCE	PC		31.200	UGL	
TGRSI	930302	11DCE	PC		43.000	UGL	
TGRSI	930407	11DCE	PC		41.100	UGL	
TGRSI	930505	11DCE	PC	<	50.000	UGL	
TGRSI	930601	11DCE	PC	<	50.000	UGL	
TGRSI	930706	11DCE	PC	<	50.000	UGL	
TGRSI	930803	11DCE	PC	<	25.000	UGL	
TGRSI	930915	11DCE	PC	<	25.000	UGL	
TGRSI	921006	11DCLE	PC	<	39.000	UGL	
TGRSI	921103	11DCLE	PC	<	39.000	UGL	
TGRSI	921201	11DCLE	PC		34.000	UGL	
TGRSI	930105	11DCLE	PC	<	39.000	UGL	
TGRSI	930202	11DCLE	PC		23.700	UGL	
TGRSI	930302	11DCLE	PC		30.000	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSI	930407	11DCLE	PC		26.900	UGL	
TGRSI	930505	11DCLE	PC	<	39.000	UGL	
TGRSI	930601	11DCLE	PC	<	39.000	UGL	
TGRSI	930706	11DCLE	PC	<	39.000	UGL	
TGRSI	930803	11DCLE	PC	<	20.000	UGL	
TGRSI	930915	11DCLE	PC	<	20.000	UGL	
TGRSI	921006	12DCE	PC	<	25.000	UGL	
TGRSI	921103	12DCE	PC	<	25.000	UGL	
TGRSI	921201	12DCE	PC	<	13.000	UGL	
TGRSI	930105	12DCE	PC	<	25.000	UGL	
TGRSI	930202	12DCE	PC		9.130	UGL	
TGRSI	930302	12DCE	PC		14.000	UGL	
TGRSI	930407	12DCE	PC		11.300	UGL	
TGRSI	930505	12DCE	PC	<	25.000	UGL	
TGRSI	930601	12DCE	PC	<	25.000	UGL	
TGRSI	930706	12DCE	PC	<	25.000	UGL	
TGRSI	930803	12DCE	PC	<	13.000	UGL	
TGRSI	930915	12DCE	PC	<	13.000	UGL	
TGRSI	921006	12DCLE	PC	<	25.000	UGL	
TGRSI	921103	12DCLE	PC	<	25.000	UGL	
TGRSI	921201	12DCLE	PC	<	13.000	UGL	
TGRSI	930105	12DCLE	PC	<	25.000	UGL	
TGRSI	930202	12DCLE	PC		1.110	UGL	
TGRSI	930302	12DCLE	PC	<	10.000	UGL	
TGRSI	930407	12DCLE	PC		1.840	UGL	
TGRSI	930505	12DCLE	PC	<	25.000	UGL	M
TGRSI	930601	12DCLE	PC	<	25.000	UGL	
TGRSI	930706	12DCLE	PC	<	25.000	UGL	
TGRSI	930803	12DCLE	PC	<	13.000	UGL	
TGRSI	930915	12DCLE	PC	<	13.000	UGL	
TGRSI	921006	12DCLP	PC	<	50.000	UGL	
TGRSI	921103	12DCLP	PC	<	50.000	UGL	
TGRSI	921201	12DCLP	PC	<	25.000	UGL	
TGRSI	930105	12DCLP	PC	<	50.000	UGL	
TGRSI	930202	12DCLP	PC	<	1.000	UGL	
TGRSI	930302	12DCLP	PC	<	20.000	UGL	
TGRSI	930407	12DCLP	PC	<	1.000	UGL	
TGRSI	930505	12DCLP	PC	<	50.000	UGL	
TGRSI	930601	12DCLP	PC	<	50.000	UGL	
TGRSI	930706	12DCLP	PC	<	50.000	UGL	
TGRSI	930803	12DCLP	PC	<	25.000	UGL	
TGRSI	930915	12DCLP	PC	<	25.000	UGL	
TGRSI	921006	C2H3CL	PC	<	95.000	UGL	
TGRSI	921103	C2H3CL	PC	<	95.000	UGL	
TGRSI	921201	C2H3CL	PC	<	48.000	UGL	
TGRSI	930105	C2H3CL	PC	<	95.000	UGL	

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSI	930202	C2H3CL	PC	<	1.900	UGL	
TGRSI	930302	C2H3CL	PC	<	38.000	UGL	
TGRSI	930407	C2H3CL	PC	<	1.900	UGL	
TGRSI	930505	C2H3CL	PC	<	95.000	UGL	
TGRSI	930601	C2H3CL	PC	<	95.000	UGL	
TGRSI	930706	C2H3CL	PC	<	95.000	UGL	
TGRSI	930803	C2H3CL	PC	<	48.000	UGL	
TGRSI	930915	C2H3CL	PC	<	48.000	UGL	
TGRSI	921006	CCL4	PC	<	65.000	UGL	
TGRSI	921103	CCL4	PC	<	65.000	UGL	
TGRSI	921201	CCL4	PC	<	33.000	UGL	
TGRSI	930105	CCL4	PC	<	65.000	UGL	
TGRSI	930202	CCL4	PC	<	1.300	UGL	
TGRSI	930302	CCL4	PC	<	26.000	UGL	
TGRSI	930407	CCL4	PC	<	1.300	UGL	
TGRSI	930505	CCL4	PC	<	65.000	UGL	
TGRSI	930601	CCL4	PC	<	65.000	UGL	
TGRSI	930706	CCL4	PC	<	65.000	UGL	
TGRSI	930803	CCL4	PC	<	33.000	UGL	
TGRSI	930915	CCL4	PC	<	33.000	UGL	
TGRSI	921006	CH2CL2	PC	<	160.000	UGL	
TGRSI	921103	CH2CL2	PC	<	160.000	UGL	
TGRSI	921201	CH2CL2	PC	<	80.000	UGL	
TGRSI	930105	CH2CL2	PC	<	160.000	UGL	
TGRSI	930202	CH2CL2	PC	<	3.200	UGL	
TGRSI	930302	CH2CL2	PC	<	64.000	UGL	
TGRSI	930407	CH2CL2	PC	<	3.200	UGL	
TGRSI	930505	CH2CL2	PC	<	160.000	UGL	
TGRSI	930601	CH2CL2	PC	<	160.000	UGL	
TGRSI	930706	CH2CL2	PC	<	160.000	UGL	
TGRSI	930803	CH2CL2	PC	<	80.000	UGL	
TGRSI	930915	CH2CL2	PC	<	80.000	UGL	
TGRSI	921006	CHCL3	PC	<	36.000	UGL	
TGRSI	921103	CHCL3	PC	<	36.000	UGL	
TGRSI	921201	CHCL3	PC	<	18.000	UGL	
TGRSI	930105	CHCL3	PC	<	36.000	UGL	
TGRSI	930202	CHCL3	PC	<	.720	UGL	
TGRSI	930302	CHCL3	PC	<	14.000	UGL	
TGRSI	930407	CHCL3	PC	<	1.340	UGL	
TGRSI	930505	CHCL3	PC	<	36.000	UGL	
TGRSI	930601	CHCL3	PC	<	36.000	UGL	
TGRSI	930706	CHCL3	PC	<	36.000	UGL	
TGRSI	930803	CHCL3	PC	<	18.000	UGL	
TGRSI	930915	CHCL3	PC	<	18.000	UGL	
TGRSI	921006	T12DCE	PC	<	15.000	UGL	T
TGRSI	921103	T12DCE	PC	<	15.000	UGL	T

Location	Date	Chemical	Lab	Lt	Conc	Units	Qual
TGRSI	921201	T12DCE	PC	<	7.500	UGL	R
TGRSI	930105	T12DCE	PC	<	15.000	UGL	R
TGRSI	930202	T12DCE	PC	<	.300	UGL	R
TGRSI	930302	T12DCE	PC	<	6.000	UGL	R
TGRSI	930407	T12DCE	PC		1.030	UGL	S
TGRSI	930505	T12DCE	PC	<	15.000	UGL	R
TGRSI	930601	T12DCE	PC	<	15.000	UGL	R
TGRSI	930706	T12DCE	PC	<	15.000	UGL	R
TGRSI	930803	T12DCE	PC	<	7.500	UGL	R
TGRSI	930915	T12DCE	PC	<	7.500	UGL	R
TGRSI	921006	TCLEE	PC	<	50.000	UGL	
TGRSI	921103	TCLEE	PC	<	50.000	UGL	
TGRSI	921201	TCLEE	PC	<	25.000	UGL	
TGRSI	930105	TCLEE	PC	<	50.000	UGL	
TGRSI	930202	TCLEE	PC		1.310	UGL	
TGRSI	930302	TCLEE	PC	<	20.000	UGL	
TGRSI	930407	TCLEE	PC		3.580	UGL	
TGRSI	930505	TCLEE	PC	<	50.000	UGL	
TGRSI	930601	TCLEE	PC	<	50.000	UGL	
TGRSI	930706	TCLEE	PC	<	50.000	UGL	
TGRSI	930803	TCLEE	PC	<	25.000	UGL	
TGRSI	930915	TCLEE	PC	<	25.000	UGL	
TGRSI	921006	TCLTFE	PC	<	50.000	UGL	
TGRSI	921103	TCLTFE	PC	<	50.000	UGL	
TGRSI	921201	TCLTFE	PC	<	25.000	UGL	
TGRSI	930105	TCLTFE	PC	<	50.000	UGL	
TGRSI	930202	TCLTFE	PC	<	1.000	UGL	
TGRSI	930302	TCLTFE	PC	<	20.000	UGL	
TGRSI	930407	TCLTFE	PC	<	1.000	UGL	
TGRSI	930505	TCLTFE	PC	<	50.000	UGL	
TGRSI	930601	TCLTFE	PC	<	50.000	UGL	
TGRSI	930706	TCLTFE	PC	<	50.000	UGL	
TGRSI	930803	TCLTFE	PC	<	25.000	UGL	
TGRSI	930915	TCLTFE	PC	<	25.000	UGL	
TGRSI	921006	TRCLE	PC		1200.000	UGL	
TGRSI	921103	TRCLE	PC		1700.000	UGL	
TGRSI	921201	TRCLE	PC		1600.000	UGL	
TGRSI	930105	TRCLE	PC		1600.000	UGL	
TGRSI	930202	TRCLE	PC		1000.000	UGL	
TGRSI	930302	TRCLE	PC		1400.000	UGL	
TGRSI	930407	TRCLE	PC		1600.000	UGL	
TGRSI	930505	TRCLE	PC		1800.000	UGL	
TGRSI	930601	TRCLE	PC		1100.000	UGL	
TGRSI	930706	TRCLE	PC		1700.000	UGL	
TGRSI	930803	TRCLE	PC		1600.000	UGL	
TGRSI	930915	TRCLE	PC		1100.000	UGL	





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## **Appendix H**

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### **TGRS Operational Data and Site K Operational Data**

**Appendix H.1**

**1993 TGRS Monthly Flow Reports**

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: OCTOBER 1992

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
09/30/92	261243100	108987900	107841300	263406000	199387800	463375900	378240800	255604100	207570400	323416500	344966600	96421800	21688700	146896900	107566100	238562800
10/01/92	261493300	109231000	108092100	263669800	199657500	463735700	378624000	255751800	207774000	323741800	345092400	96652900	21688700	147036900	107618800	238701100
10/02/92	261796100	109523400	108394300	263989600	199984500	464171100	379087300	255928500	207988800	324131700	345243900	96933600	21688700	147206800	107682600	238869000
10/03/92	262057400	109775200	108661400	264265500	200267900	464546200	379486900	256081200	208206200	324471900	345374300	97175200	21727400	147352200	107736500	239012700
10/04/92	262348200	110053900	108953400	264572000	200583100	464962800	379930400	256250900	208431900	324849900	345518200	97443000	21779700	147513800	107796200	239172700
10/05/92	262640900	110334300	109250200	264881200	200900800	465382600	380376700	256422200	208657600	325228700	345663900	97713500	21832500	147676900	107855900	239334300
10/06/92	262898100	110580900	109506300	265153400	201180000	465753300	380772000	256573100	208860100	325550200	345791300	97952800	21878900	147819900	107908300	239476000
10/07/92	263191700	110868000	109833400	265462400	201496700	466171400	381215900	256743100	209078500	325926600	345938900	98221400	21931700	147981800	107967300	239636500
10/08/92	263551200	111219100	110255000	265841500	201884200	466684400	381762500	256951200	209350900	326383100	346117400	98552000	21995900	148179900	108038600	239832400
10/09/92	263758900	111420800	110499300	266061500	202109300	466982000	382077700	257071800	209511900	326652600	346220100	98743400	22032800	148294400	108079400	239945600
10/10/92	264006100	111659400	110786900	266320400	202374600	467333000	382452600	257212900	209701900	326964600	346342600	98970700	22077200	148431500	108128400	240080900
10/11/92	264277600	111919100	111103700	266609100	202662400	467712700	382855000	257369500	209904300	327306800	346477900	99214600	22125400	148580200	108181100	240227600
10/12/92	264598700	112221800	111471200	266944300	203010900	468170400	383340500	257555300	210142500	327717700	346635800	99509100	22184400	148757500	108243100	240402700
10/13/92	264839400	112447300	111729700	267199800	203277600	468520000	383713200	257695000	210327100	328033700	346753400	99735400	22228000	148891300	108290600	240534800
10/14/92	265151600	112739800	112062700	267528600	203612700	468966100	384186300	257878200	210560500	328430600	346906800	100022700	22276400	149064300	108351600	240705800
10/15/92	265408600	112985000	112328200	267801400	203891600	469331000	384574100	258028200	210752600	328769800	347035600	100257600	22326100	149207400	108401400	240847600
10/16/92	265702900	113269400	112615000	268112000	204211200	469757100	385024500	258200800	210986400	329145700	347180000	100530700	22367500	149375400	108458900	241011900
10/17/92	265979000	113542000	112897800	268401900	204508300	470149200	385440400	258360300	211201500	329496600	347315900	100782600	22404400	149529200	108512600	241163500
10/18/92	266258000	113817600	113188900	268692700	204807600	470542000	385856200	258519900	211417200	329850700	347452500	101034600	22450200	149683200	108567800	241315500
10/19/92	266561800	114119000	113482500	269010200	205126200	470961500	386299900	258691900	211647100	330235600	347601100	101303800	22499800	149848700	108626600	241478900
10/20/92	266839900	114393700	113783600	269300600	205431400	471363500	386726700	258854400	211864600	330587800	347737800	101562600	22543200	150005000	108682200	241633400
10/21/92	267123100	114674800	114057000	269597400	205732900	471756000	387150500	259016300	212078800	330947500	347878800	101819800	22636600	150160600	108736900	241787200
10/22/92	267358700	114907400	114277200	269841000	205983200	472073400	387494000	259151400	212253100	331237200	347992600	102028000	22710800	150288300	108781300	241913400
10/23/92	267581700	115126600	114431300	270079100	206219600	472406700	387841800	259293800	212433500	331551400	348114600	102241000	22783300	150443100	108842500	242077500
10/24/92	267855400	115408600	114698100	270370100	206512700	472797400	388254000	259453300	212645000	331901400	348249700	102491700	22845800	150595700	108896100	242232500
10/25/92	268141500	115704000	114980000	270674300	206807800	473196700	388675500	259618700	212862200	332261300	348390400	102748200	22915700	150753100	108952400	242391900
10/26/92	268421700	115992200	115249000	270971200	207115900	473604300	389103600	259782900	213085500	332630700	348529000	103008900	22984500	150911100	109009400	242552200
10/27/92	268678800	116257700	115497900	271244400	207391400	473971400	389491200	259933000	213281900	332960100	348655400	103244900	23044700	151053900	109061000	242697100
10/28/92	268926500	116492900	115683600	271484500	207627700	474301900	389828400	260072300	213456300	333267400	348778800	103451100	23107700	151197300	109118000	242851600
10/29/92	269187200	116742800	115920700	271739400	207892700	474660300	390205000	260216900	213654100	333590400	348900100	103681600	23190100	151335500	109166700	242992600
10/30/92	269365200	116912000	116023600	271906900	208063400	474907700	390460900	260324900	213786200	333819600	348995500	103837900	23261600	151454900	109218800	243128400
10/31/92	269638100	117185600	116269100	272169900	208330800	475273500	390847900	260473400	213987300	334147100	349123900	104072000	23339100	151597900	109270200	243274200

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: OCTOBER 1992

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
10/01/92	250200	243100	250800	263800	269700	359800	383200	147700	203600	325300	125800	231100	0	140000	52700	138300	3385100
10/02/92	302800	292400	302200	319800	327000	435400	463300	176700	214800	369900	151500	280700	0	169900	63800	167900	4058100
10/03/92	261300	251800	267100	275900	283400	375100	399600	152700	217400	340200	130400	241600	38700	145400	53900	143700	3578200
10/04/92	290800	278700	292000	306500	315200	416600	443500	169700	225700	378000	143900	267800	52300	161600	59700	160000	3962000
10/05/92	292700	280400	296800	309200	317700	419800	446300	171300	225700	378800	145700	270500	52800	163100	59700	161600	3992100
10/06/92	257200	246600	256100	272200	279200	370700	395300	150900	202500	321500	127400	239300	46400	143000	52400	141700	3502400
10/07/92	293600	287100	327100	309000	316700	418100	443900	170000	218400	376400	147600	268600	52800	161900	59000	160500	4010700
10/08/92	359500	351100	421600	379100	387500	513000	546600	208100	272400	456500	178500	330600	64200	198100	71300	195900	4934000
10/09/92	207700	201700	244300	220000	225100	297600	315200	120600	161000	269500	102700	191400	36900	114500	40800	113200	2862200
10/10/92	247200	238600	287600	258900	265300	351000	374900	141100	190000	312000	122500	227300	44400	137100	49000	135300	3382200
10/11/92	271500	259700	316800	288700	287800	379700	402400	156600	202400	342200	135300	243900	48200	148700	52700	146700	3683300
10/12/92	321100	302700	367500	335200	348500	457700	485500	185800	238200	410900	157900	294500	59000	177300	62000	175100	4378900
10/13/92	240700	225500	258500	255500	266700	349600	372700	139700	184600	316000	117600	226300	43600	133800	47500	132100	3310400
10/14/92	312200	292500	333000	328800	335100	446100	473100	183200	233400	396900	153400	287300	48400	173000	61000	171000	4228400
10/15/92	257000	245200	265500	272800	278900	364900	387800	150000	192100	339200	128800	234900	49700	143100	49800	141800	3501500
10/16/92	294300	284400	286800	310600	319600	426100	450400	172600	233800	375900	144400	273100	41400	168000	57500	164300	4003200
10/17/92	276100	272600	282800	289900	297100	392100	415900	159500	215100	350900	135900	251900	36900	153800	53700	151600	3735800
10/18/92	279000	275600	291100	290800	299300	392800	415800	159600	215700	354100	136600	252000	45800	154000	55200	152000	3769400
10/19/92	303800	301400	293600	317500	318600	419500	443700	172000	229900	384900	148600	269200	49600	165500	58800	163400	4040000
10/20/92	278100	274700	301100	290400	305200	402000	426800	162500	217500	352200	136700	258800	43400	156300	55600	154500	3815800
10/21/92	283200	281100	273400	296800	301500	392500	423800	161900	214200	359700	139000	257200	93400	155600	54700	153800	3841800
10/22/92	235600	232600	220200	243600	250300	317400	343500	135100	174300	289700	115800	208200	74200	127700	44400	126200	3138800
10/23/92	223000	219200	154100	238100	236400	333300	347800	142400	180400	314200	122000	213000	72500	154800	61200	164100	3176500
10/24/92	273700	282000	266800	291000	293100	390700	412200	159500	211500	350000	135100	250700	62500	152600	53600	155000	3740000
10/25/92	286100	295400	281900	304200	295100	399300	421500	165400	217200	359900	140700	256500	69900	157400	56300	159400	3866200
10/26/92	280200	288200	269000	296900	308100	407600	428100	164200	223300	369400	138600	260700	68800	158000	57000	160300	3878400
10/27/92	257100	265500	248900	273200	275500	367100	387600	150100	196400	329400	126400	236000	60200	142800	51600	144900	3512700
10/28/92	247700	235200	185700	240100	236300	330500	337200	139300	174400	307300	123400	206200	63000	143400	57000	154500	3181200
10/29/92	260700	249900	237100	254900	265000	358400	376600	144600	197800	323000	121300	230500	82400	138200	48700	141000	3430100
10/30/92	178000	169200	102900	167500	170700	247400	255900	108000	132100	229200	95400	156300	71500	119400	52100	135800	2391400
10/31/92	272900	273600	245500	263000	267400	365800	387000	148500	201100	327500	128400	234100	77500	143000	51400	145800	3532500
<b>TOTAL</b>	<b>8395000</b>	<b>8197700</b>	<b>8427800</b>	<b>8763900</b>	<b>8943000</b>	<b>11897600</b>	<b>12607100</b>	<b>4869300</b>	<b>6416900</b>	<b>10730600</b>	<b>4157300</b>	<b>7650200</b>	<b>1650400</b>	<b>4701000</b>	<b>1704100</b>	<b>4711400</b>	<b>113823300</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: OCTOBER 1992

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
09/30/92	824232000	1095345000	1296879000	1339669000	789111000	671608000													
10/01/92	825882000	1097150000	1298143000	1341490000	791008000	673439000	1650000	1805000	3455000	2678	1264000	1821000	3085000	2391	1897000	1831000	3728000	2890	
10/02/92	827888000	1099365000	1299683000	1343711000	793331000	675673000	2006000	2215000	4221000	2706	1540000	2221000	3761000	2411	2323000	2234000	4557000	2921	
10/03/92	829619000	1101254000	1301001000	1345631000	795333000	677593000	1731000	1889000	3620000	2681	1318000	1920000	3238000	2399	2002000	1920000	3922000	2905	
10/04/92	831552000	1103359000	1302459000	1347775000	797568000	679733000	1933000	2105000	4038000	2692	1458000	2144000	3602000	2401	2235000	2140000	4375000	2917	
10/05/92	833505000	1105489000	1303940000	1349935000	799827000	681895000	1953000	2130000	4083000	2722	1481000	2160000	3641000	2427	2259000	2162000	4421000	2947	
10/06/92	835206000	1107348000	1305233000	1351823000	801801000	683785000	1701000	1859000	3560000	2697	1293000	1888000	3181000	2410	1974000	1890000	3864000	2927	
10/07/92	837185000	1109480000	1306714000	1354009000	804094000	685968000	1979000	2132000	4111000	2687	1481000	2186000	3667000	2397	2293000	2183000	4476000	2925	
10/08/92	839614000	1112077000	1308514000	1356694000	806908000	688636000	2429000	2597000	5026000	2746	1800000	2685000	4485000	2451	2814000	2668000	5482000	2996	
10/09/92	841022000	1113579000	1309555000	1358251000	808540000	690183000	1408000	1502000	2910000	2694	1041000	1557000	2598000	2406	1632000	1547000	3179000	2944	
10/10/92	842701000	1115373000	1310798000	1360105000	810494000	692028000	1679000	1794000	3473000	2692	1243000	1854000	3097000	2401	1954000	1845000	3799000	2945	
10/11/92	844522000	1117319000	1312147000	1362116000	812614000	694030000	1821000	1946000	3767000	2730	1349000	2011000	3360000	2435	2120000	2002000	4122000	2987	
10/12/92	846682000	1119635000	1313757000	1364502000	815143000	696408000	2160000	2316000	4476000	2713	1610000	2386000	3996000	2422	2529000	2378000	4907000	2974	
10/13/92	848286000	1121373000	1314968000	1366278000	817031000	698186000	1604000	1738000	3342000	2717	1211000	1776000	2987000	2428	1888000	1778000	3666000	2980	
10/14/92	850359000	1123630000	1316535000	1368572000	819493000	700491000	2073000	2257000	4330000	2673	1567000	2294000	3861000	2383	2462000	2305000	4767000	2943	
10/15/92	852068000	1125485000	1317826000	1370468000	821526000	702385000	1709000	1855000	3564000	2700	1291000	1896000	3187000	2414	2033000	1894000	3927000	2975	
10/16/92	854071000	1127590000	1319347000	1372603000	823867000	704569000	2003000	2105000	4108000	2633	1521000	2135000	3658000	2344	2341000	2184000	4525000	2901	
10/17/92	855907000	1129578000	1320729000	1374629000	826055000	706599000	1836000	1988000	3824000	2712	1382000	2026000	3408000	2417	2188000	2030000	4218000	2991	
10/18/92	857763000	1131575000	1322106000	1376694000	828262000	708648000	1856000	1997000	3853000	2733	1377000	2065000	3442000	2441	2207000	2049000	4256000	3018	
10/19/92	859730000	1133715000	1323587000	1378872000	830621000	710832000	1967000	2140000	4107000	2684	1481000	2178000	3659000	2392	2359000	2184000	4543000	2969	
10/20/92	861615000	1135744000	1324992000	1380959000	832870000	712912000	1885000	2029000	3914000	2718	1405000	2087000	3492000	2425	2249000	2080000	4329000	3006	
10/21/92	863492000	1137767000	1326394000	1383043000	835113000	714984000	1877000	2023000	3900000	2708	1402000	2084000	3486000	2421	2243000	2072000	4315000	2997	
10/22/92	865027000	1139427000	1327547000	1384740000	836951000	716683000	1535000	1680000	3195000	2731	1153000	1697000	2850000	2436	1838000	1699000	3537000	3023	
10/23/92	865703000	1141932000	1329316000	1385793000	838767000	718390000	676000	2505000	3181000	1797	1769000	1053000	2822000	1594	1816000	1707000	3523000	1990	
10/24/92	867548000	1143914000	1330690000	1387837000	840966000	720426000	1845000	1982000	3827000	2714	1374000	2044000	3418000	2424	2199000	2036000	4235000	3004	
10/25/92	869444000	1145955000	1332095000	1389951000	843237000	722525000	1896000	2041000	3937000	2734	1405000	2114000	3519000	2444	2271000	2099000	4370000	3035	
10/26/92	871355000	1148012000	1333521000	1392065000	845529000	724642000	1911000	2057000	3968000	2699	1426000	2114000	3540000	2408	2292000	2117000	4409000	2999	
10/27/92	873071000	1149868000	1334803000	1393973000	847600000	726548000	1716000	1856000	3572000	2706	1282000	1908000	3190000	2417	2071000	1906000	3977000	3013	
10/28/92	874022000	1152088000	1336365000	1395232000	849443000	728260000	951000	2220000	3171000	2033	1562000	1259000	2821000	1808	1843000	1712000	3555000	2279	
10/29/92	875747000	1153880000	1337620000	1397117000	851487000	730135000	1725000	1792000	3517000	2726	1255000	1885000	3140000	2434	2044000	1875000	3919000	3038	
10/30/92	877879000	1154207000	1339213000	1397627000	852824000	731428000	2132000	327000	2459000	1518	1593000	510000	2103000	1298	1337000	1293000	2630000	1623	
10/31/92	879581000	1156093000	1340529000	1399519000	854606000	733350000	1702000	1886000	3588000	2600	1316000	1892000	3208000	2325	1782000	1922000	3704000	2684	
	55349000	60748000	43650000	59850000	65495000	61742000	55349000	60748000	116097000	2599	43650000	59850000	103500000	2317	65495000	61742000	127237000	2848	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: NOVEMBER 1992

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
10/31/92	269638100	117185600	116269100	272169900	208330800	475273500	390847900	260473400	213987300	334147100	349123900	104072000	23339100	151597900	109270200	243274200
11/01/92	269932700	117482200	116546900	272459500	208628300	475671800	391266500	260637200	214207500	334506400	349260500	104327300	23434600	151753600	109325100	243432200
11/02/92	270243600	117793600	116837400	272761400	208935000	476088800	391706400	260807600	214435700	334883900	349402900	104593600	23537500	151915700	109382500	243596700
11/03/92	270523900	118067200	117084700	273034700	209211100	476462900	392099900	260960600	214643300	335221300	349533600	104833700	23625400	152061200	109433800	243744200
11/04/92	270779200	118317000	117282600	273279300	209460300	476814000	392475200	261104500	214832600	335539200	349656100	105060700	23719800	152201900	109486400	243889400
11/05/92	271070000	118603600	117474600	273558700	209745900	477212100	392903400	261267700	215049900	335899400	349794000	105316000	23818000	152358300	109544000	244050800
11/06/92	271387300	118917200	117701200	273866900	210064000	477636300	393349700	261442300	215283900	336284400	349942200	105588400	23926600	152524100	109603400	244219400
11/07/92	271669500	119198000	117947400	274143300	210350800	478015900	393749100	261597500	215494300	336625300	350073800	105832100	24023400	152671500	109656200	244369300
11/08/92	271954100	119479900	118209400	274422000	210641600	478397900	394150600	261753500	215704900	336972700	350206200	106077100	24120300	152819300	109708900	244519700
11/09/92	272276900	119798700	118514100	274737400	210970400	478829700	394603900	261929800	215941400	337367800	350355600	106353600	24229900	152986200	109768100	244689500
11/10/92	272525600	120043600	118741500	274979300	211222600	479160800	394952100	262065100	216126500	337669500	350471500	106566100	24314500	153114200	109813600	244819800
11/11/92	272874000	120381300	119060300	275313600	211572400	479618400	395432900	262251800	216380800	338088000	350631100	106859600	24429800	153290700	109876100	244999600
11/12/92	273157200	120660300	119322100	275589900	211860600	479996800	395830700	262406400	216588900	338430700	350762200	107102500	24527000	153436300	109927600	245148100
11/13/92	273527200	121014300	119655400	275942000	212228200	480478400	396337100	262603000	216860500	338871700	350930200	107411800	24650800	153621200	109992500	245336900
11/14/92	273812700	121287100	119911900	276214300	212512800	480851200	396729400	262755100	217069700	339209600	351059800	107651400	24747300	153763900	110042300	245482900
11/15/92	274106400	121566300	120171900	276494200	212804800	481233600	397131300	262911200	217287100	339558600	351192700	107897100	24846800	153910200	110093500	245632500
11/16/92	274396700	121841100	120417800	276770900	213093600	481612200	397528800	263065900	217502100	339906100	351323900	108140200	24946000	154055300	110143700	245781000
11/17/92	274664100	122093100	120643800	277026600	213360500	481962100	397898100	263209000	217700900	340223900	351444900	108365500	25037500	154188900	110189900	245917800
11/18/92	275004800	122415300	120933600	277351600	213699900	482406300	398364300	263390800	217950200	340629100	351599100	108651300	25154100	154359500	110248200	246092400
11/19/92	275269100	122666500	121161300	277606900	213966800	482755600	398730900	263533800	218145400	340948500	351718300	108875600	25245300	154493000	110292600	246228800
11/20/92	275622900	122999900	121437500	277944200	214319000	483217400	399216600	263723400	218394400	341369800	351879000	109173100	25366500	154669900	110352000	246409800
11/21/92	275915000	123274100	121661000	278222200	214608700	483597500	399617000	263879400	218607200	341714700	352011200	109418200	25466300	154814900	110400500	246558600
11/22/92	276225100	123564500	121938500	278516800	214916100	483998600	400037800	264043300	218832800	342082400	352150800	109676000	25571000	154968800	110451100	246716000
11/23/92	276533500	123852200	122231100	278809200	215221500	484397500	400456300	264205900	219053000	342448700	352288700	109932200	25674100	155120800	110500400	246871600
11/24/92	276826800	124125100	122509500	279087000	215510700	484775900	400853600	264360000	219266700	342794100	352420500	110175500	25770300	155264600	110547200	247019600
11/25/92	277140200	124420700	122810900	279387300	215823600	485184600	401282800	264526200	219494500	343169300	352562900	110438300	25872500	155420400	110598000	247179200
11/26/92	277418400	124692800	123077200	279658200	216105600	485243800	401682900	264684200	219694200	343505900	352690600	110685100	25973100	155567300	110649100	247328700
11/27/92	277750500	125006900	123393900	279976600	216437800	485672800	402136500	264860200	219932300	343901800	352841600	110963300	26082700	155732100	110702000	247498100
11/28/92	278028900	125275700	123661600	280248800	216721200	486043000	402524800	265010900	220132200	344240000	352970000	111201400	26175700	155872600	110747500	247642500
11/29/92	278324100	125563700	123952400	280542600	217023600	486439000	402949600	265173600	220348200	344600000	353121200	111453400	26273600	156023800	110797900	247796600
11/30/92	278666100	125880400	124282500	280862300	217359400	486876800	403399200	265349400	220584100	345002300	353259400	111737200	26380200	156188100	110845300	247967000

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: NOVEMBER 1992

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
11/01/92	294600	296600	277800	289600	297500	398300	418600	163800	220200	359300	136600	255300	95500	155700	54900	158000	3872300
11/02/92	310900	311400	290500	301900	306700	417000	439900	170400	228200	377500	142400	266300	102900	162100	57400	164500	4050000
11/03/92	280300	273600	247300	273300	276100	374100	393500	153000	207600	337400	130700	240100	87900	145500	51300	147500	3619200
11/04/92	255300	249800	197900	244600	249200	351100	375300	143900	189300	317900	122500	227000	94400	140700	52600	145200	3356700
11/05/92	290800	286600	192000	279400	285600	398100	428200	163200	217300	360200	137900	255300	98200	156400	57600	161400	3768200
11/06/92	317300	313600	226600	308200	318100	424200	446300	174600	234000	385000	148200	272400	108600	165800	59400	168600	4070900
11/07/92	282200	280800	246200	276400	286800	379600	399400	155200	210400	340900	131600	243700	96800	147400	52800	149900	3680100
11/08/92	284600	281900	262000	278700	290800	382000	401500	156000	210600	347400	132400	245000	96900	147800	52700	150400	3720700
11/09/92	322800	318800	304700	315400	328800	431800	453300	176300	236500	395100	149400	276500	109600	166900	59200	169800	4214900
11/10/92	248700	244900	227400	241900	252200	331100	348200	135300	185100	301700	115900	212500	84600	128000	45500	130300	3233300
11/11/92	348400	337700	318800	334300	349800	457600	480800	186700	254300	418500	159600	293500	115300	176500	62500	179800	4474100
11/12/92	283200	279000	261800	276300	288200	378400	397800	154600	208100	342700	131100	242900	97200	145600	51500	148500	3686900
11/13/92	370000	354000	333300	352100	367600	481600	506400	196600	271600	441000	168000	309300	123800	184900	64900	188800	4713900
11/14/92	285500	272800	256500	272300	284600	372800	392300	152100	209200	337900	126600	239600	96500	142700	49800	146000	3640200
11/15/92	293700	279200	260000	279900	292000	382400	401900	156100	217400	349000	132900	245700	99500	146300	51200	149600	3736800
11/16/92	290300	274800	245900	276700	288800	378600	397500	154700	215000	375000	131200	243100	99200	145100	50200	148500	3687100
11/17/92	267400	252000	226000	255700	266900	349900	369300	143100	198800	317800	121000	225300	91500	133600	46200	136800	3401300
11/18/92	340700	322200	289800	325000	339400	444200	466200	181800	249300	405200	154200	285800	116600	170600	58300	174600	4323900
11/19/92	264300	251200	227700	255300	266900	349300	366600	143000	195200	319400	119200	224300	91200	133500	44400	136400	3387900
11/20/92	353800	333400	276200	337300	352200	461800	485700	189600	249000	421300	160700	297500	121200	176900	59400	181000	4457000
11/21/92	292100	274200	223500	278000	289700	380100	400400	156000	212800	344900	132200	245100	99800	145000	48500	148800	3671100
11/22/92	310100	290400	277500	294600	307400	401100	420800	163900	225600	367700	139600	257800	104700	153900	50600	157400	3923100
11/23/92	308400	287700	292600	292400	305400	398900	418500	162600	220200	366300	137900	256200	103100	152000	49300	155600	3907100
11/24/92	293300	272900	278400	277800	289200	378400	397300	154100	213700	345400	131800	243300	96200	143800	46800	148000	3710400
11/25/92	313400	295600	301400	300300	312900	408700	429200	166200	227800	375200	142400	262800	102200	155800	50800	159600	4004300
11/26/92	278200	272100	266300	270900	282000	59200	400100	158000	199700	336600	127700	246800	100600	146900	51100	149500	3345700
11/27/92	332100	314100	316700	318400	332200	429000	453600	176000	238100	395900	151000	278200	109600	164800	52900	169400	4232000
11/28/92	278400	268800	267700	272200	283400	370200	388300	150700	199900	338200	128400	238100	93000	140500	45500	144400	3607700
11/29/92	295200	288000	290800	293800	302400	396000	424800	162700	216000	360000	151200	252000	97900	151200	50400	154100	3886500
11/30/92	342000	316700	330100	319700	335800	437800	449600	175800	235900	402300	138200	283800	106600	164300	47400	170400	4256400
TOTAL	9028000	8694800	8013400	8692400	9028600	11603300	12551300	4876000	6596800	10855200	4135500	7665200	3041100	4590200	1575100	4692800	115639700

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: NOVEMBER 1992

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
10/31/92	879581000	1156093000	1340529000	1399519000	854606000	733350000	-	-	-	-	-	-	-	-	-	-	-	-	-
11/01/92	881495000	1158126000	1341934000	1401637000	856588000	735472000	1914000	2033000	3947000	2741	1405000	2118000	3523000	2447	1982000	2122000	4104000	2850	
11/02/92	883489000	1160225000	1343362000	1403865000	858656000	737681000	1994000	2099000	4093000	2675	1428000	2228000	3656000	2390	2068000	2209000	4277000	2795	
11/03/92	885289000	1162129000	1344683000	1405850000	860516000	739664000	1800000	1904000	3704000	2744	1321000	1985000	3306000	2449	1860000	1983000	3843000	2847	
11/04/92	887105000	1163713000	1346025000	1407526000	862236000	741494000	1816000	1584000	3400000	2519	1342000	1676000	3018000	2236	1720000	1830000	3550000	2630	
11/05/92	888986000	1165666000	1347478000	1409484000	864176000	743552000	1881000	1953000	3834000	2608	1453000	1958000	3411000	2320	1940000	2058000	3998000	2720	
11/06/92	890988000	1167834000	1348976000	1411709000	866286000	745787000	2002000	2168000	4170000	2725	1498000	2225000	3723000	2433	2110000	2235000	4345000	2840	
11/07/92	892798000	1169767000	1350315000	1413713000	868185000	747799000	1810000	1933000	3743000	2712	1399000	2004000	3343000	2422	1899000	2012000	3911000	2834	
11/08/92	894636000	1171712000	1351659000	1415743000	870107000	749832000	1838000	1945000	3783000	2741	1344000	2030000	3374000	2445	1922000	2033000	3955000	2866	
11/09/92	896721000	1173913000	1353179000	1418053000	872283000	752133000	2085000	2201000	4286000	2747	1520000	2310000	3830000	2455	2176000	2301000	4477000	2870	
11/10/92	898323000	1175602000	1354346000	1419826000	873954000	753898000	1602000	1689000	3291000	2743	1167000	1773000	2940000	2450	1671000	1765000	3436000	2863	
11/11/92	900540000	1177944000	1355962000	1422277000	876271000	756345000	2217000	2342000	4559000	2763	1616000	2451000	4067000	2465	2317000	2447000	4764000	2887	
11/12/92	902357000	1179871000	1357293000	1424289000	878174000	758353000	1817000	1927000	3744000	2713	1331000	2012000	3343000	2422	1903000	2008000	3911000	2834	
11/13/92	904697000	1182332000	1358980000	1426883000	880614000	760924000	2340000	2461000	4801000	2759	1687000	2594000	4281000	2460	2440000	2571000	5011000	2880	
11/14/92	906495000	1184233000	1360305000	1428869000	882495000	762908000	1798000	1901000	3699000	2740	1325000	1986000	3311000	2453	1881000	1984000	3865000	2863	
11/15/92	908340000	1186180000	1361650000	1430910000	884426000	764936000	1845000	1947000	3792000	2748	1345000	2041000	3386000	2454	1931000	2028000	3959000	2869	
11/16/92	910155000	1188110000	1362987000	1432917000	886333000	766947000	1815000	1930000	3745000	2714	1337000	2007000	3344000	2423	1907000	2011000	3918000	2839	
11/17/92	911825000	1189886000	1364217000	1434768000	888087000	768792000	1670000	1776000	3446000	2735	1230000	1851000	3081000	2445	1754000	1845000	3599000	2856	
11/18/92	913958000	1192160000	1365791000	1437123000	890332000	771150000	2133000	2274000	4407000	2720	1574000	2355000	3929000	2425	2245000	2358000	4603000	2841	
11/19/92	915619000	1193936000	1367018000	1438965000	892084000	772989000	1661000	1776000	3437000	2728	1227000	1842000	3069000	2436	1752000	1839000	3591000	2850	
11/20/92	917795000	1196282000	1368641000	1441380000	894390000	775407000	2176000	2346000	4522000	2741	1623000	2415000	4038000	2447	2306000	2418000	4724000	2863	
11/21/92	919591000	1198217000	1369980000	1443373000	896293000	777400000	1796000	1935000	3731000	2704	1339000	1993000	3332000	2414	1903000	1993000	3896000	2823	
11/22/92	921531000	1200270000	1371398000	1445520000	898333000	779535000	1940000	2053000	3993000	2716	1418000	2147000	3565000	2425	2040000	2135000	4175000	2840	
11/23/92	923458000	1202303000	1372796000	1447658000	900354000	781648000	1927000	2033000	3960000	2750	1398000	2138000	3536000	2456	2021000	2113000	4134000	2871	
11/24/92	925289000	1204237000	1374133000	1449686000	902279000	783657000	1831000	1934000	3765000	2728	1337000	2028000	3365000	2438	1925000	2009000	3934000	2851	
11/25/92	927267000	1206332000	1375578000	1451876000	904362000	785830000	1978000	2095000	4073000	2771	1445000	2190000	3635000	2473	2083000	2173000	4256000	2895	
11/26/92	928774000	1208211000	1376895000	1453586000	906097000	787637000	1507000	1879000	3386000	2508	1317000	1710000	3027000	2242	1735000	1807000	3542000	2624	
11/27/92	930860000	1210428000	1378422000	1455897000	908299000	789929000	2086000	2217000	4303000	2758	1527000	2311000	3838000	2460	2202000	2292000	4494000	2881	
11/28/92	932635000	1212315000	1379725000	1457865000	910174000	791878000	1775000	1887000	3662000	2713	1303000	1968000	3271000	2423	1875000	1949000	3824000	2833	
11/29/92	934608000	1214331000	1381021000	1460183000	912233000	793880000	1973000	2016000	3989000	2770	1296000	2318000	3614000	2510	2059000	2002000	4061000	2820	
11/30/92	936648000	1216563000	1382657000	1462316000	914412000	796280000	2040000	2232000	4272000	2687	1636000	2133000	3769000	2370	2179000	2400000	4579000	2880	
	57067000	60470000	42128000	62797000	59806000	62930000	57067000	60470000	117537000	2726	42128000	62797000	104925000	2434	59806000	62930000	122736000	2847	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*



ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: DECEMBER 1992

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
11/30/92	278666100	125880400	124282500	280862300	217359400	486876800	403399200	265349400	220584100	345002300	353259400	111737200	26380200	156188100	110845300	247967000
12/01/92	278910900	126117000	124537500	281107500	217612700	487208800	403747500	265484500	220760800	345304300	353375200	111950800	26449900	156313700	110884300	248096500
12/02/92	279228700	126425300	124868700	281426500	217941400	487640600	404201200	265660500	221005800	345698400	353524800	112228900	26540300	156477500	110934400	248265600
12/03/92	279520300	126701800	125170900	281711000	218235600	488025300	404603500	265816900	221218200	346052400	353658400	112475500	26623500	156622700	110978600	248415800
12/04/92	279846200	127004700	125495200	282023100	218558400	488446000	405048700	265989800	221452300	346439500	353806800	112749400	26713800	156784900	111027500	248581000
12/05/92	280114600	127254200	125762400	282280100	218825500	488790000	405415400	266130900	221642500	346758300	353929000	112974900	26786800	156914700	111067900	248714600
12/06/92	280467800	127571000	126084400	282608500	219167400	489239000	405875900	266310800	221892900	347161100	354080500	113255800	26885600	157079600	111116400	248889900
12/07/92	280756700	127834400	126368400	282882900	219452400	489610000	406264300	266461600	222099700	347503800	354209700	113494200	26961300	157218400	111159900	249034300
12/08/92	281058100	128109400	126678000	283170600	219750100	489997200	406669700	266618900	222322200	347859400	354345700	113742700	27039300	157363500	111203800	249185200
12/09/92	281361800	128389900	126984800	283459200	220050300	490386200	407077100	266776700	222544200	348217500	354482200	113992700	27117100	157508600	111215000	249336900
12/10/92	281675800	128679700	127302400	283757600	220361700	490787600	407497500	266939800	222773300	348588400	354623200	114250500	27197300	157658800	111215000	249494000
12/11/92	281981500	128962400	127608300	284049100	220666100	491180700	407909000	267099400	222997000	348945900	354759600	114503100	27275300	157805300	111225200	249647400
12/12/92	282328800	129281500	127957900	284378000	221010200	491625000	408374800	267279900	223250200	349352100	354914400	114789100	27363800	157970700	40100	249820900
12/13/92	282640100	129566400	128265400	284672400	221317900	492022700	408791300	267441500	223476600	349716300	355051800	115045000	27444200	158118200	80500	249975900
12/14/92	282950500	129849400	128566900	284965600	221624000	492418700	409205900	267602700	223700000	350079100	355188600	115299900	27527400	158265000	120700	250130200
12/15/92	283194700	130071900	128805700	285196800	221865700	492731000	409533100	267729800	223876500	350363900	355297000	115501100	27593800	158380700	152400	250251700
12/16/92	283520400	130368100	129132900	285505100	222187200	493147200	409968900	267899100	224104400	350743600	355441300	115769100	27683400	158535500	194500	250414200
12/17/92	283828900	130647900	129443800	285797300	222492400	493541900	410382800	268059600	224319200	351102900	355578000	116023700	27770100	158682000	234100	250565000
12/18/92	284147900	130936500	129762000	286099200	222805800	493949900	410810000	268225500	224541600	351475400	355719100	116286400	27860500	158833300	275100	250726400
12/19/92	284464500	131226300	130075500	286398300	223117900	494352400	411231400	268389300	224763700	351844200	355859400	116545800	27949800	158982800	315600	250883800
12/20/92	284776200	131501800	130385100	286694600	223429600	494751000	411648600	268551700	224981600	352207800	355997700	116802100	28038000	159130600	355700	251039500
12/21/92	285085900	131781000	130691200	286990300	223735700	495149100	412065000	268713800	225198200	352572900	356135600	117059400	28126400	159278500	395800	251195100
12/22/92	285393200	132054000	130993200	287280700	224039000	495539900	412474000	268873300	225409100	352929800	356270200	117311400	28212600	159423000	434900	251347500
12/23/92	285705800	132331800	131299700	287576100	224347800	495937400	412889900	269035400	225623400	353292100	356407300	117567900	28299800	159569700	474800	251502300
12/24/92	286028600	132617900	131616400	287880900	224663900	496347600	413319000	269202700	225844600	353668200	356548800	117832500	28389400	159720900	515600	251662200
12/25/92	286335700	132889100	131919200	288170700	224966400	496737300	413726400	269361400	226056400	354025900	356683800	118083800	28473900	159864200	554400	251814000
12/26/92	286607800	133129300	132189500	288427400	225233600	497081400	414086100	269502200	226242900	354340400	356802300	118305500	28548700	159991200	588700	251948800
12/27/92	286961100	133443300	132542500	288763500	225585000	497533000	414558900	269686900	226487300	354753400	356957000	118597000	28645800	160156900	633500	252124600
12/28/92	287250600	133698800	132825400	289037800	225873900	497902300	414945900	269837900	226685500	355091200	357081100	118835700	28725100	160291900	669900	252267700
12/29/92	287561700	133977100	133133200	289336800	226188400	498304800	415367400	270002700	226901500	355458700	357216500	119095800	28811700	160439400	709800	252424400
12/30/92	287864000	134249500	133433700	289629700	226496900	498698700	415779700	270164100	227112600	355817900	357348800	119350400	28896500	160584700	748800	252578100
12/31/92	288183300	134531600	133744800	289933700	226816700	499108000	416208000	270331600	227331900	356190700	357486400	119614900	28986000	160735700	789000	252737200

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: DECEMBER 1992

VOLUME OF WATER PUMPED (GALLONS)																	TOTAL
	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	
12/01/92	244800	236600	255000	245200	253300	332000	348300	135100	176700	302000	115800	213600	69700	125600	39000	129500	3222200
12/02/92	317800	308300	331200	319000	328700	431800	453700	176000	245000	394100	149600	278100	90400	163800	50100	169100	4206700
12/03/92	291600	276500	302200	284500	294200	384700	402300	156400	212400	354000	133600	246600	83200	145200	44200	150200	3761800
12/04/92	325900	302900	324300	312100	322800	420700	445200	172900	234100	387100	148400	273900	90300	162200	48900	165200	4136900
12/05/92	268400	249500	267200	257000	267100	344000	366700	141100	190200	318800	122200	225500	73000	129800	40400	133600	3394500
12/06/92	353200	316800	322000	328400	341900	449000	460500	179900	250400	402800	151500	280900	98800	164900	48500	175300	4324800
12/07/92	288900	263400	284000	274400	285000	371000	388400	150800	206800	342700	129200	238400	75700	138800	43500	144400	3625400
12/08/92	301400	275000	309600	287700	297700	387200	405400	157300	222500	355600	136000	248500	78000	145100	43900	150900	3801800
12/09/92	303700	280500	306800	288600	300200	389000	407400	157800	222000	358100	136500	250000	77800	145100	45120	151700	3820320
12/10/92	314000	289800	317600	298400	311400	401400	420400	163100	229100	370900	141000	257800	80200	150200	47040	157100	3949440
12/11/92	305700	282700	305900	291500	304400	393100	411500	159600	223700	357500	136400	252600	78000	146500	46080	153400	3848580
12/12/92	347300	319100	349600	328900	344100	444300	465800	180500	253200	406200	154800	286000	88500	165400	51840	173500	4359040
12/13/92	311300	284900	307500	294400	307700	397700	416500	161600	226400	364200	137400	255900	80400	147500	40400	155000	3888800
12/14/92	310400	283000	301500	293200	306100	396000	414600	161200	223400	362800	136800	254900	83200	146800	40200	154300	3868400
12/15/92	244200	222500	238800	231200	241700	312300	327200	127100	176500	284800	108400	201200	66400	115700	31700	121500	3051200
12/16/92	325700	296200	327200	308300	321500	416200	435800	169300	227900	379700	144300	268000	89600	154800	42100	162500	4069100
12/17/92	308500	279800	310900	292200	305200	394700	413900	160500	214800	359300	136700	254600	86700	146500	39600	150800	3854700
12/18/92	319000	288600	318200	301900	313400	408000	427200	165900	222400	372500	141100	262700	90400	151300	41000	161400	3985000
12/19/92	316600	289800	313500	299100	312100	402500	421400	163800	222100	368800	140300	259400	89300	149500	40500	157400	3946100
12/20/92	311700	275500	309600	296300	311700	398600	417200	162400	217900	363600	138300	256300	88200	147800	40100	155700	3890900
12/21/92	309700	279200	306100	295700	306100	398100	416400	162100	216600	365100	137900	257300	88400	147900	40100	155600	3882300
12/22/92	307300	273000	302000	290400	303300	390800	409000	159500	210900	356900	134600	252000	86200	144500	39100	152400	3811900
12/23/92	312600	277800	306500	295400	308800	397500	415900	162100	214300	362300	137100	256500	87200	146700	39900	154800	3875400
12/24/92	322800	286100	316700	304800	316100	410200	429100	167300	221200	376100	141500	264600	89600	151200	40800	159900	3998000
12/25/92	307100	271200	302800	289800	302500	389700	407400	158700	211800	357700	135000	251300	84500	143300	38800	151800	3803400
12/26/92	272100	240200	270300	256700	267200	344100	359700	140800	186500	314500	118500	221700	74800	127000	34300	134800	3363200
12/27/92	353300	314000	353000	336100	351400	451600	472800	184700	244400	413000	154700	291500	97100	165700	44800	175800	4403900
12/28/92	289500	255500	282900	274300	288900	369300	387000	151000	198200	337800	124100	238700	79300	135000	36400	143100	3591000
12/29/92	311100	278300	307800	299000	314500	402500	421500	164800	216000	367500	135400	260100	86600	147500	39900	156700	3909200
12/30/92	302300	272400	300500	292900	308500	393900	412300	161400	211100	359200	132300	254600	84800	145300	39000	153700	3824200
12/31/92	319300	282100	311100	304000	319800	409300	428300	167500	219300	372800	137600	264500	89500	151000	40200	159100	3975400
<b>TOTAL</b>	<b>9517200</b>	<b>8651200</b>	<b>9462300</b>	<b>9071400</b>	<b>9457300</b>	<b>12231200</b>	<b>12808800</b>	<b>4982200</b>	<b>6747800</b>	<b>11188400</b>	<b>4227000</b>	<b>7877700</b>	<b>2605800</b>	<b>4547600</b>	<b>1297480</b>	<b>4770200</b>	<b>119443580</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: DECEMBER 1992

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
11/30/92	936648000	1216563000	1382657000	1462316000	914412000	796280000													
12/01/92	938243000	1218251000	1383818000	1464086000	916090000	798022000	1595000	1688000	3283000	2736	1161000	1770000	2931000	2443	1678000	1742000	3420000	2850	
12/02/92	940326000	1220464000	1385347000	1466395000	918293000	800306000	2083000	2213000	4296000	2754	1529000	2309000	3838000	2460	2203000	2284000	4487000	2876	
12/03/92	942185000	1222434000	1386707000	1468454000	920258000	802344000	1859000	1970000	3829000	2716	1360000	2059000	3419000	2425	1965000	2038000	4003000	2839	
12/04/92	944218000	1224588000	1388186000	1470710000	922396000	804571000	2033000	2154000	4187000	2737	1479000	2256000	3735000	2441	2138000	2227000	4365000	2853	
12/05/92	945879000	1226377000	1389415000	1472579000	924165000	806421000	1661000	1789000	3450000	2738	1229000	1869000	3098000	2459	1769000	1850000	3619000	2872	
12/06/92	948045000	1228640000	1390994000	1474952000	926450000	808762000	2166000	2263000	4429000	2734	1579000	2373000	3952000	2440	2285000	2341000	4626000	2856	
12/07/92	949836000	1230540000	1392311000	1476930000	928347000	810727000	1791000	1900000	3691000	2734	1317000	1978000	3295000	2441	1897000	1965000	3862000	2861	
12/08/92	951721000	1232526000	1393681000	1479021000	930335000	812786000	1885000	1986000	3871000	2745	1370000	2091000	3461000	2455	1988000	2059000	4047000	2870	
12/09/92	953605000	1234512000	1395048000	1481115000	932322000	814846000	1884000	1986000	3870000	2745	1367000	2094000	3461000	2455	1987000	2060000	4047000	2870	
12/10/92	955573000	1236588000	1396479000	1483295000	934398000	816997000	1968000	2076000	4044000	2751	1431000	2180000	3611000	2456	2076000	2151000	4227000	2876	
12/11/92	957481000	1238600000	1397870000	1485411000	936411000	819083000	1908000	2012000	3920000	2722	1391000	2116000	3507000	2435	2013000	2086000	4099000	2847	
12/12/92	959640000	1240878000	1399444000	1487802000	938690000	821446000	2159000	2278000	4437000	2739	1574000	2391000	3965000	2448	2279000	2363000	4642000	2865	
12/13/92	961569000	1242913000	1400844000	1489946000	940724000	823555000	1929000	2035000	3964000	2753	1400000	2144000	3544000	2461	2034000	2109000	4143000	2877	
12/14/92	963481000	1244940000	1402246000	1492060000	942747000	825653000	1912000	2027000	3939000	2735	1402000	2114000	3516000	2442	2023000	2098000	4121000	2862	
12/15/92	964986000	1246537000	1403344000	1493739000	944342000	827308000	1505000	1597000	3102000	2721	1098000	1679000	2777000	2436	1595000	1655000	3250000	2851	
12/16/92	966992000	1248664000	1404816000	1495970000	946463000	829509000	2006000	2127000	4133000	2755	1472000	2231000	3703000	2469	2121000	2201000	4322000	2881	
12/17/92	968888000	1250679000	1406208000	1498073000	948473000	831593000	1896000	2015000	3911000	2716	1392000	2103000	3495000	2427	2010000	2084000	4094000	2843	
12/18/92	970842000	1252759000	1407646000	1500240000	950618000	833664000	1954000	2080000	4034000	2689	1438000	2167000	3605000	2403	2145000	2071000	4216000	2811	
12/19/92	972797000	1254827000	1409075000	1502405000	952610000	835885000	1955000	2068000	4023000	2737	1429000	2165000	3594000	2445	1992000	2221000	4213000	2866	
12/20/92	974715000	1256872000	1410486000	1504540000	954647000	837998000	1918000	2045000	3963000	2752	1411000	2135000	3546000	2463	2037000	2113000	4150000	2882	
12/21/92	976627000	1258906000	1411890000	1506664000	956673000	840100000	1912000	2034000	3946000	2740	1404000	2124000	3528000	2450	2026000	2102000	4128000	2867	
12/22/92	978508000	1260912000	1413274000	1508755000	958669000	842170000	1881000	2006000	3887000	2699	1384000	2091000	3475000	2413	1996000	2070000	4066000	2824	
12/23/92	980415000	1262945000	1414679000	1510869000	960693000	844268000	1907000	2033000	3940000	2736	1405000	2114000	3519000	2444	2024000	2098000	4122000	2863	
12/24/92	982381000	1265049000	1416133000	1513052000	962783000	846433000	1966000	2104000	4070000	2713	1454000	2183000	3637000	2425	2090000	2165000	4255000	2837	
12/25/92	984257000	1267044000	1417511000	1515135000	964769000	848490000	1876000	1995000	3871000	2745	1378000	2083000	3461000	2455	1986000	2057000	4043000	2867	
12/26/92	985930000	1268822000	1418733000	1516992000	966542000	850325000	1673000	1778000	3451000	2739	1222000	1857000	3079000	2444	1773000	1835000	3608000	2863	
12/27/92	988097000	1271134000	1420328000	1519399000	968843000	852707000	2167000	2312000	4479000	2715	1595000	2407000	4002000	2425	2301000	2382000	4683000	2838	
12/28/92	989841000	1273004000	1421618000	1521337000	970700000	854642000	1744000	1870000	3614000	2677	1290000	1938000	3228000	2391	1857000	1935000	3792000	2809	
12/29/92	991762000	1275075000	1423046000	1523473000	972748000	856748000	1921000	2071000	3992000	2772	1428000	2136000	3564000	2475	2048000	2106000	4154000	2885	
12/30/92	993629000	1277084000	1424434000	1525549000	974741000	858809000	1867000	2009000	3876000	2692	1388000	2076000	3464000	2406	1993000	2061000	4054000	2815	
12/31/92	995577000	1279181000	1425875000	1527725000	976822000	860961000	1948000	2097000	4045000	2697	1441000	2176000	3617000	2411	2081000	2152000	4233000	2822	
	58929000	62618000	43218000	65409000	62410000	64681000	58929000	62618000	121547000	2730	43218000	65409000	108627000	2440	62410000	64681000	127091000	2855	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: JANUARY 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
12/31/92	288183300	134531600	133744800	289933700	226816700	499108000	416208000	270331600	227331900	356190700	357486400	119614900	28986000	160735700	789000	252737200
01/01/93	288502000	134812500	134055600	290236900	227136200	499514700	416633200	270498200	227550600	356564800	357623300	119877500	29074900	160886500	829000	252896100
01/02/93	288804600	135079700	134357500	290525100	227438400	499901400	417037200	270656200	227758200	356919100	357756500	120127200	29159000	161029600	866800	253047100
01/03/93	289138000	135374400	134698300	290843200	227772400	500327800	417482600	270830400	227990400	357314200	357904000	120402500	29251300	161186900	908300	253213000
01/04/93	289422400	135626500	134991500	291115600	228057800	500693300	417864700	270979700	228187900	357651700	358030100	120638800	29329100	161322100	943800	253355300
01/05/93	289740800	135911500	135310400	291423000	228376300	501104800	418294500	271148100	228413700	358029800	358171500	120904100	29427800	161475200	984200	253517100
01/06/93	290025700	136167000	135594800	291698400	228666100	501475400	418682300	271299700	228615700	358372700	358298800	121143700	29516700	161611600	1020200	253661400
01/07/93	290364100	136462600	135930800	292016000	228996800	501901400	419127500	271474300	228849900	358763100	358444600	121418600	29619600	161770200	1062000	253830000
01/08/93	290642300	136716600	136209200	292291300	229283700	502270400	419513400	271625400	229052900	359099900	358570200	121657300	29708400	161904600	1097300	253973100
01/09/93	290937600	136985900	136505700	292582300	229587700	502660500	419921400	271785900	229268800	359455200	358703600	121909500	29804400	162049800	1135400	254127900
01/10/93	291231500	137250000	136799300	292868600	229882500	503043800	420322100	271943000	229478500	359811100	358836400	122157200	29896900	162190700	1172500	254278300
01/11/93	291549100	137534000	137113500	293176500	230205900	503455400	420752100	272112100	229703000	360199700	358979700	122423100	29995200	162341500	1212200	254440000
01/12/93	291882100	137828200	137447700	293496500	230542300	503883200	421199200	272287800	229935500	360600300	359128900	122699400	30095800	162498300	1253500	254608200
01/13/93	292148200	138060400	137699800	293750500	230808200	504223400	421555400	272427700	230120300	360911300	359246600	122919500	30174700	162622400	1286200	254741100
01/14/93	292504500	138373800	138057600	294095000	231165200	504684000	422036600	272617200	230379200	361335500	359405300	123217600	30280600	162790300	1287700	254922100
01/15/93	292776800	138608600	138322800	294350500	231429800	505027100	422395200	272757300	230576500	361654000	359526500	123439300	30358900	162916300	1352000	255056700
01/16/93	293062500	138854900	138601500	294619700	231708100	505386800	422770200	272904900	230778000	361990400	359653700	123670800	30440600	163048900	1420500	255198900
01/17/93	293432500	139173900	138961500	294969300	232069400	505853900	423257800	273096100	231045100	362425600	359818200	123972300	30544300	163218900	1510900	255381600
01/18/93	293722400	139422900	139241200	295244200	232352500	506221200	423641400	273246600	231251400	362767600	359946700	124209300	30624900	163351700	1584100	255524000
01/19/93	294044400	139698300	139553500	295549700	232666700	506628700	424069200	273414300	231474600	363147900	360089900	124472300	30714300	163499200	1665800	255684900
01/20/93	294332100	139943800	139832600	295823500	232947200	506994700	424454700	273564700	231674200	363489900	360217400	124709000	30793300	163630200	1738800	255827300
01/21/93	294662500	140225900	140148900	296141700	233268700	507417600	424901100	273738700	231906300	363881500	360366400	124982600	30885000	163783900	1824100	255994000
01/22/93	294952700	140481000	140440600	296426200	233556500	507798600	425302000	273895800	232117600	364229300	360499400	125228600	30969900	163922500	1900400	256143900
01/23/93	295246900	140743800	140734200	296714400	233846000	508184000	425703700	274055300	232333200	364582600	360634300	125476700	31052600	164064200	1978200	256295700
01/24/93	295548700	141013700	141038700	297010000	234147500	508578800	426114900	274218800	232553300	364944900	360771700	125730600	31142500	164209900	2058400	256451500
01/25/93	295849500	141283000	141343400	297305600	234445600	508973800	426526700	274382500	232769500	365307600	360909800	125985100	31232100	164355300	2138700	256607000
01/26/93	296156100	141553700	141645800	297605200	234747800	509373500	426943100	274548400	232988700	365673700	361050200	126242400	31322000	164502500	2220500	256765100
01/27/93	296460100	141821000	141984500	297904600	235047300	509774800	427361700	274714400	233209000	366041100	361188000	126501500	31409500	164647200	2301000	256920500
01/28/93	296771800	142089400	142234100	298201500	235354000	510169300	427772500	274878300	233434300	366404800	361330000	126755700	31496600	164794200	2382600	257078000
01/29/93	297081400	142380000	142514900	298503900	235665000	510572500	428192900	275046700	233661800	366773400	361474000	127014900	31583000	164943900	2461800	257237800
01/30/93	297380000	142607300	142814200	298782000	235953100	510936900	428571600	275197500	233869800	367109800	361606200	127250500	31660600	165076900	2539800	257381700
01/31/93	297622900	142824600	142968100	299030700	236156000	511271900	428920700	275336000	234054900	367413800	361719800	127467700	31732700	165199700	2607100	257513200

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: JANUARY 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
01/01/93	318700	280900	310800	303200	319500	406700	425200	166600	218700	374100	136900	262600	88900	150800	40000	158900	3962500
01/02/93	302600	267200	301900	288200	302200	386700	404000	158000	207600	354300	133200	249700	84100	143100	37800	151000	3771600
01/03/93	333400	294700	340800	318100	334000	426400	445400	174200	232200	395100	147500	275300	92300	157300	41500	165900	4174100
01/04/93	284400	252100	293200	272400	285400	365500	382100	149300	197500	337500	126100	236300	77800	135200	35500	142300	3572600
01/05/93	318400	285000	318900	307400	318500	411500	429800	168400	225800	378100	141400	265300	98700	153100	40400	161800	4022500
01/06/93	284900	255500	284400	275400	289800	370600	387800	151600	202000	342900	127300	239600	88900	136400	36000	144300	3617400
01/07/93	338400	295600	336000	317600	330700	426000	445200	174600	234200	390400	145800	274900	102900	158600	41800	168600	4181300
01/08/93	278200	254000	278400	275300	286900	369000	385900	151100	203000	336800	125600	238700	88800	134400	35300	143100	3584500
01/09/93	295300	269300	296500	291000	304000	390100	408000	160500	215900	355300	133400	252200	96000	145200	38100	154800	3805600
01/10/93	293900	264100	293600	286300	294800	383300	400700	157100	209700	355900	132800	247700	92500	140900	37100	150400	3740800
01/11/93	317600	284000	314200	307900	323400	411600	430000	169100	224500	388600	143300	265900	98300	150800	39700	161700	4030600
01/12/93	333000	294200	334200	320000	336400	427800	447100	175700	232500	400600	149200	276300	100600	156800	41300	168200	4193900
01/13/93	266100	232200	252100	254000	265900	340200	356200	139900	184800	311000	117700	220100	78900	124100	32700	132900	3308800
01/14/93	356300	313400	357800	344500	357000	460600	481200	189500	258900	424200	158700	298100	105900	167900	1500	181000	4456500
01/15/93	272300	234800	265200	255500	264600	343100	358600	140100	197300	318500	121200	221700	78300	126000	64300	134600	3396100
01/16/93	285700	246300	278700	269200	278300	359700	375000	147600	201500	336400	127200	231500	81700	132600	68500	142200	3562100
01/17/93	370000	319000	360000	349600	361300	467100	487600	191200	267100	435200	164500	301500	103700	170000	90400	182700	4620900
01/18/93	289900	249000	279700	274900	283100	367300	383600	150500	206300	342000	128500	237000	80600	132800	73200	142400	3620800
01/19/93	322000	275400	312300	305500	314200	407500	427800	167700	223200	380300	143200	263000	89400	147500	81700	160900	4021600
01/20/93	287700	245500	279100	273800	280500	366000	385500	150400	199600	342000	127500	236700	79000	131000	73000	142400	3599700
01/21/93	330400	282100	316300	318200	321500	422900	446400	174000	232100	391600	149000	273600	91700	153700	85300	166700	4155500
01/22/93	290200	255100	291700	284500	287800	381000	400900	157100	211300	347800	133000	246000	84900	138600	76300	149900	3736100
01/23/93	294200	262800	293600	288200	289500	385400	401700	159500	215600	353300	134900	248100	82700	141700	77800	151800	3780800
01/24/93	301800	269900	304500	295600	301500	394800	411200	163500	220100	362300	137400	253900	89900	145700	80200	155800	3888100
01/25/93	300800	269300	304700	295600	298100	395000	411800	163700	216200	362700	138100	254500	89600	145400	80300	155500	3881300
01/26/93	306600	270700	302400	299600	302200	399700	416400	165900	219200	366100	140400	257300	89900	147200	81800	158100	3923500
01/27/93	304000	267300	338700	299400	299500	401300	418600	166000	220300	367400	137800	259100	87500	144700	80500	155400	3947500
01/28/93	311700	268400	249600	296900	306700	394500	410800	163900	225300	363700	142000	254200	87100	147000	81600	157500	3860900
01/29/93	309600	290600	280800	302400	311000	403200	420400	168400	227500	368600	144000	259200	86400	149700	79200	159800	3960800
01/30/93	298600	227300	293300	278100	288100	364400	378700	150800	208000	336400	132200	235600	77600	133000	78000	143900	3630000
01/31/93	242900	217300	153900	248700	202900	335000	349100	138500	185100	304000	113600	217200	72100	122800	67300	131500	3101900
<b>TOTAL</b>	<b>9439600</b>	<b>8293000</b>	<b>9223300</b>	<b>9097000</b>	<b>9339300</b>	<b>12163900</b>	<b>12712700</b>	<b>5004400</b>	<b>6723000</b>	<b>11223100</b>	<b>4233400</b>	<b>7852800</b>	<b>2746700</b>	<b>4464000</b>	<b>1818100</b>	<b>4776000</b>	<b>119110300</b>

ALLIANT TECHSYSTEMS BGRS/TRGS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: JANUARY 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
12/31/92	995577000	1279181000	1425875000	1527725000	976822000	860961000	-	-	-	-	-	-	-	-	-	-	-	-	-
01/01/93	997522000	1281271000	1427319000	1529881000	978896000	863107000	1945000	2090000	4035000	2745	1444000	2156000	3600000	2449	2074000	2146000	4220000	2871	
01/02/93	999379000	1283256000	1428684000	1531953000	980870000	865146000	1857000	1985000	3842000	2725	1365000	2072000	3437000	2438	1974000	2039000	4013000	2846	
01/03/93	1001438000	1285443000	1430191000	1534239000	983056000	867401000	2059000	2187000	4246000	2775	1507000	2286000	3793000	2479	2186000	2255000	4441000	2903	
01/04/93	1003202000	1287318000	1431480000	1536199000	984927000	869333000	1764000	1875000	3639000	2757	1289000	1960000	3249000	2461	1871000	1932000	3803000	2881	
01/05/93	1005186000	1289433000	1432948000	1538394000	987041000	871514000	1984000	2115000	4099000	2679	1468000	2195000	3663000	2394	2114000	2181000	4295000	2807	
01/06/93	1006950000	1291318000	1434254000	1540357000	988921000	873455000	1764000	1885000	3649000	2703	1306000	1963000	3269000	2421	1880000	1941000	3821000	2830	
01/07/93	1009010000	1293521000	1435776000	1542645000	991119000	875723000	2060000	2203000	4263000	2733	1522000	2288000	3810000	2442	2198000	2268000	4466000	2863	
01/08/93	1010751000	1295371000	1437061000	1544563000	992968000	877632000	1741000	1850000	3591000	2720	1285000	1918000	3203000	2427	1849000	1909000	3758000	2847	
01/09/93	1012631000	1297393000	1438461000	1546647000	994977000	879704000	1880000	2022000	3902000	2710	1400000	2084000	3484000	2419	2009000	2072000	4081000	2834	
01/10/93	1014465000	1299358000	1439821000	1548681000	996931000	881722000	1834000	1965000	3799000	2753	1360000	2034000	3394000	2459	1954000	2018000	3972000	2878	
01/11/93	1016451000	1301476000	1441278000	1550887000	999042000	883901000	1986000	2118000	4104000	2682	1457000	2206000	3663000	2394	2111000	2179000	4290000	2804	
01/12/93	1018523000	1303673000	1442807000	1553163000	1001245000	886173000	2072000	2197000	4269000	2737	1529000	2276000	3805000	2439	2203000	2272000	4475000	2869	
01/13/93	1020142000	1305411000	1444003000	1554968000	1002969000	887953000	1619000	1738000	3357000	2729	1196000	1805000	3001000	2440	1724000	1780000	3504000	2849	
01/14/93	1022305000	1307764000	1445636000	1557367000	1005296000	890355000	2163000	2353000	4516000	2688	1633000	2399000	4032000	2400	2327000	2402000	4729000	2815	
01/15/93	1023987000	1309531000	1446860000	1559223000	1007072000	892188000	1682000	1767000	3449000	2737	1224000	1856000	3080000	2444	1776000	1833000	3609000	2864	
01/16/93	1025769000	1311399000	1448153000	1561190000	1008952000	894128000	1782000	1868000	3650000	2765	1293000	1967000	3260000	2470	1880000	1940000	3820000	2894	
01/17/93	1028065000	1313806000	1449818000	1563722000	1011377000	896629000	2296000	2407000	4703000	2750	1665000	2532000	4197000	2454	2425000	2501000	4926000	2881	
01/18/93	1029859000	1315690000	1451117000	1565713000	1013272000	898582000	1794000	1884000	3678000	2724	1299000	1991000	3290000	2437	1895000	1953000	3848000	2850	
01/19/93	1031856000	1317798000	1452574000	1567920000	1015389000	900767000	1997000	2108000	4105000	2737	1457000	2207000	3664000	2443	2117000	2185000	4302000	2868	
01/20/93	1033626000	1319665000	1453867000	1569879000	1017264000	902701000	1770000	1867000	3637000	2755	1293000	1959000	3252000	2464	1875000	1934000	3809000	2886	
01/21/93	1035671000	1321857000	1455375000	1572156000	1019457000	904961000	2045000	2192000	4237000	2716	1508000	2277000	3785000	2426	2193000	2260000	4453000	2854	
01/22/93	1037489000	1323831000	1456747000	1574171000	1021414000	906975000	1818000	1974000	3792000	2689	1372000	2015000	3387000	2402	1957000	2014000	3971000	2816	
01/23/93	1039340000	1325805000	1458107000	1576230000	1023381000	908997000	1851000	1974000	3825000	2713	1360000	2059000	3419000	2425	1967000	2022000	3989000	2829	
01/24/93	1041271000	1327838000	1459520000	1578360000	1025426000	911099000	1931000	2033000	3964000	2753	1413000	2130000	3543000	2460	2045000	2102000	4147000	2880	
01/25/93	1043187000	1329862000	1460919000	1580483000	1027462000	913191000	1916000	2024000	3940000	2736	1399000	2123000	3522000	2446	2036000	2092000	4128000	2867	
01/26/93	1045135000	1331928000	1462345000	1582633000	1029533000	915317000	1948000	2066000	4014000	2731	1426000	2150000	3576000	2433	2071000	2126000	4197000	2855	
01/27/93	1047039000	1333951000	1463738000	1584758000	1031559000	917400000	1904000	2023000	3927000	2727	1393000	2125000	3518000	2443	2026000	2083000	4109000	2853	
01/28/93	1048986000	1336008000	1465163000	1586905000	1033628000	919525000	1947000	2057000	4004000	2840	1425000	2147000	3572000	2533	2069000	2125000	4194000	2974	
01/29/93	1050944000	1338024000	1466603000	1589425000	1035758000	921569000	1958000	2016000	3974000	2760	1440000	2520000	3960000	2750	2130000	2044000	4174000	2899	
01/30/93	1052735000	1339962000	1467898000	1591059000	1037608000	923613000	1791000	1938000	3729000	2702	1295000	1634000	2929000	2122	1850000	2044000	3894000	2822	
01/31/93	1054178000	1341656000	1469058000	1592695000	1039239000	925285000	1443000	1694000	3137000	2614	1160000	1636000	2796000	2330	1631000	1672000	3303000	2753	
	58601000	62475000	43183000	64970000	62417000	64324000	58601000	62475000	121076000	2729	43183000	64970000	108153000	2438	62417000	64324000	126741000	2856	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: FEBRUARY 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
01/31/93	297622900	142824600	142968100	299030700	236156000	511271900	428920700	275336000	234054900	367413800	361719800	127467700	31732700	165199700	2607100	257513200
02/01/93	297993100	143153700	143359600	299389800	236437800	511755400	429424200	275536600	234327100	367857000	361890700	127780300	31834700	165377600	2705000	257703600
02/02/93	298281900	143417900	143668600	299689200	236437800	512146100	429832500	275703300	234542700	368208800	362022900	128034500	31920400	165524900	2785100	257860200
02/03/93	298572500	143675400	143975900	299974000	236689300	512525200	430227200	275860500	234753400	368554500	362154900	128279100	31998200	165664000	2862600	258009400
02/04/93	298898500	143960100	144310200	300288400	236996600	512942800	430661100	276033500	234985300	368941700	362300400	128547700	32082700	165817300	2948500	258174800
02/05/93	299176700	144204600	144599600	300559700	237265500	513303800	431037200	276182500	235187000	369272100	362425800	128780800	32154200	165948400	3022700	258316500
02/06/93	299333000	144354300	144686200	300695800	237417200	513541800	431258500	276282400	235306200	369492700	362508500	128916200	32233600	166052500	3080600	258440900
02/07/93	299633400	144626100	145004700	300988900	237717100	513935700	431668500	276446800	235526800	369853800	362640700	129169300	32307200	166199100	3164300	258598100
02/08/93	299921200	144890300	145329700	301273500	238007900	514320400	432069100	276607000	235741900	370206500	362769700	129416800	32389300	166341600	3246100	258750500
02/09/93	300236400	145179200	145664600	301578000	238317200	514736100	432497000	276780600	235971600	370586900	362907900	129680600	32486100	166498000	3336300	258919500
02/10/93	300527100	145435700	145985900	301853900	238613800	515120500	432898000	276941100	236184900	370937800	363036700	129927900	32562200	166640200	3416800	259071900
02/11/93	300836100	145714900	146320800	302154300	238928600	515529100	433322100	277111400	236411800	371311200	363175400	130188600	32648600	166793900	3503300	259237500
02/12/93	301108300	145964000	146628500	302424500	239211000	515893600	433701900	277263300	236615600	371644300	363298500	130423000	32726800	166928600	3579500	259382100
02/13/93	301413700	146233700	146954100	302716900	239513800	516287300	434110700	277427400	236835000	372006000	363431300	130675600	32809700	167074900	3663200	259539400
02/14/93	301738100	146524400	147301100	303033500	239839900	516713400	434553200	277605200	237072900	372396800	363574100	130945000	32897500	167232900	3754300	259709200
02/15/93	302008500	146770500	147592700	303302000	240115800	517074900	434929100	277756500	237269800	372725700	363694300	131181400	32970100	167366800	3832000	259853200
02/16/93	302333100	147063200	147941400	303622700	240443600	517506900	435377900	277937300	237509800	373121200	363837600	131459000	33055400	167526300	3924800	260025000
02/17/93	302617900	147316400	148246800	303901500	240728700	517882400	435768200	278094300	237719200	373463200	363961700	131700500	33126700	167664400	4005500	260173900
02/18/93	302915600	147584300	148562000	304198100	241043500	518280900	436182200	278261400	237937400	373827600	364094900	131956800	33200400	167811600	4091500	260333000
02/19/93	303233400	147871100	148909300	304517600	241380000	518711500	436630000	278441400	238171700	374223800	364237600	132234200	33277000	167969000	4183400	260502900
02/20/93	303512300	148121200	149213500	304796800	241672700	519086500	437019500	278598700	238377500	374569300	364362800	132475500	33342800	168106700	4264400	260652500
02/21/93	303808900	148383300	149532200	305091900	241981300	519483300	437431600	278764900	238593400	374938800	364494900	132731000	33411200	168251400	4349500	260809900
02/22/93	304104500	148643300	149849100	305386600	242288700	519880700	437845300	278931100	238813500	375304800	364626700	132987500	33478700	168395200	4434000	260966100
02/23/93	304393400	148897400	150157900	305675100	242588300	520268000	438247500	279093800	239024300	375660500	364754800	133236800	33553600	168537100	4517600	261121000
02/24/93	304702200	149171200	150502900	305988000	242913600	520689400	438685400	279270200	239260300	376047300	364892000	133508600	33633900	168689400	4607300	261287300
02/25/93	304979400	149403100	150808100	306249200	243186100	521039000	439048100	279416000	239452700	376369400	365011300	133733500	33699300	168816400	4682200	261426600
02/26/93	305309300	149692700	151183800	306575100	243523600	521476400	439502300	279598500	239690200	376776100	365159200	134015500	33778400	168974200	4775200	261599300
02/27/93	305557500	149910700	151465300	306821400	243780700	521806400	439844800	279736400	239871300	377080500	365271000	134228100	33836500	169093300	4845500	261729700
02/28/93	305871700	150183200	151813300	307130000	244107800	522219800	440273800	279908900	240101900	377465800	365410600	134494400	33906900	169242400	4933700	261893700

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: FEBRUARY 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
02/01/93	370200	329100	391500	359100	281800	483500	503500	200600	272200	443200	170900	312600	102000	177900	97900	190400	4686400
02/02/93	288800	264200	309000	299400	0	390700	408300	166700	215600	351800	132200	254200	85700	147300	80100	156600	3550600
02/03/93	290600	257500	307300	284800	251500	379100	394700	157200	210700	345700	132000	244600	77800	139100	77500	149200	3699300
02/04/93	326000	284700	334300	314400	307300	417600	433900	173000	231900	387200	145500	268600	84500	153300	85900	165400	4113500
02/05/93	278200	244500	289400	271300	268900	361000	376100	149000	201700	330400	125400	233100	71500	131100	74200	141700	3547500
02/06/93	156300	149700	86600	136100	151700	238000	221300	99900	119200	220600	82700	135400	79400	104100	57900	124400	2163300
02/07/93	300400	271800	318500	293100	299900	393900	410000	164400	220600	361100	132200	253100	73600	146600	83700	157200	3880100
02/08/93	287800	264200	325000	284600	290800	384700	400600	160200	215100	352700	129000	247500	82100	142500	81800	152400	3801000
02/09/93	315200	288900	334900	304500	309300	415700	427900	173600	229700	380400	138200	263800	96800	156400	90200	169000	4094500
02/10/93	290700	256500	321300	275900	296600	384400	401000	160500	213300	350900	128800	247300	76100	142200	80500	152400	3778400
02/11/93	309000	279200	334900	300400	314800	408600	424100	170300	226900	373400	138700	260700	86400	153700	86500	165600	4033200
02/12/93	272200	249100	307700	270200	282400	364500	379800	151900	203800	333100	123100	234400	78200	134700	76200	144600	3605900
02/13/93	305400	269700	325600	292400	302800	393700	408800	164100	219400	361700	132800	252600	82900	146300	83700	157300	3899200
02/14/93	324400	290700	347000	316600	326100	426100	442500	177800	237900	390800	142800	269400	87800	158000	91100	169800	4198800
02/15/93	270400	246100	291600	268500	275900	361500	375900	151300	196900	328900	120200	236400	72600	133900	77700	144000	3551800
02/16/93	324600	292700	348700	320700	327800	432000	448800	180800	240000	395500	143300	277600	85300	159500	92800	171800	4241900
02/17/93	284800	253200	305400	278800	285100	375500	390300	157000	209400	342000	124100	241500	71300	138100	80700	148900	3686100
02/18/93	297700	267900	315200	296600	314800	398500	414000	167100	218200	364400	133200	256300	73700	147200	86000	159100	3909900
02/19/93	317800	286800	347300	319500	336500	430600	447800	180000	234300	396200	142700	277400	76600	157400	91900	169900	4212700
02/20/93	278900	250100	304200	279200	292700	375000	389500	157300	205800	345500	125200	241300	65800	137700	81000	149600	3678800
02/21/93	296600	262100	318700	295100	308600	396800	412100	166200	215900	369500	132100	255500	68400	144700	85100	157400	3884800
02/22/93	295600	260000	316900	294700	307400	397400	413700	166200	220100	366000	131800	256500	67500	143800	84500	156200	3878300
02/23/93	288900	254100	308800	288500	299600	387300	402200	162700	210800	355700	128100	249300	74900	141900	83600	154900	3791300
02/24/93	308800	273800	345000	312900	325300	421400	437900	176400	236000	386800	137200	271800	80300	152300	89700	166300	4121900
02/25/93	277200	231900	305200	261200	272500	349600	362700	145800	192400	322100	119300	224900	65400	127000	74900	139300	3471400
02/26/93	329900	289600	375700	325900	337500	437400	454200	182500	237500	406700	147900	282000	79100	157800	93000	172700	4309400
02/27/93	248200	218000	281500	246300	257100	330000	342500	137900	181100	304400	111800	212600	58100	119100	70300	130400	3249300
02/28/93	314200	272500	348000	308600	327100	413400	429000	172500	230600	385300	139600	266300	70400	149100	88200	164000	4078800
<b>TOTAL</b>	<b>8248800</b>	<b>7358600</b>	<b>8845200</b>	<b>8099300</b>	<b>7951800</b>	<b>10947900</b>	<b>11353100</b>	<b>4572900</b>	<b>6047000</b>	<b>10052000</b>	<b>3690800</b>	<b>7026700</b>	<b>2174200</b>	<b>4042700</b>	<b>2326600</b>	<b>4380500</b>	<b>107118100</b>



ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: FEBRUARY 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
01/31/93	1054178000	1341656000	1469058000	1592695000	1039239000	925285000	-	-	-	-	-	-	-	-	-	-	-	-	-
02/01/93	1056483000	1344140000	1470768000	1595268000	1041708000	927820000	2305000	2484000	4789000	2752	1710000	2573000	4283000	2461	2469000	2535000	5004000	2876	
02/02/93	1058127000	1346112000	1472147000	1597120000	1043583000	929744000	1644000	1972000	3616000	2565	1379000	1852000	3231000	2291	1875000	1924000	3799000	2694	
02/03/93	1059938000	1348054000	1473484000	1599136000	1045520000	931733000	1811000	1942000	3753000	2720	1337000	2016000	3353000	2430	1937000	1989000	3926000	2845	
02/04/93	1061981000	1350213000	1474974000	1601397000	1047694000	933963000	2043000	2159000	4202000	2746	1490000	2261000	3751000	2452	2174000	2230000	4404000	2878	
02/05/93	1063731000	1352063000	1476251000	1603338000	1049556000	935872000	1750000	1850000	3600000	2727	1277000	1941000	3218000	2438	1862000	1909000	3771000	2857	
02/06/93	1063854000	1354069000	1477665000	1603814000	1050677000	937029000	123000	2006000	2129000	1510	1414000	476000	1890000	1340	1121000	1157000	2278000	1616	
02/07/93	1065785000	1356100000	1479046000	1605974000	1052719000	939141000	1931000	2031000	3962000	2751	1381000	2160000	3541000	2459	2042000	2112000	4154000	2885	
02/08/93	1067657000	1358065000	1480351000	1608099000	1054703000	941193000	1872000	1965000	3837000	2780	1305000	2125000	3430000	2486	1984000	2052000	4036000	2925	
02/09/93	1069787000	1360111000	1481880000	1610274000	1056862000	943426000	2130000	2046000	4176000	2626	1529000	2175000	3704000	2330	2159000	2233000	4392000	2762	
02/10/93	1071657000	1362062000	1483236000	1612341000	1058878000	945475000	1870000	1951000	3821000	2769	1356000	2067000	3423000	2480	2016000	2049000	4065000	2946	
02/11/93	1073643000	1364207000	1484720000	1614538000	1060957000	947698000	1986000	2145000	4131000	2700	1484000	2197000	3681000	2406	2079000	2223000	4302000	2812	
02/12/93	1075415000	1366071000	1486005000	1616497000	1062840000	949685000	1772000	1864000	3636000	2755	1285000	1959000	3244000	2458	1883000	1987000	3870000	2932	
02/13/93	1077356000	1368107000	1487410000	1618637000	1064903000	951837000	1941000	2036000	3977000	2762	1405000	2140000	3545000	2462	2063000	2152000	4215000	2927	
02/14/93	1079433000	1370300000	1488928000	1620930000	1067125000	954155000	2077000	2193000	4270000	2737	1518000	2293000	3811000	2443	2222000	2318000	4540000	2910	
02/15/93	1081181000	1372157000	1490205000	1622867000	1068994000	956116000	1748000	1857000	3605000	2731	1277000	1937000	3214000	2435	1869000	1961000	3830000	2902	
02/16/93	1083281000	1374382000	1491743000	1625191000	1071229000	958466000	2100000	2225000	4325000	2772	1538000	2324000	3862000	2476	2235000	2350000	4585000	2939	
02/17/93	1085096000	1376312000	1493068000	1627206000	1073168000	960504000	1815000	1930000	3745000	2714	1325000	2015000	3340000	2420	1939000	2038000	3977000	2882	
02/18/93	1087029000	1378372000	1494493000	1629345000	1075239000	962678000	1933000	2060000	3993000	2716	1425000	2139000	3564000	2424	2071000	2174000	4245000	2888	
02/19/93	1089101000	1380577000	1496010000	1631640000	1077450000	964999000	2072000	2205000	4277000	2742	1517000	2295000	3812000	2444	2211000	2321000	4532000	2905	
02/20/93	1090929000	1382523000	1497353000	1633660000	1079407000	967052000	1828000	1946000	3774000	2735	1343000	2020000	3363000	2437	1957000	2053000	4010000	2906	
02/21/93	1092849000	1384563000	1498752000	1635797000	1081457000	969202000	1920000	2040000	3960000	2750	1399000	2137000	3536000	2456	2050000	2150000	4200000	2917	
02/22/93	1094743000	1386582000	1500144000	1637896000	1083484000	971327000	1894000	2019000	3913000	2717	1392000	2099000	3491000	2424	2027000	2125000	4152000	2883	
02/23/93	1096619000	1388598000	1501535000	1639971000	1085503000	973445000	1876000	2016000	3892000	2703	1391000	2075000	3466000	2407	2019000	2118000	4137000	2873	
02/24/93	1098630000	1390750000	1503021000	1642209000	1087661000	975706000	2011000	2152000	4163000	2721	1486000	2238000	3724000	2434	2158000	2261000	4419000	2888	
02/25/93	1100366000	1392571000	1504276000	1644126000	1089505000	977638000	1736000	1821000	3557000	2757	1255000	1917000	3172000	2459	1844000	1932000	3776000	2927	
02/26/93	1102488000	1394819000	1505827000	1646472000	1091773000	980013000	2122000	2248000	4370000	2748	1551000	2346000	3897000	2451	2268000	2375000	4643000	2920	
02/27/93	1104092000	1396515000	1507000000	1648248000	1093485000	981805000	1604000	1696000	3300000	2750	1173000	1776000	2949000	2458	1712000	1792000	3504000	2920	
02/28/93	1106118000	1398650000	1508473000	1650489000	1095646000	984066000	2026000	2135000	4161000	2617	1473000	2241000	3714000	2336	2161000	2261000	4422000	2781	
	51940000	56994000	39415000	57794000	56407000	58781000	51940000	56994000	108934000	2690	39415000	57794000	97209000	2400	56407000	58781000	115188000	2844	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: MARCH 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
02/28/93	305871700	150183200	151813300	307130000	244107800	522219800	440273800	279908900	240101900	377465800	365410600	134494400	33906900	169242400	4933700	261893700
03/01/93	306148600	150418300	152110100	307397000	244388800	522577400	440644800	280058200	240297200	377798500	365530400	134724800	33965400	169370800	5010000	262035300
03/02/93	306494900	150713900	152457900	307733700	244746800	523028300	441112900	280247200	240545100	378219100	365680900	135015400	34038000	169533100	5106600	262215000
03/03/93	306758900	150940700	152725500	307993700	245021600	523377000	441475300	280393200	240735400	378543900	365797000	135240600	34093700	169657400	5180800	262352600
03/04/93	307080700	151215700	153046200	308309000	245353300	523799300	441914000	280570400	240966000	378932800	365937600	135513100	34162400	169806900	5271600	262520500
03/05/93	307397000	151489400	153369300	308623800	245684000	524221400	442353200	280747500	241195800	379318500	366077500	135786000	34229600	169959400	5361900	262687300
03/06/93	307664100	151717900	153625300	308886300	245959000	524573300	442718900	280895600	241387600	379638900	366193900	136013300	34285100	170085600	5437900	262827400
03/07/93	308012500	152008600	153957100	309221800	246309600	525023000	443186400	281084500	241633000	380050100	366341200	136304000	34354400	170245900	5534700	263005700
03/08/93	308268700	152224300	154206300	309471300	246568600	525358100	443535000	281225200	241816300	380356500	366449600	136520900	34404700	170364600	5606500	263137800
03/09/93	308576700	152486400	154515800	309774200	246881800	525764200	443957200	281396000	242037800	380727700	366581400	136783400	34473600	170509100	5694100	263299400
03/10/93	308858200	152729800	154795000	310052200	247169200	526139400	444348200	281553100	242245800	381070400	366701100	137025900	34542000	170640500	5772800	263446700
03/11/93	309168100	153001400	155085800	310354400	247479900	526547900	444773000	281725100	242473700	381442000	366832600	137289300	34617600	170787800	5860700	263612900
03/12/93	309481000	153278000	155376100	310662700	247796400	526966100	445208200	281900900	242705200	381820800	366965600	137559200	34693300	170936600	5949600	263780300
03/13/93	309792000	153544400	155651200	310960300	248101300	527369400	445626400	282070400	242930200	382187800	367093900	137818800	34769300	171080600	6036100	263942800
03/14/93	310057300	153784100	155895600	311229500	248377500	527734500	446005600	282223700	243132000	382517600	367212600	138054300	34836900	171210100	6114100	264089300
03/15/93	310363100	154049900	156186300	311528600	248691300	528140000	446426700	282393300	243358700	382885600	367344400	138315800	34911100	171352700	6200400	264250300
03/16/93	310667200	154314800	156463800	311826700	249006200	528544100	446846600	282562700	243582800	383252700	367475100	138576700	34983700	171494600	6286600	264410600
03/17/93	310950700	154562800	156742000	312106100	249299700	528922300	447239100	282721000	243791400	383597000	367597300	138820400	35052300	171627900	6367600	264562000
03/18/93	311245500	154819200	157019400	312395100	249602300	529314000	447645500	282885200	244007500	383956000	367723400	139072900	35123600	171765800	6451500	264718900
03/19/93	311542100	155080200	157297400	312690300	249910000	529714000	448061200	283053300	244229000	384319500	367851000	139331300	35194900	171905900	6537200	264878400
03/20/93	311833400	155338000	157604700	312982400	250214100	530108800	448470500	283218700	244446400	384680800	367976900	139585600	35264500	172044600	6622300	265037000
03/21/93	312147500	155614100	157893200	313295500	250539200	530532800	448910900	283396900	244679600	385068100	368112000	139859600	35337000	172192900	6713700	265206600
03/22/93	312442500	155872200	158179400	313589300	250842900	530930500	449323800	283563800	244897400	385431300	368238100	140116400	35401100	172332400	6799800	265366100
03/23/93	312718400	156115600	158449000	313869000	251133400	531305800	449713000	283721600	245105800	385771000	368359000	140358300	35401100	172466600	6878300	265515900
03/24/93	313049700	156388800	158766400	314185700	251460200	531729700	450152200	283899300	245339800	386157800	368495200	140631400	35424600	172617900	6966600	265684800
03/25/93	313331200	156634400	159038600	314470000	251752800	532109900	450546400	284059500	245550800	386505200	368617900	140876700	35449500	172754100	7045900	265836500
03/26/93	313639900	156905900	159339800	314784600	252076200	532531000	450982900	284236900	245782300	386892100	368753300	141148500	35478100	172904300	7133600	266004400
03/27/93	313922600	157140200	159605200	315057500	252357300	532895200	451359700	284389600	245984100	387224800	368870700	141382900	35548000	173033300	7209600	266148900
03/28/93	314218400	157399100	159890100	315358500	252664500	533296700	451775300	284558500	246204400	387596000	369001000	141641700	35625200	173175200	7293400	266308300
03/29/93	314517000	157500200	160083700	315469500	252779500	533449100	451930000	284768400	246437400	387977600	369050300	141944800	35718700	173334100	7384600	266496200
03/30/93	314835900	157768300	160382100	315779600	253101700	533866000	452361800	284945000	246671200	388360200	369185200	142213200	35798300	173483800	7473900	266663500
03/31/93	315109600	158003900	160639400	316048800	253380600	534233200	452671200	285102700	246872900	388636300	369302000	142405500	35868900	173615200	7552100	266810700

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: MARCH 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
03/01/93	276900	235100	296800	267000	282000	357600	371000	149300	195300	332700	119800	230400	58500	128400	76300	141600	3518700
03/02/93	346300	295600	347800	336700	357000	450900	468100	189000	247900	420600	150500	290600	72600	162300	96600	179700	4412200
03/03/93	264000	226800	267600	260000	274800	348700	362400	146000	190300	324800	116100	225200	55700	124300	74200	137600	3398500
03/04/93	321800	275000	320700	315300	331700	422300	438700	177200	230600	388900	140600	272500	68700	149500	90800	167900	4112200
03/05/93	316300	273700	323100	314800	330700	422100	439200	177100	229800	385700	139900	272900	67200	152500	90300	166800	4102100
03/06/93	267100	228500	256000	262500	275000	351900	365700	148100	191800	320400	116400	227300	55500	126200	76000	140100	3408500
03/07/93	348400	290700	331800	335500	350600	449700	467500	188900	245400	411200	147300	290700	69300	160300	96800	178300	4362400
03/08/93	256200	215700	249200	249500	259000	335100	348600	140700	183300	306400	108400	216900	50300	118700	71800	132100	3241900
03/09/93	308000	262100	309500	302900	313200	406100	422200	170800	221500	371200	131800	262500	68900	144500	87600	161600	3944400
03/10/93	281500	243400	279200	278000	287400	375200	391000	157100	208000	342700	119700	242500	68400	131400	78700	147300	3631500
03/11/93	309900	271600	290800	302200	310700	408500	424800	172000	227900	371600	131500	263400	75600	147300	87900	166200	3961900
03/12/93	312900	276600	290300	308300	316500	418200	435200	175800	231500	378800	133000	269900	75700	148800	88900	167400	4027800
03/13/93	301000	266400	275100	297600	304900	403300	418200	169500	225000	367000	128300	259600	76000	144000	86500	162500	3884900
03/14/93	275300	239700	244400	269200	276200	365100	379200	153300	201800	329800	118700	235500	67600	129500	78000	146500	3509800
03/15/93	305800	265800	290700	299100	313800	405500	421100	169600	226700	368000	131800	261500	74200	142600	86300	161000	3923500
03/16/93	304100	264900	277500	298100	314900	404100	419900	169400	224100	367100	130700	260900	72600	141900	86200	160300	3896700
03/17/93	283500	248000	278200	279400	293500	378200	392500	158300	208600	344300	122200	243700	68600	133300	81000	151400	3664700
03/18/93	294800	256400	277400	289000	302600	391700	406400	164200	216100	359000	126100	252500	71300	137900	83900	156900	3786200
03/19/93	296600	261000	278000	295200	307700	400000	415700	168100	221500	363500	127600	258400	71300	140100	85700	159500	3849900
03/20/93	291300	257800	307300	292100	304100	394800	409300	165400	217400	361300	125900	254300	69600	138700	85100	158600	3833000
03/21/93	314100	276100	288500	313100	325100	424000	440400	178200	233200	387300	135100	274000	72500	148300	91400	169600	4070900
03/22/93	295000	258100	286200	293800	303700	397700	412900	166900	217800	363200	126100	256800	64100	139500	86100	159500	3827400
03/23/93	275900	243400	269600	279700	290500	375300	389200	157800	208400	339700	120900	241900	0	134200	78500	149800	3554800
03/24/93	331300	273200	317400	316700	326800	423900	439200	177700	234000	386800	136200	273100	23500	151300	88300	168900	4068300
03/25/93	281500	245600	272200	284300	292600	380200	394200	160200	211000	347400	122700	245300	24900	136200	79300	151700	3629300
03/26/93	308700	271500	301200	314600	323400	421100	436500	177400	231500	386900	135400	271800	28600	150200	87700	167900	4014400
03/27/93	282700	234300	265400	272900	281100	364200	376800	152700	201800	332700	117400	234400	69900	129000	76000	144500	3535800
03/28/93	295800	258900	284900	301000	307200	401500	415600	168900	220300	371200	130300	258800	77200	141900	83800	159400	3876700
03/29/93	298600	101100	193600	111000	115000	152400	154700	209900	233000	381600	49300	303100	93500	158900	91200	187900	2834800
03/30/93	318900	268100	298400	310100	322200	416900	431800	176600	233800	382600	134900	268400	79600	149700	89300	167300	4048600
03/31/93	273700	235600	257300	269200	278900	367200	309400	157700	201700	276100	116800	192300	70600	131400	78200	147200	3363300
<b>TOTAL</b>	<b>9237900</b>	<b>7820700</b>	<b>8826100</b>	<b>8918800</b>	<b>9272800</b>	<b>12013400</b>	<b>12397400</b>	<b>5193800</b>	<b>6771000</b>	<b>11170500</b>	<b>3891400</b>	<b>7911100</b>	<b>1962000</b>	<b>4372800</b>	<b>2618400</b>	<b>4917000</b>	<b>117295100</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: MARCH 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)											
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM
02/28/93	1106118000	1398650000	1508473000	1650489000	1095646000	9840666000												
03/01/93	1107856000	1400487000	1509743000	1652413000	1097501000	9860050000	1738000	1837000	3575000	2708	1270000	1924000	3194000	2420	1855000	1939000	3794000	2874
03/02/93	1110043000	1402822000	1511357000	1654835000	1099852000	9884610000	2187000	2335000	4522000	2741	1614000	2422000	4036000	2446	2351000	2456000	4807000	2913
03/03/93	1111706000	1404604000	1512591000	1656677000	1101642000	9903310000	1663000	1782000	3445000	2734	1234000	1842000	3076000	2441	1790000	1870000	3660000	2905
03/04/93	1113731000	1406784000	1514102000	1658925000	1103827000	9926130000	2025000	2180000	4205000	2696	1511000	2248000	3759000	2410	2185000	2282000	4467000	2863
03/05/93	1115732000	1408942000	1515599000	1661144000	1105989000	9948700000	2001000	2158000	4159000	2718	1497000	2219000	3716000	2429	2162000	2257000	4419000	2888
03/06/93	1117403000	1410754000	1516855000	1663002000	1107800000	9967600000	1671000	1812000	3483000	2700	1256000	1858000	3114000	2414	1811000	1890000	3701000	2869
03/07/93	1119541000	1413065000	1518461000	1665368000	1110116000	9991750000	2138000	2311000	4449000	2696	1606000	2366000	3972000	2407	2316000	2415000	4731000	2867
03/08/93	1121118000	1414772000	1519644000	1667122000	1111823000	10009550000	1577000	1707000	3284000	2737	1183000	1754000	2937000	2448	1707000	1780000	3487000	2906
03/09/93	1123050000	1416869000	1521097000	1669267000	1113919000	10031410000	1932000	2097000	4029000	2686	1453000	2145000	3598000	2399	2096000	2186000	4282000	2855
03/10/93	1124784000	1418749000	1522405000	1671188000	1115803000	10051060000	1734000	1880000	3614000	2677	1308000	1921000	3229000	2392	1884000	1965000	3849000	2851
03/11/93	1126721000	1420868000	1523877000	1673341000	1117912000	10073030000	1937000	2119000	4056000	2704	1472000	2153000	3625000	2417	2109000	2197000	4306000	2871
03/12/93	1128661000	1423006000	1525363000	1675504000	1120032000	10095140000	1940000	2138000	4078000	2665	1486000	2163000	3649000	2385	2120000	2211000	4331000	2831
03/13/93	1130548000	1425087000	1526809000	1677599000	1122098000	10116680000	1887000	2081000	3968000	2699	1446000	2095000	3541000	2409	2066000	2154000	4220000	2871
03/14/93	1132238000	1426954000	1528105000	1679482000	1123950000	10135970000	1690000	1867000	3557000	2695	1296000	1883000	3179000	2408	1852000	1929000	3781000	2864
03/15/93	1134130000	1429018000	1529538000	1681589000	1126009000	10157410000	1892000	2064000	3956000	2691	1433000	2107000	3540000	2408	2059000	2144000	4203000	2859
03/16/93	1136006000	1431079000	1530965000	1683678000	1128058000	10178770000	1876000	2061000	3937000	2678	1427000	2089000	3516000	2392	2049000	2136000	4185000	2847
03/17/93	1137781000	1433022000	1532313000	1685651000	1129994000	10198920000	1775000	1943000	3718000	2694	1348000	1973000	3321000	2407	1936000	2015000	3951000	2863
03/18/93	1139668000	1434974000	1533707000	1687690000	1131993000	10219730000	1887000	1952000	3839000	2666	1394000	2039000	3433000	2384	1999000	2081000	4080000	2833
03/19/93	1141594000	1436949000	1535124000	1689759000	1134021000	10240840000	1926000	1975000	3901000	2709	1417000	2069000	3486000	2421	2028000	2111000	4139000	2874
03/20/93	1143531000	1438911000	1536534000	1691839000	1136048000	10261950000	1937000	1962000	3899000	2708	1410000	2080000	3490000	2424	2027000	2111000	4138000	2874
03/21/93	1145563000	1441005000	1538032000	1694025000	1138194000	10284270000	2032000	2094000	4126000	2645	1498000	2186000	3684000	2362	2146000	2232000	4378000	2806
03/22/93	1147499000	1442945000	1539462000	1696060000	1140216000	10305320000	1936000	1940000	3876000	2692	1430000	2035000	3465000	2406	2022000	2105000	4127000	2866
03/23/93	1149245000	1444863000	1540797000	1697994000	1142119000	10325090000	1746000	1918000	3664000	2655	1335000	1934000	3269000	2369	1903000	1977000	3880000	2812
03/24/93	1151243000	1447033000	1542302000	1700216000	1144288000	10347650000	1998000	2170000	4168000	2724	1505000	2222000	3727000	2436	2169000	2256000	4425000	2892
03/25/93	1153019000	1448980000	1543654000	1702194000	1146224000	10367780000	1776000	1947000	3723000	2698	1352000	1978000	3330000	2413	1936000	2013000	3949000	2862
03/26/93	1154976000	1451131000	1545149000	1704374000	1148362000	10390000000	1957000	2151000	4108000	2685	1495000	2180000	3675000	2402	2138000	2222000	4360000	2850
03/27/93	1156730000	1453003000	1546440000	1706321000	1150250000	10409650000	1754000	1872000	3626000	2572	1291000	1947000	3238000	2296	1888000	1965000	3853000	2733
03/28/93	1158650000	1455066000	1547871000	1708452000	1152370000	10431200000	1920000	2063000	3983000	2710	1431000	2131000	3562000	2423	2120000	2155000	4275000	2908
03/29/93	1159325000	1457241000	1549422000	1709447000	1153828000	10446850000	675000	2175000	2850000	1863	1551000	995000	2546000	1664	1458000	1565000	3023000	1976
03/30/93	1161309000	1459384000	1550902000	1711661000	1155984000	10469570000	1984000	2143000	4127000	2697	1480000	2214000	3694000	2414	2156000	2272000	4428000	2894
03/31/93	1162878000	1461239000	1552192000	1713432000	1157771000	10488420000	1569000	1855000	3424000	2594	1290000	1771000	3061000	2319	1787000	1885000	3672000	2782
	56760000	62589000	43719000	62943000	62125000	64776000	56760000	62589000	119349000	2690	43719000	62943000	106662000	2404	62125000	64776000	126901000	2860

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: APRIL 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
03/31/93	315109600	158003900	160639400	316048800	253380600	534233200	452671200	285102700	246872900	388636300	369302000	142405500	35868900	173615200	7552100	266810700
04/01/93	315412300	158225900	160928900	316349800	253693900	534638300	453123800	285274300	247100700	389006200	369435100	142665100	35944200	173759600	7638600	266972300
04/02/93	315710300	158507700	161213800	316636800	253997500	535021200	453556500	285434800	247316900	389362100	369561800	142909100	36013900	173895600	7720400	267125500
04/03/93	315990500	158787800	161492200	316918400	254292300	535397500	453981600	285592600	247528000	389707800	369685100	143149500	36081300	174028400	7800800	267275600
04/04/93	316274700	159069300	161766600	317200100	254585700	535773700	454405300	285750600	247737500	390056400	369807800	143389500	36147900	174160900	7881300	267425800
04/05/93	316513200	159299500	162009300	317432600	254827800	536084300	454755500	285880500	247911000	390342900	369908700	143588000	36202300	174269900	7947800	267549500
04/06/93	316884400	159346300	162375300	317800700	255209000	536584600	455308000	286096300	248186400	390793600	370069300	143911900	36294300	174452100	8060000	267753700
04/07/93	317123800	159575700	162588900	318035500	255450900	536897500	455661100	286228100	248361300	391082200	370171500	144112100	36348000	174559300	8125800	267875100
04/08/93	317455300	159891900	162889200	318359900	255784800	537331100	456152400	286410400	248602000	391478400	370310600	144390300	36424600	174711400	8219200	268047300
04/09/93	317775400	160186800	163201000	318666700	256101000	537739800	456615500	286581500	248829000	391855600	370443500	144651600	36496900	174854400	8307200	268209800
04/10/93	318058900	160452600	163454900	318943100	256384400	538108000	457030600	286736300	249034500	392195600	370562200	144887600	36563000	174984000	8387200	268356600
04/11/93	318358400	160739200	163727100	319236900	256686800	538501100	457475600	286901900	249251900	392554200	370687500	145139600	36632100	175122200	8472100	268512100
04/12/93	318633200	160985300	163978000	319501200	256972000	538850400	457868700	287048600	249446500	392879800	370800100	145363400	36697100	175245700	8549000	268653600
04/13/93	318997600	161324400	164290800	319856300	257346300	539324200	458403200	287258200	249707800	393314000	370949600	145667500	36783400	175412000	8652000	268842000
04/14/93	319247400	161557000	164504200	320099300	257601200	539647800	458767500	287384700	249887000	393608400	371052200	145875000	36843000	175526400	8723100	268971500
04/15/93	319558400	161849000	164772900	320404900	257920900	540055800	459226700	287556600	250110300	393985600	371179500	146137200	36917900	175669500	8812100	269134100
04/16/93	319857000	162128900	165062800	320699000	258228500	540447400	459668000	287721200	250324700	394346200	371301900	146388200	36989600	175806700	8897600	269290500
04/17/93	320165800	162419000	165366700	321004600	258552900	540853700	460126700	287891700	250548100	394724400	371428500	146648400	37063000	175949000	8986400	269452600
04/18/93	320474100	162704200	165649000	321304500	258870900	541253300	460578700	288059600	250766700	395092000	371553500	146897579	37136000	176088700	9073900	269612300
04/19/93	320759500	162959500	165890300	321572600	259152500	541608800	460979000	288209400	250962900	395424800	371664300	147132000	37200100	176213900	9152500	269755800
04/20/93	321125600	163288700	166202500	321919000	259515400	542070800	461500300	288403600	251217500	395857300	371804500	147428000	37281500	176374900	9253200	269939400
04/21/93	321365500	163508700	166408800	322149700	259755400	542377000	461844000	288532800	251386700	396143800	371897700	147623800	37335700	176483100	9321200	270063000
04/22/93	321673700	163801900	166679100	322455600	260073800	542786600	462303400	288706200	251614900	396519300	372019900	147887500	37407700	176626700	9411900	270226700
04/23/93	322071800	164178700	167022000	322849100	260486000	543311600	462888400	288928200	251904200	397005900	372176200	148224300	37497600	176811400	9528000	270437300
04/24/93	322320700	164415800	167239700	323096300	260745500	543640300	463253300	289067200	252086500	397313300	372275900	148434900	37553600	176928100	9601400	270570600
04/25/93	322631500	164702600	167503900	323397000	261059300	544040500	463699200	289236100	252306400	397681400	372398600	148691500	37620500	177068600	9690100	270731500
04/26/93	322880400	164931200	167704700	323635900	261307700	544359200	464058300	289370700	252479700	397973800	372495500	148895900	37673400	177180300	9760700	270859400
04/27/93	323232800	165261300	168012300	323981200	261666000	544820100	464571200	289565400	252732200	398403300	372634000	149192100	37748900	177340200	9853100	271043500
04/28/93	323479500	165495000	168260300	324226000	261921900	545144800	464943400	289701200	252915200	398703500	372731200	149399100	37800100	177455200	9918800	271175600
04/29/93	323796700	165793000	168566400	324538900	262250900	545562800	465424400	289876000	253149600	399090200	372853700	149666800	37864500	177601000	10001000	271342000
04/30/93	324068000	166053800	168816600	324810300	262533800	545924000	465839400	290028300	253351100	399419400	372960300	149897900	37922300	177729600	10073000	271489300

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: APRIL 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
04/01/93	302700	222000	289500	301000	313300	405100	452600	171600	227800	369900	133100	259600	75300	144400	86500	161600	3916000
04/02/93	298000	281800	284900	287000	303600	382900	432700	160500	216200	355900	126700	244000	69700	136000	81800	153200	3814900
04/03/93	280200	280100	278400	281600	294800	376300	425100	157800	211100	345700	123300	240400	67400	132800	80400	150100	3725500
04/04/93	284200	281500	274400	281700	293400	376200	423700	158000	209500	348600	122700	240000	66600	132500	80500	150200	3723700
04/05/93	238500	230200	242700	232500	242100	310600	350200	129900	173500	286500	100900	198500	54400	109000	66500	123700	3089700
04/06/93	371200	46800	366000	368100	381200	500300	552500	215800	275400	450700	160600	323900	92000	182200	112200	204200	4603100
04/07/93	239400	229400	213600	234800	241900	312900	353100	131800	174900	288600	102200	200200	53700	107200	65800	121400	3070900
04/08/93	331500	316200	300300	324400	333900	433600	491300	182300	240700	396200	139100	278200	76600	152100	93400	172200	4262000
04/09/93	320100	294900	311800	306800	316200	408700	463100	171100	227000	377200	132900	261300	72300	143000	88000	162500	4056900
04/10/93	283500	265800	253900	276400	283400	368200	415100	154800	205500	340000	118700	236000	68100	129600	80000	146800	3623800
04/11/93	299500	286600	272200	293800	302400	393100	445000	165600	217400	358600	125300	252000	69100	138200	84900	155500	3859200
04/12/93	274800	246100	250900	264300	285200	349300	393100	146700	194600	325600	112600	223800	65000	123500	76900	141500	3473900
04/13/93	364400	339100	312800	355100	374300	473800	534500	209600	261300	434200	149500	304100	86300	166300	103000	188400	4656700
04/14/93	249800	232600	213400	243000	254900	323600	364300	126500	179200	294400	102600	207500	59600	114400	71100	129500	3166400
04/15/93	311000	292000	268700	305600	319700	408000	459200	171900	223300	377200	127300	262200	74900	143100	89000	162600	3995700
04/16/93	298600	279900	289900	294100	307600	391600	441300	164600	214400	360600	122400	251000	71700	137200	85500	156400	3866800
04/17/93	308800	290100	303900	305600	324400	406300	458700	170500	223400	378200	126600	260200	73400	142300	88800	162100	4023300
04/18/93	308300	285200	282300	299900	318000	399600	452000	167900	218600	367600	125000	249179	73000	139700	87500	159700	3933479
04/19/93	285400	255300	241300	268100	281600	355500	400300	149800	196200	332800	110800	234421	64100	125200	78600	143500	3522921
04/20/93	366100	329200	312200	346400	362900	462000	521300	194200	254600	432500	140200	296000	81400	161000	100700	183600	4544300
04/21/93	239900	220000	206300	230700	240000	306200	343700	129200	169200	286500	93200	195800	54200	108200	68000	123600	3014700
04/22/93	308200	293200	270300	305900	318400	409600	459400	173400	228200	375500	122200	263700	72000	143600	90700	163700	3998000
04/23/93	398100	376800	342900	393500	412200	525000	585000	222000	289300	486600	156300	336800	89900	184700	116100	210600	5125800
04/24/93	248900	237100	217700	247200	259500	328700	364900	139000	182300	307400	99700	210600	56000	116700	73400	133300	3222400
04/25/93	310800	286800	264200	300700	313800	400200	445900	168900	219900	368100	122700	256600	66900	140500	88700	160900	3915600
04/26/93	248900	228600	200800	238900	248400	318700	359100	134600	173300	292400	96900	204400	52900	111700	70600	127900	3108100
04/27/93	352400	330100	307600	345300	358300	460900	512900	194700	252500	429500	138500	296200	75500	159900	92400	184100	4490800
04/28/93	246700	233700	248000	244800	255900	324700	372200	135800	183000	300200	97200	207000	51200	115000	65700	132100	3213200
04/29/93	317200	298000	306100	312900	329000	418000	481000	174800	234400	386700	122500	267700	64400	145800	82200	166400	4107100
04/30/93	271300	260800	250200	271400	282900	361200	415000	152300	201500	329200	106600	231100	57800	128600	72000	147300	3539200
<b>TOTAL</b>	<b>8958400</b>	<b>8049900</b>	<b>8177200</b>	<b>8761500</b>	<b>9153200</b>	<b>11690800</b>	<b>13168200</b>	<b>4925600</b>	<b>6478200</b>	<b>10783100</b>	<b>3658300</b>	<b>7492400</b>	<b>2053400</b>	<b>4114400</b>	<b>2520900</b>	<b>4678600</b>	<b>114664100</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: APRIL 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
03/31/93	1162878000	1461239000	1552192000	1713432000	1157771000	1048842000													
04/01/93	1164800000	1463316000	1553627000	1715570000	1159859000	1051046000	1922000	2077000	3999000	2836	1435000	2138000	3573000	2534	2088000	2204000	4292000	3044	
04/02/93	1166726000	1465319000	1554996000	1717715000	1161908000	1053214000	1926000	2003000	3929000	2787	1369000	2145000	3514000	2492	2049000	2168000	4217000	2991	
04/03/93	1168581000	1467263000	1556337000	1719773000	1163889000	1055312000	1855000	1944000	3799000	2753	1341000	2058000	3399000	2463	1981000	2098000	4079000	2956	
04/04/93	1170440000	1469210000	1557673000	1721842000	1165874000	1057414000	1859000	1947000	3806000	2758	1336000	2069000	3405000	2467	1985000	2102000	4087000	2962	
04/05/93	1171981000	1470824000	1558777000	1723559000	1167521000	1059158000	1541000	1614000	3155000	2768	1104000	1717000	2821000	2475	1647000	1744000	3391000	2975	
04/06/93	1174156000	1473362000	1560549000	1726007000	1169980000	1061761000	2175000	2538000	4713000	2618	1772000	2448000	4220000	2344	2459000	2603000	5062000	2812	
04/07/93	1175686000	1474979000	1561658000	1727711000	1171622000	1063499000	1530000	1617000	3147000	2761	1109000	1704000	2813000	2468	1642000	1738000	3380000	2965	
04/08/93	1177787000	1477205000	1563199000	1730044000	1173880000	1065885000	2101000	2226000	4327000	2721	1541000	2333000	3874000	2436	2258000	2386000	4644000	2921	
04/09/93	1179809000	1479320000	1564651000	1732299000	1176036000	1068159000	2022000	2115000	4137000	2758	1452000	2255000	3707000	2471	2156000	2274000	4430000	2953	
04/10/93	1181612000	1481224000	1565961000	1734303000	1177968000	1070198000	1803000	1904000	3707000	2746	1310000	2004000	3314000	2455	1932000	2039000	3971000	2941	
04/11/93	1183535000	1483254000	1567356000	1736439000	1180028000	1072372000	1923000	2030000	3953000	2745	1395000	2136000	3531000	2452	2060000	2174000	4234000	2940	
04/12/93	1185264000	1485071000	1568603000	1738373000	1181877000	1074325000	1729000	1817000	3546000	2749	1247000	1934000	3181000	2466	1849000	1953000	3802000	2947	
04/13/93	1187551000	1487507000	1570285000	1740921000	1184341000	1076926000	2287000	2436000	4723000	2714	1682000	2548000	4230000	2431	2464000	2601000	5065000	2911	
04/14/93	1189132000	1489186000	1571446000	1742681000	1186041000	1078720000	1581000	1679000	3260000	2786	1161000	1760000	2921000	2497	1700000	1794000	3494000	2986	
04/15/93	1191093000	1491278000	1572893000	1744864000	1188156000	1080954000	1961000	2092000	4053000	2702	1447000	2183000	3630000	2420	2115000	2234000	4349000	2899	
04/16/93	1193013000	1493299000	1574289000	1747006000	1190211000	1083125000	1920000	2021000	3941000	2737	1396000	2142000	3538000	2457	2055000	2171000	4226000	2935	
04/17/93	1195015000	1495406000	1575739000	1749226000	1192352000	1085387000	2002000	2107000	4109000	2739	1450000	2220000	3670000	2447	2141000	2262000	4403000	2935	
04/18/93	1196961000	1497468000	1577164000	1751391000	1194444000	1087597000	1946000	2062000	4008000	2783	1425000	2165000	3590000	2493	2092000	2210000	4302000	2988	
04/19/93	1198723000	1499324000	1578445000	1753350000	1196327000	1089506000	1762000	1856000	3618000	2741	1281000	1959000	3240000	2455	1883000	1909000	3792000	2873	
04/20/93	1200950000	1501687000	1580083000	1755285000	1198721000	1092115000	2227000	2363000	4590000	2732	1638000	1935000	3573000	2127	2394000	2609000	5003000	2978	
04/21/93	1202452000	1503286000	1581190000	1757492000	1200339000	1093823000	1502000	1599000	3101000	2720	1107000	2207000	3314000	2907	1618000	1708000	3326000	2918	
04/22/93	1204349000	1505372000	1582638000	1759615000	1202417000	1096016000	1897000	2086000	3983000	2655	1448000	2123000	3571000	2381	2078000	2193000	4271000	2847	
04/23/93	1206854000	1508072000	1584504000	1762411000	1205131000	1098881000	2505000	2700000	5205000	2711	1866000	2796000	4662000	2428	2714000	2865000	5579000	2906	
04/24/93	1208454000	1509782000	1585691000	1764188000	1206855000	1100701000	1800000	1710000	3310000	2758	1187000	1777000	2964000	2470	1724000	1820000	3544000	2953	
04/25/93	1210371000	1511843000	1587112000	1766332000	1208931000	1102892000	1917000	2061000	3978000	2706	1421000	2144000	3565000	2425	2076000	2191000	4267000	2903	
04/26/93	1211894000	1513484000	1588249000	1768032000	1210579000	1104631000	1523000	1641000	3164000	2704	1137000	1700000	2837000	2425	1648000	1739000	3387000	2895	
04/27/93	1214073000	1515832000	1589878000	1770466000	1212942000	1107125000	2179000	2348000	4527000	2695	1629000	2434000	4063000	2418	2363000	2494000	4857000	2891	
04/28/93	1215684000	1517533000	1591054000	1772249000	1214665000	1108945000	1611000	1701000	3312000	2760	1176000	1783000	2959000	2466	1723000	1820000	3543000	2953	
04/29/93	1217698000	1519668000	1592532000	1774493000	1216823000	1111229000	2014000	2135000	4149000	2660	1478000	2244000	3722000	2386	2158000	2284000	4442000	2847	
04/30/93	1219455000	1521558000	1593833000	1776458000	1218720000	1113236000	1757000	1890000	3647000	2701	1301000	1965000	3266000	2419	1897000	2007000	3904000	2892	
	56577000	60319000	41641000	63026000	60949000	64394000	56577000	60319000	116896000	2738	41641000	63026000	104667000	2452	60949000	64394000	125343000	2936	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: MAY 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
04/30/93	324068000	166053800	168816600	324810300	262533800	545924000	465839400	290028300	253351100	399419400	372960300	149897900	37922300	177729600	10073000	271489300
05/01/93	324400100	166375900	169139600	325146000	262883300	546374000	466352700	290217700	253601200	399837700	373091200	150186800	37983700	177864300	10148200	271643800
05/02/93	324779100	166737700	169525300	325526700	263283800	546879900	466936200	290429700	253885700	400307500	373242600	150509900	38062200	178037000	10249000	271839800
05/03/93	324952300	166900200	169689700	325696300	263461500	547104900	467194600	290524200	254011500	400512100	373310500	150653500	38099600	178117900	10295100	271931600
05/04/93	325268700	167198100	170011400	326009000	263789200	547521800	467671000	290699100	254244900	400898200	373433700	150920300	38168600	178265600	10378700	272099200
05/05/93	325542600	167462800	170290700	326285900	264078300	547890000	468070300	290854200	254449900	401243000	373542700	151155800	38231200	178396800	10451800	272248400
05/06/93	325855600	167758300	170596500	326595300	264401500	548302600	468516600	291028000	254679400	401629500	373664500	151420500	38302100	178542500	10533600	272414300
05/07/93	326198900	168091400	170936700	326943200	264767000	548767500	469021800	291223900	254938100	402065900	373801900	151718500	38382200	178704800	10627100	272599900
05/08/93	326418600	168304800	171151300	327165400	265001700	549062500	469342000	291348700	255102900	402340500	373889900	151907100	38435000	178809500	10687800	272721000
05/09/93	326759300	168632700	171491400	327507800	265365200	549520500	469838400	291541400	255361900	402765000	374021600	152200500	38506500	178970800	10782900	272905400
05/10/93	327002500	168861100	171722200	327745900	265616700	549836700	470187600	291674900	255539000	403056400	374114000	152402700	38556400	179084500	10849600	273034800
05/11/93	327366900	169200700	172073300	328100500	265990400	550311200	470702700	291874900	255803200	403486500	374249600	152707500	38631200	179252300	10947200	273225700
05/12/93	327614000	169429900	172314400	328339100	266240300	550628600	471048300	292009200	255980400	403779100	374340200	152910700	38682800	179366200	11013800	273355600
05/13/93	327944400	169745000	172647400	328667600	266584200	551067900	471525500	292194600	256226100	404178800	374463300	153193200	38754100	179521400	11104200	273532700
05/14/93	328186500	169967700	172870700	328899800	266826500	551377900	471861600	292325500	256398700	404459600	374551200	153392100	38805100	179631300	11168600	273658400
05/15/93	328566000	170326400	173243200	329274200	267216100	551875600	472398400	292535800	256674900	404914300	374692000	153711400	38888200	179808300	11273100	273861000
05/16/93	328900300	170628600	173563500	329592100	267547000	552297200	472856500	292713100	256909500	405309000	374812000	153981600	38958600	179958100	11362900	274031700
05/17/93	329122900	170837100	173765000	329809800	267772600	552586800	473170600	292835600	257070100	405579700	374894300	154167500	39008200	180061300	11425700	274149200
05/18/93	329424100	171127400	174054600	330112600	268074900	552990900	473606900	293006700	257294100	405952300	375007600	154429300	39078100	180204600	11512100	274312000
05/19/93	329708900	171398600	174329800	330396700	268377100	553365500	474069900	293165000	257506200	406290000	375113400	154667800	39144400	180340800	11593400	274466900
05/20/93	330032400	171719100	174628400	330720600	268724400	553801800	474560000	293350500	257750800	406684600	375237400	154948900	39201500	180496700	11686500	274642500
05/21/93	330313100	171998000	174874000	331010500	269029800	554186100	474987400	293513800	257964700	407033600	375344100	155195600	39259200	180634000	11769200	274796300
05/22/93	330639400	172313900	175179800	331338900	269379900	554620300	475470400	293698500	258173800	407429000	375467100	155473600	39331900	180790900	11863400	274971700
05/23/93	330939500	172604500	175467600	331641800	269705200	555021800	475920800	293868500	258399700	407795400	375580300	155730500	39399500	180934500	11950900	275132400
05/24/93	331140500	172798400	175661700	331844000	269921300	555289700	476219700	293982000	258550400	408039100	375655100	155902200	39444700	181030200	12009200	275239500
05/25/93	331514700	173163000	176007500	332224300	270324700	555793600	476780300	294196000	258833200	408494800	375796300	156225600	39530800	181209900	12119000	275440800
05/26/93	331721800	173362900	176204900	332432500	270546500	556068500	477076300	294312900	258987400	408744200	375873900	156401700	39578500	181308700	12179600	275551700
05/27/93	332069900	173695900	176542100	332781300	270916500	556530900	477568600	294508900	259246500	409164900	376002200	156699100	39657900	181472600	12280300	275735400
05/28/93	332384800	173996000	176830200	333096700	271252400	556947300	478027100	294685900	259479100	409546700	376116600	156966200	39730200	181621200	12372100	275902200
05/29/93	332633200	174231600	177080500	333344800	271518200	557275900	478379400	294824900	259662900	409849500	376205200	157177100	39786900	181737900	12445000	276033100
05/30/93	332931600	174515500	177359000	333643800	271833500	557671100	478795300	294992800	259883300	410210700	376311300	157431400	39856400	181878600	12531700	276190400
05/31/93	333223500	174796700	177631100	333939900	272149100	558062000	479214100	295158900	260102600	410566700	376416900	157682800	39925200	182017900	12618100	276346800



ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: MAY 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
05/01/93	332100	322100	323000	335700	349500	450000	513300	189400	250100	418300	130900	288900	61400	134700	75200	154500	4329100
05/02/93	379000	361800	385700	380700	400500	505900	583500	212000	284500	469800	151400	323100	78500	172700	100800	196000	4985900
05/03/93	173200	162500	164400	169600	177700	225000	258400	94500	125800	204600	67900	143600	37400	80900	46100	91800	2223400
05/04/93	316400	297900	321700	312700	327700	416900	476400	174900	233400	386100	123200	266800	69000	147700	83600	167600	4122000
05/05/93	273900	264700	279300	276900	289100	368200	399300	155100	205000	344800	109000	235500	62600	131200	73100	149200	3616900
05/06/93	313000	295500	305800	309400	323200	412600	446300	173800	229500	386500	121800	264700	70900	145700	81800	165900	4046400
05/07/93	343300	333100	340200	347900	365500	464900	505200	195900	258700	436400	137400	298000	80100	162300	93500	185600	4548000
05/08/93	219700	213400	214600	222200	234700	295000	320200	124800	164800	274600	88000	188600	52800	104700	60700	121100	2899900
05/09/93	340700	327900	340100	342400	363500	458000	496400	192700	259000	424500	131700	293400	71500	161300	95100	184400	4482600
05/10/93	243200	228400	230800	238100	251500	316200	349200	133500	177100	291400	92400	202200	49900	113700	66700	129400	3113700
05/11/93	364400	339600	351100	354600	373700	474500	515100	200000	264200	430100	135600	304800	74800	167800	97600	190900	4638800
05/12/93	247100	229200	241100	238600	249900	317400	345600	134300	177200	292600	90600	203200	51600	113900	66600	129900	3128800
05/13/93	330400	315100	333000	328500	343900	439300	477200	185400	245700	399700	123100	282500	71300	155200	90400	177100	4297800
05/14/93	242100	222700	223300	232200	242300	310000	336100	130900	172600	280800	87900	198900	51000	109900	64400	125700	3030800
05/15/93	379500	358700	372500	374400	389600	497700	536800	210300	276200	454700	140800	319300	83100	177000	104500	202600	4877700
05/16/93	334300	302200	320300	317900	330900	421600	458100	177300	234600	394700	120000	270200	70400	149800	89800	170700	4162800
05/17/93	222600	208500	201500	217700	225600	289600	314100	122500	160600	270700	82300	185900	49600	103200	62800	117500	2834700
05/18/93	301200	290300	289600	302800	302300	404100	436300	171100	224000	372600	113300	261800	69900	143300	86400	162800	3931800
05/19/93	284800	271200	275200	284100	302200	374600	463000	158300	212100	337700	105800	238500	66300	136200	81300	154900	3746200
05/20/93	323500	320500	298600	323900	347300	436300	490100	185500	244600	394600	124000	281100	57100	155900	93100	175600	4251700
05/21/93	280700	278900	245600	289900	305400	384300	427400	163300	213900	349000	106700	246700	57700	137300	82700	153800	3723300
05/22/93	326300	315900	305800	328400	350100	434200	483000	184700	209100	395400	123000	278000	72700	156900	94200	175400	4233100
05/23/93	300100	290600	287800	302900	325300	401500	450400	170000	225900	366400	113200	256900	67600	143600	87500	160700	3950400
05/24/93	201000	193900	194100	202200	216100	267900	298900	113500	150700	243700	74800	171700	45200	95700	58300	107100	2634800
05/25/93	374200	364600	345800	380300	403400	503900	560600	214000	282800	455700	141200	323400	86100	179700	109800	201300	4926800
05/26/93	207100	199900	197400	208200	221800	274900	296000	116900	154200	249400	77600	176100	47700	98800	60600	110900	2697500
05/27/93	348100	333000	337200	348800	370000	462400	492300	196000	259100	420700	128300	297400	79400	163900	100700	183700	4521000
05/28/93	314900	300100	288100	315400	335900	416400	458500	177000	232600	381800	114400	267100	72300	148600	91800	166800	4081700
05/29/93	248400	235600	250300	248100	265800	328600	352300	139000	183800	302800	88600	210900	56700	116700	72900	130900	3231400
05/30/93	298400	283900	278500	299000	315300	395200	415900	167900	220400	361200	106100	254300	69500	140700	86700	157300	3850300
05/31/93	291900	281200	272100	296100	315600	390900	418800	166100	219300	356000	105600	251400	68800	139300	86400	156400	3815900
<b>TOTAL</b>	<b>9155500</b>	<b>8742900</b>	<b>8814500</b>	<b>9129600</b>	<b>9615300</b>	<b>12138000</b>	<b>13374700</b>	<b>5130600</b>	<b>6751500</b>	<b>11147300</b>	<b>3456600</b>	<b>7784900</b>	<b>2002900</b>	<b>4288300</b>	<b>2545100</b>	<b>4857500</b>	<b>118935200</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: MAY 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)											
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM
04/30/93	1219455000	1521558000	1593833000	1776458000	1218720000	1113236000	-	-	-	-	-	-	-	-	-	-	-	-
05/01/93	1221537000	1523834000	1595416000	1778780000	1220989000	1115634000	2082000	2276000	4358000	2690	1583000	2322000	3905000	2410	2269000	2398000	4667000	2881
05/02/93	1224015000	1526473000	1597233000	1781553000	1223657000	1118450000	2478000	2639000	5117000	2751	1817000	2773000	4590000	2468	2668000	2816000	5484000	2948
05/03/93	1225121000	1527653000	1598050000	1782781000	1224841000	1119708000	1106000	1180000	2286000	2721	817000	1228000	2045000	2435	1184000	1258000	2442000	2907
05/04/93	1227117000	1529795000	1599527000	1785018000	1226997000	1121987000	1996000	2142000	4138000	2705	1477000	2237000	3714000	2427	2156000	2279000	4435000	2899
05/05/93	1228892000	1531704000	1600852000	1786993000	1228916000	1124016000	1775000	1909000	3684000	2729	1325000	1975000	3300000	2444	1919000	2029000	3948000	2924
05/06/93	1230864000	1533833000	1602320000	1789192000	1231048000	1126268000	1972000	2129000	4101000	2790	1468000	2199000	3667000	2495	2132000	2252000	4384000	2982
05/07/93	1233060000	1536207000	1603958000	1791659000	1233423000	1128779000	2196000	2374000	4570000	2720	1638000	2467000	4105000	2443	2375000	2511000	4886000	2908
05/08/93	1234505000	1537764000	1605034000	1793267000	1234984000	1130427000	1445000	1557000	3002000	2705	1076000	1608000	2684000	2418	1561000	1648000	3209000	2891
05/09/93	1236706000	1540092000	1606649000	1795715000	1237339000	1132913000	2201000	2328000	4529000	2696	1615000	2448000	4063000	2418	2355000	2486000	4841000	2882
05/10/93	1238249000	1541750000	1607788000	1797441000	1239007000	1134673000	1543000	1658000	3201000	2736	1139000	1726000	2865000	2449	1668000	1760000	3428000	2930
05/11/93	1240496000	1544179000	1609471000	1799550000	1241439000	1137240000	2247000	2429000	4676000	2687	1683000	2109000	3792000	2179	2432000	2567000	4999000	2873
05/12/93	1242025000	1545835000	1610619000	1801657000	1243099000	1138992000	1529000	1656000	3185000	2722	1148000	2107000	3255000	2782	1666000	1752000	3412000	2916
05/13/93	1244105000	1548091000	1612182000	1803987000	1245355000	1141372000	2080000	2256000	4336000	2677	1563000	2330000	3893000	2403	2256000	2380000	4636000	2862
05/14/93	1245567000	1549685000	1613282000	1805629000	1246949000	1143053000	1462000	1594000	3056000	2681	1100000	1642000	2742000	2405	1594000	1681000	3275000	2873
05/15/93	1247958000	1552269000	1615073000	1808299000	1248542000	1145788000	2391000	2584000	4975000	2719	1791000	2670000	4461000	2438	2593000	2735000	5328000	2911
05/16/93	1250003000	1554449000	1616586000	1810573000	1251742000	1148110000	2045000	2180000	4225000	2708	1513000	2274000	3787000	2428	2200000	2322000	4522000	2899
05/17/93	1251365000	1555939000	1617616000	1812105000	1253229000	1149678000	1362000	1490000	2852000	2716	1030000	1532000	2562000	2440	1487000	1568000	3055000	2910
05/18/93	1253232000	1557999000	1619048000	1814200000	1255277000	1151839000	1867000	2060000	3927000	2671	1432000	2095000	3527000	2399	2048000	2161000	4209000	2863
05/19/93	1255061000	1559974000	1620407000	1816252000	1257260000	1153930000	1829000	1975000	3804000	2698	1359000	2052000	3411000	2419	1983000	2091000	4074000	2889
05/20/93	1257125000	1562220000	1621972000	1818550000	1259513000	1156303000	2064000	2246000	4310000	2435	1565000	2298000	3863000	2182	2253000	2373000	4626000	2614
05/21/93	1258896000	1564181000	1623337000	1820532000	1261465000	1158357000	1771000	1961000	3732000	2488	1365000	1982000	3347000	2231	1952000	2054000	4006000	2671
05/22/93	1260945000	1566433000	1624903000	1822837000	1263713000	1160722000	2049000	2252000	4301000	2655	1566000	2305000	3871000	2390	2248000	2365000	4613000	2848
05/23/93	1262866000	1568509000	1626336000	1824992000	1265803000	1162921000	1921000	2076000	3997000	2719	1433000	2155000	3588000	2441	2090000	2199000	4289000	2918
05/24/93	1264143000	1569894000	1627298000	1826417000	1267194000	1164384000	1277000	1385000	2662000	2689	962000	1425000	2387000	2411	1391000	1463000	2854000	2883
05/25/93	1266486000	1572485000	1629095000	1829053000	1269773000	1167096000	2343000	2591000	4934000	2696	1797000	2636000	4433000	2422	2579000	2712000	5291000	2891
05/26/93	1267793000	1573979000	1630086000	1830521000	1271207000	1168604000	1307000	1494000	2801000	2746	991000	1468000	2459000	2411	1434000	1508000	2942000	2884
05/27/93	1269951000	1576287000	1631728000	1832937000	1273574000	1171093000	2158000	2308000	4466000	2658	1642000	2416000	4058000	2415	2367000	2489000	4856000	2890
05/28/93	1271915000	1578446000	1633224000	1835147000	1275730000	1173360000	1964000	2159000	4123000	2643	1496000	2210000	3706000	2376	2156000	2267000	4423000	2835
05/29/93	1273469000	1580139000	1634401000	1836899000	1277427000	1175147000	1554000	1693000	3247000	2706	1177000	1752000	2929000	2441	1697000	1787000	3484000	2903
05/30/93	1275313000	1582167000	1635805000	1838973000	1279453000	1177277000	1844000	2028000	3872000	2689	1404000	2074000	3478000	2415	2026000	2130000	4156000	2886
05/31/93	1277145000	1584188000	1637202000	1841036000	1281466000	1179394000	1832000	2021000	3853000	2676	1397000	2063000	3460000	2403	2013000	2117000	4130000	2868
	57690000	62630000	43369000	64578000	62746000	66158000	57690000	62630000	120320000	2688	43369000	64578000	107947000	2412	62746000	66158000	128904000	2880

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: JUNE 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
05/31/93	333223500	174796700	177631100	333939900	272149100	558062000	479214100	295158900	260102600	410566700	376416900	157682800	39925200	182017900	12618100	276346800
06/01/93	333515500	175080300	177903300	334236000	272464800	558453000	479632900	295325100	260321900	410927800	376522600	157934200	39994100	182157300	12704500	276503300
06/02/93	333757500	175310000	178135500	334480100	272726100	558774600	479972600	295462000	260503300	411225300	376608600	158140800	40051200	182272200	12776100	276632500
06/03/93	334108800	175655000	178481400	334837800	273105700	559249700	480481400	295663300	260770800	411661900	376732900	158445400	40122200	182435700	12879400	276821800
06/04/93	334431300	175974500	178781700	335169200	273414700	559686800	480950500	295850200	261015400	412058600	376834300	158726800	40187900	182585600	12975100	276997000
06/05/93	334720200	176261400	179043400	335464000	273692400	560075100	481360800	296016500	261231500	412409500	376920100	158975500	40247600	182719800	13062100	277154700
06/06/93	335031800	176572900	179319300	335785900	273989400	560498900	481816100	296198200	261467100	412793900	377013700	159248200	40313300	182867900	13156600	277325900
06/07/93	335220500	176762800	179480300	335981900	274171200	560756900	482088300	296309000	261609900	413027700	377069200	159414400	40353800	182958400	13214100	277430100
06/08/93	335585500	177125600	179824400	336357500	274516400	561252100	482616100	296520500	261884500	413475900	377176700	159733700	40431400	183131200	13324800	277629100
06/09/93	335828700	177369200	180061000	336609500	274746400	561583200	482976100	296662100	262069500	413777300	377248400	159946400	40484100	183248000	13400200	277763900
06/10/93	336165100	177707800	180368200	336960700	275062200	562045700	483465600	296860200	262325500	414195000	377344700	160245400	40557800	183409500	13503900	277949700
06/11/93	336453900	177994500	180653200	337258100	275333500	562436900	483879900	297027400	262542500	414549400	377426300	160497200	40620200	183547000	13592200	278108200
06/12/93	336705200	178237400	180895200	337511200	275568100	562770700	484244400	297169300	262728000	414852000	377525000	160711700	40673000	183664000	13667300	278242800
06/13/93	336996900	178517900	181176100	337803200	275842600	563155800	484655600	297332900	262942300	415203000	377638900	160959300	40733700	183799000	13754300	278398300
06/14/93	337271300	178784700	181437100	338081100	276091000	563521200	485047700	297488700	263145800	415536200	377747400	161193900	40791700	183927700	13837300	278546800
06/15/93	337510400	179017300	181649400	338320400	276312100	563836000	485447100	297622800	263326600	415831400	377863200	161395500	40846400	184040600	13908300	278675700
06/16/93	337798700	179299700	181922900	338615100	276582700	564225700	485912200	297787700	263548300	416193400	378003200	161644400	40901900	184178700	13995600	278833200
06/17/93	337955500	179523800	182091500	338844000	276790800	564525500	486256900	297921100	263716500	416468800	378062900	161840500	40961000	184298100	14069600	278971900
06/18/93	338206800	179816800	182337000	339147000	277085000	564924300	486762800	298091600	263943200	416828400	378179000	162095500	41011500	184444500	14159400	279134100
06/19/93	338523300	180136900	182619800	339479000	277410000	565362000	487313700	298277900	264191400	417224100	378319400	162375100	41076200	184605100	14258900	279312200
06/20/93	338771600	180373800	182834300	339727400	277660400	565690300	487696600	298417200	264378900	417522400	378437600	162585800	41124900	184724800	14333300	279444800
06/21/93	339067500	180663700	183095900	340030700	277962600	566093100	488131300	298587800	264604800	417884800	378570900	162843700	41185100	184871300	14424700	279607000
06/22/93	339429900	181024300	183411000	340408200	278337200	566587600	488681400	298800500	264884100	418334800	378729600	163165000	41261500	185053000	14538000	279808200
06/23/93	339638200	181233200	183592700	340626600	278553000	566874500	488992200	298923600	265045100	418592800	378821100	163350300	41303900	185158100	14603900	279924800
06/24/93	339961900	181550500	183863900	340958600	278897600	567311000	489481500	299099400	265293000	418988700	378964400	163630500	41370000	185316200	14703700	280101800
06/25/93	340283400	181862100	184137700	341285300	279247400	567742300	489971800	299282400	265538400	419379100	379109200	163904800	41434000	185470500	14801800	280274400
06/26/93	340535200	182111000	184354900	341546200	279526400	568086700	490364400	299428700	265733600	419690700	379216800	164126900	41484900	185593700	14880400	280413600
06/27/93	340687800	182310200	184465000	341691200	279709100	568349500	490640800	299542700	265873300	419935000	379294100	164259500	41530700	185701000	14948600	280546600
06/28/93	340687800	182310200	184465000	341691200	279709100	568349500	490640800	299542700	265873300	419935000	379294100	164259500	41530700	185701000	14948600	280546600
06/29/93	340687800	182358100	184707300	341691200	280126300	568758100	491149700	299725800	266096200	420295600	379374700	164527600	41581900	185849300	15037800	280727000
06/30/93	340951000	182617000	184949300	341691200	280533600	569160600	491659500	299897400	266325500	420664700	379473200	164783400	41630100	185994300	15128200	280904000

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: JUNE 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
06/01/93	292000	283600	272200	296100	315700	391000	418800	166200	219300	361100	105700	251400	68900	139400	86400	156500	3824300
06/02/93	242000	229700	232200	244100	261300	321600	339700	136900	181400	297500	86000	206600	57100	114900	71600	129200	3151800
06/03/93	351300	345000	345900	357700	379600	475100	508800	201300	267500	436600	124300	304600	71000	163500	103300	189300	4624800
06/04/93	322500	319500	300300	331400	309000	437100	469100	186900	244600	396700	101400	281400	65700	149900	95700	175200	4186400
06/05/93	288900	286900	261700	294800	277700	388300	410300	166300	216100	350900	85800	248700	59700	134200	87000	157700	3715000
06/06/93	311600	311500	275900	321900	297000	423800	455300	181700	235600	384400	93600	272700	65700	148100	94500	171200	4044500
06/07/93	188700	189900	161000	196000	181800	258000	272200	110800	142800	233800	55500	166200	40500	90500	57500	104200	2449400
06/08/93	365000	362800	344100	375600	345200	495200	527800	211500	274600	448200	107500	319300	77600	172800	110700	199000	4736900
06/09/93	243200	243600	236600	252000	230000	331100	360000	141600	185000	301400	71700	212700	52700	116800	75400	134800	3188600
06/10/93	336400	338600	307200	351200	315800	462500	489500	198100	256000	417700	96300	299000	73700	161500	103700	185800	4393000
06/11/93	288800	286700	285000	297400	271300	391200	414300	167200	217000	354400	81600	251800	62400	137500	88300	158500	3753400
06/12/93	251300	242900	242000	253100	234600	333800	364500	141900	185500	302600	98700	214500	52800	117000	75100	134600	3244900
06/13/93	291700	280500	280900	292000	274500	385100	411200	163600	214300	351000	113900	247600	60700	135000	87000	155500	3744500
06/14/93	274400	266800	261000	277900	248400	365400	392100	155800	203500	333200	108500	234600	58000	128700	83000	148500	3539800
06/15/93	239100	232600	212300	239300	221100	314800	399400	134100	180800	295200	115800	201600	54700	112900	71000	128900	3153600
06/16/93	288300	282400	273500	294700	270600	389700	465100	164900	221700	362000	140000	248900	55500	138100	87300	157500	3840200
06/17/93	156800	224100	168600	228900	208100	299800	344700	133400	168200	275400	59700	196100	59100	119400	74000	138700	2855000
06/18/93	251300	293000	245500	303000	294200	398800	505900	170500	226700	359600	116100	255000	50500	146400	89800	162200	3868500
06/19/93	316500	320100	282800	332000	325000	437700	550900	186300	248200	395700	140400	279600	64700	160600	99500	178100	4318100
06/20/93	248300	236900	214500	248400	250400	328300	382900	139300	187500	298300	118200	210700	48700	119700	74400	132600	3239100
06/21/93	295900	289900	261600	303300	302200	402800	434700	170600	225900	362400	133300	257900	60200	146500	91400	162200	3900800
06/22/93	362400	360600	315100	377500	374600	494500	550100	212700	279300	450000	158700	321300	76400	181700	113300	201200	4829400
06/23/93	208300	208900	181700	218400	215800	286900	310800	123100	161000	258000	91500	185300	42400	105100	65900	116600	2779700
06/24/93	323700	317300	271200	332000	344600	436500	489300	175800	247900	395900	143300	280200	66100	158100	99800	177000	4258700
06/25/93	321500	311600	273800	326700	349800	431300	490300	183000	245400	390400	144800	274300	64000	154300	98100	172600	4231900
06/26/93	251800	248900	217200	260900	279000	344400	392600	146300	195200	311600	107600	222100	50900	123200	78600	139200	3369500
06/27/93	152600	199200	110100	145000	182700	262800	276400	114000	139700	244300	77300	132600	45800	107300	68200	133000	2391000
06/28/93	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
06/29/93	0	47900	242300	306533	417200	408600	508900	183100	222900	360600	80600	268100	51200	148300	89200	180400	3515833
06/30/93	263200	258900	242000	306533	407300	402500	509800	171600	229300	369100	98500	255800	48200	145000	90400	177000	3975133
TOTAL	7727500	7820300	7318200	8364367	8384500	11098600	12445400	4738500	6222900	10098000	3056300	7100600	1704900	3976400	2510100	4557200	107123767

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: JUNE 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)											
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM
05/31/93	1277145000	1584188000	1637202000	1841036000	1281466000	1179394000												
06/01/93	1278978000	1586209000	1638600000	1843099000	1283479000	1181512000	1833000	2021000	3854000	2676	1398000	2063000	3461000	2403	2013000	2118000	4131000	2869
06/02/93	1280504000	1587890000	1639772000	1844806000	1285155000	1183274000	1526000	1681000	3207000	2673	1172000	1707000	2879000	2399	1676000	1762000	3438000	2865
06/03/93	1282709000	1590331000	1641466000	1847289000	1287540000	1185829000	2205000	2441000	4646000	2670	1694000	2483000	4177000	2401	2385000	2555000	4940000	2839
06/04/93	1284694000	1592571000	1643016000	1849525000	1289796000	1188153000	1985000	2240000	4225000	2561	1550000	2236000	3786000	2295	2256000	2324000	4580000	2776
06/05/93	1286464000	1594581000	1644415000	1851530000	1291774000	1190233000	1770000	2010000	3780000	2625	1399000	2005000	3404000	2364	1978000	2080000	4058000	2818
06/06/93	1288374000	1596757000	1645928000	1853687000	1293917000	1192484000	1910000	2176000	4086000	2619	1513000	2157000	3670000	2353	2143000	2251000	4394000	2817
06/07/93	1289519000	1598075000	1646840000	1854992000	1295208000	1193840000	1145000	1318000	2463000	2648	912000	1305000	2217000	2384	1291000	1356000	2647000	2846
06/08/93	1291738000	1600592000	1648603000	1857495000	1297695000	1196452000	2219000	2517000	4736000	2631	1763000	2503000	4266000	2370	1487000	2612000	5099000	2833
06/09/93	1293261000	1602311000	1649813000	1859191000	1299391000	1198231000	1523000	1719000	3242000	2573	1210000	1696000	2906000	2306	1696000	1779000	3475000	2758
06/10/93	1295300000	1604662000	1651461000	1861489000	1301694000	1200648000	2039000	2351000	4390000	2613	1648000	2298000	3946000	2349	2303000	2417000	4720000	2810
06/11/93	1297072000	1606671000	1652884000	1863469000	1303678000	1202730000	1772000	2009000	3781000	2626	1423000	1980000	3403000	2363	1984000	2082000	4066000	2824
06/12/93	1298600000	1608365000	1654075000	1865183000	1305368000	1204504000	1528000	1694000	3222000	2685	1191000	1714000	2905000	2421	1690000	1774000	3464000	2887
06/13/93	1300407000	1610357000	1655472000	1867214000	1307363000	1206597000	1807000	1992000	3799000	2638	1397000	2031000	3428000	2381	1995000	2093000	4088000	2839
06/14/93	1302101000	1612240000	1656794000	1869110000	1309244000	1208569000	1694000	1883000	3577000	2650	1322000	1896000	3218000	2384	1881000	1972000	3853000	2854
06/15/93	1303655000	1613864000	1657961000	1870802000	1310903000	1210309000	1554000	1624000	3178000	2162	1167000	1692000	2859000	1945	1659000	1740000	3399000	2312
06/16/93	1305523000	1615886000	1659378000	1872882000	1312939000	1212444000	1868000	2022000	3890000	2701	1417000	2080000	3497000	2428	2036000	2135000	4171000	2897
06/17/93	1306509000	1617720000	1660676000	1874120000	1314423000	1213995000	986000	1834000	2820000	2000	1298000	1238000	2536000	1799	1484000	1551000	3035000	2152
06/18/93	1308356000	1619786000	1662108000	1876199000	1316471000	1216144000	1847000	2066000	3913000	2662	1432000	2079000	3511000	2388	2048000	2149000	4197000	2855
06/19/93	1310443000	1622068000	1663699000	1878535000	1318757000	1218544000	2087000	2282000	4369000	2697	1591000	2336000	3927000	2424	2286000	2400000	4686000	2893
06/20/93	1312002000	1623773000	1664875000	1880280000	1320469000	1220339000	1559000	1705000	3264000	2720	1176000	1745000	2921000	2434	1712000	1795000	3507000	2923
06/21/93	1313858000	1625846000	1666327000	1882351000	1322527000	1222496000	1856000	2073000	3929000	2673	1452000	2071000	3523000	2397	2058000	2157000	4215000	2867
06/22/93	1316145000	1628411000	1668113000	1884916000	1325070000	1225160000	2287000	2565000	4852000	2651	1786000	2565000	4351000	2378	2543000	2664000	5207000	2845
06/23/93	1317457000	1629894000	1669157000	1886386000	1326538000	1226698000	1312000	1483000	2795000	2662	1044000	1470000	2514000	2394	1468000	1538000	3006000	2863
06/24/93	1319474000	1632157000	1670735000	1888644000	1328780000	1229047000	2017000	2263000	4280000	2642	1578000	2258000	3836000	2368	2242000	2349000	4591000	2834
06/25/93	1321476000	1634365000	1672270000	1890893000	1330989000	1231359000	2002000	2208000	4210000	2699	1535000	2249000	3784000	2426	2209000	2312000	4521000	2898
06/26/93	1323101000	1636162000	1673529000	1892694000	1332785000	1233238000	1625000	1797000	3422000	2782	1259000	1801000	3060000	2488	1796000	1879000	3675000	2988
06/27/93	1324318000	1637312000	1675031000	1893275000	1334022000	1234533000	1217000	1150000	2367000	1644	1502000	581000	2083000	1447	1237000	1295000	2532000	1758
06/28/93	1324318000	1637312000	1675031000	1893275000	1334022000	1234533000	0	0	0	0	0	0	0	0	0	0	0	0
06/29/93	1325912000	1639324000	1676563000	1893275000	1335915000	1236517000	1594000	2012000	3606000	2557	1532000	0	1532000	1087	1893000	1984000	3877000	2750
06/30/93	1327879000	1641314000	1678029000	1893275000	1337985000	1238701000	1967000	1990000	3957000	2638	1466000	0	1466000	977	2070000	2184000	4254000	2836
	50734000	57126000	40827000	52239000	56519000	59307000	50734000	57126000	107860000	2615	40827000	52239000	93066000	2256	56519000	59307000	115826000	2808

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: JULY 1993

METER READING (GALLONS X 100)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
06/30/93	340951000	182617000	184949300	341691200	280533600	569160600	491659500	299897400	266325500	420664700	379473200	164783400	41630100	185994300	15128200	280904000
07/01/93	341218100	182873200	185177500	11466000	280891700	569511700	492095800	300046100	266527200	420984600	379565100	165005800	41675700	186118500	15206500	281056600
07/02/93	341450200	183096400	185378500	11682900	281205700	569819100	492435800	300176400	266703100	421264000	379659000	165203800	41719400	186229600	15255600	281184400
07/03/93	341610000	183264800	185447600	11829700	281284300	570092800	492789200	300295100	266846200	421516900	379751400	165344900	41760300	186337400	15298800	281302200
07/04/93	341852400	183504800	185657600	12063700	281324300	570416800	493149200	300435500	267029800	421808500	379869000	165558700	41805900	186457400	15350400	281436600
07/05/93	342189000	183853100	185960100	12388800	281391800	570881100	493668600	300642500	267280900	422215300	380049000	165864400	41859800	186640600	15416600	281614800
07/06/93	342398100	184056400	186147100	12586500	281458800	571162900	493980200	300763700	267441300	422471900	380159800	166047000	41897900	186744500	15459100	281726300
07/07/93	342711000	184368100	186410700	12888100	281721800	571590800	494451000	300949400	267682600	422857200	380262400	166325400	41957400	186903500	15522100	281894400
07/08/93	342999100	184652700	186665200	13163800	281925200	571980900	494882500	301119000	267901900	423207500	380370800	166578100	42012200	187049600	15581900	282050200
07/09/93	343334400	184981700	186968000	13484100	282160500	572435500	495383200	301315900	268158200	423617800	380511300	166873700	42075600	187217800	15650400	282229600
07/10/93	343547800	185187500	187155700	13683400	282359500	572719000	495700900	301438600	268318000	423874400	380601400	167056700	42115200	187323700	15693400	282343700
07/11/93	343949700	185577600	187490900	14062700	282737200	573258300	496292200	301671700	268622000	424362700	380763800	167406700	42191900	187523600	15775500	282558400
07/12/93	344131200	185753200	187665500	14233800	282906800	573502200	496558700	301776700	268759000	424584700	380833600	167565000	42226700	187613600	15812900	282655200
07/13/93	344460300	186065000	187993600	14539800	283229100	573940400	497055900	301963900	269007600	424982700	381006100	167848100	42288600	187773900	15878700	282829600
07/14/93	344760000	186347300	188297300	14816000	283521800	574335600	497482800	302132800	269230100	425342600	381171500	168103500	42345300	187919300	15937200	282987300
07/15/93	345015400	186588200	188554900	15052300	283771400	574673000	497862000	302277100	269419400	425650800	381308400	168321100	42394200	188043700	15986700	283122200
07/16/93	345310200	186865500	188852800	15324900	284058300	575063800	498308900	302443800	269639900	426008300	381468900	168573400	42450200	188186300	16044500	283277100
07/17/93	345657100	187185600	189201200	15640200	284395500	575516100	498885900	302635500	269900100	426432300	381663300	168863200	42515800	188351300	16114200	283459500
07/18/93	345952800	187459200	189504100	15909800	284685600	575903900	499378800	302799900	270121900	426796600	381826600	169111800	42572400	188492500	16174400	283615500
07/19/93	346222700	187709600	189774400	16156500	284950700	576258100	499825900	302950300	270323100	427126500	381970800	169339200	42624900	188621600	16227600	283757800
07/20/93	346490000	187957200	190038700	16400400	285208200	576607500	500255900	303099300	270520300	427449900	382110100	169563700	42677700	188749600	16281200	283898300
07/21/93	346834200	188281200	190376100	16720300	285548900	577066100	500775100	303295400	270777700	427872400	382288100	169860400	42746600	188915900	16360300	284080800
07/22/93	347094000	188523200	190633200	16959300	285800200	577407900	501158700	303441800	270969100	428187100	382424300	170081400	42797800	189040700	16420000	284219900
07/23/93	347444700	188851200	190977700	17284000	286146400	577873500	501672900	303641000	271227700	428615500	382606000	170383600	42867600	189208700	16499000	284405700
07/24/93	347752200	189139000	191281100	17569300	286455700	578282000	502117400	303815700	271460300	428991400	382771000	170648200	42928600	189356600	16567500	284569600
07/25/93	348048200	189419900	191584300	17847200	286757300	578680000	502557300	303985600	271685900	429356000	382938900	170905400	42985400	189500700	16637400	284729400
07/26/93	348242600	189606300	191785100	18030900	286954000	578942600	502845500	304098000	271835100	429595200	383042800	171075200	43020300	189593600	16682000	284832900
07/27/93	348645600	189988600	192197800	18409100	287364600	579484200	503436200	304329500	272142400	430090200	383252500	171425100	43093200	189789600	16775300	285051100
07/28/93	348851500	190182300	192404300	18601000	287573200	579758700	503726600	304447100	272296400	430338400	383359700	171602800	43131000	189889200	16822200	285161000
07/29/93	349128600	190443500	192697500	18859400	287857500	580130100	504151200	304604600	272508200	430683300	383517900	171842200	43167800	190022800	16882300	285310900
07/30/93	349442600	190740100	193023600	19152700	288177700	580550900	504631400	304783700	272747600	431070300	383690600	172113400	43207700	190174100	16950300	285479900
07/31/93	349772800	191052000	193355800	19461700	288513900	580994000	505134700	304972400	273000100	431479300	383873000	172399200	43249300	190332700	17021700	285659000

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: JULY 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
07/01/93	267100	256200	228200	180129	358100	351100	436300	148700	201700	319900	91900	222400	45600	124200	78300	152600	3462429
07/02/93	232100	223200	201000	216900	314000	307400	340000	130300	175900	279400	93900	198000	43700	111100	49100	127800	3043800
07/03/93	159800	168400	69100	146800	78600	273700	353400	118700	143100	252900	92400	141100	40900	107800	43200	117800	2307700
07/04/93	242400	240000	210000	234000	40000	324000	360000	140400	183600	291600	117600	213800	45600	120000	51600	134400	2949000
07/05/93	336600	348300	302500	325100	67500	464300	519400	207000	251100	406800	180000	305700	53900	183200	66200	178200	4195800
07/06/93	209100	203300	187000	197700	67000	281800	311600	121200	160400	256600	110800	182600	38100	103900	42500	111500	2585100
07/07/93	312900	311700	263600	301600	263000	427900	470800	185700	241300	385300	102600	278400	59500	159000	63000	168100	3994400
07/08/93	288100	284600	254500	275700	203400	390100	431500	169600	219300	350300	108400	252700	54800	146100	59800	155800	3644700
07/09/93	335300	329000	320800	320300	235300	454600	500700	196900	256300	410300	140500	295600	63400	168200	68500	179400	4257100
07/10/93	213400	205800	187700	199300	199000	283500	317700	122700	159800	256600	90100	183000	39600	105900	43000	114100	2721200
07/11/93	401900	390100	335200	379300	377700	539300	591300	233100	304000	488300	162400	350000	76700	199900	82100	214700	5126000
07/12/93	181500	175600	174600	171100	169600	243900	266500	105000	137000	222000	69800	158300	34800	90000	37400	96800	2333900
07/13/93	329100	311800	328100	306000	322300	438200	497200	187200	248600	398000	172500	283100	61900	160300	65800	174400	4284500
07/14/93	299700	282300	303700	276200	292700	395200	426900	168900	222500	359900	165400	255400	56700	145400	58500	157700	3867100
07/15/93	255400	240900	257600	236300	249600	337400	379200	144300	189300	308200	136900	217600	48900	124400	49500	134900	3310400
07/16/93	294800	277300	297900	272600	286900	390800	446900	166700	220500	357500	160500	252300	56000	142600	57800	154900	3836000
07/17/93	346900	320100	348400	315300	337200	452300	577000	191700	260200	424000	194400	289800	65600	165000	69700	182400	4540000
07/18/93	295700	273600	302900	269600	290100	387800	492900	164400	221800	364300	163300	248600	56600	141200	59800	156000	3888600
07/19/93	269900	250400	270300	246700	265100	354200	447100	150400	201200	329900	144200	227400	52500	129100	53600	142300	3534300
07/20/93	267300	247600	264300	243900	257500	349400	430000	149000	197200	323400	139300	224500	52800	128000	53600	140500	3468300
07/21/93	344200	324000	337400	319900	340700	458600	519200	196100	257400	422500	178000	296700	68900	166300	79100	182500	4491500
07/22/93	259800	242000	257100	239000	251300	341800	383600	146400	191400	314700	136200	221000	51200	124800	59700	139100	3359100
07/23/93	350700	328000	344500	324700	346200	465600	514200	199200	258600	428400	181700	302200	69800	168000	79000	185800	4546600
07/24/93	307500	287800	303400	285300	309300	408500	444500	174700	232600	375900	165000	264800	61000	147900	68500	163900	4000400
07/25/93	296000	280900	303200	277900	301600	398000	439900	169900	225600	364600	167900	257200	56800	144100	69900	159800	3913300
07/26/93	194400	186400	200800	183700	196700	262600	288200	112400	149200	239200	103900	169800	34900	92900	44600	103500	2563200
07/27/93	403000	382300	412700	378200	410600	541600	590700	231500	307300	495000	209700	349900	72900	196000	93300	218200	5292900
07/28/93	205900	193700	206500	191900	208600	274500	290400	117600	154000	248200	107200	177700	37800	99600	46900	109900	2670400
07/29/93	277100	261200	293200	258400	284300	371400	424600	157500	211800	344900	158200	239400	36800	133600	60100	149900	3662400
07/30/93	314000	296600	326100	293300	320200	420800	480200	179100	239400	387000	172700	271200	39900	151300	68000	169000	4128800
07/31/93	330200	311900	332200	309000	336200	443100	503300	188700	252500	409000	182400	285800	41600	158600	71400	179100	4335000
<b>TOTAL</b>	<b>8821800</b>	<b>8435000</b>	<b>8406500</b>	<b>8175829</b>	<b>7980300</b>	<b>11833400</b>	<b>13475200</b>	<b>5075000</b>	<b>6674600</b>	<b>10814600</b>	<b>4399800</b>	<b>7615800</b>	<b>1619200</b>	<b>4338400</b>	<b>1893500</b>	<b>4755000</b>	<b>114313929</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: JULY 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)											
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM
06/30/93	1327879000	1641314000	1678029000	1893275000	1337985000	1238701000												
07/01/93	1329630000	1643159000	1679304000	1893275000	1339872000	1240691000	1751000	1845000	3596000	2724	1275000	0	1275000	966	1887000	1990000	3877000	2937
07/02/93	1331124000	1644755000	1680424000	1893275000	1341487000	1242394000	1494000	1596000	3090000	2711	1120000	0	1120000	982	1615000	1703000	3318000	2911
07/03/93	1332356000	1645751000	1682005000	1893275000	1342653000	1243627000	1232000	996000	2228000	1092	1581000	0	1581000	775	1166000	1233000	2399000	1176
07/04/93	1333856000	1647435000	1683183000	1893275000	1344315000	1245374000	1500000	1684000	3184000	2653	1178000	0	1178000	982	1662000	1747000	3409000	2841
07/05/93	1335512000	1649812000	1684870000	1893275000	1346439000	1247768000	1656000	2377000	4033000	2358	1687000	0	1687000	987	2124000	2394000	4518000	2642
07/06/93	1336767000	1651246000	1685870000	1893275000	1347876000	1249308000	1255000	1434000	2689000	2636	1000000	0	1000000	980	1437000	1540000	2977000	2919
07/07/93	1338608000	1653441000	1687411000	1893275000	1349968000	1251632000	1841000	2195000	4036000	2587	1541000	0	1541000	988	2092000	2324000	4416000	2831
07/08/93	1340306000	1655457000	1688817000	1893275000	1351921000	1253769000	1698000	2016000	3714000	2579	1406000	0	1406000	976	1953000	2137000	4090000	2840
07/09/93	1342274000	1657771000	1690441000	1893275000	1354169000	1256229000	1968000	2314000	4282000	2595	1624000	0	1624000	984	2248000	2460000	4708000	2853
07/10/93	1343574000	1659253000	1691472000	1893275000	1355629000	1257827000	1300000	1482000	2782000	2650	1031000	0	1031000	982	1460000	1598000	3058000	2912
07/11/93	1345973000	1662023000	1693419000	1893275000	1358347000	1260801000	2399000	2770000	5169000	2611	1947000	0	1947000	983	2718000	2974000	5692000	2875
07/12/93	1347070000	1663272000	1694292000	1893275000	1359587000	1262155000	1097000	1249000	2346000	2607	873000	0	873000	970	1240000	1354000	2594000	2882
07/13/93	1349118000	1665531000	1695874000	1893275000	1361840000	1264628000	2048000	2259000	4307000	2709	1582000	0	1582000	995	2253000	2473000	4726000	2972
07/14/93	1350977000	1667583000	1697304000	1893275000	1363893000	1266875000	1859000	2052000	3911000	2661	1430000	0	1430000	973	2053000	2247000	4300000	2925
07/15/93	1352578000	1669343000	1698554000	1893275000	1365660000	1268808000	1601000	1760000	3361000	2667	1250000	0	1250000	992	1767000	1933000	3700000	2937
07/16/93	1354415000	1671358000	1699961000	1893275000	1367682000	1271021000	1837000	2015000	3852000	2675	1407000	0	1407000	977	2022000	2213000	4235000	2941
07/17/93	1356641000	1673720000	1701621000	1893275000	1370090000	1273656000	2226000	2362000	4588000	2731	1660000	0	1660000	988	2408000	2635000	5043000	3002
07/18/93	1358550000	1675744000	1703038000	1893275000	1372159000	1275919000	1909000	2024000	3933000	2731	1417000	0	1417000	984	2069000	2263000	4332000	3008
07/19/93	1360268000	1677586000	1704323000	1893275000	1374027000	1277965000	1718000	1842000	3560000	2697	1285000	0	1285000	973	1868000	2046000	3914000	2965
07/20/93	1361967000	1679422000	1705596000	1893275000	1375884000	1279998000	1699000	1836000	3535000	2678	1273000	0	1273000	964	1857000	2033000	3890000	2947
07/21/93	1364106000	1681781000	1707255000	1893275000	1378248000	1282581000	2139000	2359000	4498000	2677	1659000	0	1659000	988	2364000	2583000	4947000	2945
07/22/93	1365729000	1683571000	1708506000	1893275000	1380042000	1284543000	1623000	1790000	3413000	2646	1251000	0	1251000	970	1794000	1962000	3756000	2912
07/23/93	1367887000	1685965000	1710181000	1893275000	1382436000	1287159000	2158000	2394000	4552000	2662	1675000	0	1675000	980	2394000	2616000	5010000	2930
07/24/93	1369805000	1688084000	1711664000	1893275000	1384557000	1289476000	1918000	2119000	4037000	2320	1483000	0	1483000	852	2121000	2317000	4438000	2551
07/25/93	1371680000	1690147000	1713116000	1893275000	1386625000	1291739000	1875000	2063000	3938000	2679	1452000	0	1452000	988	2068000	2263000	4331000	2946
07/26/93	1372912000	1691518000	1714070000	1893275000	1387996000	1293239000	1232000	1371000	2603000	2629	954000	0	954000	964	1371000	1500000	2871000	2900
07/27/93	1375439000	1694319000	1716035000	1893275000	1390794000	1296297000	2527000	2801000	5328000	2651	1965000	0	1965000	978	2798000	3058000	5856000	2913
07/28/93	1376714000	1695744000	1717029000	1893275000	1392215000	1297850000	1275000	1425000	2700000	2647	994000	0	994000	975	1421000	1553000	2974000	2916
07/29/93	1378488000	1697677000	1718387000	1893275000	1394164000	1299978000	1774000	1933000	3707000	2686	1358000	0	1358000	984	1949000	2128000	4077000	2954
07/30/93	1380486000	1699864000	1719919000	1893275000	1396364000	1302380000	1998000	2187000	4185000	2683	1532000	0	1532000	982	2200000	2402000	4602000	2950
07/31/93	1382578000	1702162000	1721532000	1893275000	1398671000	1304898000	2092000	2298000	4390000	2661	1613000	0	1613000	978	2307000	2518000	4825000	2924
	54699000	60848000	43503000	0	60686000	66197000	54699000	60848000	115547000	2594	43503000	0	43503000	976	60686000	66197000	126883000	2848

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*



ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: AUGUST 1993

METER READING (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
07/31/93	349772800	191052000	193355800	19461700	288513900	580994000	505134700	304972400	273000100	431479300	383873000	172399200	43249300	190332700	17021700	285659000
08/01/93	350021500	191283700	193614200	19691900	288765400	581323800	505509600	305112800	273186500	431781700	384014400	172611800	43280500	190451000	17077500	285793600
08/02/93	350279500	191523700	193881400	19930500	289023800	581665500	505892900	305258600	273378900	432096700	384153300	172832900	43312800	190572700	17133600	285931300
08/03/93	350606200	191831200	194225600	20236600	289356200	582104000	506368900	305445700	273628200	432501400	384330800	173117000	43354500	190728900	17205500	286108400
08/04/93	350916100	192117300	194549900	20521700	289666700	582512400	506834400	305619600	273863300	432885300	384501900	173380200	43393000	190874200	17272000	286273600
08/05/93	351154400	192337200	194793700	20740600	289905100	582825000	507187700	305753100	274042600	433177800	384631600	173581600	43422700	190986400	17322900	286401600
08/06/93	351504600	192657900	195147500	21060800	290251400	583283200	507709800	305948600	274302400	433605100	384825400	173877100	43465800	191149700	17395300	286586400
08/07/93	351852900	192977000	195508400	21381000	290596400	583741500	508230400	306144100	274564500	434030600	385015600	174173100	43508500	191312700	17466700	286770500
08/08/93	352061600	193167700	195724300	21573300	290804300	584016700	508534600	306261500	274722400	434285700	385134200	174351100	43534300	191410600	17510200	286882000
08/09/93	352386900	193472800	196069200	21879200	291139400	584452400	509009600	306414700	274972600	434690000	385328700	174663200	43572600	191567800	17582440	287061000
08/10/93	352564500	193485400	196150900	22062400	291333200	584737600	509324900	306417900	275125100	434948100	385464700	174884900	43573000	191681300	17632700	287185900
08/11/93	352781700	193687500	196394200	22297200	291568100	585047100	509667800	306569000	275302300	435235300	385612100	175083200	43595700	191794400	17681900	287311400
08/12/93	353032700	193927700	196671900	22518300	291834300	585394700	510074600	306743000	275501600	435559900	385777500	175313700	43625000	191922800	17738100	287454500
08/13/93	353296000	194171000	196958200	22767700	292111500	585755000	510496100	306923900	275709200	435896400	385956900	175544300	43651500	192054500	17798200	287601800
08/14/93	353652600	194507400	197341600	23104100	292484300	586239100	511056200	307167500	275987500	436347300	386195400	175854100	43691700	192232600	17881500	287800800
08/15/93	353947800	194783700	197655400	23384200	292794900	586641700	511520000	307369400	276218100	436723600	386392500	176112100	43725300	192380200	17954000	287967500
08/16/93	354146200	194974400	197866400	23577500	293006400	586948900	511839200	307507600	276376300	436980400	386526800	176290000	43748700	192482200	18003200	288081700
08/17/93	354502600	195306800	198239100	23915800	293380400	587404900	512406900	307749300	276653500	437433400	386760400	176602200	43775200	192659400	18086800	288279800
08/18/93	354749100	195533600	198503400	24147100	293634000	587737200	512784300	307915200	276844200	437740200	386925900	176816100	43782800	192780600	18142700	288416000
08/19/93	354998800	195763100	198764000	24380400	293892300	588071400	513168000	308083100	277036500	438051200	387097300	177031500	43841600	192903900	18198800	288555200
08/20/93	355375600	196108600	199159400	24731200	294280000	588575900	513722800	308333200	277325000	438515400	387349400	177357600	43931800	193087400	18278800	288760900
08/21/93	355607000	196333500	199405100	24958300	294530200	588901400	514101000	308495600	277510400	438812100	387513900	177567400	43990500	193206600	18331100	288894000
08/22/93	355906700	196620700	199738000	25250000	294854100	589320800	514605300	308707200	277751700	439200000	387723200	177837600	44065100	193357900	18397500	289066400
08/23/93	356111300	196822900	199974700	25454400	295077600	589613700	514953900	308854000	277918100	439470400	387864900	178026200	44118200	193464500	18443900	289186600
08/24/93	356414600	197099400	200292700	25737200	295392100	590021300	515425500	309058800	278147900	439853700	388077000	178267000	44184100	193613500	18511400	289345900
08/25/93	356656600	197320900	200540400	25982100	295636000	590337700	515772500	309218100	278326900	440143000	388241800	178500800	44235800	193736400	18566500	289345900
08/26/93	356883800	197543700	200789000	26192500	295892300	590673300	516176500	309386200	278516400	440463200	388406400	178718100	44290000	193854400	18619700	289465500
08/27/93	357215200	197848400	201106700	26502400	296239900	591127600	516703800	309615500	278778900	440892200	388644900	179011200	44370600	194021100	18696300	289645700
08/28/93	357422700	198054000	201290400	26706300	296454500	591435800	517088000	309770300	278955900	441180600	388807500	179201500	44421300	194136500	18749400	289787100
08/29/93	357742800	198347900	201595300	27001200	296763200	591871400	517660100	309992700	279206900	441592700	389042900	179460900	44481900	194299400	18822200	290021300
08/30/93	357935300	198527100	201776900	27179200	296945500	592135200	518005600	310127200	279359600	441839900	389166000	179615300	44519300	194400800	18866500	290111700
08/31/93	275900	198860900	202107400	27506300	297289700	592622100	518645500	310372600	279638600	442291600	389419700	179841400	44589000	194593200	18968500	290305400

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: AUGUST 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
08/01/93	248700	231700	258400	230200	251500	329800	374900	140400	186400	302400	141400	212600	31200	118300	55800	134600	3248300
08/02/93	258000	240000	267200	238600	258400	341700	383300	145800	192400	315000	138900	221100	32300	121700	56100	137700	3348200
08/03/93	326700	307500	344200	306100	332400	438500	476000	187100	249300	404700	177500	284100	41700	156200	71900	177100	4281000
08/04/93	309900	286100	324300	285100	310500	408400	465500	173900	235100	383900	171100	263200	38500	145300	66500	165200	4032500
08/05/93	238300	219900	243800	218900	238400	312600	353300	133500	179300	292500	129700	201400	29700	112200	50900	128000	3082400
08/06/93	350200	320700	353800	320200	346300	458200	522100	195500	259800	427300	193800	295500	43100	163300	72400	184800	4507000
08/07/93	348300	319100	360900	320200	345000	458300	520600	195500	262100	425500	190200	296000	42700	163000	71400	184100	4502900
08/08/93	208700	190700	215900	192300	207900	275200	304200	117400	157900	255100	118600	178000	25800	97900	43500	111500	2700600
08/09/93	325300	305100	344900	305900	335100	435700	475000	153200	250200	404300	194500	312100	38300	157200	72240	179000	4288040
08/10/93	177600	12600	81700	183200	193800	285200	315300	3200	152500	258100	136000	221700	400	113500	50260	124900	2309960
08/11/93	217200	202100	243300	234800	234900	309500	342900	151100	177200	287200	147400	198300	22700	113100	49200	125500	3056400
08/12/93	251000	240200	277700	221100	266200	347600	406800	174000	199300	324600	165400	230500	29300	128400	56200	143100	3461400
08/13/93	263300	243300	286300	249400	277200	360300	421500	180900	207600	336500	179400	230600	26500	131700	60100	147300	3601900
08/14/93	356600	336400	383400	336400	372800	484100	560100	243600	278300	450900	238500	309800	40200	178100	83300	199000	4851500
08/15/93	295200	276300	313800	280100	310600	402600	463800	201900	230600	376300	197100	258000	33600	147600	72500	166700	4026700
08/16/93	198400	190700	211000	193300	211500	307200	319200	138200	158200	256800	134300	177900	23400	102000	49200	114200	2785500
08/17/93	356400	332400	372700	338300	374000	456000	567700	241700	277200	453000	233600	312200	26500	177200	83600	198100	4800600
08/18/93	246500	226800	264300	231300	253600	332300	377400	165900	190700	306800	165500	213900	7600	121200	55900	136200	3295900
08/19/93	249700	229500	260600	233300	258300	334200	383700	167900	192300	311000	171400	215400	58800	123300	56100	139200	3384700
08/20/93	376800	345500	395400	350800	387700	504500	554800	250100	288500	464200	252100	326100	90200	183500	80000	205700	5055900
08/21/93	231400	224900	245700	227100	250200	325500	378200	162400	185400	296700	164500	209800	58700	119200	52300	133100	3265100
08/22/93	299700	287200	332900	291700	323900	419400	504300	211600	241300	387900	209300	270200	74600	151300	66400	172400	4244100
08/23/93	204600	202200	236700	204400	223500	292900	348600	146800	166400	270400	141700	188600	53100	106600	46400	120200	2953100
08/24/93	303300	276500	318000	282800	314500	407600	471600	204800	229800	383300	212100	240800	65900	149000	67500	159300	4086800
08/25/93	242000	221500	247700	224900	243900	316400	347000	159300	179000	289300	164800	233600	51700	122900	55100	0	3099300
08/26/93	227200	222800	248600	230400	256300	335600	404000	168100	189500	320200	164600	217300	54200	118000	53200	119600	3329600
08/27/93	331400	304700	317700	309900	347600	454300	527300	229300	262500	429000	238500	293100	80600	166700	76600	180200	4549400
08/28/93	207500	205600	183700	203900	214600	308200	384200	154800	177000	288400	162600	190300	50700	115400	53100	141400	3041400
08/29/93	320100	293900	304900	294900	308700	435600	572100	222400	251000	412100	235400	259400	60600	162900	72800	234200	4441000
08/30/93	192500	179200	181600	178000	182300	263800	345500	134500	152700	247200	123100	154400	37400	101400	44300	90400	2608300
08/31/93	343928	333800	330500	327100	344200	486900	639900	245400	279000	451700	253700	226100	69700	192400	102000	193700	4820028
<b>TOTAL</b>	<b>8506428</b>	<b>7808900</b>	<b>8751600</b>	<b>8044600</b>	<b>8775800</b>	<b>11628100</b>	<b>13510800</b>	<b>5400200</b>	<b>6638500</b>	<b>10812300</b>	<b>5546700</b>	<b>7442200</b>	<b>1339700</b>	<b>4260500</b>	<b>1946800</b>	<b>4646400</b>	<b>115059528</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: AUGUST 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)												
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM	
07/31/93	1382578000	1702162000	1721532000	1893275000	1398671000	1304898000	-	-	-	-	-	-	-	-	-	-	-	-	-
08/01/93	1384152000	1703883000	1722732000	1893275000	1400706000	1306790000	1574000	1721000	3295000	2679	1200000	0	1200000	976	2035000	1892000	3927000	3193	
08/02/93	1385760000	1705653000	1723966000	1893275000	1402183000	1308726000	1608000	1770000	3378000	2681	1234000	0	1234000	979	1477000	1936000	3413000	2709	
08/03/93	1387799000	1707915000	1725558000	1893275000	1404445000	1311192000	2039000	2262000	4301000	2655	1592000	0	1592000	983	2262000	2466000	4728000	2919	
08/04/93	1389748000	1710039000	1727044000	1893275000	1406587000	1313526000	1949000	2124000	4073000	2662	1486000	0	1486000	971	2142000	2334000	4476000	2925	
08/05/93	1391259000	1711691000	1728193000	1893275000	1408251000	1315336000	1511000	1652000	3163000	2703	1149000	0	1149000	982	1664000	1810000	3474000	2969	
08/06/93	1393436000	1714083000	1729868000	1893275000	1410656000	1317952000	2177000	2392000	4569000	2672	1675000	0	1675000	980	2405000	2616000	5021000	2936	
08/07/93	1395607000	1716470000	1731538000	1893275000	1413054000	1320530000	2171000	2387000	4558000	2665	1670000	0	1670000	977	2398000	2578000	4976000	2910	
08/08/93	1396904000	1717903000	1732543000	1893275000	1414493000	1322124000	1297000	1433000	2730000	2676	1005000	0	1005000	985	1439000	1594000	3033000	2974	
08/09/93	1398964000	1720222000	1734190000	1893275000	1416792000	1324629000	2060000	2319000	4379000	2607	1647000	0	1647000	980	2299000	2505000	4804000	2860	
08/10/93	1399191000	1722222000	1733819000	1893275000	1417983000	1325937000	227000	2000000	2227000	1456	1371000	0	-371000	-242	1191000	1308000	2499000	1633	
08/11/93	1400627000	1723857000	1734905000	1893275000	1419594000	1327700000	1436000	1635000	3071000	2559	1086000	0	1086000	905	1611000	1763000	3374000	2812	
08/12/93	1402327000	1725703000	1736174000	1893275000	1421467000	1329741000	1700000	1846000	3546000	2627	1269000	0	1269000	940	1873000	2041000	3914000	2899	
08/13/93	1404069000	1727579000	1737491000	1894799000	1423376000	1331822000	1742000	1876000	3618000	2680	1317000	1524000	2841000	2104	1909000	2081000	3990000	2956	
08/14/93	1406451000	1730125000	1739291000	1897364000	1425978000	1334655000	2382000	2546000	4928000	2738	1800000	2565000	4365000	2425	2602000	2833000	5435000	3019	
08/15/93	1408421000	1732236000	1740786000	1899481000	1428132000	1337001000	1970000	2111000	4081000	2721	1495000	2117000	3612000	2408	2154000	2346000	4500000	3000	
08/16/93	1409765000	1733694000	1741813000	1900932000	1429615000	1338616000	1344000	1458000	2802000	2669	1027000	1451000	2478000	2360	1483000	1615000	3098000	2950	
08/17/93	1412117000	1736228000	1743605000	1903464000	1432195000	1341425000	2352000	2534000	4886000	2670	1792000	2532000	4324000	2363	2580000	2809000	5389000	2945	
08/18/93	1413706000	1737953000	1744824000	1905190000	1433942000	1343331000	1589000	1725000	3314000	2694	1219000	1726000	2945000	2394	1747000	1906000	3653000	2970	
08/19/93	1415348000	1739734000	1746078000	1906958000	1435750000	1345303000	1642000	1781000	3423000	2783	1254000	1768000	3022000	2457	1808000	1972000	3780000	3073	
08/20/93	1417753000	1742359000	1747940000	1909557000	1438403000	1348201000	2405000	2625000	5030000	2704	1862000	2599000	4461000	2398	2653000	2898000	5551000	2984	
08/21/93	1419326000	1744076000	1749147000	1911253000	1440138000	1350096000	1573000	1717000	3290000	2675	1207000	1696000	2903000	2360	1735000	1895000	3630000	2951	
08/22/93	1421364000	1746265000	1750686000	1913464000	1442366000	1352529000	2038000	2189000	4227000	2710	1539000	2211000	3750000	2404	2228000	2433000	4661000	2988	
08/23/93	1422785000	1747802000	1751770000	1914993000	1443928000	1354235000	1421000	1537000	2958000	2665	1084000	1529000	2613000	2354	1562000	1706000	3268000	2944	
08/24/93	1424769000	1749904000	1753278000	1917102000	1446078000	1356580000	1984000	2102000	4086000	2128	1508000	2109000	3617000	1884	2150000	2345000	4495000	2341	
08/25/93	1426234000	1751595000	1754473000	1918696000	1447711000	1358394000	1465000	1691000	3156000	2630	1195000	1594000	2789000	2324	1633000	1814000	3447000	2873	
08/26/93	1427826000	1753319000	1755675000	1920410000	1449492000	1360298000	1592000	1724000	3316000	2763	1202000	1714000	2916000	2430	1781000	1904000	3685000	3071	
08/27/93	1430002000	1755696000	1757337000	1922767000	1451896000	1362917000	2176000	2377000	4553000	2759	1662000	2357000	4019000	2436	2404000	2619000	5023000	3044	
08/28/93	1431530000	1757326000	1758502000	1924393000	1453560000	1364728000	1528000	1630000	3158000	2632	1165000	1626000	2791000	2326	1664000	1811000	3475000	2896	
08/29/93	14333757000	1759586000	1760155000	1926704000	1455915000	1367291000	2227000	2260000	4487000	2579	1653000	2311000	3964000	2278	2355000	2563000	4918000	2826	
08/30/93	1435107000	1760940000	1761151000	1928092000	1457338000	1368836000	1350000	1354000	2704000	2504	996000	1388000	2384000	2207	1423000	1545000	2968000	2748	
08/31/93	1437624000	1763485000	1763015000	1930703000	1460003000	1371719000	2517000	2545000	5062000	2636	1864000	2611000	4475000	2331	2665000	2883000	5548000	2890	
	55046000	61323000	41483000	37428000	61332000	66821000	55046000	61323000	116369000	2626	41483000	37428000	78911000	1781	61332000	66821000	128153000	2892	

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: SEPTEMBER 1993

METER READING (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5
08/31/93	275900	198860900	202107400	27506300	297289700	592622100	518645500	310372600	279638600	442291600	389419700	179841400	44589000	194593200	18968500	290305400
09/01/93	501300	199087100	202360100	27744100	297557000	592965500	519085500	310536400	279839400	442613800	389589100	180089300	44636500	194714900	19040300	290431900
09/02/93	751200	199342500	202630600	28005700	297849900	593342200	519570200	310742600	280057800	442967300	389777500	180360600	44692000	194853500	19122900	290577400
09/03/93	933700	199524500	202824000	28189200	298050700	593607900	519914000	310879000	280212500	443215500	389912800	180534200	44737400	194955100	19182600	290685200
09/04/93	1202000	199797400	203083200	28448400	298354900	594010300	520429500	311080200	280439300	443578400	390111400	180534300	44793100	195109700	19268500	290841500
09/05/93	1466200	200068100	203348200	28738700	298653700	594428100	520979400	311283600	280671900	443961200	390327500	180534300	44861900	195267500	19357400	291000400
09/06/93	1718800	200322600	203623000	29000400	298945000	594806000	521465800	311477100	280891900	444315200	390516700	180534300	44919200	195406500	19439600	291146400
09/07/93	1876200	200466500	203668600	29140200	299075100	594999800	521725700	311566900	280989700	444481800	390623700	180538100	44957000	195493300	19484600	291188400
09/08/93	2111200	200653900	203885700	29332800	299292400	595281400	522091400	311710000	281152200	444745400	390762200	180721700	44986000	195593400	19540700	291270600
09/09/93	2425400	200904800	204179000	29589400	299578600	595651000	522566700	311899000	281363100	445090900	390947300	180959400	45033000	195728800	19615800	291414400
09/10/93	2806900	201208000	204519200	29899700	299928100	596099900	523144400	312128500	281622000	445509800	391169700	181273600	45097900	195892800	19711100	291583700
09/11/93	3119100	201459700	204796100	30156300	300216900	596470200	523620600	312318200	281835700	445854300	391352600	181538100	45152900	196028900	19791000	291731400
09/12/93	3412800	201692300	205046400	30392700	300478700	596805700	524048800	312491300	282029600	446165100	391524300	181775900	45205100	196157300	19867100	291872500
09/13/93	3712100	201993800	205307200	30701300	300752000	597245800	524503000	312712300	282279800	446572800	391737100	182090100	45273900	196317300	19958800	292042200
09/14/93	3712100	202245800	205307200	30951500	300752000	597581400	524503000	312867200	282456500	446861100	391894000	182317200	45339400	196448000	20024700	292167100
09/15/93	3944200	202512300	205516500	31222700	300962300	597963300	524824300	313055600	282671300	447213800	392077900	182590500	45400300	196589900	20103200	292315900
09/16/93	4171500	202733200	205684400	31443500	301150900	598273600	525213900	313210200	282844500	447505000	392238100	182766800	45442300	196710000	20170300	292447100
09/17/93	4463200	203029000	206043600	31752000	301495100	598719100	525786700	313437300	283102900	447920000	392459600	183071500	45495400	196872500	20258900	292621800
09/18/93	4693100	203264900	206308100	31992600	301765200	599065100	526233500	313613000	283302500	448238200	392633300	183311500	45533100	197000400	20330300	292759400
09/19/93	4961100	203527100	206613700	32262000	302067100	599454100	526733900	313808900	283527200	448597100	392826200	183582600	45585800	197142600	20409500	292912100
09/20/93	5262200	203821500	206951600	32564000	302402000	599892000	527290200	314028700	283778400	449003600	393041900	183881400	45648500	197302500	20499600	293083500
09/21/93	5509200	204069300	207244600	32817500	302685600	600257800	527744400	314214000	283989300	449343200	393219900	184134900	45692400	197436300	20578100	293227200
09/22/93	5749900	204319700	207540700	33073800	302970400	600627700	528203700	314400900	284202000	449686600	393401100	184391800	45747900	197571000	20656900	293371800
09/23/93	5982900	204557300	207826900	33318200	303242900	600980000	528637900	314579200	284408900	450016600	393576300	184638700	47694800	197694800	20733400	293503000
09/24/93	6188500	204759500	208074000	33521000	303477200	60702900	529007300	314732300	1154500	450296900	393725100	184850800	97754900	197842400	20850000	29373000
09/25/93	6488200	205057900	208433200	33835600	303821400	608514000	529543400	314956200	1410600	450708200	393944100	185161800	97842400	197978000	21021200	29403000
09/26/93	6739700	205311700	208736000	34098200	304111700	609519300	529984200	315146700	1627300	451058500	394128900	185427300	97914400	198065800	21166900	29433000
09/27/93	6979500	205552000	209020800	34347300	304387100	610575300	530387200	315326500	1836100	451391300	394299900	185678600	97981000	198148900	21300300	29463000
09/28/93	7295900	205846300	209349700	34652900	304711500	6110700	530877700	315544000	2089200	451795700	394459700	185982000	98062100	198248500	21469600	29493000
09/29/93	7533700	206073100	209578000	34886800	304955000	61242400	531274100	315710800	2282500	452104500	394572400	186212700	98124000	198322000	21598700	29523000
09/30/93	7850000	9859600	6371100	15983100	305273600	87079800	531796100	35128400	2536900	452510300	394732300	186516400	98204700	198417800	94088600	21771300

ALLIANT TECHSYSTEMS BGRS/TGRS EXTRACTION WELL WATER PUMPED, FOR THE MONTH OF: SEPTEMBER 1993

VOLUME OF WATER PUMPED (GALLONS)

	B1	B2	B3	B4	B5	B6	B7	B8	B9	B10	B11	B12	SC2	SC3	SC4	SC5	TOTAL
09/01/93	225400	226200	252700	237800	267300	343400	440000	163800	200800	322200	169400	247900	47500	121700	71800	126500	3464400
09/02/93	249900	255400	270500	261600	292900	376700	484700	206200	218400	353500	188400	271300	55500	138600	82600	145500	3851700
09/03/93	182500	182000	193400	183500	200800	265700	343800	136400	154700	248200	135300	173600	45400	101600	59700	107800	2714400
09/04/93	268300	272900	259200	259200	304200	402400	515500	201200	226800	362900	198600	100	55700	154600	85900	156300	3723800
09/05/93	264200	270700	265000	290300	298800	417800	549900	203400	232600	382800	216100	0	68800	157800	88900	158900	3866000
09/06/93	252600	254500	274800	261700	291300	377900	486400	193500	220000	354000	189200	0	57300	139000	82200	146000	3580400
09/07/93	157400	143900	45600	139800	130100	193800	259900	89800	97800	166600	107000	3800	37800	86800	45000	42000	1747100
09/08/93	235000	187400	217100	192600	217300	281600	365700	143100	162500	263600	138500	183600	29000	100100	56100	82200	2855400
09/09/93	314200	250900	293300	256600	286200	369600	475300	189000	210900	345500	185100	237700	47000	135400	75100	143800	3815600
09/10/93	381500	303200	340200	310300	349500	448900	577700	229500	258900	418900	222400	314200	64900	164000	95300	169300	4648700
09/11/93	312200	251700	276900	256600	288800	370300	476200	189700	213700	344500	182900	264500	55000	136100	79900	147700	3846700
09/12/93	293700	232600	250300	236400	261800	335500	428200	173100	193900	310800	171700	237800	52200	128400	76100	141100	3523600
09/13/93	299300	301500	260800	308600	273300	440100	454200	221000	250200	407700	212800	314200	68800	160000	91700	169700	4233900
09/14/93	0	252000	0	250200	0	335600	0	154900	176700	288300	335600	227100	65500	130700	65900	124900	2228700
09/15/93	232100	266500	209300	271200	210300	381900	321300	188400	214800	352700	183900	273300	60900	141900	78500	148800	3535800
09/16/93	227300	220900	167900	220800	188600	310300	389600	154600	173200	291200	160200	176300	42000	120100	67100	131200	3041300
09/17/93	291700	295800	359200	308500	344200	445500	572800	227100	258400	415000	221500	304700	53100	162500	88600	174700	4523300
09/18/93	229900	235900	264500	240600	270100	346000	446800	175700	199600	318200	173700	240000	37700	127900	71400	137600	3515600
09/19/93	268000	262200	305600	269400	301900	389000	500400	195900	224700	358900	192900	271100	52700	142200	79200	152700	3966800
09/20/93	301100	294400	337900	302000	334900	437900	556300	219800	251200	406500	215700	298800	62700	159900	90100	171400	4440600
09/21/93	247000	247800	293000	253500	283600	365800	454200	185300	210900	339600	178000	253500	43900	133800	78500	143700	3712100
09/22/93	240700	250400	296100	256300	284800	369900	459300	186900	212700	343400	181200	256900	55500	134700	78800	144600	3752200
09/23/93	233000	237600	286200	244400	272500	352300	434200	178300	206900	330000	175200	246900	54600	124000	74000	133700	3583800
09/24/93	205600	202200	247100	202800	234300	294000	369400	153100	174500	280300	148800	212100	60100	71500	67900	116600	3040300
09/25/93	299700	298400	359200	314600	344200	441100	536100	223900	256100	411300	219000	311000	87500	103800	102100	171200	4479200
09/26/93	251500	253800	302800	262600	290300	375300	440800	190500	216700	350300	184800	265500	72000	87800	86000	145700	3776400
09/27/93	239800	240300	284800	249100	275400	356000	403000	179800	208800	332800	171000	251300	66600	83100	80300	133400	3555500
09/28/93	316400	294300	328900	305600	324400	435400	490500	217500	253100	404400	159800	303400	81100	99600	96900	169300	4280600
09/29/93	237800	226800	228300	233900	243500	331700	396400	166600	193300	308800	112700	230700	61900	73500	75500	129100	3250500
09/30/93	316300	277100	302500	286200	318600	437400	522000	227900	254400	405800	159900	303700	80700	95800	76900	172600	4237800
<b>TOTAL</b>	<b>7574100</b>	<b>7489300</b>	<b>7773100</b>	<b>7666700</b>	<b>7983900</b>	<b>11028800</b>	<b>13150600</b>	<b>5565900</b>	<b>6327200</b>	<b>10218700</b>	<b>5312600</b>	<b>6675000</b>	<b>1723400</b>	<b>3716900</b>	<b>2348000</b>	<b>4238000</b>	<b>108792200</b>

ALLIANT TECHSYSTEMS BGRS/TGRS TREATMENT CENTER WATER METER READING LOG, FOR THE MONTH OF: SEPTEMBER 1993

DATE	METER READINGS (GALLONS)						VOLUME OF TREATED WATER (GALLONS) AND FLOWRATE (GALLONS PER MINUTE, GPM)											
	Meter #1	Meter #2	Meter #3	Meter #4	Meter #5	Meter #6	Meter #1	Meter #2	TOTAL	GPM	Meter #3	Meter #4	TOTAL	GPM	Meter #5	Meter #6	TOTAL	GPM
08/31/93	1437624000	1763485000	1763015000	1930703000	1460003000	1371719000	-	-	-	-	-	-	-	-	-	-	-	-
09/01/93	1439273000	1765219000	1764216000	1932484000	1461796000	1373658000	1649000	1734000	3383000	2685	1201000	1781000	2982000	2367	1793000	1939000	3732000	2962
09/02/93	1441187000	1767232000	1765160000	1934553000	1463869000	1375909000	1914000	2013000	3927000	2727	944000	2069000	3013000	2092	2073000	2251000	4324000	3003
09/03/93	1442584000	1768690000	1766659000	1936041000	1465377000	1377546000	1397000	1458000	2855000	2719	1499000	1488000	2987000	2845	1508000	1637000	3145000	2995
09/04/93	1444396000	1770682000	1768092000	1937968000	1467386000	1379727000	1812000	1992000	3804000	1865	1433000	1927000	3360000	1647	2009000	2181000	4190000	2054
09/05/93	1446336000	1772619000	1769558000	1939924000	1469429000	1381944000	1940000	1937000	3877000	2534	1466000	1956000	3422000	2237	2043000	2217000	4260000	2784
09/06/93	1447791500	1773948500	1770997500	1940926000	1470884500	1383525000	1455500	1329500	2785000	1934	1439500	1002000	2441500	1695	1455500	1581000	3036500	2109
09/07/93	1449247000	1775278000	1772437000	1941928000	1472340000	1385106000	1455500	1329500	2785000	2110	1439500	1002000	2441500	1850	1455500	1581000	3036500	2300
09/08/93	1450595000	1776678000	1773302000	1943503000	1473787000	1386677000	1348000	1400000	2748000	2617	865000	1575000	2440000	2324	1447000	1571000	3018000	2874
09/09/93	1452474000	1778634000	1774336000	1945870000	1475805000	1388863000	1879000	1956000	3835000	2779	1034000	2367000	3401000	2464	2018000	2186000	4204000	3046
09/10/93	1454739000	1781009000	1775614000	1948712000	1478249000	1391509000	2265000	2375000	4640000	2762	1278000	2842000	4120000	2452	2444000	2646000	5090000	3030
09/11/93	1456627000	1782990000	1776682000	1951081000	1480283000	1393712000	1888000	1981000	3869000	2744	1068000	2369000	3437000	2438	2034000	2203000	4237000	3005
09/12/93	1458370000	1784819000	1777664000	1953272000	1482161000	1395747000	1743000	1829000	3572000	2769	982000	2191000	3173000	2460	1878000	2035000	3913000	2883
09/13/93	1460343000	1787122000	1778684000	1956069000	1484402000	1398176000	1973000	2303000	4276000	2640	1020000	2797000	3817000	2356	2241000	2429000	4670000	2883
09/14/93	1460923000	1788756000	1778684000	1958098000	1485583000	1399449000	580000	1634000	2214000	1892	0	2029000	2029000	1734	1181000	1273000	2454000	2097
09/15/93	1462446000	1790714000	1779622000	1960259000	1487426000	1401444000	1523000	1958000	3481000	2975	938000	2161000	3099000	2649	1843000	1995000	3838000	3280
09/16/93	1464052000	1792202000	1779440000	1962709000	1489051000	1403200000	1606000	1488000	3094000	2063	-182000	2450000	2268000	1512	1625000	1756000	3381000	2254
09/17/93	1466318000	1794563000	1781644000	1965129000	1491480000	1405815000	2266000	2361000	4627000	2754	2204000	2420000	4624000	2752	2429000	2615000	5044000	3002
09/18/93	1468100000	1796418000	1782953000	1967038000	1493389000	1407869000	1782000	1855000	3637000	2636	1309000	1909000	3218000	2332	1909000	2054000	3963000	2872
09/19/93	1470078000	1798491000	1784422000	1969151000	1495519000	1410160000	1978000	2073000	4051000	2701	1469000	2113000	3582000	2388	2130000	2291000	4421000	2947
09/20/93	1472279000	1800808000	1786006000	1971560000	1497891000	1412709000	2201000	2317000	4518000	2642	1584000	2409000	3993000	2335	2372000	2549000	4921000	2878
09/21/93	1474145000	1802742000	1787367000	1973570000	1499880000	1414847000	1866000	1934000	3800000	2754	1361000	2010000	3371000	2443	1989000	2138000	4127000	2991
09/22/93	1476019000	1804687000	1788838000	1975465000	1501889000	1417007000	1874000	1945000	3819000	2767	1874000	1895000	3366000	2439	2009000	2160000	4169000	3021
09/23/93	1477810000	1806548000	1790250000	1977279000	1503807000	1419061000	1791000	1861000	3652000	2767	1412000	1814000	3226000	2444	1918000	2054000	3972000	3009
09/24/93	1479331000	1808141000	1791450000	1978823000	1505445000	1420814000	1521000	1930000	3114000	2732	1200000	1544000	2744000	2407	1638000	1753000	3391000	2975
09/25/93	1481601000	1810510000	1793251000	1981123000	1507875000	1423415000	2270000	2369000	4639000	2761	1801000	2300000	4101000	2441	2430000	2601000	5031000	2995
09/26/93	1483499000	1812500000	1794761000	1983050000	1509917000	1425600000	1898000	1990000	3888000	2707	1510000	1927000	3437000	2438	2042000	2185000	4227000	2998
09/27/93	1485275000	1814378000	1796188000	1984852000	1511836000	1427648000	1776000	1878000	3654000	2707	1427000	1802000	3229000	2392	1919000	2048000	3967000	2939
09/28/93	1487373000	1816649000	1797882000	1987019000	1514132000	1430090000	2098000	2271000	4369000	2697	1694000	2167000	3861000	2383	2296000	2442000	4738000	2925
09/29/93	1488982000	1818410000	1799202000	1988684000	1515904000	1431973000	1609000	1761000	3370000	2675	1320000	1665000	2985000	2369	1772000	1883000	3655000	2901
09/30/93	1491046000	1820686000	1800906000	1990818000	1518189000	1434399000	2064000	2276000	4340000	2679	1704000	2134000	3838000	2369	2285000	2426000	4711000	2908
	53422000	57201000	37891000	60115000	58186000	62680000	53422000	57201000	110623000	2740	37891000	60115000	98006000	2427	58186000	62680000	120866000	2993

\*\*\* NOTE: WHEN TRACKING TOTAL SYSTEM FLOW VOLUMES USE METERS #1 AND #2. METERS #3 & #4 AND #5 & #6 ARE PROCESS CONTROL METERS ONLY AND SHOULD NOT BE USED FOR TRACKING FLOW VOLUMES. \*\*\*

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 BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: OCTOBER 1992  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
09/30/92	7733313	0	
10/01/92	7738505	5192	
10/02/92	7743929	5424	
10/05/92	7759652	15723	
10/06/92	7765005	5353	
10/07/92	7770201	5196	
10/08/92	7775666	5465	
10/12/92	7796988	21322	
10/13/92	7802250	5262	
10/14/92	7808768	6518	
10/15/92	7812919	4151	BLDG. HEATER ON
10/16/92	7819497	6578	
10/19/92	7834647	15150	
10/20/92	7841101	6454	
10/21/92	7845616	4515	
10/22/92	7851420	5804	
10/23/92	7855886	4466	
10/26/92	7871428	15542	
10/27/92	7877700	6272	
10/28/92	7881039	3339	
10/29/92	7886234	5195	
10/30/92	7889562	3328	
	TOTAL	156249	

ROUTINE MAINTENANCE FOR THE MONTH OF  
 OCTOBER: NONE

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EM DEPT.

BLDG 502 GROUNDWATER TREATMENT SYSTEM  
WATER METER READING LOG  
FOR THE MONTH OF: NOVEMBER 1992

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
10/30/92	7889562	0	
11/02/92	7905298	15736	
11/03/92	7910600	5302	
11/04/92	7916828	6228	
11/05/92	7922076	5248	
11/06/92	7926472	4396	
11/09/92	7942355	15883	
11/10/92	7947845	5490	
11/11/92	7952808	4963	
11/12/92	7958177	5369	
11/13/92	7963332	5155	
11/16/92	7979877	16545	
11/17/92	7985460	5583	
11/18/92	7990647	5187	
11/19/92	7996765	6118	
11/20/92	8001476	4711	
11/23/92	8017579	16103	
11/24/92	8023717	6138	
11/25/92	8028836	5119	
11/30/92	8055908	27072	
	TOTAL	166346	

ROUTINE MAINTENANCE FOR THE MONTH OF  
NOVEMBER: 3RD QUARTER ELECTRICAL MAINT.  
WAS PERFORMED ON 11/02.

AN EMERGENCY SHUTDOWN OF APROX. 2.5 HRS.  
OCCURRED ON 11/11.



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 BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: DECEMBER 1992  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
11/30/92	8055908	0	
12/01/92	8061233	5325	
12/02/92	8066192	4959	
12/03/92	8071705	5513	
12/04/92	8077147	5442	
12/07/92	8094920	17773	
12/08/92	8099047	4127	
12/09/92	8104669	5622	
12/10/92	8110036	5367	
12/11/92	8115600	5564	
12/14/92	8131756	16156	
12/15/92	8137263	5507	
12/16/92	8142271	5008	
12/17/92	8147985	5714	
12/18/92	8153218	5233	
12/21/92	8169505	16287	
12/22/92	8175002	5497	
12/23/92	8180383	5381	
12/28/92	8206498	26115	
12/29/92	8212152	5654	
12/30/92	8217033	4881	
12/31/92	8222533	5500	
	TOTAL	166625	

ROUTINE MAINTENANCE FOR THE MONTH OF  
DECEMBER: NONE.

AN EMERGENCY SHUTDOWN OF APROX. 4.5 HRS.  
OCCURRED ON 12/28. AN EMERGENCY SHUT-  
DOWN OF APROX. 1 HR. ALSO OCCURRED ON  
12/29.

=====  
 BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: JANUARY 1993  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
12/31/92	8222533	0	
01/04/93	8244085	21552	
01/05/93	8249355	5270	
01/06/93	8254739	5384	
01/07/93	8259518	4779	
01/08/93	8264596	5078	
01/11/93	8280932	16336	
01/12/93	8286266	5334	
01/13/93	8291745	5479	
01/14/93	8297171	5426	
01/15/93	8302130	4959	
01/18/93	8317936	15806	
01/19/93	8323125	5189	
01/20/93	8328835	5710	
01/21/93	8334373	5538	
01/22/93	8339459	5086	
01/25/93	8355225	15766	
01/27/93	8366345	11120	
01/28/93	8371407	5062	
01/29/93	8376971	5564	
	TOTAL	154438	

ROUTINE MAINTENANCE FOR THE MONTH OF JANUARY:  
 THE WATER LEVEL SENSOR ON TOWER #2, WHICH HAS  
 BEEN RESPONSIBLE FOR THE NUMEROUS EMERGENCY  
 SHUTDOWNS RECENTLY, WAS REPAIRED ON JANUARY 23.

EMERGENCY SHUTDOWNS CAUSED BY THE MALFUNCTION  
 OF THIS SENSOR OCCURRED ON JANUARY 6, 14, 15, & 21.  
 THE TOTAL DOWN TIME FOR THESE FOUR EMERGENCY  
 SHUTDOWNS IS ESTIMATED TO BE 8.5 HOURS.

=====  
 BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: FEBRUARY 1993  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
01/29/93	8376971	0	
02/01/93	8393774	16803	
02/02/93	8398578	4804	
02/03/93	8404080	5502	
02/04/93	8409669	5589	
02/05/93	8414961	5292	
02/08/93	8429336	14375	
02/09/93	8434911	5575	
02/10/93	8441149	6238	
02/11/93	8446087	4938	
02/12/93	8451112	5025	
02/15/93	8467476	16364	
02/16/93	8472882	5406	
02/17/93	8478303	5421	
02/18/93	8483932	5629	
02/19/93	8489432	5524	
02/22/93	8505862	16406	
02/23/93	8511684	5822	
02/24/93	8516629	5005	
02/25/93	8522460	5771	
02/26/93	8527292	5432	
	TOTAL	100921	

ROUTINE MAINTENANCE FOR THE MONTH OF FEBRUARY: NONE

=====  
 BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: MARCH 1993  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
02/26/93	8527892	0	
03/01/93	8544733	16841	
03/02/93	8550216	5483	
03/03/93	8555758	5542	
03/04/93	8561275	5517	
03/05/93	8566465	5190	
03/08/93	8583004	16539	
03/09/93	8588519	5515	
03/10/93	8594191	5672	
03/11/93	8599223	5032	
03/12/93	8604926	5703	
03/15/93	8621302	16376	
03/16/93	8627057	5755	
03/17/93	8632510	5453	
03/18/93	8637343	4833	
03/19/93	8641777	4434	FLOWMETER STUCK
03/22/93	8658306	16529	
03/23/93	8661467	3161	
03/24/93	8668015	6548	
03/25/93	8673445	5430	
03/26/93	8678810	5365	
03/29/93	8694786	15976	
03/30/93	8699160	4374	
03/31/93	8705000	5840	
	TOTAL	177108	

DUE TO A STUCK FLOWMETER PADDLE ON MARCH  
 19, THE VOLUME OF WATER TREATED IS  
 ESTIMATED TO BE 184,608 GALLONS.

MAINTENANCE FOR THE MONTH OF MARCH:  
 QUARTERLY ELECTRICAL PM CHECKED.

BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: APRIL 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
03/31/93	8705000	0	
04/01/93	8709404	4404	
04/02/93	8714684	5280	
04/05/93	8728378	13694	
04/06/93	8736185	7807	
04/07/93	8742196	6011	
04/08/93	8747167	4971	
04/12/93	8769123	21956	
04/13/93	8774855	5732	
04/14/93	8780186	5331	
04/15/93	8785858	5672	
04/16/93	8791208	5350	
04/19/93	8807902	16694	
04/20/93	8814329	6427	
04/21/93	8818124	3795	
04/22/93	8818800	676	FLOWMETER STUCK
04/23/93	8821559	2759	
04/26/93	8840707	19148	
04/27/93	8846305	5598	
04/28/93	8851539	5234	
04/29/93	8857058	5519	
04/30/93	8862640	5582	
	TOTAL	157640	

MAINTENANCE FOR THE MONTH OF APRIL:  
 A LEVEL SENSOR WAS REPLACED ON APRIL 7.  
 THE EFFLUENT PIPING CHECK VALVE WAS  
 REPAIRED ON APRIL 21.

BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: MAY 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
04/30/93	8862640	0	
05/03/93	8878685	16045	
05/04/93	8880969	2284	
05/05/93	8886256	5287	
05/06/93	8891027	4771	
05/07/93	8895120	4093	
05/10/93	8911899	16779	
05/11/93	8916880	4981	
05/12/93	8920790	3910	
05/13/93	8924605	3815	
05/14/93	8926394	1789	FLOWMETER STUCK
05/17/93	8940382	13988	
05/18/93	8944400	4018	
05/19/93	8947784	3384	
05/20/93	8952701	4917	
05/21/93	8958210	5509	
05/24/93	8973378	15168	
05/25/93	8976908	3530	
05/26/93	8980581	3673	
05/27/93	8985416	4835	
05/28/93	8990000	4584	
	TOTAL	127360	

MAINTENANCE FOR THE MONTH OF MAY: THE SIGHT GLASSES ON BOTH TOWERS WERE REPLACED ON MAY 11. THE EFFLUENT PUMP PRESSURE GAUGE WAS REPLACED AND RECALIBRATED ON MAY 19.

THE GROUNDWATER TREATMENT SYSTEM HAS BEEN PLAGUED BY NUMEROUS EMERGENCY SHUTDOWNS THIS MONTH. THE PROBLEM HAS FINALLY BEEN LOCATED, AND IS CURRENTLY BEING CORRECTED.

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE APPROXIMATELY 1,307,550 GALLONS.

BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: JUNE 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
05/28/93	8990000	0	
06/01/93	9010535	20535	
06/02/93	9015320	4785	
06/03/93	9021133	5813	
06/04/93	9026146	5013	
06/07/93	9041774	15628	
06/08/93	9047525	5751	
06/09/93	9051382	3857	
06/10/93	9056072	4690	
06/11/93	9061498	5426	
06/14/93	9076809	15311	
06/15/93	9080756	3947	
06/16/93	9085515	4759	
06/17/93	9089778	4263	
06/18/93	9095277	5499	
06/21/93	9110972	15695	
06/22/93	9116540	5568	
06/23/93	9120731	4191	
06/24/93	9125229	4498	
06/25/93	9130603	5374	
06/28/93	9139463	8860	
06/29/93	9145555	6092	
06/30/93	9150048	4493	
	TOTAL	160048	

MAINTENANCE FOR THE MONTH OF JUNE: THE PIPING AND TOWER PACKING WERE INSPECTED FOR DEPOSIT BUILD-UP.

THE GROUNDWATER TREATMENT SYSTEM CONTINUES TO BE PLAGUED BY NUMEROUS EMERGENCY SHUTDOWNS. THE CAUSE HAS BEEN DETERMINED AND CORRECTIVE ACTION IS IN PROGRESS.





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 BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: AUGUST 1993  
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DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
07/30/93	9301423	0	
08/03/93	9322614	21191	
08/04/93	9328950	6336	
08/05/93	9334406	5456	
08/06/93	9338658	4252	
08/09/93	9355624	16966	
08/10/93	9358766	3142	
08/11/93	9363707	4941	
08/12/93	9370175	6468	
08/13/93	9374313	4138	
08/16/93	9390344	16031	
08/17/93	9396753	6409	
08/18/93	9399805	3052	
08/19/93	9399806	1	
08/20/93	9399820	14	
08/23/93	9399820	0	
08/24/93	9399820	0	
08/25/93	9399820	0	
08/26/93	9399984	164	
08/27/93	9404342	4358	
08/30/93	9419285	14943	
08/31/93	9424523	5238	
	TOTAL	123100	

MAINTENANCE FOR THE MONTH OF AUGUST: ON  
 8/18, A LIGHTNING STRIKE KNOCKED OUT BOTH  
 THE ELECTRONIC CONTROLLER & PROGRAMMER.

DUE TO THE EXTENSIVE AMOUNT OF DAMAGE, A  
 DECISION WAS MADE TO REPLACE THE UNITS WITH  
 AN UPDATED VERSION. WHILE THIS DECISION  
 CAUSED AN EXTRA THREE DAY DOWN-TIME, THE  
 CHANGE SHOULD KEEP FUTURE CONTROLLER CAUSED  
 SHUTDOWNS TO LESS THAN 24 HOURS.

BLDG 502 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: SEPTEMBER 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
08/31/93	9424523	0	
09/01/93	9429719	5196	
09/02/93	9434834	5115	
09/03/93	9439001	4167	
09/07/93	9456666	17665	
09/08/93	9461569	4903	
09/09/93	9466758	5189	
09/10/93	9473256	6498	
09/13/93	9488466	15210	
09/14/93	9493514	5048	
09/15/93	9498863	5349	
09/16/93	9503132	4269	
09/17/93	9508411	5279	
09/20/93	9523864	15453	
09/21/93	9528958	5094	
09/22/93	9534565	5607	
09/23/93	9539810	5245	
09/24/93	9545087	5277	
09/27/93	9561240	16153	
09/28/93	9566487	5247	
09/29/93	9571933	5446	
09/30/93	9577302	5369	
	<b>TOTAL</b>	<b>152779</b>	

MAINTENANCE FOR THE MONTH OF SEPTEMBER: NONE

## **Appendix H.2**

### **1993 TGRS Inspection and Maintenance Activities**

NOTES:

- 1) 09/30/92, FLOW METER INSIDE SC-2 FOUND TO BE CLOGGED WITH IRON SLUDGE STOPPING THE METER FROM INDICATING FLOW. REPAIRS MADE WHEN BERGERSON-CASWELL INC. WAS ON-SITE TO JET AND ACID TREAT WELL SC-2, 10/1/92. FLOW METER INOPERABLE FOR 36 HOURS. NO PUMPING OPERATIONAL DOWN TIME.
- 2) 10/2/92, WELL SC-2 TREATED WITH 18 GALLONS OF MURIATIC ACID.
- 3) 10/13/92, PUMP AND MOTOR FROM SC-2 WAS PULLED. BUILD UP OF IRON SLUDGE AND CORROSION CAUSED OF DECREASE OF FLOW RATES. A 5 H.P. MOTOR AND REBUILT PUMP FROM INVENTORY WAS REINSTALLED IN THE WELL. DOWN TIME: 4.0 HOURS
- 4) 10/15/92, WET WELL PUMP DIRECTOR #2 HAD BLOWN A FUSE AND INDICATED A POWER FAILURE. A SPARE FUSE FROM INVENTORY WAS USED AND THE WET WELL #2 PUMP WAS FULLY OPERATIONAL. NO SYSTEM DOWN TIME, WELL FIELD CYCLED ONLY.
- 5) 10/23/92, WET WELL PUMP DIRECTOR #1 HAD POWER FAILURE MODE #5 (VALVE CLOSED WITHOUT COMMAND). A MANUAL RESET WAS CONDUCTED AND THE VALVE OPENED WITHOUT FAILURE. NO SYSTEM DOWN TIME, WELL FIELD CYCLED ONLY.
- 6) 10/28/92, WET WELL PUMP DIRECTOR #1 HAD POWER FAILURE MODE #5 (VALVE CLOSED WITHOUT COMMAND). A MANUAL RESET WAS CONDUCTED AND THE VALVE OPENED WITHOUT FAILURE. DIS-ASSEMBLED SOLENOID AND 7" PILOT FOR E.C.V.#1. CLEANED ALL INTERNAL COMPONENTS OF SOLENOID AND REPLACED PLASTIC SEAT IN THE PILOT. DOWN TIME: .5 HRS

NOTES:

- 1) 11/04/92, B-3 LEAKING SEVERELY FROM THE FLOW METER BODY AND THE PIPING. MANUALLY TURNED PUMPHOUSE OFF TO PERFORM REPAIRS. FLOW METER GASKETS WORN OUT. REPLACED BOTH GASKETS WITH NEW FROM INVENTORY. DOWN TIME: 1.5 HOURS.
- 2) 11/05/92, B-3 RUBBER GASKETS THAT WERE REPLACED ON 11/04 HAD BLOWN OUT THE SIDES OF THE PIPING. TOO MUCH PRESSURE ON THE LINE CAUSED THE PROBLEM. A SERVICE CALL WAS MADE TO BERGERSON-CASWELL INC. AND WAS INSTRUCTED TO PURCHASE A DIFFERENT TYPE OF GASKET (MATERIAL) THAT WILL WITHSTAND THIS TYPE OF PRESSURE. DOWN TIME: 6.0 HOURS.
- 3) 11/19/92, B-3 PUMP IMPELLERS RATTLING VERY RAPIDLY. DECREASING FLOW RATES HAVE OCCURRED BELOW STANDARD OPERATIONS. SERVICE CALL MADE TO BERGERSON-CASWELL INC. TO TROUBLESHOOT THE PROBLEM. NO DOWN TIME AT THIS TIME.
- 4) 11/20/92, B-3 PUMP AND MOTOR PULLED FOR REPAIRS. IMPELLERS VERY WORN AND LOOSE, FLOW RATE DECREASING BELOW STANDARD OPERATING CONDITIONS. REPLACED PUMP WITH NEW FROM INVENTORY. DOWN TIME: 6.5 HOURS.
- 5) 11/26/92, DURING DAILY INSPECTION, OBSERVED B-6 GREEN LIGHT OUT AT THE PLC PANEL IN 116. A BLOWN 15 AMP, 600 VOLT FUSE AT THE 110 V, ELECTRICAL DISTRIBUTION PANEL WAS THE PROBLEM. REPLACED BLOWN FUSE WITH NEW FROM INVENTORY. DOWN TIME: 19.5 HOURS

NOTES:

- 1) 12/04/92, THE DAILY INSPECTION WAS NOT CONDUCTED. FLOW METER TOTALS WERE CALCULATED BY AVERAGING 12/3 AND 12/5 TOTALS.
- 2) 12/10/92, PUMPHOUSE SC-4 FLOW METER FOUND INOPERATIVE. REMOVED FLOW METER AND INSTALLED NEW METER FROM INVENTORY. THE FLOW VOLUME CALCULATION TAKES INTO ACCOUNT BOTH EXISTING AND REPLACEMENT METER READINGS. DOWN TIME: .5 HOUR.

NOTES:

- 1) 01/06/93, PUMPHOUSE B-11 FLOW METER LEAKING. REMOVED FLOW METER GASKET AND REPLACED WITH NEW. DOWN TIME: .5 HOURS
- 2) 01/13/93, PUMPHOUSE SC-4 FLOW RATES DECREASING. MAXIMUM OUTPUT IS 20 GPM, THE DESIGN IS FOR 45 GPM. BERGERSON-CASWELL INC. CONDUCTED THE REPAIRS BY INSTALLING A NEW PUMP END AND REUSING THE MOTOR. TOTAL DOWN TIME: 27 HOURS.
- 3) 01/22/93, OVERPRESSURE RELIEF PILOT FOR E.C.V. #1 LEAKING AND PROHIBITING THE VALVE TO CLOSE WHEN ACTIVATED AT THE PUMP DIRECTOR. INSTALLATION OF A P.M. REPAIR KIT WAS PERFORMED. DOWN TIME OF THE REPAIRS WAS 1 HOUR AND THE WELL FIELD CYCLED ONLY DURING THE REPAIRS.
- 4) 01/29/93, DAILY INSPECTION NOT COMPLETELY PERFORMED DUE TO ICY ROAD CONDITIONS. THE TREATMENT CENTER AND THE SOURCE CONTROL WELLS WERE INSPECTED. THE REMAINING PUMPHOUSES, B-1 THROUGH B-12, WILL BE ESTIMATED BY 1/28 AND 1/30'S METER READINGS.

NOTES:

- 1) 02/02/93, PUMPHOUSE B-5 SUBMERSIBLE MOTOR FAILED. FOULING OF THE LOW WATER LEVEL PROBE MAY BE THE CAUSE OF THE FAILURE. AS THE PROBE FOULED THE ELECTRICAL CONNECTION BETWEEN THE PROBE AND THE GROUND BECAME INTERMITTENT, WHICH CAUSED THE MOTOR TO CYCLE. RAPID CYCLING OF THE MOTOR, FOR A LENGTHY PERIOD OF TIME, WOULD HAVE OVERHEATED THE MOTOR CAUSING IT TO FAIL. DOWN TIME: 26 HOURS.
- 2) 02/03/93, ANSWERED AUTO-DIALER CALL, ELECTRIC CHECK VALVE #2 WAS FOUND TO BE STICKING. AS VALVE CLOSURE TIME IS MONITORED BY THE CONTROL SYSTEM, WHEN CLOSURE TIME EXCEEDS THAT ALLOWED, THE PANEL INDICATES THE FAILURE MODE "POWER OUT". SCHEDULED REPAIR WITH BERGERSON-CASWELL FOR 02/09/93 (MONTHLY AND QUARTERLY PREVENTIVE MAINTENANCE INSPECTION).
- 3) 02/06/93, ELECTRIC CHECK VALVE #1 CLOSED WITHOUT COMMAND (FAILURE MODE #5 ON THE WET WELL PUMP DIRECTOR PANEL). A MANUAL RESET WAS CONDUCTED AND THE VALVE OPENED WITHOUT FAILURE. NO SYSTEM DOWNTIME, WELL FIELD CYCLED ONLY.
- 4) 02/09/93, QUARTERLY AND MONTHLY PREVENTIVE MAINTENANCE INSPECTION WAS PERFORMED.

NOTES:

- 1) 03/16/93, PUMPHOUSE B2 CHECK VALVE SMALL COPPER TUBING HAD A SMALL LEAK. THE COPPER TUBING WAS TIGHTEN AND THE CHECK VALVE CHECKED OUT OK.
- 2) 03/23/93, PUMPHOUSE SC2 FLOW METER WAS PLUGGED WITH IRON. FLOW METER WAS REMOVED AND REPLACED WITH ONE FROM INVENTORY. DN. TIME .5 HR.
- 3) 03/24/93, PUMPHOUSE SC2 PUMP WAS FLUSHED TO ATMOSPHERE. FLOW RATE STILL BELOW TARGET. ADDITIONAL CLEANING OR REPAIRS REQUIRED. DN. TIME .5 HRS.
- 4) 03/26/93, PUMPHOUSE SC2 PUMP WAS PULLED. IRON FAULING WAS DETERMINED TO BE THE FAULT. THE PUMP WAS DISSEMBLED AND PRESSURE WASHED. THE RISER PIPE AND CONTROL PIPING WERE CLEANED OF IRON SLUDGE. DOWN TIME 4.0 HRS.
- 5) 03/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7.
- 6) 03/29/93, B-C ON-SITE, COMPLETE TROUBLE SHOOTING OF WWP#1 ELECTRICAL FAILURE. REPAIR FAILED CONNECTION LOCATED IN MOTOR ELECTRICAL BOX. DOWN TIME 16.5 HRS.
- 7) 03/31/93, PUMPHOUSE B-7 PUMP AND MOTOR PULLED FROM WELL DUE TO DECREASING FLOW RATES. BERGERSON-CASWELL INC. PUMP WAS WORN AND REPLACED WITH NEW FROM INVENTORY. EXISTING MOTOR USED. DOWN TIME 4.0 HOURS.

NOTES:

- 1) 04/01/93, PUMPHOUSE B-2'S FLOW RATE DROPPING OFF. PUMP AND MOTOR WERE PULLED AND INSPECTED. PUMP REPLACED, MOTOR REUSED. DOWN TIME: 4.0 HRS.
- 2) 04/05/93, PUMPHOUSE B-2 TURNED OFF DURING THE CHLORINATION (SHOCK TREATMENT) OF THE WELL. POSSIBLE IRON FOULING OF PUMP INLET SCREEN BY LARGE PARTICLES OF IRON. DOWN TIME: 23.5 HRS.

NOTES:

- 1) 05/01/93, PUMPHOUSES SC2 THROUGH SC5 WERE SHUT DOWN DUE TO FCC SCHEDULED MAINTENANCE ON THE POWER LINES THAT FEED TO THE PUMPHOUSES. DOWN TIME: 7.0 HOURS.
- 2) 05/04/93, TOWER #2 BLOWER BELT WAS REMOVED AND REPLACED BECAUSE OF MATERIAL FATIGUE. TIME DOWN: 0.5 HOUR
- 3) 05/07/93, PUMPHOUSES B-2 AND B-6 EXHAUST FANS ARE MALFUNCTIONING AND NEED REPAIRS.
- 4) 05/21/93, PUMPHOUSE B-9 MAIN POWER LEAD THAT FEEDS THE CONTROL PANEL FUSE BOX HAD MELTED INTERNALLY DUE TO POWER SURGE IN LINE. DOWN TIME FOR REPAIRS WAS 3.5 HRS.
- 5) 05/31/93, DAILY INSPECTION WAS NOT PERFORMED DUE TO THE MEMORIAL DAY HOLIDAY. THE METER TOTALS WERE ESTIMATED BY 5/30 AND 6/1 ACTUAL READINGS.

NOTES:

- 1) 06/02/93, ELECTRICAL SERVICE FAILURE TO TREATMENT CENTER BUILDING 116. THE PUMP DIRECTORS AND PLC CONTROLS WERE INSPECTED AND THE SYSTEM WAS RESTARTED. NO PROBLEM FOUND. DOWN TIME .5 HOURS.
- 2) 06/10/93, THE FLOW RATE FOR EXTRACTION WELL B-11 DECREASED TO 60 GPM FROM A FLOW RATE OF 100 GPM. BERGERSON-CASWELL SCHEDULED TO PULL THE PUMP ON 6/14/93.
- 3) 06/14/93, EXTRACTION WELL B-11 PUMP PULLED FOR INSPECTION, REPAIR OR REPLACEMENT. RISER PIPES HAVE HOLES AND WORN THREADS. PUMP IS ALSO WORN BEYOND REPAIR, SCRAPPED. REPLACE ALL JOINTS OF RISER PIPE AND INSTALL NEW PUMP. MOTOR WAS REUSED. DOWN TIME 4.5 HOURS.
- 4) 06/16/93, AUTO-DIALER AT TREATMENT CENTER BUILDING 116 CONTACTED D. NELSON (CRA). HEAVY RAIN AND LIGHTNING STORM HAD STRUCK THE "XY" TIE LINE AT TCAAP AND A POWER OUTAGE HAD OCCURRED. THE SY: MANUALLY TURNED "OFF" DURING FCC'S REPAIRS. THE SYSTEM WAS RESTARTED AFTER POWER WAS FULLY RESTORED. DOWN TIME: 2 HRS.
- 5) 06/27/93, WET WELL #4 PUMP MOTOR FAILED DUE TO LIGHTING. MOTOR PULLED AND REPLACED WITH MOTOR FROM INVENTORY ON 06/28/93. DOWN TIME: 24 HOURS.
- 6) 06/27/93 THROUGH 06/30/93, PUMPHOUSE B4 FLOW METER WAS FOUND INOPERATIVE WHILE DOING DAILY INSPECTION AT TCAAP. FLOW VOLUMES WAS ESTIMATED FOR THE DAYS OF 06/27/93 THROUGH 06/30/93.

NOTES:

- 1) 07/01/93, THERE WAS A THUNDER STORM. THE AUTO DIALER CALLED INDICATING A PROBLEM. CRA CHECKED THE SITE AND FOUND NO PROBLEM. THE WAS SYSTEM OPERATING ACCEPTABLY. DOWN TIME: NONE
- 2) 07/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS
- 3) 07/26/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR SOURCE CONTROL WELLS. POWER DOWN TO SOURCE CONTROL WELLS. DOWN TIME: 1 HOUR
- 4) 07/01->31/93, TREATMENT CENTER FLOW METER NO. 4 OUT OR REPAIR. DOWN TIME: NONE

NOTES:

- 1) 08/09/93, AIR STRIPPING TOWERS NO. 1 -4 - THE MOISTURE ELIMINATOR PADS WERE CLEANED. DOWN TIME: 2 HRS.
- 2) 08/09/93, PUMPHOUSE B-8 - THE FLOW RATE WAS DECREASING. THE PUMP AND THE MOTOR WERE PULLED AND INSPECTED. BOTH WERE REPLACED WITH A 20 H.P. MOTOR AND A DELTA D6L-10 5A STAGE. DOWN TIME: 8 HOURS.
- 3) 08/09/93, PUMPHOUSES B-2 AND SC-2 - THE FLOW RATES WERE FLUCTUATING AND DECREASING. THE PUMP INLET SCREENS MAY BE CLOGGED WITH PARTICLES OF IRON. THE WELLS WERE CHLORINATED TO DISSOLVE IRON. DOWN TIME: 24 HRS.
- 4) 08/18/93, PUMPHOUSE SC-2 - THE CHLORINATION TREATMENT OF 8/9/93 WAS UNSUCCESSFUL IN RESTORING THE WELLS PRODUCTION. THE PUMP WAS PULLED AND CLEANED OF IRON SLUDGE. DOWN TIME: 4 HRS.
- 5) 08/23/93, AIR STRIPPING TOWER NO. 3 - THE AIR MEASURING STATION WAS REMOVED, CLEANED AND REINSTALLED. DOWN TIME: 1 HR.
- 6) 08/24/93, WET WELL PUMP NO. 2 - DURING ANNUAL PM THE DISCONNECT BOX WAS FOUND TO BE DETERIORATING. THE DISCONNECT BOX WAS REPLACED BY LAUGHLIN ELECT. CO., E.HANSON. DOWN TIME: 4 HRS.
- 7) 08/25/93, PUMPHOUSE SC-5 - THE FLOW RATE WAS DECREASING. THE MOTOR WAS CHECKED AND FOUND TO BE DRAWING ABOVE DESIGN AMPERAGE LOAD. PUMP AND MOTOR PULLED AND INSPECTED. BOTH PUMP AND MOTOR REPLACED. DOWN TIME: 23 HOURS
- 8) 08/27/93, ALTITUDE VALVE AT WATER TOWER - THE VALVE WOULD NOT CLOSE ON COMMAND. THE WATER ADJUSTMENT CHAMBER ASSEMBLY WAS INSPECTED AND FLUSHED. THE VALVE OPERATED ACCEPTABLY, HOWEVER FURTHER CLEANING IS NECESSARY. IT WAS NOT POSSIBLE TO FLUSH ALL THE MANGANESE FROM THE CHAMBER. NO DOWN TIME NECESSARY.
- 9) 08/31/93, PUMPHOUSE B-12 - THE FLOW RATE WAS DECREASING. MOTOR AND PUMP WERE PULLED AND INSPECTED. BOTH WERE REPLACED WITH A 25 HP MOTOR AND A CROWN 6H-300 NR 5A STAGE PUMP. DOWN TIME: 8 HRS.
- 10) 08/31/93, PUMPHOUSE B-1 - THE FLOW METER WAS REPLACED. NO DOWN TIME.
- 11) 8/30-31/93, PERFORM MONTHLY INSPECTION.

NOTES:

- 1) 09/03/93 THE TGRS SYSTEM WAS SHUT DOWN DUE TO REPAIRS TO THE TCAAP ELECTRICAL POWER LINE ALONG THE BOUNDARY WELLS AREA. FCC PERFORMED THE REPAIRS. DOWN TIME: 10 HOURS
- 2) 09/03/93 - 09/07/93 PUMPHOUSE B-12 WAS SHUT DOWN WHEN THE PITLESS ADAPTER O-RING FAILED. FAILURE OCCURRED UPON RESTART OF B-12 AFTER COMPLETION OF REPAIRS TO TCAAP ELECTRICAL SYSTEM. DOWN TIME: 105.5 HOURS
- 3) 09/06/93 THE AUTO-DIALER WAS ACTIVATED AT BUILDING 116 AT 5:35 PM DUE TO A MALFUNCTION OF WET WELL # 4 PUMP. DOWN TIME: 23.5 HOURS
- 4) 09/08/93 THE AUTO-DIALER WAS ACTIVATED AT BUILDING 116 AT 10:20 PM DUE TO A MALFUNCTION OF WET WELL # 4 ECV. DOWN TIME: 45 MINUTES
- 5) 09/13/93 WET WELL PUMP # 3 WAS PULLED ON 9/13/93. THE FOOT VALVE HAD FAILED. THE PUMP WAS CLEANED, INSPECTED AND REINSTALLED ON 9/14/93. DOWN TIME: 32 HOURS
- 6) 09/15/93 DURING THE DAILY INSPECTION OF THE PRESSURE GAUGES FOR WET WELL PUMPS #3 AND #4 BOTH PRESSURE GAUGES WERE INDICATING A FLUCTUATING PRESSURE. THE PUMP(S) WERE DRAWING IN AIR DUE TO A LOW WATER LEVEL IN THE WET WELL. THE LOW WATER LEVEL FLOAT IN WET WELL # 3 WAS REPLACED ON 9/16/93. DOWN TIME: 3 HOURS.
- 7) 09/16/93 DURING THE DAILY INSPECTION WET WELL PUMP NUMBER 3 WAS FOUND TO BE SHUT DOWN. APPARENTLY THE PUMP WAS NOT RESTARTED AT THE COMPLETION OF PREVIOUS DAY REPAIRS. THE PUMP WAS TURNED ON AND IT'S OPERATION OBSERVED. THE PUMP OPERATED ACCEPTABLY. DOWN TIME: 8 HRS.
- 8) 09/20/93 THE SOLENOID VALVE FOR ELECTRIC CHECK VALVE NO. 3 FAILED. THE SOLENOID VALVE WAS REMOVED AND REPLACED WITH A VALVE FROM INVENTORY. DOWN TIME: 1.0 HR
- 9) 09/21/93 - 09/22/93 A NEW AUTO-DIALER WAS INSTALLED IN THE MOTOR CONTROL CENTER, BUILDING 116. DOWN TIME: NONE
- 10) 09/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE
- 11) 09/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE
- 12) 09/28/93 PUMPHOUSE SC-3 FLOW RATE HAS DECREASED TO 60 GPM. A PUMP PULL IS SCHEDULED. DOWN TIME: NONE
- 13) 09/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.
- 14) 09/30/93 CRA PERSONNEL RESPONDED TO AN EMERGENCY CALL MADE BY ANOTHER SITE CONTRACTOR. THE CONTRACTOR WAS PERFORMING SOIL WASHING. THE SOIL WASHING PROCESS REQUIRED A STEADY WATER SUPPLY FROM THE SITE D FIRE HYDRANT. THE WATER PRESSURE AND FLOW FROM THE HYDRANT WERE NOT STEADY. THE SYSTEM WAS INSPECTED AND FOUND TO BE OPERATING ACCEPTABLY. THE CONTRACTOR WILL MAKE CONNECTION TO A ANOTHER HYDRANT. DOWN TIME: NONE

**Appendix H.3**  
**1993 TGRS Events**

ALLIANT TECHSYSTEMS SUMMARY OF EXTRACTION WELL DOWN TIME FOR THE FISCAL YEAR 1993

B1	B2	B3	B4	B5
<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>3/16/93, PUMPHOUSE B2 CHECK VALVE SMALL COPPER TUBING HAD A SMALL LEAK. THE COPPER TUBING WAS TIGHTEN AND THE CHECK VALVE CHECKED OUT OK.</p>	<p>11/04/92, B-3 LEAKING SEVERELY FROM THE FLOW METER BODY AND THE PIPING. MANUALLY TURNED PUMPHOUSE OFF TO PERFORM REPAIRS. FLOW METER GASKETS WORN OUT. REPLACED BOTH GASKETS WITH NEW FROM INVENTORY. DOWN TIME: 1.5 HOURS.</p>	<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7. DOWN TIME 16.5 HRS</p>	<p>2/02/93, PUMPHOUSE B-5 SUBMERSIBLE MOTOR FAILED. FOULING OF THE LOW WATER LEVEL PROBE MAY BE THE CAUSE OF THE FAILURE. AS THE PROBE FOULED THE ELECTRICAL CONNECTION BETWEEN THE PROBE AND THE GROUND BECAME INTERMITTENT, WHICH CAUSED THE MOTOR TO CYCLE. RAPID CYCLING OF THE MOTOR, FOR A LENGTHY PERIOD OF TIME, WOULD HAVE OVERHEATED THE MOTOR CAUSING IT TO FAIL. DOWN TIME: 26 HOURS.</p>
<p>8/31/93, PUMPHOUSE B-1 - THE FLOW METER WAS REPLACED. NO DOWN TIME.</p>	<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7. DOWN TIME 16.5 HRS.</p>	<p>11/05/92, B-3 RUBBER GASKETS THAT WERE REPLACED ON 11/04 HAD BLOWN OUT THE SIDES OF THE PIPING. TOO MUCH PRESSURE ON THE LINE CAUSED THE PROBLEM. A SERVICE CALL WAS MADE TO BERGERSON-CASWELL INC. AND WAS INSTRUCTED TO PURCHASE A DIFFERENT TYPE OF GASKET (MATERIAL) THAT WILL WITHSTAND THIS TYPE OF PRESSURE. DOWN TIME: 6.0 HOURS.</p>	<p>6/27/93 THROUGH 06/30/93, PUMPHOUSE B4 FLOW METER WAS FOUND INOPERATIVE WHILE DOING DAILY INSPECTION AT TCAAP. FLOW VOLUMES WAS ESTIMATED FOR THE DAYS OF 06/27/93 THROUGH 06/30/93.</p>	<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7. DOWN TIME 16.5 HRS.</p>
<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>4/01/93, PUMPHOUSE B-2'S FLOW RATE DROPPING OFF. PUMP AND MOTOR WERE PULLED AND INSPECTED. PUMP REPLACED, MOTOR REUSED. DOWN TIME: 4.0 HRS.</p>	<p>11/19/92, B-3 PUMP IMPELLERS RATTLING VERY RAPIDLY. DECREASING FLOW RATES HAVE OCCURRED BELOW STANDARD OPERATIONS. SERVICE CALL MADE TO BERGERSON-CASWELL INC. TO TROUBLESHOOT THE PROBLEM. NO DOWN TIME AT THIS TIME.</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>
<p>5/07/93, PUMPHOUSES B-2 AND B-6 EXHAUST FANS ARE MALFUNCTIONING AND NEED REPAIRS.</p>	<p>4/05/93, PUMPHOUSE B-2 TURNED OFF DURING THE CHLORINATION (SHOCK TREATMENT) OF THE WELL. POSSIBLE IRON FOULING OF PUMP INLET SCREEN BY LARGE PARTICLES OF IRON. DOWN TIME: 23.5 HRS.</p>	<p>11/20/92, B-3 PUMP AND MOTOR PULLED FOR REPAIRS. IMPELLERS VERY WORN AND LOOSE. FLOW RATE DECREASING BELOW STANDARD OPERATING CONDITIONS. REPLACED PUMP WITH NEW FROM INVENTORY. DOWN TIME: 6.5 HOURS.</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>
<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>8/09/93, PUMPHOUSES B-2 AND SC-2 - THE FLOW RATES WERE FLUCTUATING AND DECREASING. THE PUMP INLET SCREENS MAY BE CLOGGED WITH PARTICLES OF IRON. THE WELLS WERE CHLORINATED TO DISSOLVE IRON. DOWN TIME: 24 HRS.</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>
<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>



ALLIANT TECHSYSTEMS SUMMARY OF EXTRACTION WELL DOWN TIME FOR THE FISCAL YEAR 1993

B6	B7	B8	B9	B10
<p>11/26/92, DURING DAILY INSPECTION, OBSERVED B-6 GREEN LIGHT OUT AT THE PLC PANEL IN 116. A BLOWN 15 AMP, 600 VOLT FUSE AT THE 110 V, ELECTRICAL DISTRIBUTION PANEL WAS THE PROBLEM. REPLACED BLOWN FUSE WITH NEW FROM INVENTORY. DOWN TIME: 19.5 HOURS</p>	<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7. DOWN TIME 16.5 HRS.</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>5/21/93, PUMPHOUSE B-9 MAIN POWER LEAD THAT FEEDS THE CONTROL PANEL FUSE BOX HAD MELTED INTERNALLY DUE TO POWER SURGE IN LINE. DOWN TIME FOR REPAIRS WAS 3.5 HRS.</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>
<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7. DOWN TIME 16.5 HRS.</p>	<p>3/31/93, PUMPHOUSE B-7 PUMP AND MOTOR PULLED FROM WELL DUE TO DECREASING FLOW RATES. BERGERSON-CASWELL INC. PUMP WAS WORN AND REPLACED WITH NEW FROM INVENTORY. EXISTING MOTOR USED. DOWN TIME 4.0 HOURS.</p>	<p>8/09/93, PUMPHOUSE B-8 - THE FLOW RATE WAS DECREASING. THE PUMP AND THE MOTOR WERE PULLED AND INSPECTED. BOTH WERE REPLACED WITH A 20 H.P. MOTOR AND A DELTA D6L-10 5A STAGE. DOWN TIME: 8 HOURS.</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>
<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>
<p>9/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>
<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>			

ALLIANT TECHSYSTEMS SUMMARY OF EXTRACTION WELL DOWN TIME FOR THE FISCAL YEAR 1993

B11	B12	SC1	SC2	SC3
<p>1/06/93, PUMPHOUSE B-11 FLOW METER LEAKING. REMOVED FLOW METER GASKET AND REPLACED WITH NEW. DOWN TIME: .5 HOURS</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>11/11/92, EMERGENCY SHUT DOWN OCCURRED. DOWN TIME: 2.5 HRS.</p>	<p>09/30/92, FLOW METER INSIDE SC-2 FOUND TO BE CLOGGED WITH IRON SLUDGE STOPPING THE METER FROM INDICATING FLOW. REPAIRS MADE WHEN BERGERSON- CASWELL INC. WAS ON-SITE TO JET AND ACID TREAT WELL SC-2, 10/1/92. FLOW METER INOPERABLE FOR 36 HOURS. NO PUMPING OPERATIONAL DOWN TIME.</p>	<p>5/01/93, PUMPHOUSES SC2 THROUGH SC5 WERE SHUT DOWN DUE TO FCC SCHEDULED MAINTENANCE ON THE POWER LINES THAT FEED TO THE PUMPHOUSES. DOWN TIME: 7.0 HOURS.</p>
<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7. DOWN TIME 16.5 HRS.</p>	<p>8/31/93, PUMPHOUSE B-12 - THE FLOW RATE WAS DECREASING. MOTOR AND PUMP WERE PULLED AND INSPECTED. BOTH WERE REPLACED WITH A 25 HP MOTOR AND A CROWN 6H-300 NR 5A STAGE PUMP. DOWN TIME: 8 HRS.</p>	<p>12/28/92, EMERGENCY SHUT DOWN OCCURRED. DOWN TIME: 4.5 HRS.</p>	<p>10/2/92, WELL SC-2 TREATED WITH 18 GALLONS OF MURIATIC ACID.</p>	<p>7/26/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR SOURCE CONTROL WELLS. POWER DOWN TO SOURCE CONTROL WELLS. DOWN TIME: 1 HOUR</p>
<p>6/10/93, THE FLOW RATE FOR EXTRACTION WELL B-11 DECREASED TO 60 GPM FROM A FLOW RATE OF 100 GPM. BERGERSON-CASWELL SCHEDULED TO PULL THE PUMP ON 6/14/93.</p>	<p>9/03/93 - 09/07/93 PUMPHOUSE B-12 WAS SHUT DOWN WHEN THE PITLESS ADAPTER O-RING FAILED. FAILURE OCCURRED UPON RESTART OF B-12 AFTER COMPLETION OF REPAIRS TO TCAAP ELECTRICAL SYSTEM. DOWN TIME: 105.5 HOURS</p>	<p>1/23/93, WATER LEVEL SENSOR EPAIRED.</p>	<p>10/13/92, PUMP AND MOTOR FROM SC-2 WAS PULLED. BUILD UP OF IRON SLUDGE AND CORROSION CAUSED OF DECREASE OF FLOW RATES. A 5 H.P. MOTOR AND REBUILT PUMP FROM INVENTORY WAS REINSTALLED IN THE WELL. DOWN TIME: 4.0 HOURS</p>	<p>9/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE</p>
<p>6/14/93, EXTRACTION WELL B-11 PUMP PULLED FOR INSPECTION, REPAIR OR REPLACEMENT. RISER PIPES HAVE HOLES AND WORN THREADS. PUMP IS ALSO WORN BEYOND REPAIR, SCRAPPED. REPLACE ALL JOINTS OF RISER PIPE AND INSTALL NEW PUMP. MOTOR WAS REUSED. DOWN TIME 4.5 HOURS.</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>3/19/93, FLOWMETER PADDLE WHEEL STUCK. CLEAN PADDLE WHEEL.</p>	<p>3/23/93, PUMPHOUSE SC2 FLOW METER WAS PLUGGED WITH IRON. FLOW METER WAS REMOVED AND REPLACED WITH ONE FROM INVENTORY. DN. TIME .5 HR.</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>
<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>9/29/93 - 09/30/93 FLOW METERS WERE CHANGED AT PUMPHOUSES B2, B3, B4, B5, B7, B8, B10, AND B12 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS.</p>	<p>4/7/93, REPLACE WATER LEVEL SENSOR.</p>	<p>3/24/93, PUMPHOUSE SC2 PUMP WAS FLUSHED TO ATMOSPHERE. FLOW RATE STILL BELOW TARGET. ADDITIONAL CLEANING OR REPAIRS REQUIRED. DN. TIME .5 HRS.</p>	<p>9/28/93 PUMPHOUSE SC-3 FLOW RATE HAS DECREASED TO 60 GPM. A PUMP PULL IS SCHEDULED. DOWN TIME: NONE</p>
<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>8/18/93, A LIGHTNING STRIKE DMAGED ELECTRONIC CONTROLS AND PLC (502 TREATMENT SYSTEM). DOWN TIME 72 HRS.</p>	<p>4/21/93, EFFLUENT PIPING REPAIRED.</p>	<p>3/26/93, PUMPHOUSE SC2 PUMP WAS PULLED. IRON FAULING WAS DETERMINED TO BE THE FAULT. THE PUMP WAS DISSEMBLED AND PRESSURE WASHED. THE RISER PIPE AND CONTROL PIPING WERE CLEANED OF IRON SLUDGE. DOWN TIME 4.0 HRS.</p>	
	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>7/02/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR BUILDING 105 AND SUB-STATION 105. ALL BOUNDARY WELLS SHUT DOWN DURING REPAIRS. DOWN TIME: 8.0 HOURS</p>	<p>5/01/93, PUMPHOUSES SC2 THROUGH SC5 WERE SHUT DOWN DUE TO FCC SCHEDULED MAINTENANCE ON THE POWER LINES THAT FEED TO THE PUMPHOUSES. DOWN TIME: 7.0 HOURS.</p>	
		<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>7/26/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR SOURCE CONTROL WELLS. POWER DOWN TO SOURCE CONTROL WELLS. DOWN TIME: 1 HOUR</p>	
			<p>8/09/93, PUMPHOUSES B-2 AND SC-2 - THE FLOW RATES WERE FLUCTUATING AND DECREASING. THE PUMP INLET SCREENS MAY BE CLOGGED WITH PARTICLES OF IRON. THE WELLS WERE CHLORINATED TO DISSOLVE IRON. DOWN TIME: 24 HRS.</p>	
			<p>8/18/93, PUMPHOUSE SC-2 - THE CHLORINATION TREATMENT OF 8/9/93 WAS UNSUCCESSFUL IN RESTORING THE</p>	

ALLIANT TECHSYSTEMS SUMMARY OF EXTRACTION WELL DOWN TIME FOR THE FISCAL YEAR 1993

B11

B12

SC1

SC2

SC3

WELLS PRODUCTION. THE PUMP WAS PULLED AND CLEANED OF IRON SLUDGE. DOWN TIME: 4 HRS.

9/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE

9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE

ALLIANT TECHSYSTEMS SUMMARY OF EXTRACTION WELL DOWN TIME FOR THE FISCAL YEAR 1993

SC4	SC5	TREATMENT CENTER
<p>12/10/92, PUMPHOUSE SC-4 FLOW METER FOUND INOPERATIVE. REMOVED FLOW METER AND INSTALLED NEW METER FROM INVENTORY. THE FLOW VOLUME CALCULATION TAKES INTO ACCOUNT BOTH EXISTING AND REPLACEMENT METER READINGS. DOWN TIME: .5 HOUR.</p>	<p>5/01/93, PUMPHOUSES SC2 THROUGH SC5 WERE SHUT DOWN DUE TO FCC SCHEDULED MAINTENANCE ON THE POWER LINES THAT FEED TO THE PUMPHOUSES. DOWN TIME: 7.0 HOURS.</p>	<p>10/15/92, WET WELL PUMP DIRECTOR #2 HAD BLOWN A FUSE AND INDICATED A POWER FAILURE. A SPARE FUSE FROM INVENTORY WAS USED AND THE WET WELL #2 PUMP WAS FULLY OPERATIONAL. NO SYSTEM DOWN TIME, WELL FIELD CYCLED ONLY.</p>
<p>1/13/93, PUMPHOUSE SC-4 FLOW RATES DECREASING. MAXIMUM OUTPUT IS 20 GPM. THE DESIGN IS FOR 45 GPM. BERGERSON-CASWELL INC. CONDUCTED THE REPAIRS BY INSTALLING A NEW PUMP END AND REUSING THE MOTOR. TOTAL DOWN TIME: 27 HOURS.</p>	<p>7/26/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR SOURCE CONTROL WELLS. POWER DOWN TO SOURCE CONTROL WELLS. DOWN TIME: 1 HOUR</p>	<p>10/23/92, WET WELL PUMP DIRECTOR #1 HAD POWER FAILURE MODE #5 (VALVE CLOSED WITHOUT COMMAND). A MANUAL RESET WAS CONDUCTED AND THE VALVE OPENED WITHOUT FAILURE. NO SYSTEM DOWN TIME, WELL FIELD CYCLED ONLY.</p>
<p>5/01/93, PUMPHOUSES SC2 THROUGH SC5 WERE SHUT DOWN DUE TO FCC SCHEDULED MAINTENANCE ON THE POWER LINES THAT FEED TO THE PUMPHOUSES. DOWN TIME: 7.0 HOURS.</p>	<p>8/25/93, PUMPHOUSE SC-5 - THE FLOW RATE WAS DECREASING. THE MOTOR WAS CHECKED AND FOUND TO BE DRAWING ABOVE DESIGN AMPERAGE LOAD. PUMP AND MOTOR PULLED AND INSPECTED. BOTH PUMP AND MOTOR REPLACED. DOWN TIME: 23 HOURS</p>	<p>10/28/92, WET WELL PUMP DIRECTOR #1 HAD POWER FAILURE MODE #5 (VALVE CLOSED WITHOUT COMMAND). A MANUAL RESET WAS CONDUCTED AND THE VALVE OPENED WITHOUT FAILURE. DIS- ASSEMBLED SOLENOID AND 7" PILOT FOR E.C.V.#1. CLEANED ALL INTERNAL COMPONENTS OF SOLENOID AND REPLACED PLASTIC SEAT IN THE PILOT. DOWN TIME: .5 HRS</p>
<p>7/26/93, FCC PERFORMING REPAIRS TO THE TCAAP ELECTRICAL SYSTEM NEAR SOURCE CONTROL WELLS. POWER DOWN TO SOURCE CONTROL WELLS. DOWN TIME: 1 HOUR</p>	<p>9/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE</p>	<p>1/22/93, OVERPRESSURE RELIEF PILOT FOR E.C.V. #1 LEAKING AND PROHIBITING THE VALVE TO CLOSE WHEN ACTIVATED AT THE PUMP DIRECTOR. INSTALLATION OF A P.M. REPAIR KIT WAS PERFORMED. DOWN TIME OF THE REPAIRS WAS 1 HOUR AND THE WELL FIELD CYCLED ONLY DURING THE REPAIRS.</p>
<p>9/23/93 - 09/24/93 FLOW METERS WERE CHANGED AT PUMPHOUSES SC2, SC3, SC4, SC5, B6 AND B9 IN ACCORDANCE WITH THE ANNUAL MAINTENANCE OF THE TGRS. DOWN TIME: NONE</p>	<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>	<p>2/03/93, ANSWERED AUTO-DIALER CALL, ELECTRIC CHECK VALVE #2 WAS FOUND TO BE STICKING. AS VALVE CLOSURE TIME IS MONITORED BY THE CONTROL SYSTEM, WHEN CLOSURE TIME EXCEEDS THAT ALLOWED, THE PANEL INDICATES THE FAILURE MODE "POWER OUT". SCHEDULED REPAIR WITH BERGERSON-CASWELL FOR 02/09/93 (MONTHLY AND QUARTERLY PREVENTIVE MAINTENANCE INSPECTION).</p>
<p>9/27/93 THE EXTRACTION WELL FLOW RATES WERE CHECKED AND ADJUSTED AS NECESSARY. DOWN TIME: NONE</p>		<p>2/06/93, ELECTRIC CHECK VALVE #1 CLOSED WITHOUT COMMAND (FAILURE MODE #5 ON THE WET WELL PUMP DIRECTOR PANEL). A MANUAL RESET WAS CONDUCTED AND THE VALVE OPENED WITHOUT FAILURE. NO SYSTEM DOWNTIME, WELL FIELD CYCLED ONLY.</p>
		<p>3/28/93, THE AUTODIALER CALLED AT 3:00 PM. CRA ON-SITE AT 3:23 PM. TROUBLESHOOTING THE INOPERATIVE WET WELL PUMP #1. SCHEDULE REPAIRS FOR 3/29. SHUT DOWN WELLS B11, B2, B4, B5, B6, B7.</p>
		<p>3/29/93, B-C ON-SITE, COMPLETE TROUBLE SHOOTING OF WWP#1 ELECTRICAL FAILURE. REPAIR FAILED CONNECTION LOCATED IN MOTOR ELECTRICAL BOX. DOWN TIME 16.5 HRS.</p>
		<p>5/04/93, TOWER #2 BLOWER BELT WAS REMOVED AND REPLACED BECAUSE OF MATERIAL FATIGUE. TIME DOWN: 0.5 HOUR</p>
		<p>6/02/93, ELECTRICAL SERVICE FAILURE TO TREATMENT CENTER BUILDING 116. THE PUMP DIRECTORS AND PLC CONTROLS WERE INSPECTED AND THE SYSTEM WAS RESTARTED. NO PROBLEM FOUND. DOWN TIME .5 HR.</p>
		<p>6/16/93, AUTO-DIALER AT TREATMENT CENTER BUILDING 116 CONTACTED D. NELSON (CRA). HEAVY RAIN AND LIGHTNING STORM HAD STRUCK THE "XY" TIE LINE AT TCAAP AND A POWER OUTAGE HAD OCCURRED. THE SYSTEM WAS MANUALLY TURNED "OFF" DURING FCC'S REPAIRS. THE SYSTEM WAS RESTARTED AFTER POWER WAS FULLY RESTORED. DOWN TIME: 2 HRS.</p>
		<p>6/27/93, WET WELL #4 PUMP MOTOR FAILED DUE TO LIGHTING. MOTOR PULLED AND REPLACED WITH MOTOR FROM INVENTORY ON 06/28/93. DOWN TIME: 24 HOURS.</p>
		<p>7/01/93, THERE WAS A THUNDER STORM. THE AUTO DIALER CALLED INDICATING A PROBLEM. CRA CHECKED THE SITE AND FOUND NO PROBLEM. THE WAS SYSTEM OPERATING ACCEPTABLY. DOWN TIME: NONE</p>
		<p>7/01-&gt;31/93, TREATMENT CENTER FLOW METER NO. 4 OUT OR REPAIR. DOWN TIME: NONE</p>
		<p>8/09/93, AIR STRIPPING TOWERS NO. 1 -4 - THE MOISTURE ELIMINATOR PADS WERE</p>

ALLIANT TECHSYSTEMS SUMMARY OF EXTRACTION WELL DOWN TIME FOR THE FISCAL YEAR 1993

SC4

SC5

TREATMENT CENTER

CLEANED. DOWN TIME: 2 HRS.

8/23/93, AIR STRIPPING TOWER NO. 3 - THE AIR MEASURING STATION WAS REMOVED, CLEANED AND REINSTALLED. DOWN TIME: 1 HR.

8/24/93, WET WELL PUMP NO. 2 - DURING ANNUAL PM THE DISCONNECT BOX WAS FOUND TO BE DETERIORATING. THE DISCONNECT BOX WAS REPLACED BY LAUGHLIN ELECT. CO., E.HANSON. DOWN TIME: 4 HRS.

8/27/93, ALTITUDE VALVE AT WATER TOWER - THE VALVE WOULD NOT CLOSE ON COMMAND. THE WATER ADJUSTMENT CHAMBER ASSEMBLY WAS INSPECTED AND FLUSHED. THE VALVE OPERATED ACCEPTABLY, HOWEVER FURTHER CLEANING IS NECESSARY. IT WAS NOT POSSIBLE TO FLUSH ALL THE MANGANESE FROM THE CHAMBER. NO DOWN TIME NECESSARY.

9/03/93 THE TGRS SYSTEM WAS SHUT DOWN DUE TO REPAIRS TO THE TCAAP ELECTRICAL POWER LINE ALONG THE BOUNDARY WELLS AREA. FCC PERFORMED THE REPAIRS. DOWN TIME: 10 HOURS

9/06/93 THE AUTO-DIALER WAS ACTIVATED AT BUILDING 116 AT 5:35 PM DUE TO A MALFUNCTION OF WET WELL # 4 PUMP. DOWN TIME: 23.5 HOURS

9/08/93 THE AUTO-DIALER WAS ACTIVATED AT BUILDING 116 AT 10:20 PM DUE TO A MALFUNCTION OF WET WELL # 4 ECV. DOWN TIME: 45 MINUTES

9/13/93 WET WELL PUMP # 3 WAS PULLED ON 9/13/93. THE FOOT VALVE HAD FAILED. THE PUMP WAS CLEANED, INSPECTED AND REINSTALLED ON 9/14/93. DOWN TIME: 32 HOURS

9/15/93 DURING THE DAILY INSPECTION OF THE PRESSURE GAUGES FOR WET WELL PUMPS #3 AND #4 BOTH PRESSURE GAUGES WERE INDICATING A FLUCTUATING PRESSURE. THE PUMP(S) WERE DRAWING IN AIR DUE TO A LOW WATER LEVEL IN THE WET WELL. THE LOW WATER LEVEL FLOAT IN WET WELL # 3 WAS REPLACED ON 9/16/93. DOWN TIME: 3 HOURS.

9/16/93 DURING THE DAILY INSPECTION WET WELL PUMP NUMBER 3 WAS FOUND TO BE SHUT DOWN. APPARENTLY THE PUMP WAS NOT RESTARTED AT THE COMPLETION OF PREVIOUS DAY REPAIRS. THE PUMP WAS TURNED ON AND IT'S OPERATION OBSERVED. THE PUMP OPERATED ACCEPTABLY. DOWN TIME: 8 HRS.

9/20/93 THE SOLENOID VALVE FOR ELECTRIC CHECK VALVE NO. 3 FAILED. THE SOLENOID VALVE WAS REMOVED AND REPLACED WITH A VALVE FROM INVENTORY. DOWN TIME: 1.0 HR

9/21/93 - 09/22/93 A NEW AUTO-DIALER WAS INSTALLED IN THE MOTOR CONTROL CENTER, BUILDING 116. DOWN TIME: NONE

9/30/93 CRA PERSONNEL RESPONDED TO AN EMERGENCY CALL MADE BY ANOTHER SITE CONTRACTOR. THE CONTRACTOR WAS PERFORMING SOIL WASHING. THE SOIL WASHING PROCESS REQUIRED A STEADY WATER SUPPLY FROM THE SITE D FIRE HYDRANT. THE WATER PRESSURE AND FLOW FROM THE HYDRANT WERE NOT STEADY. THE SYSTEM WAS INSPECTED AND FOUND TO BE OPERATING ACCEPTABLY. THE CONTRACTOR WILL MAKE CONNECTION TO A ANOTHER HYDRANT. DOWN TIME: NONE

**Appendix H.4**  
**Site K Operational Data**

BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: OCTOBER 1992

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
09/30/92	3475809	0	
10/01/92	3477676	1867	
10/02/92	3479429	1753	
10/05/92	3481090	1661	FLOWMETER STUCK/CLEANED
10/06/92	3483077	1987	
10/07/92	3485066	1989	
10/08/92	3487108	2042	
10/12/92	3489591	2483	FLOWMETER STUCK/CLEANED
10/13/92	3491404	1813	
10/14/92	3493512	2108	
10/15/92	3495000	1488	
10/16/92	3496106	1106	FLOWMETER STUCK/CLEANED
10/19/92	3501048	4942	
10/20/92	3503274	2226	DOWN/PACKING REPLACEMENT
10/21/92	3503490	216	
10/22/92	3505125	1635	
10/23/92	3507193	2068	
10/26/92	3513608	6415	
10/27/92	3515185	1577	
10/28/92	3516828	1643	
10/29/92	3518514	1686	
10/30/92	3520535	2021	
	TOTAL	44726	

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE 505,860 GALLONS.

BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: NOVEMBER 1992

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
10/30/92	3520535	0	
11/02/92	3525682	5147	
11/03/92	3526795	1113	FLOWMETER CLEANED
11/04/92	3529049	2254	
11/05/92	3530479	1430	
11/06/92	3532303	1824	
11/09/92	3537553	5250	FLOWMETER CLEANED
11/10/92	3539326	1773	
11/11/92	3541153	1827	
11/12/92	3542990	1837	
11/13/92	3544762	1772	
11/16/92	3545834	1072	FLOWMETER STUCK/CLEANED
11/17/92	3547635	1801	
11/18/92	3549322	1687	
11/19/92	3551701	2379	
11/20/92	3552780	1079	FLOWMETER CLEANED
11/23/92	3558585	5805	
11/24/92	3560768	2183	
11/25/92	3562492	1724	
11/30/92	3572060	9568	FLOWMETER CLEANED
	TOTAL	51525	

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE 560,420 GALLONS.



BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: DECEMBER 1992

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
11/30/92	3572060	0	
12/01/92	3573799	1739	
12/02/92	3575391	1592	
12/03/92	3577108	1717	
12/04/92	3578876	1768	
12/07/92	3583890	5014	DOWN FOR TOWER
12/08/92	3583981	91	PACKING REPLACEMENT
12/09/92	3585818	1837	
12/10/92	3587522	1704	
12/11/92	3589390	1868	
12/14/92	3593357	3967	FLOWMETER STUCK/CLEANED
12/15/92	3594840	1483	
12/16/92	3596229	1389	FLOWMETER STUCK
12/17/92	3597145	916	
12/18/92	3598712	1567	
12/21/92	3604043	5331	FLOWMETER CLEANED
12/22/92	3606047	2004	
12/23/92	3607230	1183	
12/28/92	3615411	8181	FLOWMETER CLEANED
12/29/92	3616396	985	FLOWMETER STUCK
12/30/92	3617524	1128	
12/31/92	3618522	998	FLOWMETER STUCK
	TOTAL	46462	

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE 491,450 gallons.



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 BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: FEBRUARY 1993  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
01/29/93	3651503	0	CLEANED FLOWMETER
02/01/93	3655500	3997	
02/02/93	3656741	1241	
02/03/93	3658200	1459	
02/04/93	3659492	1292	
02/05/93	3660775	1283	
02/08/93	3664653	3878	CLEANED FLOWMETER
02/09/93	3666002	1379	
02/10/93	3667275	1243	
02/11/93	3668509	1231	
02/12/93	3669857	1348	
02/15/93	3672339	2482	
02/16/93	3672501	162	
02/17/93	3672813	312	
02/18/93	3673033	220	
02/19/93	3673662	629	CLEANED FLOWMETER
02/22/93	3677206	3544	
02/23/93	3677766	560	
02/24/93	3678061	295	
02/25/93	3678604	543	
02/26/93	3679603	999	DOWN FOR PACKING REPLACEMENT
	TOTAL	23100	

ON FEBRUARY 26-27, THE SYSTEM WAS DOWN FOR  
 CLEANING OF THE TOWER PIPING AND REPLACEMENT  
 OF THE TOWER PACKING.

BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: MARCH 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
02/26/93	3679603	0	
03/01/93	3682662	3059	
03/02/93	3682850	188	
03/03/93	3684659	1809	
03/04/93	3686109	1450	
03/05/93	3687442	1333	
03/08/93	3691655	4213	
03/09/93	3693019	1364	
03/10/93	3694537	1518	
03/11/93	3695425	888	
03/12/93	3696318	893	
03/15/93	3699367	3049	CLEANED FLOWMETER
03/16/93	3700944	1577	
03/17/93	3701980	1036	
03/18/93	3703003	1023	
03/19/93	3704117	1114	
03/22/93	3706474	2357	CLEANED FLOWMETER
03/23/93	3707567	1093	
03/24/93	3708777	1210	
03/25/93	3710058	1281	
03/26/93	3711393	1335	
03/29/93	3715565	4172	CLEANED FLOWMETER
03/30/93	3716621	1056	
03/31/93	3718295	1674	
	TOTAL	38692	

MAINTENANCE FOR THE MONTH OF  
 MARCH: NONE

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 BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: APRIL 1993  
 =====

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
03/31/93	3718295	0	
04/01/93	3719526	1231	CLEANED FLOWMETER
04/02/93	3720892	1366	
04/05/93	3725414	4522	CLEANED FLOWMETER
04/06/93	3726739	1325	
04/07/93	3728139	1400	
04/08/93	3729539	1400	
04/12/93	3735520	5981	CLEANED FLOWMETER
04/13/93	3737251	1731	
04/14/93	3739081	1830	
04/15/93	3740791	1710	
04/19/93	3744463	3672	FLOWMETER STUCK/CLEANED
04/20/93	3746260	1797	
04/21/93	3747726	1466	
04/22/93	3749413	1687	
04/23/93	3751012	1599	
04/26/93	3755447	4435	FLOWMETER STUCK/CLEANED
04/27/93	3757077	1630	
04/28/93	3758628	1551	
04/29/93	3758775	147	FLOWMETER STUCK/CLEANED
04/30/93	3760346	1571	
	TOTAL	42051	

MAINTENANCE FOR THE MONTH OF APRIL: NONE

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE 457,950 GALLONS.



BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: JUNE 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
05/28/93	3797106	0	
06/01/93	3802077	4971	
06/02/93	3803692	1615	
06/03/93	3805913	2221	
06/04/93	3807386	1473	
06/07/93	3812773	5387	CLEANED FLOWMETER
06/08/93	3814642	1869	
06/09/93	3816109	1467	FLOW ACCUMULATOR STUCK
06/10/93	3817905	1796	
06/11/93	3819700	1795	
06/14/93	3825023	5323	CLEANED FLOWMETER
06/15/93	3826747	1724	
06/16/93	3828625	1878	
06/17/93	3830401	1776	
06/18/93	3832168	1767	
06/21/93	3834986	2818	FLOWMETER STUCK/CLEANED
06/22/93	3835112	126	FLOWMETER STUCK
06/23/93	3836386	1274	FLOWMETER STUCK
06/24/93	3838278	1892	
06/25/93	3840233	1955	
06/28/93	3845979	5746	
06/29/93	3847913	1934	
06/30/93	3849766	1853	
	<b>TOTAL</b>	<b>48873</b>	

MAINTENANCE FOR THE MONTH OF JUNE: NONE

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE 540,200 GALLONS.

BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: JULY 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
06/30/93	3849766	0	
07/01/93	3851565	1799	CLEANED FLOWMETER
07/08/93	3858748	7183	FLOWMETER STUCK/CLEANED
07/09/93	3860188	1440	
07/12/93	3865992	5804	
07/13/93	3867968	1976	CLEANED FLOWMETER
07/14/93	3869648	1680	
07/15/93	3870061	413	FLOWMETER STUCK/CLEANED
07/16/93	3871754	1693	
07/19/93	3877535	5781	
07/20/93	3879726	2191	CLEANED FLOWMETER
07/21/93	3881412	1686	
07/22/93	3883281	1869	
07/23/93	3884100	819	FLOWMETER STUCK/CLEANED
07/26/93	3887853	3753	
07/27/93	3889078	1225	DOWN FOR MAINTENANCE
07/28/93	3889234	156	
07/29/93	3891122	1888	
07/30/93	3892737	1615	
	<b>TOTAL</b>	<b>42971</b>	

MAINTENANCE FOR THE MONTH OF JULY: THE TOWER PACKING WAS REPLACED AND THE PIPING WAS CLEANED ON JULY 27-28. THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE 515,840 GALLONS.



BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: AUGUST 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
07/30/93	3892737	0	
08/02/93	3896109	3372	
08/03/93	3896109	0	METER REGISTER STUCK
08/04/93	3896109	0	METER REGISTER STUCK
08/05/93	3896109	0	METER REGISTER STUCK
08/06/93	3898839	2730	METER BACK WORKING
08/09/93	3905281	6442	CLEANED FLOWMETER
08/10/93	3907029	1748	
08/11/93	3908758	1729	
08/12/93	3910904	2146	
08/13/93	3912423	1519	
08/16/93	3917298	4875	CLEANED FLOWMETER
08/17/93	3919887	2589	
08/20/93	3925753	5866	
08/23/93	3931302	5549	
08/24/93	3933071	1769	CLEANED FLOWMETER
08/25/93	3934934	1863	
08/26/93	3936738	1804	
08/27/93	3938751	2013	
08/30/93	3945839	7088	CLEANED FLOWMETER
08/31/93	3947786	1947	
	TOTAL	55049	

MAINTENANCE FOR THE MONTH OF AUGUST: THE  
 FAN BELT FOR THE BLOWER WAS REPLACED ON 8/13.  
 THE FLOWMETER PROBE WAS REPLACED ON 8/16.

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE  
 631,130 GALLONS.

BLDG 103 GROUNDWATER TREATMENT SYSTEM  
 WATER METER READING LOG  
 FOR THE MONTH OF: SEPTEMBER 1993

DATE	METER READING	VOLUME OF WATER TREATED	COMMENTS
	GAL X 10	GAL X 10	
08/31/93	3945839	0	
09/01/93	3947786	1947	
09/02/93	3949484	1698	
09/03/93	3951303	1819	
09/07/93	3959133	7830	
09/08/93	3961001	1868	CLEANED FLOWMETER
09/09/93	3962750	1749	
09/10/93	3964686	1936	
09/13/93	3969689	5003	
09/14/93	3971091	1402	
09/15/93	3972597	1506	
09/16/93	3973940	1343	
09/17/93	3975251	1311	DOWN--REPLACE PACKING
09/20/93	3981109	5858	
09/21/93	3982671	1562	
09/22/93	3982684	13	FLOWMETER STUCK/CLEANED
09/23/93	3984581	1897	
09/24/93	3986396	1815	
09/27/93	3992040	5644	CLEANED FLOWMETER
09/28/93	3993533	1493	FLOWMETER STUCK/CLEANED
09/29/93	3995286	1753	
09/30/93	3996879	1593	
	TOTAL	51040	

MAINTENANCE FOR THE MONTH OF SEPTEMBER: THE TOWER  
 PACKING WAS REPLACED AND THE INFLUENT PIPES AND  
 PUMPS WERE CLEANED ON 8/17-8/18.

THE ACTUAL VOLUME OF WATER TREATED IS ESTIMATED TO BE  
 530,470 GALLONS.

## APPENDIX I

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## Appendix I

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### Off-Post Well Installation Documentation

## **Appendix I.1**

### **Well Installation and Development Methods and Materials**

## **WELL INSTALLATION AND DEVELOPMENT METHODS AND MATERIALS**

Six new wells were installed in two areas in FY 93 to aid in definition of groundwater flow and groundwater quality where there had previously been some uncertainty. The installation included two wells near the TCAAP boundary between TCAAP and Rush Lake and four wells further downgradient between the Saint Anthony municipal wells and Gross Golf Course. The wells near the TCAAP boundary were designated 03L833 and 04U833 representing lower Unit 3 and upper Unit 4, respectively. The remaining four wells were designated 04U834, 04J834, 04J835, and 04J882.

### **Drilling Methods**

The wells were drilled by Keys Well Drilling Company using mud-rotary drilling methods and cable tool methods. Cable tool drilling was performed at all well locations but 03L833 and 04U833. Split-spoon sampling was performed at 03L833. Drilling logs and MDH well records are contained in Appendix I.2 and I.3, respectively.

### **Well Installation Methods and Materials**

The six wells installed utilized multiple casing to prevent the vertical migration of contaminants via the borehole. Casing diameters varied from 16-inch surface casing and telescoped to 5-inch diameter casing. All well materials were steam-cleaned prior to installation in the borehole. The lower Unit 3 well included a 20-foot long, 20-slot (0.020-inch) stainless steel screen, while the Unit 4 wells all utilized open-hole segments through their respective monitoring zones. All casing was grouted in-place with the grout being allowed to set for a period of at least 48 hours prior to continuing drilling. Well protection features include a 4-foot diameter concrete surface seal and a hinged locking cap. The well designation is clearly stenciled on each protective casing. Drill cuttings were collected by the driller and removed from each site. Well schematics for the wells are contained in Appendix I.4.

## WELL INSTALLATION AND DEVELOPMENT METHODS AND MATERIALS

(continued)

### Well Development

Following completion of each well, well development took place to remove sediments from the well and to produce representative water for sampling. Development was performed via airlift pumping and was generally performed for 4 hours until clear water and consistent stabilization readings were observed. In general, wells produced between 150 to 300 gallons per minute as noted on the drilling logs included in Appendix I.2.

### Well Surveying

Wells were surveyed by Kemper and Associates of St. Paul, Minnesota, in June 1993. The surveying consisted of obtaining elevation data for the top of surface (ground surface), outer-casing and inner-riser. The elevation data for the wells are contained in Appendix I.5.

### Groundwater Monitoring

Groundwater samples were collected in March and May 1993 from the newly installed wells. The March event was done by non-USAEC methods to get a preliminary indication of contaminant concentrations. The May 1993 sampling event was performed in accordance with USAEC protocol. Laboratory analytical reports for the March and May 1993 events are included in Appendix I.6. The May sampling event was performed by PACE Laboratories and included split samples which were collected by the MPCA. A specific discussion about groundwater quality results are included in Chapters VI and VII.

**Appendix I.2**

**Drilling Logs**



# KEYS WELL DRILLING COMPANY

## WATER PRODUCERS

SAINT PAUL, MINNESOTA

Federal Cartridge Company

Owner Twin Cities Army Ammunition Plant Date Completed April 15, 1993

Location Highway 10 & Scherer Bros. Lumber Driller Curt Sampson

Well No. 03L855 Size 8 x 4 Total Depth 252 Type Screen  
03L833

### DRILLERS LOG

0' to 14' Sand black  
 14' to 92' Clay gray  
 92' to 112' Gravel reddish brown  
 112' to 252' Sand brown  
 \_\_\_\_\_' to \_\_\_\_\_'  
 \_\_\_\_\_' to \_\_\_\_\_'  
 \_\_\_\_\_' to \_\_\_\_\_'  
 \_\_\_\_\_' to \_\_\_\_\_'  
 \_\_\_\_\_' to \_\_\_\_\_'  
 \_\_\_\_\_' to \_\_\_\_\_'  
 \_\_\_\_\_' to \_\_\_\_\_'

### WELL MATERIALS

16 ' of 10 " diameter of Outer Casing  
236 ' of 9-7/8 " diameter of Open Hole  
232 ' of 4 " diameter of Inner Casing  
 \_\_\_\_\_' of \_\_\_\_\_" diameter of Open Hole  
0 ' to 2 Mix grout 5.5 (yds.) (~~5.5~~)  
20 ' 4 " diameter pipe size Screen

### RECORD OF TEST PUMPING

Static Water Level \_\_\_\_\_ ft. from \_\_\_\_\_  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

Remarks: \_\_\_\_\_  
Developed 4 hours with airlift pumping method.  
Pumped dirty for 1 hour, pulled pipe into casing, pumped clear for 3 hours at 300 GPM.

### PERMANENT PUMP DATA

Mfg \_\_\_\_\_ Type \_\_\_\_\_ Serial No. \_\_\_\_\_  
 Capacity \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_  
 Motor Make \_\_\_\_\_ Type \_\_\_\_\_  
 \_\_\_\_\_ H. P. \_\_\_\_\_ Volts \_\_\_\_\_ Ph. \_\_\_\_\_ RPM  
 \_\_\_\_\_ ft. \_\_\_\_\_ in Col. pipe \_\_\_\_\_ in. Shaft  
 \_\_\_\_\_ ft. \_\_\_\_\_ in Bowls \_\_\_\_\_ Stages \_\_\_\_\_ Type  
 \_\_\_\_\_ ft. \_\_\_\_\_ in suction pipe & \_\_\_\_\_  
 \_\_\_\_\_ ft. Total Length of Pump  
 \_\_\_\_\_ ft. \_\_\_\_\_ in. drop pipe & \_\_\_\_\_ No. Cable  
 \_\_\_\_\_ ft. \_\_\_\_\_ in. air line  
 \_\_\_\_\_ in. Pitless \_\_\_\_\_ ft. bury \_\_\_\_\_ in outlet







WELL RECORD

# KEYS WELL DRILLING COMPANY

## WATER PRODUCERS

SAINT PAUL, MINNESOTA

Owner Federal Cartridge Company  
Twin Cities Army Ammunition Plant Date Completed April 29, 1993  
Location Rankin St. (across from 2900 Rankin St.), St. Anthony Driller James Russell  
Well No. 04U834 Size 16x10x5 Total Depth 412 Type Shakopee  
04U834

DRILLERS LOG

0 ' to 89 ' Clay, Sand & Gravel gray  
89 ' to 122 ' Limerock gray  
122 ' to 238 ' Sandstone brown  
238 ' to 291 ' Shale & Sandstone  
291 ' to 412 ' Limestone  
' to ' Sandstone  
' to '  
' to '  
' to '  
' to '  
' to '  
' to '  
' to '  
' to '

WELL MATERIALS

89 ' of 16 " diameter of Outer Casing  
251 ' of 15 " diameter of Open Hole  
251 ' of 10 " diameter of Inner Casing  
90 ' of 9-7/8 " diameter of Open Hole  
0 ' to 412 Mix grout (yds.) ~~(500)~~  
' " diameter Screen

RECORD OF TEST PUMPING

Static Water Level \_\_\_\_\_ ft. from \_\_\_\_\_  
\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

Remarks: \_\_\_\_\_  
341' - 5" inner casing  
71' - 4-7/8 open hole

PERMANENT PUMP DATA

Mfg. \_\_\_\_\_ Type \_\_\_\_\_ Serial No. \_\_\_\_\_  
Capacity \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_  
Motor Make \_\_\_\_\_ Type \_\_\_\_\_  
\_\_\_\_\_ H. P. \_\_\_\_\_ Volts \_\_\_\_\_ Ph. \_\_\_\_\_ RPM \_\_\_\_\_  
\_\_\_\_\_ ft. \_\_\_\_\_ in Col. pipe \_\_\_\_\_ in. Shaft \_\_\_\_\_  
\_\_\_\_\_ ft. \_\_\_\_\_ in Bowls \_\_\_\_\_ Stages \_\_\_\_\_ Type \_\_\_\_\_  
\_\_\_\_\_ ft. \_\_\_\_\_ in suction pipe & \_\_\_\_\_  
\_\_\_\_\_ ft. Total Length of Pump \_\_\_\_\_  
\_\_\_\_\_ ft. \_\_\_\_\_ in. drop pipe & \_\_\_\_\_ No. Cable \_\_\_\_\_  
\_\_\_\_\_ ft. \_\_\_\_\_ in. air line \_\_\_\_\_  
\_\_\_\_\_ in. Pitless \_\_\_\_\_ ft. bury \_\_\_\_\_ in outlet \_\_\_\_\_

Sandstone soft - bailed for 5+ days and  
ended up driving 10" thru the St. Peter  
to the Shale.  
Developed 4 hours by airlift pumping method.  
Pumping 200 GPM, cleared up in 5 minutes.



WELL RECORD

# KEYS WELL DRILLING COMPANY

## WATER PRODUCERS

SAINT PAUL, MINNESOTA

Owner Federal Cartridge Company  
Twin Cities Army Ammunition Plant Date Completed April 29, 1993

Location Rankin St., Hwy. 88 & County Road C, St. Anthony Driller Michael Galvin  
 (across from 2900 Rankin St.)

Well No. 04J834 Size 16x10x8 Total Depth 489 Type Jordan

**DRILLERS LOG**

0 ' to 60 ' Clay, Sand & Gravel gray

60 ' to 88 ' Sand gray

88 ' to 121 ' Limerock gray

121 ' to 126 ' Shale gray/green

126 ' to 242 ' Sandrock brown

242 ' to 291 ' Shale & Sandrock gray

291 ' to 412 ' Limerock buff

412 ' to 487 ' Sandstone buff

487 ' to 489 ' Shale gray

' to ' \_\_\_\_\_

' to ' \_\_\_\_\_

' to ' \_\_\_\_\_

' to ' \_\_\_\_\_

' to ' \_\_\_\_\_

' to ' \_\_\_\_\_

**WELL MATERIALS - from ground level**

89 ' of 16 " diameter of Outer Casing

190 ' of 15 " diameter of Open Hole

279 ' of 10 " diameter of Inner Casing

148 ' of 9-7/8 " diameter of Open Hole

0 ' to 412 Mix grout 30 (yds.) ~~(500)~~

' \_\_\_\_\_ " diameter \_\_\_\_\_ Screen

**RECORD OF TEST PUMPING**

Static Water Level \_\_\_\_\_ ft. from \_\_\_\_\_

\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

\_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

Remarks: \_\_\_\_\_

412' - 5" liner

75' - 4-7/8 open hole

**PERMANENT PUMP DATA**

Mfg. \_\_\_\_\_ Type \_\_\_\_\_ Serial No. \_\_\_\_\_

Capacity \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_

Motor Make \_\_\_\_\_ Type \_\_\_\_\_

\_\_\_\_\_ H. P. \_\_\_\_\_ Volts \_\_\_\_\_ Ph. \_\_\_\_\_ RPM \_\_\_\_\_

\_\_\_\_\_ ft. \_\_\_\_\_ in Col. pipe \_\_\_\_\_ in. Shaft \_\_\_\_\_

\_\_\_\_\_ ft. \_\_\_\_\_ in Bowls \_\_\_\_\_ Stages \_\_\_\_\_ Type \_\_\_\_\_

\_\_\_\_\_ ft. \_\_\_\_\_ in suction pipe & \_\_\_\_\_

\_\_\_\_\_ ft. Total Length of Pump \_\_\_\_\_

\_\_\_\_\_ ft. \_\_\_\_\_ in. drop pipe & \_\_\_\_\_ No. Cable \_\_\_\_\_

\_\_\_\_\_ ft. \_\_\_\_\_ in. air line \_\_\_\_\_

\_\_\_\_\_ in. Pitless \_\_\_\_\_ ft. bury \_\_\_\_\_ in outlet \_\_\_\_\_

Developed 4 hours with airlift pumping method.

Pipe located at bottom of hole.

Dirty the first 45 minutes.

Pulled rods up into casing and water cleared

in 15 minutes, pumping about 150 GPM.





**WELL RECORD**

**KEYS WELL DRILLING COMPANY**  
**WATER PRODUCERS**  
 SAINT PAUL, MINNESOTA

Owner Federal Cartridge Company  
Twin Cities Army Ammunition Plant Date Completed April 15, 1993  
 Location 2837 Anthony Lane South Driller Michael Galvin  
Mark Contonikolas  
 Well No. 04J815 Size 16x10x5 Total Depth 525 Type Jordan  
04J835

**DRILLERS LOG**

0 ' to 30 ' Sand & Clay brown  
30 ' to 50 ' Sand & Gravel brown  
50 ' to 106 ' Sand brown  
106 ' to 137 ' Sandstone gray  
137 ' to 142 ' Shale green  
142 ' to 258 ' Sandrock brown  
258 ' to 306 ' Shale gray  
306 ' to 433 ' Limestone buff  
433 ' to 520 ' Sandstone gray  
520 ' to 525 ' Shale blue  
 ' to ' \_\_\_\_\_  
 ' to ' \_\_\_\_\_  
 ' to ' \_\_\_\_\_  
 ' to ' \_\_\_\_\_

**WELL MATERIALS - ground level measurements**

107 ' of 16 " diameter of Outer Casing  
188 ' of 15 " diameter of Open Hole  
295 ' of 10 " diameter of Inner Casing  
153 ' of 9-7/8 " diameter of Open Hole  
0 ' to 448 Mix grout 39.5 (yds.) ~~(52.5)~~  
 ' \_\_\_\_\_ " diameter \_\_\_\_\_ Screen

**RECORD OF TEST PUMPING**

Static Water Level \_\_\_\_\_ ft. from \_\_\_\_\_  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours  
 \_\_\_\_\_ GPM \_\_\_\_\_ D.D. \_\_\_\_\_ Hours

Remarks: \_\_\_\_\_

448' - 5" inner casing  
77' - 4-7/8 open hole

**PERMANENT PUMP DATA**

Mfg. \_\_\_\_\_ Type \_\_\_\_\_ Serial No. \_\_\_\_\_  
 Capacity \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_  
 Motor Make \_\_\_\_\_ Type \_\_\_\_\_  
 \_\_\_\_\_ H. P. \_\_\_\_\_ Volts \_\_\_\_\_ Ph. \_\_\_\_\_ RPM \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in Col. pipe \_\_\_\_\_ in. Shaft \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in Bowls \_\_\_\_\_ Stages \_\_\_\_\_ Type \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in suction pipe & \_\_\_\_\_  
 \_\_\_\_\_ ft. Total Length of Pump \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in. drop pipe & \_\_\_\_\_ No. Cable \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in. air line \_\_\_\_\_  
 \_\_\_\_\_ in. Pitless \_\_\_\_\_ ft. bury \_\_\_\_\_ in outlet \_\_\_\_\_

This well was called Winston or Goodall  
Rubber well.  
Drilled for off site contamination  
investigation for Twin Cities Army  
Ammunition Plant.

Developed 4 hours with airlift pumping method.  
Cleared up after 1 hour.  
Pumping 100 GPM.



**WELL RECORD**

**KEYS WELL DRILLING COMPANY**  
**WATER PRODUCERS**  
 SAINT PAUL, MINNESOTA

Federal Cartridge Company

Owner Twin Cities Army Ammunition Plant Date Completed April 29, 1993

Location Old Rosie's Cafe, Silver Lake Rd. & St. Anthony Blvd Driller Richard Sittig

Well No. 04J882 Size 16x10x5 Total Depth 471 Type Jordan

**DRILLERS LOG**

0	to	38	Clay	blue/black
38	to	54	Sandy Clay	brown
54	to	87	Limestone	gray
87	to	90	Shale	gray
90	to	178	Sandstone-soft	white/gray
178	to	207	Sandstone-soft	yellow
207	to	214	Shaley Sandstone	white
214	to	223	Shale	red
223	to	238	Sandstone & Shale	buff
238	to	256	Shale	gray
256	to	375	Limestone	pink
375	to	470	Sandstone	white/pink
470	to	471	Siltstone	brown
	to			

**WELL MATERIALS - from ground level**

56	' of	16	" diameter of Outer Casing
190	' of	15	" diameter of Open Hole
245	' of	10	" diameter of Inner Casing
145	' of	9-7/8	" diameter of Open Hole
	' to		Mix grout (yds.) (Sacks)
	'		" diameter Screen

**RECORD OF TEST PUMPING**

Static Water Level	<u>114</u>	ft. from	
	GPM	D.D.	Hours
	GPM	D.D.	Hours
	GPM	D.D.	Hours
	GPM	D.D.	Hours

Remarks: \_\_\_\_\_

390' - 5" inner casing

81' - 4-7/8 open hole

Developed 4 hours with airlift pumping method.  
Pipe located at bottom of hole.  
Dirty the first 45 minutes.  
Pulled rods up into casing and water cleared  
in 15 minutes pumping about 150 GPM.

**PERMANENT PUMP DATA**

Mfg \_\_\_\_\_ Type \_\_\_\_\_ Serial No. \_\_\_\_\_  
 Capacity \_\_\_\_\_ GPM \_\_\_\_\_ TDH \_\_\_\_\_  
 Motor Make \_\_\_\_\_ Type \_\_\_\_\_  
 \_\_\_\_\_ H. P. \_\_\_\_\_ Volts \_\_\_\_\_ Ph. \_\_\_\_\_ RPM \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in Col. pipe \_\_\_\_\_ in. Shaft \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in Bowls \_\_\_\_\_ Stages \_\_\_\_\_ Type \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in suction pipe & \_\_\_\_\_  
 \_\_\_\_\_ ft. Total Length of Pump \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in. drop pipe & \_\_\_\_\_ No. Cable \_\_\_\_\_  
 \_\_\_\_\_ ft. \_\_\_\_\_ in. air line \_\_\_\_\_  
 \_\_\_\_\_ in. Pitless \_\_\_\_\_ ft. bury \_\_\_\_\_ in outlet \_\_\_\_\_



**Appendix I.3**

**Minnesota Department of Health Well Records**

MINNESOTA DEPARTMENT OF HEALTH  
**WELL RECORD**  
 Minnesota Statutes Chapter 1031

MINNESOTA UNIQUE WELL NO.

512761

LOCATION  
 County Name  
**MINNEAPOLIS**

Township Name: **ST ANTHONY** Township No.: **29N** Range No.: **23W** Section No.: **7** Fraction: **SW 1/4 SE 1/4**

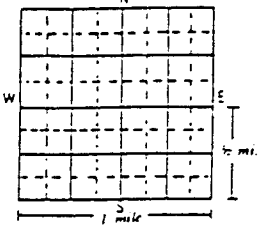
WELL DEPTH (completed) **437** Date Work Completed **OCT. 23, 1992**

Numerical Street Address and City of Well Location: **2281 ST ANTHONY BLVD - GROSS GOLF**

DRILLING METHOD  
 Cable Tool  Driven  
 Auger  Rotary  Dug  
 \_\_\_\_\_  Jetted

Show exact location of well in section grid with 'X'. Sketch map of well location. Showing property lines, roads and buildings.

DRILLING FLUID: **WATER**



USE  
 Domestic  Monitoring  Heating/Cooling  
 Irrigation  Public  Industry/Commercial  
 Test Well  Dewatering  Remedial

PROPERTY OWNER'S NAME  
**MPLS PARK & REC. DEPT**  
 Mailing address if different than property address indicated above.

CASING Drive Shoe?  Yes  No HOLE DIAM.  
 Steel  Threaded  Welded  
 Plastic  \_\_\_\_\_

**3800 BRYANT AVE S  
 MINNEAPOLIS, MN 55409  
 Mr Dennis Ryan (612) 348-2220**

CASING DIAMETER WEIGHT  
**24** in. to **131** ft. **94.62** lbs./ft. **23** in. to **270** ft.  
**18** in. to **280.6** **70.59** lbs./ft. **18** in. to **437**  
**12** in. to **340.5** **49.56** lbs./ft. \_\_\_\_\_ in. to \_\_\_\_\_ ft.

SCREEN **NONE** OPEN HOLE  
 Make \_\_\_\_\_ from **340.5** ft. to **437.0** ft.  
 Type \_\_\_\_\_ Diam. \_\_\_\_\_  
 Slot/Gauze \_\_\_\_\_ Length \_\_\_\_\_  
 Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft. FITTINGS: \_\_\_\_\_

GEOLOGICAL MATERIALS	COLOR	HARDNESS OF MATERIAL	FROM	TO
CLAY	YELLOW	S	0	12
SAND	BROWN	S	12	30
SAND & ROCKS	BROWN		30	60
FINE SAND	BROWN	S	60	110
HARD PAN	BROWN	H	110	123
DECORAH SHALE	BLUE	H	123	128
PLATTEVILLE	GREY	H	128	164
GLENWOOD SHALE	BLU/GHM	H	164	167
ST PETER S.S	WHITE	F	167	280
BASAL ST PETER	YELLOW	F	280	325
SHAKOPEE	PINK	H	325	437
JORDAN	BLUISH	S	437	

STATIC WATER LEVEL **155.6** ft.  below  above land surface Date measured **10/13/92**

PUMPING LEVEL (below land surface)  
**159.0** ft. after **7** hrs. pumping **590** g.p.m.

WELL HEAD COMPLETION  
 Piless adapter manufacturer \_\_\_\_\_ Model \_\_\_\_\_  
 Casing Protection \_\_\_\_\_  12 in. above grade

GROUTING INFORMATION  
 Well grouted?  Yes  No  
 Grout Material  Neat cement  Bentonite  
 from **SUR** **270** **22.0** yds.  bags  
 from **SUR** **340** **7.0** yds.  bags  
 from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

NEAREST KNOWN SOURCE OF CONTAMINATION  
 \_\_\_\_\_ feet \_\_\_\_\_ direction \_\_\_\_\_ type  
 Well disinfected upon completion?  Yes  No

PUMP  
 Not installed Date installed \_\_\_\_\_  
 Manufacturer's name \_\_\_\_\_  
 Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_  
 Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ g.p.m.  
 Pressure Tank Capacity \_\_\_\_\_  
 Type:  Submersible  LS. Turbine  Reciprocating  Jet  \_\_\_\_\_

ABANDONED WELLS  
 Does property have any not in use and not sealed well(s)?  Yes  No

WELL CONTRACTOR CERTIFICATION  
 This well was drilled under my supervision and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

REMARKS. ELEVATION. SOURCE OF DATA, etc.  
**U-76**  
**M.G.S. QUAD NUMBER C-119**  
**ELEVATION 950FT +/- 5FT**  
**WORK COMPLETED WITH JOEL TOSO**  
**OF BAR ENGINEERING 832-2872**  
**ROGER E. RENNER, MNC**  
**(612) 427-6100**

**E.H. RENNER & SONS, INC. 71015**  
 Licensee Business Name Lic. or Reg. No.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Authorized Representative Signature \_\_\_\_\_ Date **10/23/92**  
**RODNEY SIGAFOOS** \_\_\_\_\_  
 Name of Driller Date **10/23/92**

WELL CONTRACTOR COPY **512761**



MINNESOTA DEPARTMENT OF HEALTH

WELL RECORD

Minnesota Statutes Chapter 103I

MINNESOTA UNIQUE WELL NO.

519836

WELL LOCATION

County Name

Hennepin

Township Name

Minneapolis

Township No.

29N

Range No.

23W

Section No.

6

Fraction

NE SW SE

WELL DEPTH (completed)

412

Date Work Completed

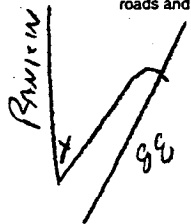
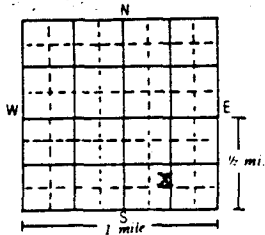
April 29, 1993

Numerical Street Address and City of Well Location  
 Rankin St., St. Anthony  
 (across from 2900 Rankin St.)

or Fire Number

Show exact location of well in section grid with "X".

Sketch map of well location.  
 Showing property lines,  
 roads and buildings.



DRILLING METHOD

- Cable Tool
- Auger
- Driven
- Rotary
- Dug
- Jetted

DRILLING FLUID

USE

- Domestic
- Irrigation
- Test Well
- Monitoring
- Public
- Dewatering
- Heating/Cooling
- Industry/Commercial
- Remedial

CASING

Drive Shoe?  Yes  No

- Steel
- Plastic
- Threaded
- Welded

HOLE DIAM.

CASING DIAMETER

WEIGHT

16 in. to 89 ft. 62.58 lbs./ft. 15 in. to 251 ft.  
 10 in. to 251 ft. 40.48 lbs./ft. 7/8 in. to 341 ft.

PROPERTY OWNER'S NAME

Federal Cartridge Company

Mailing address if different than property address indicated above.

Twin Cities Army Ammunition Plant  
 New Brighton, MN 55112-5795

SCREEN

Make \_\_\_\_\_ Type \_\_\_\_\_ Slot/Gauze \_\_\_\_\_ Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft. FITTINGS: \_\_\_\_\_

OPEN HOLE from 341 ft. to 412 ft. Diam. \_\_\_\_\_ Length \_\_\_\_\_

STATIC WATER LEVEL

\_\_\_\_\_ ft.  below  above land surface Date measured \_\_\_\_\_

PUMPING LEVEL (below land surface)

\_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

WELL HEAD COMPLETION

- Pitless adapter manufacturer \_\_\_\_\_ Model \_\_\_\_\_
- Casing Protection \_\_\_\_\_  12 in. above grade

GROUTING INFORMATION

Grout Material  Neat cement  Bentonite

from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

NEAREST KNOWN SOURCE OF CONTAMINATION

\_\_\_\_\_ feet \_\_\_\_\_ direction \_\_\_\_\_ type

Well disinfected upon completion?  Yes  No

PUMP

Not installed Date installed \_\_\_\_\_

Manufacturer's name \_\_\_\_\_ Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_

Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ g.p.m.

Pressure Tank Capacity \_\_\_\_\_

Type:  Submersible  L.S. Turbine  Reciprocating  Jet  \_\_\_\_\_

ABANDONED WELLS

Does property have any not in use and not sealed well(s)?  Yes  No

WELL CONSTRUCTION VERIFICATION

This well was drilled under my supervision and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

Keys Well Drilling Company 62012

Licensee Business Name

Lic. or Reg. No.

*[Signature]*  
 Authorized Representative Signature

04/29/93

Date

James Russell

04/29/93

Name of Driller

Date

REMARKS, ELEVATION, SOURCE OF DATA, etc.

Well No. 04U844

Name has been changed to 04U834 on 8-4-93.

IMPORTANT - FILE WITH PROPERTY PAPERS - WELL OWNER COPY

519836



**WELL RECORD**

Minnesota Statutes Chapter 1031

**519957**

**WELL LOCATION**

County Name

**Ramsey**

Township Name

**Arden Hills**

Township No.

**30N**

Range No.

**23W**

Section No.

**16**

Fraction

**SE 1/4 SW 1/4 NW**

WELL DEPTH (completed) ft.

**315**

Date Work Completed

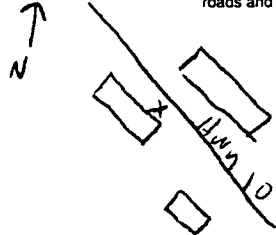
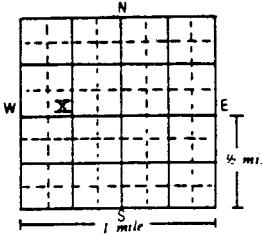
**April 25, 1993**

Numerical Street Address and City of Well Location  
**Hwy. 10 at Scherer Bros. Lumber**

or Fire Number

Show exact location of well in section grid with "X".

Sketch map of well location. Showing property lines, roads and buildings.



DRILLING METHOD

- Cable Tool
- Auger
- Driven
- Rotary
- Dug
- Jetted

DRILLING FLUID

**air**

USE

- Domestic
- Irrigation
- Test Well
- Monitoring
- Public
- Dewatering
- Heating/Cooling
- Industry/Commercial
- Remedial

CASING

- Steel
- Plastic
- Drive Shoe?  Yes  No
- Threaded
- Welded

HOLE DIAM.

CASING DIAMETER

**10** in. to **18** ft.  
**5** in. to **258** ft.

WEIGHT

**40.48** lbs./ft. **15** in. to **18** ft.  
**14.62** lbs./ft. **7/8** in. to **258** ft.

PROPERTY OWNER'S NAME

**Federal Cartridge Company**

Mailing address if different than property address indicated above.

**Twin Cities Army Ammunition Plant  
New Brighton, MN 55112-5795**

SCREEN

Make \_\_\_\_\_

Type \_\_\_\_\_

Slot/Gauze \_\_\_\_\_

Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft.

OPEN HOLE

from **258** ft. to **315** ft.

Diam. \_\_\_\_\_

Length \_\_\_\_\_

FITTINGS: \_\_\_\_\_

STATIC WATER LEVEL

\_\_\_\_\_ ft.  below  above land surface Date measured \_\_\_\_\_

PUMPING LEVEL (below land surface)

\_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

WELL HEAD COMPLETION

- Pitless adapter manufacturer \_\_\_\_\_ Model \_\_\_\_\_
- Casing Protection **concrete pad**  12 in. above grade

GROUTING INFORMATION

Well grouted?  Yes  No

Grout Material  Neat cement  Bentonite  
from **0** to **18** ft. **20** yds.  bags  
from **0** to **258** ft. **4.5** yds.  bags  
from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

NEAREST KNOWN SOURCE OF CONTAMINATION

\_\_\_\_\_ feet \_\_\_\_\_ direction \_\_\_\_\_ type

Well disinfected upon completion?  Yes  No

PUMP

- Not installed Date installed \_\_\_\_\_
- Manufacturer's name \_\_\_\_\_
- Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_
- Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ g.p.m.
- Pressure Tank Capacity \_\_\_\_\_
- Type:  Submersible  L.S. Turbine  Reciprocating  Jet  \_\_\_\_\_

ABANDONED WELLS

Does property have any not in use and not sealed well(s)?  Yes  No

WELL CONTRACTOR CERTIFICATION

This well was drilled under my supervision and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

**Keys Well Drilling Company**  
Licensee Business Name

**62012**  
Lic. or Reg. No.

*[Signature]*  
Authorized Representative Signature

**04/25/93**  
Date

**Curt Sampson**  
Name of Driller

**04/25/93**  
Date

REMARKS, ELEVATION, SOURCE OF DATA, etc.

**Well No. 04U855**

Name has been changed to 04U833 on 8-4-93.

IMPORTANT - FILE WITH PROPERTY PAPERS - WELL OWNER COPY

**519957**

MINNESOTA DEPARTMENT OF HEALTH

MINNESOTA UNIQUE WELL NO.

WELL RECORD

Minnesota Statutes Chapter 1031

482709

WELL LOCATION

County Name

Hennepin

Township Name

Minneapolis

Township No.

29N

Range No.

23W

Section No.

6

Fraction

NE 1/4 SW 1/4 SE 1/4

WELL DEPTH (completed) ft.

489

Date of Completion

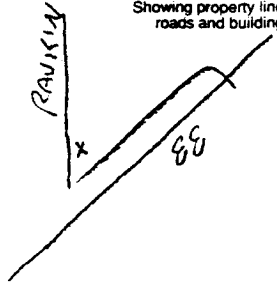
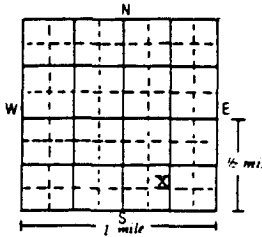
April 29, 1993

Numerical Street Address or Fire Number and City of Well Location  
 Rankin St., Hwy. 88 & Co. Rd. C, St. Anthony  
 (across from 2900 Rankin St.)

DRILLING METHOD  
 Cable Tool  
 Auger  
 Driven  
 Rotary  
 Dug  
 Jetted

Show exact location of well in section grid with "X".

Sketch map of well location. Showing property lines, roads and buildings.



DRILLING FLUID

USE  
 Domestic  
 Irrigation  
 Test Well  
 Monitoring  
 Public  
 Dewatering  
 Heating/Cooling  
 Industry/Commercial

CASING Drive Shoe?  Yes  No  
 Steel  Threaded  Welded  
 Plastic

HOLE DIAM.

CASING DIAMETER WEIGHT  
 16 in. to 89 ft. 62.58 lbs./ft. 15 in. to 190 ft.  
 10 in. to 279 ft. 40.48 lbs./ft. 10 in. to 412 ft.  
 5 in. to 412 ft. 14.62 lbs./ft.

SCREEN OPEN HOLE  
 Make \_\_\_\_\_ from 412 ft. to 489 ft.  
 Type \_\_\_\_\_ Diam. \_\_\_\_\_  
 Slot/Gauze \_\_\_\_\_ Length \_\_\_\_\_  
 Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft. FITTINGS: \_\_\_\_\_

PROPERTY OWNER'S NAME

Federal Cartridge Company

Mailing address if different than property address indicated above.

Twin Cities Army Ammunition Plant  
 New Brighton, MN 55112-5795

STATIC WATER LEVEL  
 \_\_\_\_\_ ft.  below  above land surface Date measured \_\_\_\_\_

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Clay, Sand & Gravel	gray		0	60
Sand	gray		60	88
Limerock	gray		88	121
Shale	green/gray		121	126
Sandrock	brown		126	242
Shale & Sandrock	gray		242	291
Limerock	buff		291	412
Sandstone	buff		412	487
Shale	gray		487	489

PUMPING LEVEL (below land surface)  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

WELL HEAD COMPLETION  
 Pitless adapter manufacturer \_\_\_\_\_ Model \_\_\_\_\_  
 Casing Protection concrete pad

GROUTING INFORMATION  
 Well grouted?  Yes  No  
 Grout Material  Neat cement  Bentonite  
 from 0 to 279 ft. 12 yds.  bags  
 from 0 to 412 ft. 18 yds.  bags

NEAREST SOURCE OF POSSIBLE CONTAMINATION  
 \_\_\_\_\_ feet \_\_\_\_\_ direction \_\_\_\_\_ type  
 Well disinfected upon completion?  Yes  No

PUMP  
 Not installed Date installed \_\_\_\_\_  
 Manufacturer's name \_\_\_\_\_  
 Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_  
 Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ g.p.m.  
 Pressure Tank Capacity \_\_\_\_\_  
 Type:  Submersible  L.S. Turbine  Reciprocating  Jet  \_\_\_\_\_

ABANDONED WELLS  
 Not in use and not sealed well on property?  Yes  No

WELL CONTRACTOR CERTIFICATION  
 This well was drilled under my jurisdiction and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

Keys Well Drilling Company 62012  
 Licensee Business Name Lic. or Reg. No.  
 \_\_\_\_\_  
 \_\_\_\_\_ 04/29/93  
 Authorized Representative Signature Date  
 Michael Galvin 04/29/93  
 Name of Driller Date

REMARKS, ELEVATION, SOURCE OF DATA, etc.

Well No. 04J844  
 Name has been changed to 04J834 on 8-4-93.

IMPORTANT- FILE WITH PROPERTY PAPERS- WELL OWNER COPY 482709

WELL LOCATION

MINNESOTA DEPARTMENT OF HEALTH

MINNESOTA UNIQUE WELL NO.

WELL RECORD

Minnesota Statutes Chapter 103I

482708

County Name  
**Ramsey**

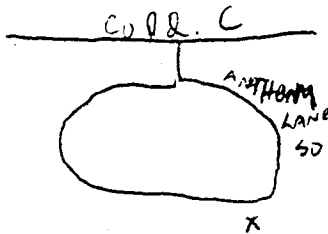
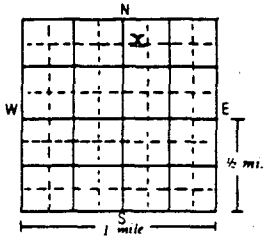
Township Name: **Roseville** Township No.: **29N** Range No.: **23W** Section No.: **8** Fraction: **NW 1/4 NW 1/4 NE 1/4**

WELL DEPTH (completed) **448** ft. Date of Completion **April 15, 1993**

Numerical Street Address or Fire Number and City of Well Location  
**2837 Anthony Lane South**

DRILLING METHOD  
 Cable Tool  Driven  Dug  
 Auger  Rotary  Jetted

Show exact location of well in section grid with "X". Sketch map of well location. Showing property lines, roads and buildings.



DRILLING FLUID

USE  
 Domestic  Monitoring  Heating/Cooling  
 Irrigation  Public  Industry/Commercial  
 Test Well  Dewatering

CASING Drive Shoe?  Yes  No HOLE DIAM.  
 Steel  Threaded  Welded  
 Plastic

PROPERTY OWNER'S NAME  
**Federal Cartridge Company**

CASING DIAMETER WEIGHT  
**16** in. to **107** ft. **62.58** lbs./ft. **15** in. to **295**  
**10** in. to **205** ft. **40.48** lbs./ft. **10** in. to **448**  
**5** in. to **448** ft. **14.62** lbs./ft. in. to ft.

Mailing address if different than property address indicated above.

**Twin Cities Army Ammunition Plant  
New Brighton, MN 55112-5795**

SCREEN OPEN HOLE  
 Make \_\_\_\_\_ from **448** ft. to **525** ft.  
 Type \_\_\_\_\_ Diam. \_\_\_\_\_  
 Slot/Gauze \_\_\_\_\_ Length \_\_\_\_\_  
 Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft. FITTINGS: \_\_\_\_\_

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
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STATIC WATER LEVEL  
 \_\_\_\_\_ ft.  below  above land surface Date measured \_\_\_\_\_

Sand & Clay	brown		0	30
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PUMPING LEVEL (below land surface)  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

Sand & Gravel	brown		30	50
---------------	-------	--	----	----

WELL HEAD COMPLETION  
 Pitless adapter manufacturer \_\_\_\_\_ Model \_\_\_\_\_  
 Casing Protection **concrete pad - locking cap**

Sand	brown		50	106
------	-------	--	----	-----

GROUTING INFORMATION  
 Well grouted?  Yes  No  
 Grout Material  Neat cement  Bentonite  
 from **0** to **295** ft. **14** yds.  bags  
 from **0** to **448** ft. **25.5** yds.  bags  
 from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

Sandstone	gray		106	137
-----------	------	--	-----	-----

NEAREST SOURCE OF POSSIBLE CONTAMINATION  
**50** feet **NW** direction **sewer** type  
 Well disinfected upon completion?  Yes  No

Shale	green		137	142
-------	-------	--	-----	-----

PUMP  
 Not installed Date installed \_\_\_\_\_  
 Manufacturer's name \_\_\_\_\_  
 Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_  
 Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ g.p.m.  
 Pressure Tank Capacity \_\_\_\_\_  
 Type:  Submersible  L.S. Turbine  Reciprocating  Jet

Sandrock	brown		142	258
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Shale	gray		258	306
-------	------	--	-----	-----

Limestone	buff		306	433
-----------	------	--	-----	-----

Sandstone	gray		433	520
-----------	------	--	-----	-----

Shale	blue		520	525
-------	------	--	-----	-----

ABANDONED WELLS  
 Not in use and not sealed well on property?  Yes  No

WELL CONTRACTOR CERTIFICATION  
 This well was drilled under my jurisdiction and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

Use a second sheet, if needed

REMARKS, ELEVATION, SOURCE OF DATA, etc.

Well No. 04J815  
 Name has been changed to 04J835 on 8-4-93.

**Keys Well Drilling Company** 62012  
 Licensee Business Name Lic. or Reg. No.  
 04/15/93  
 Authorized Representative Signature Date  
**Michael Galvin/Mark Contonikolas** 4/15/93  
 Name of Driller Date

IMPORTANT-FILE WITH PROPERTY PAPERS- WELL OWNER COPY 482708

MINNESOTA DEPARTMENT OF HEALTH  
**WELL RECORD**  
 Minnesota Statutes Chapter 1031

MINNESOTA UNIQUE WELL NO.

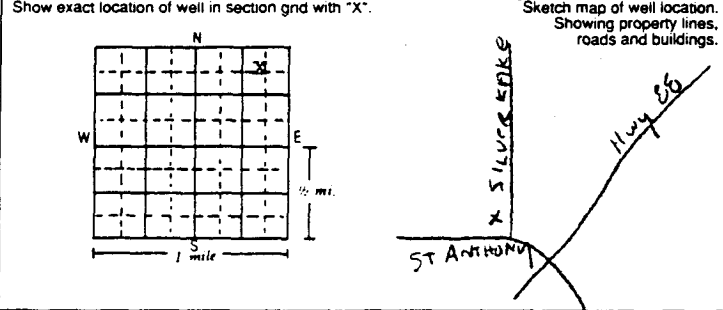
**482707**

WELL LOCATION  
 County Name  
**Hennepin**  
 Township Name  
**St. Anthony** Township No. **29N** Range No. **23W** Section No. **7** Fraction **NW 1/4 NE 1/4**

WELL DEPTH (completed) **471** ft. Date of Completion **April 29, 1993**

Numerical Street Address or Fire Number and City of Well Location  
**Old Rosie's Cafe**  
**Silver Lake Rd. & St. Anthony Blvd.**

DRILLING METHOD  
 Cable Tool  Driven  Dug  
 Auger  Rotary  Jetted



DRILLING FLUID

USE  
 Domestic  Monitoring  Heating/Cooling  
 Irrigation  Public  Industry/Commercial  
 Test Well  Dewatering

CASING Drive Shoe?  Yes  No  
 Steel  Threaded  Welded  
 Plastic

PROPERTY OWNER'S NAME  
**Federal Cartridge Company**

CASING DIAMETER	WEIGHT	HOLE DIAM.
16 in. to 56 ft. 62.58 lbs./ft.	15 in. to 245 ft.	245 ft.
10 in. to 245 ft. 40.48 lbs./ft.	10 in. to 390 ft.	390 ft.
5 in. to 390 ft. 14.62 lbs./ft.		

Mailing address if different than property address indicated above.  
**Twin Cities Army Ammunition Plant**  
**New Brighton, MN 55112-5795**

SCREEN OPEN HOLE  
 Make \_\_\_\_\_ from **390** ft. to **81** ft.  
 Type \_\_\_\_\_ Diam. \_\_\_\_\_  
 Slot/Gauze \_\_\_\_\_ Length \_\_\_\_\_  
 Set between \_\_\_\_\_ ft. and \_\_\_\_\_ ft. FITTINGS: \_\_\_\_\_

FORMATION LOG	COLOR	HARDNESS OF FORMATION	FROM	TO
Clay	blue/black		0	38
Sandy Clay	brown		38	54
Limestone	gray		54	87
Shale	gray		87	90
Sandstone	white/gray	soft	90	178
Sandstone	yellow	soft	178	207
Shaley Sandstone	white		207	214
Shale	red		214	223
Sandstone & Shale	buff		223	238
Shale	gray		238	256
Limestone	pink		256	375
Sandstone	white/pink		375	470
Siltstone	brown		470	471

STATIC WATER LEVEL  
**114** ft.  below  above land surface Date measured \_\_\_\_\_

PUMPING LEVEL (below land surface)  
 \_\_\_\_\_ ft. after \_\_\_\_\_ hrs. pumping \_\_\_\_\_ g.p.m.

WELL HEAD COMPLETION  
 Pittess adapter manufacturer \_\_\_\_\_ Model \_\_\_\_\_  
 Casing Protection **concrete pad**

GROUTING INFORMATION  
 Well grouted?  Yes  No  
 Grout Material  Neat cement  Bentonite  
 from **0** to **190** ft. **29** yds.  bags  
 from **0** to **390** ft. **22** yds.  bags  
 from \_\_\_\_\_ to \_\_\_\_\_ ft. \_\_\_\_\_ yds.  bags

NEAREST SOURCE OF POSSIBLE CONTAMINATION  
 \_\_\_\_\_ feet \_\_\_\_\_ direction \_\_\_\_\_ type  
 Well disinfected upon completion?  Yes  No

PUMP  
 Not installed Date installed \_\_\_\_\_  
 Manufacturer's name \_\_\_\_\_  
 Model number \_\_\_\_\_ HP \_\_\_\_\_ Volts \_\_\_\_\_  
 Length of drop pipe \_\_\_\_\_ ft. Capacity \_\_\_\_\_ g.p.m.  
 Pressure Tank Capacity \_\_\_\_\_  
 Type:  Submersible  L.S. Turbine  Reciprocating  Jet  \_\_\_\_\_

ABANDONED WELLS  
 Not in use and not sealed well on property?  Yes  No

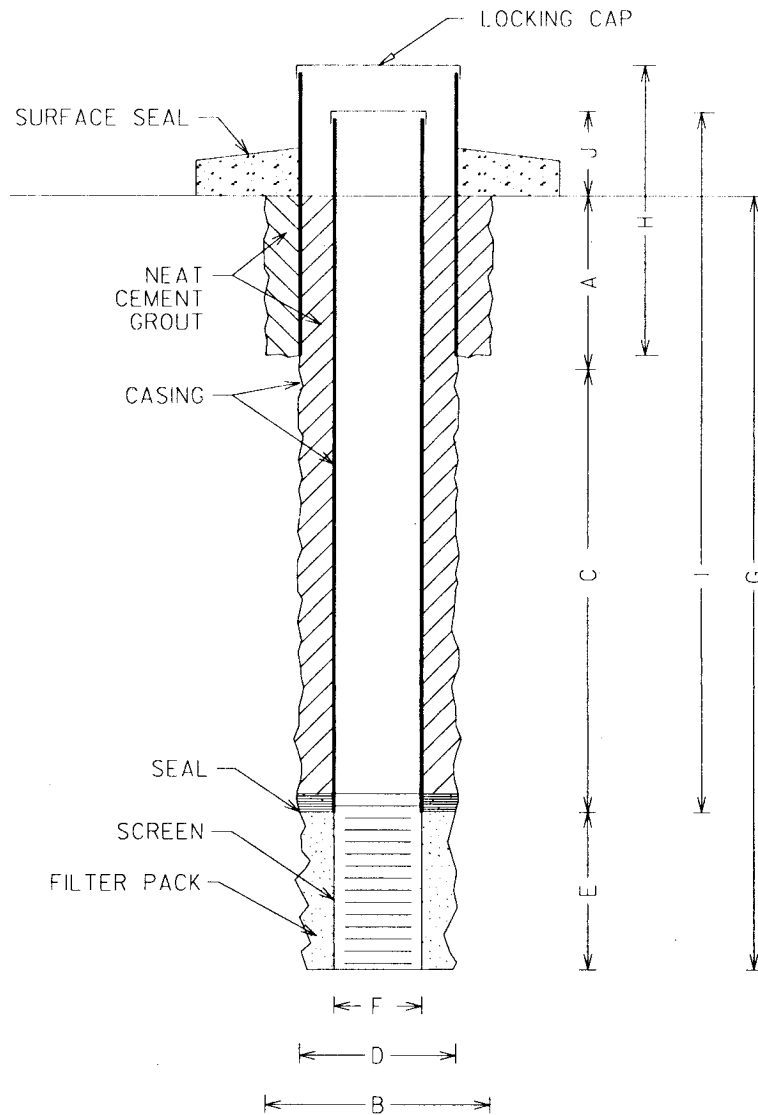
WELL CONTRACTOR CERTIFICATION  
 This well was drilled under my jurisdiction and in accordance with Minnesota Rules, Chapter 4725. The information contained in this report is true to the best of my knowledge.

REMARKS, ELEVATION, SOURCE OF DATA, etc.  
 Well No. **04J882**

**Keys Well Drilling Company** **62012**  
 Licensee Business Name Lic. or Reg. No.  
 \_\_\_\_\_  
 \_\_\_\_\_  
 Authorized Representative Signature Date **04/29/93**  
**Richard Sittig** **04/29/93**  
 Name of Driller Date

IMPORTANT- FILE WITH PROPERTY PAPERS- WELL OWNER COPY **482707**

**Appendix I.4**  
**Well Schematics**



03L833 MONITORING WELL SCHEMATIC  
NOT TO SCALE

### BOREHOLE INFORMATION

A	BOREHOLE INTERVAL	0-16 FEET
B	BOREHOLE DIAMETER	15 INCH
C	BOREHOLE INTERVAL	16-232 FEET
D	BOREHOLE DIAMETER	9.875 INCH
E	BOREHOLE INTERVAL	232-252 FEET
F	BOREHOLE DIAMETER	9.875 INCH
G	TOTAL BOREHOLE DEPTH	252 FEET

### CASING INFORMATION

H	CASING INTERVAL	+3.07-16 FEET
-	CASING DIAMETER	10 INCH
-	CASING MATERIAL	CARBON STEEL
I	CASING INTERVAL	+2.87-232 FEET
-	CASING DIAMETER	5 INCH
-	CASING MATERIAL	CARBON STEEL
E	SCREEN INTERVAL	232-252 FEET
-	SCREEN SLOT SIZE	0.020 INCH (20 SLOT)
-	SCREEN MATERIAL	STAINLESS STEEL

### FILTER PACK INFORMATION

A	DIST. ABOVE SCREEN	2 FEET
B	FILTER PACK MATERIAL	RED FLINT 45-55

### SCREEN INFORMATION

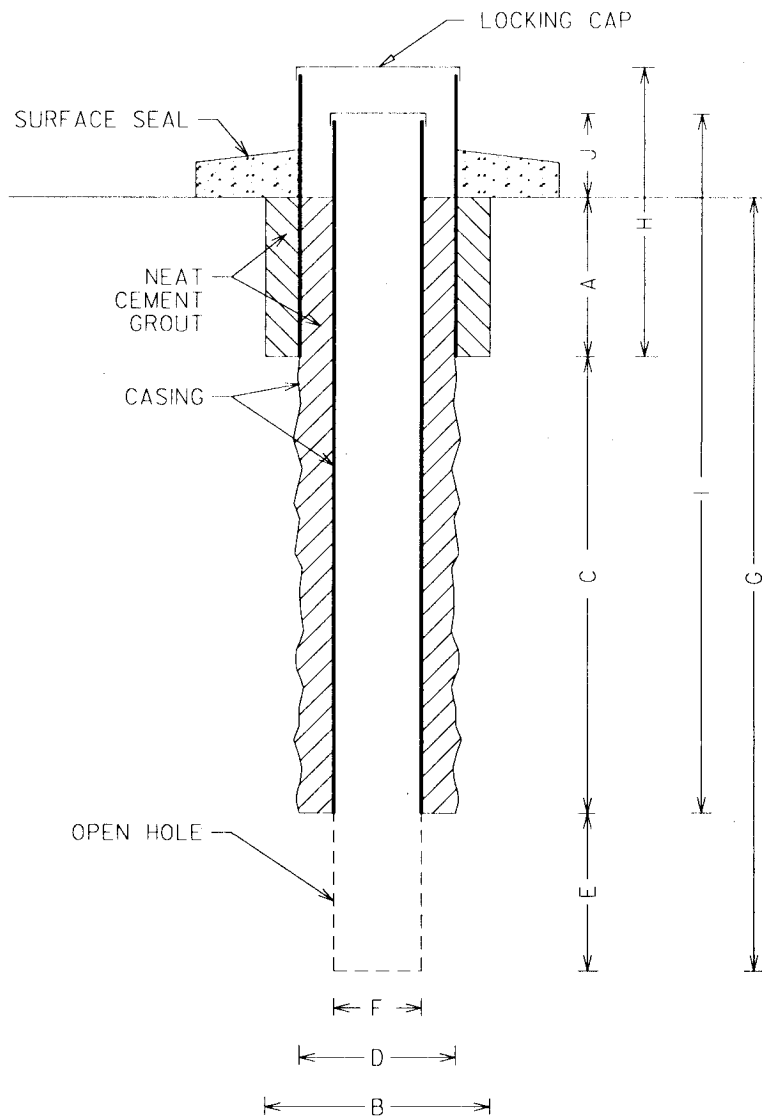
E	SCREEN INTERVAL	232-252 FEET
-	SCREEN SLOT SIZE	0.020 INCH (20 SLOT)
-	SCREEN MATERIAL	STAINLESS STEEL

### SEAL INFORMATION

-	SEAL THICKNESS	2 FEET
-	SEAL MATERIAL	BENTONITE PELLETS

### OTHER INFORMATION

-	GROUT MATERIAL	NEAT CEMENT GROUT
-	SURFACE SEAL	CONCRETE PAD
-	DRILLING METHOD	MUD ROTARY
-	DRILLING CO.	KEYS WELL DRILLING
-	DRILLER	CURT SAMPSON
-	INNER CASING ELEV.	908.02 FEET
-	GROUND SURFACE ELEV.	905.15 FEET
J	STICKUP	2.87 FEET
-	DATE DRILLED	APRIL 15, 1993
-	PROJECT NAME	TCAAP
-	PROJECT LOCATION	MOUNDVIEW, MN



### BOREHOLE INFORMATION

A	BOREHOLE INTERVAL	0-20 FEET
B	BOREHOLE DIAMETER	15 INCH
C	BOREHOLE INTERVAL	20-258 FEET
D	BOREHOLE DIAMETER	9.875 INCH
E	BOREHOLE INTERVAL	258-315 FEET
F	BOREHOLE DIAMETER	4.875 INCH
G	TOTAL BOREHOLE DEPTH	315 FEET

### CASING INFORMATION

H	CASING INTERVAL	+3.32-20 FEET
-	CASING DIAMETER	10 INCH
-	CASING MATERIAL	CARBON STEEL
I	CASING INTERVAL	+3.21-258 FEET
-	CASING DIAMETER	5 INCH
-	CASING MATERIAL	CARBON STEEL

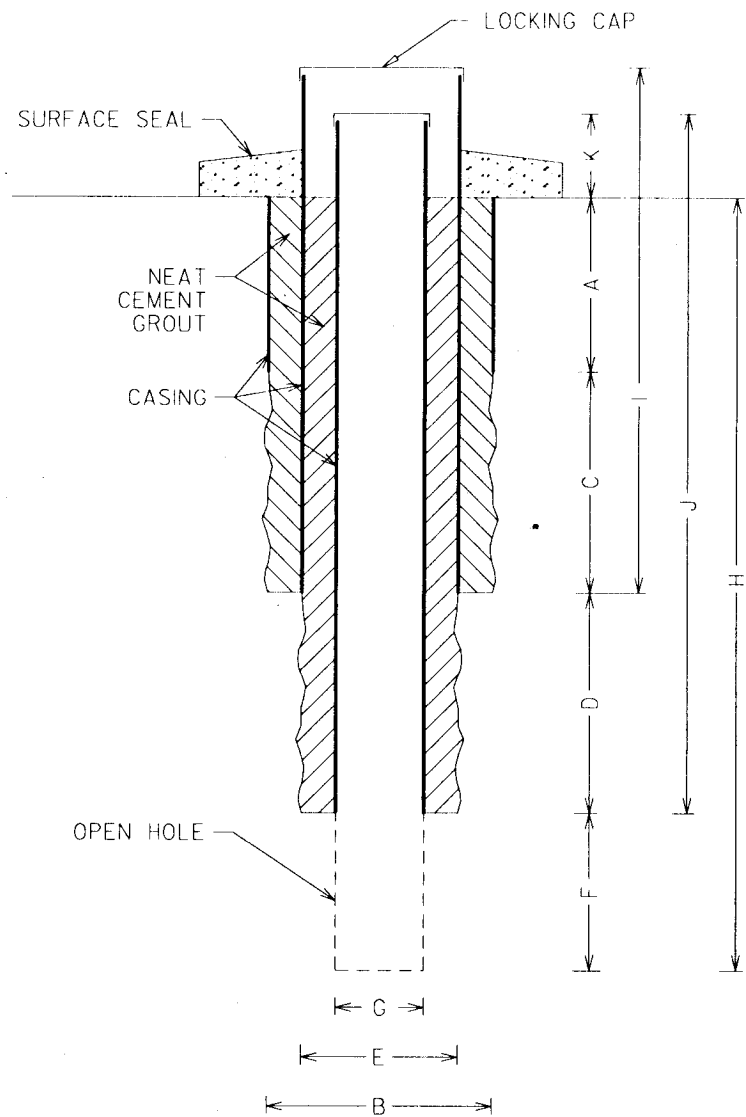
### OTHER INFORMATION

-	GROUT MATERIAL	NEAT CEMENT GROUT
-	SURFACE SEAL	CONCRETE PAD
-	DRILLING METHOD	MUD ROTARY
-	DRILLING CO.	KEYS WELL DRILLING
-	DRILLER	CURT SAMPSON
-	INNER CASING ELEV.	908.32 FEET
-	GROUND SURFACE ELEV.	905.11 FEET
J	STICKUP	3.21 FEET
-	DATE DRILLED	APRIL 25, 1993
-	PROJECT NAME	TCAPP
-	PROJECT LOCATION	MOUNDSVIEW, MN

04U833 MONITORING WELL SCHEMATIC

NOT TO SCALE

FILE TCUB33.DGN  
DATE 12-29-93 KBW



### BOREHOLE INFORMATION

A	BOREHOLE INTERVAL	0-89 FEET
B	BOREHOLE DIAMETER	15 INCH
C	BOREHOLE INTERVAL	89-251 FEET
D	BOREHOLE INTERVAL	251-341 FEET
E	BOREHOLE DIAMETER	9.875 INCH
F	BOREHOLE INTERVAL	341-412 FEET
G	BOREHOLE DIAMETER	4.875 INCH
H	TOTAL BOREHOLE DEPTH	412 FEET

### CASING INFORMATION

A	CASING INTERVAL	0-89 FEET
-	CASING DIAMETER	16 INCH
-	CASING MATERIAL	CARBON STEEL
I	CASING INTERVAL	+2.61 - 251 FEET
-	CASING DIAMETER	10 INCH
-	CASING MATERIAL	CARBON STEEL
J	CASING INTERVAL	+2.18 - 341 FEET
-	CASING DIAMETER	5 INCH
-	CASING MATERIAL	CARBON STEEL

### OTHER INFORMATION

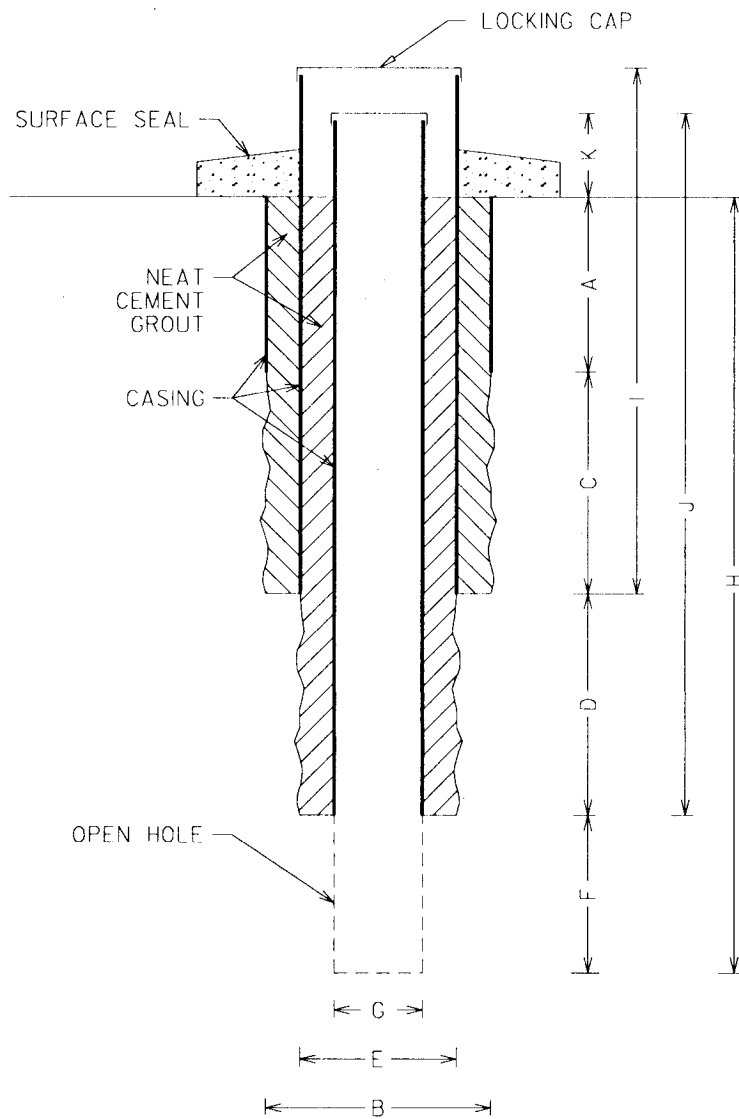
-	GROUT MATERIAL	NEAT CEMENT GROUT
-	SURFACE SEAL	CONCRETE PAD
-	DRILLING METHOD	MUD ROTARY/CABLE TOOL
-	DRILLING CO.	KEYS WELL DRILLING
-	DRILLER	JAMES RUSSELL
-	INNER CASING ELEV.	947.88 FEET
-	GROUND SURFACE ELEV.	945.70 FEET
K	STICKUP	2.18 FEET
-	DATE DRILLED	APRIL 29, 1993
-	PROJECT NAME	TCAAP
-	PROJECT LOCATION	SAINT ANTHONY, MN

04U834 MONITORING WELL SCHEMATIC

NOT TO SCALE

FILE	TCU834.DGN
DATE	12-29-93 KBW





### BOREHOLE INFORMATION

A	BOREHOLE INTERVAL	0-89 FEET
B	BOREHOLE DIAMETER	15 INCH
C	BOREHOLE INTERVAL	89-279 FEET
D	BOREHOLE INTERVAL	279-412 FEET
E	BOREHOLE DIAMETER	9.875 INCH
F	BOREHOLE INTERVAL	412-489 FEET
G	BOREHOLE DIAMETER	4.875 INCH
H	TOTAL BOREHOLE DEPTH	489 FEET

### CASING INFORMATION

A	CASING INTERVAL	0-89 FEET
-	CASING DIAMETER	16 INCH
-	CASING MATERIAL	CARBON STEEL
I	CASING INTERVAL	+2.95- 279 FEET
-	CASING DIAMETER	10 INCH
-	CASING MATERIAL	CARBON STEEL
J	CASING INTERVAL	+2.67 - 412 FEET
-	CASING DIAMETER	5 INCH
-	CASING MATERIAL	CARBON STEEL

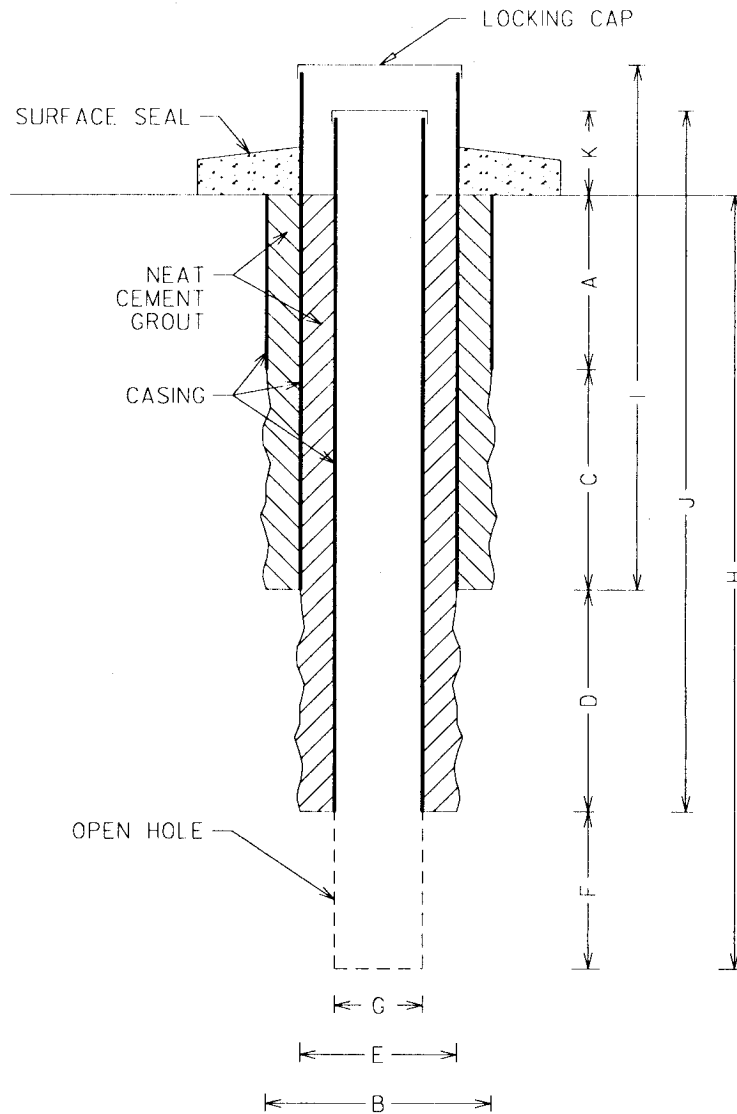
### OTHER INFORMATION

-	GROUT MATERIAL	NEAT CEMENT GROUT
-	SURFACE SEAL	CONCRETE PAD
-	DRILLING METHOD	MUD ROTARY/CABLE TOOL
-	DRILLING CO.	KEYS WELL DRILLING
-	DRILLER	MIKE GALVIN
-	INNER CASING ELEV.	948.78 FEET
-	GROUND SURFACE ELEV.	946.11 FEET
K	STICKUP	2.67 FEET
-	DATE DRILLED	APRIL 29, 1993
-	PROJECT NAME	TCAAP
-	PROJECT LOCATION	SAINT ANTHONY, MN

## 04J834 MONITORING WELL SCHEMATIC

NOT TO SCALE

FILE	TCJ834.DGN
DATE	12-29-93 KBW



### BOREHOLE INFORMATION

A	BOREHOLE INTERVAL	0-107 FEET
B	BOREHOLE DIAMETER	15 INCH
C	BOREHOLE INTERVAL	107-295 FEET
D	BOREHOLE INTERVAL	295-448 FEET
E	BOREHOLE DIAMETER	9.875 INCH
F	BOREHOLE INTERVAL	448-525 FEET
G	BOREHOLE DIAMETER	4.875 INCH
H	TOTAL BOREHOLE DEPTH	525 FEET

### CASING INFORMATION

A	CASING INTERVAL	0-107 FEET
-	CASING DIAMETER	16 INCH
-	CASING MATERIAL	CARBON STEEL
I	CASING INTERVAL	+2.54 - 295 FEET
-	CASING DIAMETER	10 INCH
-	CASING MATERIAL	CARBON STEEL
J	CASING INTERVAL	+2.35 - 448 FEET
-	CASING DIAMETER	5 INCH
-	CASING MATERIAL	CARBON STEEL

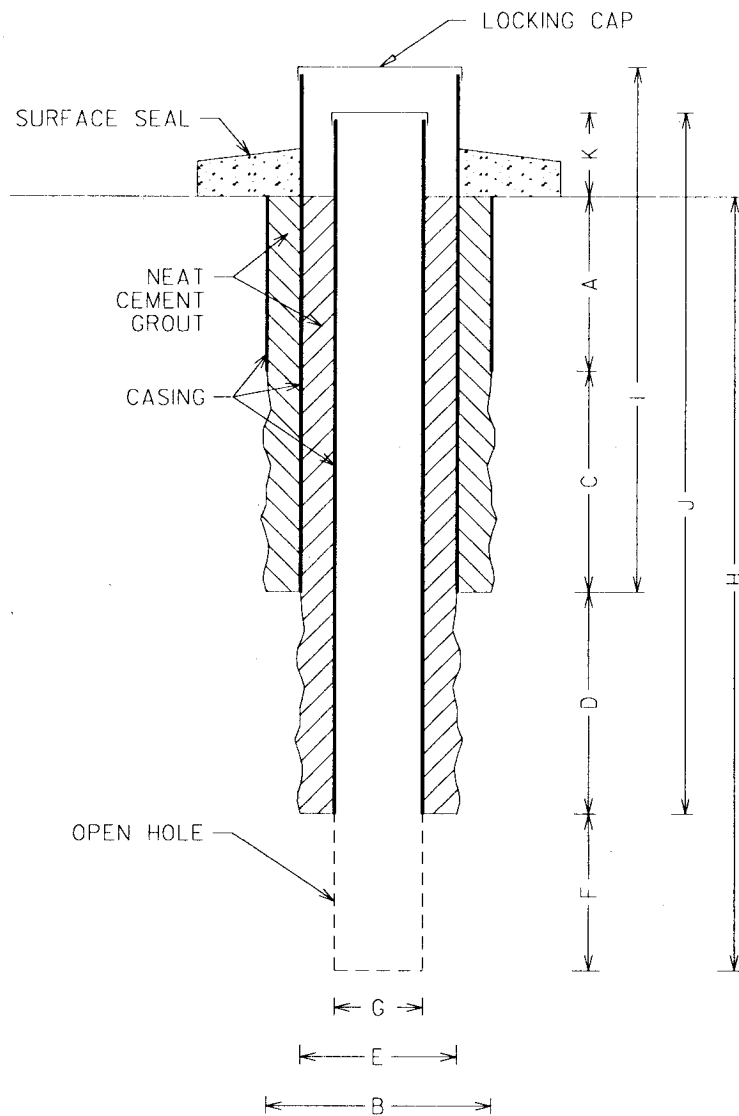
### OTHER INFORMATION

-	GROUT MATERIAL	NEAT CEMENT GROUT
-	SURFACE SEAL	CONCRETE PAD
-	DRILLING METHOD	MUD ROTARY
-	DRILLING CO.	KEYS WELL DRILLING
-	DRILLER	MIKE GALVIN/MARK CONTONKOLAS
-	INNER CASING ELEV.	942.76 FEET
-	GROUND SURFACE ELEV.	940.41 FEET
K	STICKUP	2.35 FEET
-	DATE DRILLED	APRIL 15, 1993
-	PROJECT NAME	TCAAP
-	PROJECT LOCATION	SAINT ANTHONY, MN

04J835 MONITORING WELL SCHEMATIC

NOT TO SCALE

FILE	TCJ835.DGN
DATE	12-29-93 KBW



### BOREHOLE INFORMATION

A	BOREHOLE INTERVAL	0-56 FEET
B	BOREHOLE DIAMETER	15 INCH
C	BOREHOLE INTERVAL	56-245 FEET
D	BOREHOLE INTERVAL	245-390 FEET
E	BOREHOLE DIAMETER	9.875 INCH
F	BOREHOLE INTERVAL	390-471 FEET
G	BOREHOLE DIAMETER	4.875 INCH
H	TOTAL BOREHOLE DEPTH	471 FEET

### CASING INFORMATION

A	CASING INTERVAL	0-56 FEET
-	CASING DIAMETER	16 INCH
-	CASING MATERIAL	CARBON STEEL
I	CASING INTERVAL	+2.93 - 245 FEET
-	CASING DIAMETER	10 INCH
-	CASING MATERIAL	CARBON STEEL
J	CASING INTERVAL	+2.84 - 390 FEET
-	CASING DIAMETER	5 INCH
-	CASING MATERIAL	CARBON STEEL

### OTHER INFORMATION

-	GROUT MATERIAL	NEAT CEMENT GROUT
-	SURFACE SEAL	CONCRETE PAD
-	DRILLING METHOD	MUD ROTARY
-	DRILLING CO.	KEYS WELL DRILLING
-	DRILLER	RICHARD SILTIG
-	INNER CASING ELEV.	920.60 FEET
-	GROUND SURFACE ELEV.	917.76 FEET
K	STICKUP	2.84 FEET
-	DATE DRILLED	APRIL 29, 1993
-	PROJECT NAME	TCAAP
-	PROJECT LOCATION	SAINT ANTHONY, MN

04J882 MONITORING WELL SCHEMATIC

NOT TO SCALE

FILE	T0J882.DGN
DATE	12-29-93 KBW

**Appendix I.5**  
**Survey Elevations**

KEMPER & ASSOCIATES, INC.  
 Innsbruck Office Park  
 2722 Highway 694  
 ST. PAUL, MINNESOTA 55112  
 (612) 631-0351

JOB 93283  
 SHEET NO. 1 OF 1  
 CALCULATED BY MDK DATE 6-22-93  
 CHECKED BY MDK DATE \_\_\_\_\_  
 SCALE \_\_\_\_\_

TCAAP OFF-POST MONITORING WELLS  
 JUNE 1993 UPDATE

Well	MNUniq	TOS-ft	Top Outer Casing	Top Inside Riser	Stickup
04J882	482707	917.76	920.69	920.60	2.84
04J835	482708	940.41	942.95	942.76	2.35
04J834	482709	946.11	949.06	948.78	2.67
04U834	519836	945.70	948.31	947.88	2.18

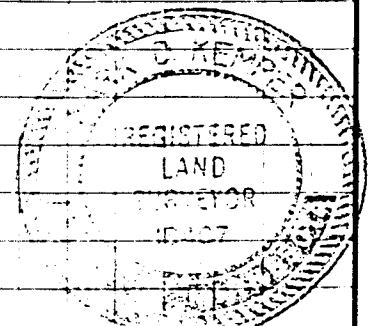
Benchmark for above 4 wells - City of Minneapolis, top nut of fire hydrant, NW Quad, Lowry & Stinson. Elevation 935.783.

03L833	519956	905.15	908.22	908.02	2.87
04U833	519957	905.11	908.43	908.32	3.21

Benchmark for above 2 wells-- MN/DOT brass disc 6205A-1966, SE bridge abutment, Hwy. 10 Eastbound over 35W. Elevation 909.918.

04U871	447889	957.08	959.37	959.10	2.02
(prev. level run Sept. 1992 by Kemper & Associates)		957.08	959.37	959.11	2.03

Benchmark for above well - MN/DOT brass disc at SE bridge #9869 in sidewalk, Silver Lake Road over Hwy. 694. Elevation 968.25.



**Appendix I.6**  
**Groundwater Monitoring Results**

March 18, 1993

Ms. B. Manderfeld  
Federal Cartridge Company  
Twin Cities Army Ammunition Plant  
New Brighton, MN 55112

RE: PACE Project No. 930308.512  
Client Reference: New Wells

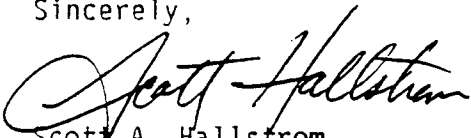
Dear Ms. Manderfeld:

Enclosed is the report of laboratory analyses for samples received  
March 08 - 09, 1993.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free  
to contact us.

Sincerely,

  
Scott A. Hallstrom  
Project Manager

P.O. 2224-07

Enclosures



# REPORT OF LABORATORY ANALYSIS

Federal Cartridge Company  
Twin Cities Army Ammunition Plant  
New Brighton, MN 55112

March 18, 1993  
PACE Project Number: 930308512

Attn: Ms. B. Manderfeld

Client Reference: New Wells

PACE Sample Number:		10 0043044	10 0043052	10 0043060
Date Collected:		03/08/93	03/08/93	03/08/93
Time Collected:		07:00	09:05	10:20
Date Received:		03/08/93	03/08/93	03/08/93
Client Sample ID:		Travel	04U855 *	03L855 *
Parameter	Units	MDI	Blank	

## ORGANIC ANALYSIS

### HALOCARBONS IN WATER - GC/HALL

Date Analyzed			D 03/08/93	D 03/08/93	D 03/08/93
Vinyl chloride	ug/L	1.90	ND	ND	ND
Methylene chloride	ug/L	3.20	ND	ND	ND
1,1-Dichloroethylene	ug/L	1.00	ND	4.22	ND
1,1-Dichloroethane	ug/L	0.780	ND	2.11	0.894
1,2-Dichloroethylene	ug/L	0.500	ND	0.783	ND
Chloroform	ug/L	0.720	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.00	ND	ND	ND
1,2-Dichloroethane	ug/L	0.500	ND	ND	ND
1,1,1-Trichloroethane	ug/L	1.00	ND	26.0	2.37
Carbon Tetrachloride	ug/L	1.30	ND	ND	ND
1,2-Dichloropropane	ug/L	1.00	ND	ND	ND
Trichloroethylene	ug/L	0.500	ND	-	-
Trichloroethylene	ug/L	2.5	-	150	140
1,1,2-Trichloroethane	ug/L	1.00	ND	ND	ND
Tetrachloroethylene	ug/L	1.00	ND	ND	ND

- \* Well 04U855 was renamed 04U833 on August 4, 1993.
- Well 03L855 was renamed 03L833 on August 4, 1993.



Ms. B. Manderfeld  
 Page 2

March 18, 1993  
 PACE Project Number: 930308512

Client Reference: New Wells

PACE Sample Number:	10 0043079	10 0043087	10 0043095
Date Collected:	03/08/93	03/08/93	03/08/93
Time Collected:	12:45	12:50	12:55
Date Received:	03/08/93	03/08/93	03/08/93
Client Sample ID:	04J822 FB	04J822	04J822
Parameter	<u>Units</u>	<u>MDI</u>	<u>Dup</u>
		<u>382</u>	<u>882</u>

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

			D 03/08/93	D 3/08/93	D 03/08/93
Date Analyzed					
Vinyl chloride	ug/L	1.90	ND	ND	ND
Methylene chloride	ug/L	3.20	ND	ND	ND
1,1-Dichloroethylene	ug/L	1.00	ND	ND	ND
1,1-Dichloroethane	ug/L	0.780	ND	ND	ND
1,2-Dichloroethylene	ug/L	0.500	ND	ND	ND
Chloroform	ug/L	0.720	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.00	ND	ND	ND
1,2-Dichloroethane	ug/L	0.500	ND	ND	ND
1,1-Trichloroethane	ug/L	1.00	ND	ND	ND
Carbon Tetrachloride	ug/L	1.30	ND	ND	ND
1,2-Dichloropropane	ug/L	1.00	ND	ND	ND
Trichloroethylene	ug/L	0.500	ND	0.844	0.814
1,1,2-Trichloroethane	ug/L	1.00	ND	ND	ND
Tetrachloroethylene	ug/L	1.00	ND	ND	ND

Ms. B. Manderfeld  
 Page 3

March 18, 1993  
 PACE Project Number: 930308512

Client Reference: New Wells

PACE Sample Number:	10 0043109	10 0044148
Date Collected:	03/08/93	03/09/93
Time Collected:	15:35	15:00
Date Received:	03/08/93	03/09/93
Client Sample ID:	04J844*	04J815*

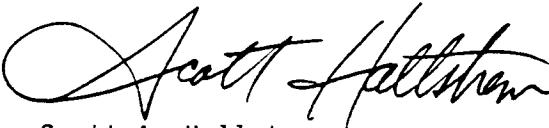
<u>Parameter</u>	<u>Units</u>	<u>MDI</u>	<u>                    </u>	<u>                    </u>
------------------	--------------	------------	-----------------------------	-----------------------------

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

Date Analyzed			D 03/08/93	D 03/09/93
Vinyl chloride	ug/L	1.90	ND	ND
Methylene chloride	ug/L	3.20	ND	ND
1,1-Dichloroethylene	ug/L	1.00	ND	ND
1,1-Dichloroethane	ug/L	0.780	ND	ND
1,2-Dichloroethylene	ug/L	0.500	ND	ND
Chloroform	ug/L	0.720	ND	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.00	ND	ND
1,2-Dichloroethane	ug/L	0.500	ND	ND
1,1-Trichloroethane	ug/L	1.00	1.05	ND
Carbon Tetrachloride	ug/L	1.30	ND	ND
1,2-Dichloropropane	ug/L	1.00	ND	ND
Trichloroethylene	ug/L	0.500	11.6	ND
1,1,2-Trichloroethane	ug/L	1.00	ND	ND
Tetrachloroethylene	ug/L	1.00	ND	ND

These data have been reviewed and are approved for release.



Scott A. Hallstrom  
 Project Manager

\* Well 04J844 was renamed 04J834 on August 4, 1993.  
 Well 04J815 was renamed 04J835 on August 4, 1993.

S. B. Manderfeld  
Page 4

FOOTNOTES  
for pages 1 through 3

March 18, 1993  
PACE Project Number: 930308512

Client Reference: New Wells

MDL Method Detection Limit  
ND Not detected at or above the MDL.

**CHAIN-OF-CUSTODY RECORD**  
Analytical Request

Client Federal Cartridge  
Address \_\_\_\_\_  
Phone \_\_\_\_\_

Report To: \_\_\_\_\_  
Bill To: \_\_\_\_\_  
P.O. # / Billing Reference \_\_\_\_\_  
Project Name / No. New Wells

Pace Client No. 017410  
Pace Project Manager SAH  
Pace Project No. 930308.52  
\*Requested Due Date: \_\_\_\_\_

Sampled By (PRINT):  
Robert Schnobrich  
Sampler Signature [Signature] Date Sampled 3-9-93

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PAGE NO.
1	<u>045815</u>	<u>1500</u>		<u>4418</u>
2				
3				
4				
5				
6				
7				
8				

NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
	UNPRESERVED	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	VOA		
4					<u>Substrate -</u>	<u>24 hr turnaround</u>

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT / DATE	RETURNED / DATE					
				1	<u>[Signature]</u>	<u>[Signature]</u>	<u>3/9/93</u>	<u>1536</u>

Additional Comments  
Fld Proj # 930308600



CHAIN-OF-CUSTODY RECORD Analytical Request

Client Federal Cartridge  
Address \_\_\_\_\_  
Phone \_\_\_\_\_

Report To: \_\_\_\_\_  
Bill To: \_\_\_\_\_  
P.O. # / Billing Reference \_\_\_\_\_  
Project Name / No. New Wells

Pace Client No. 017410  
Pace Project Manager SAH  
Pace Project No. 930319.572  
\*Requested Due Date: \_\_\_\_\_

Sampled By (PRINT): Robert Schreiberich  
Sampler Signature [Signature] Date Sampled 3-8-95

NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
	UNPRESERVED	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	VOA		
4					X	24 hr turnaround ↓
4					X	
4					X	
4					X	
4					X	
4					X	
4					X	

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.
1	Travel Blank	0700		4304.4
2	04J855	0905		4305.2
3	03L855	1020		4306.0
4	04J822 FB	1245		4307.9
5	04J822	1300		4308.7
6	04J822 Dup	1255		4309.5
7	04J844	1535		4310.9

COOLER NOS.	BAILERS	SHIPMENT METHOD	ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
		OUT DATE / RETURNED / DATE	1-7	<u>[Signature]</u> - Pace	<u>[Signature]</u>	3/8/95	1615

Additional Comments  
Ad Proj # - TJB 950224600  
930308600

SEE REVERSE SIDE FOR INSTRUCTIONS

June 16, 1993

Mr. David Fuller  
Federal Cartridge Company  
Twin Cities Ammunition Plant  
New Brighton, MN 55112

RE: PACE Project No. 930511.520  
Client Reference: TCAAP New Wells

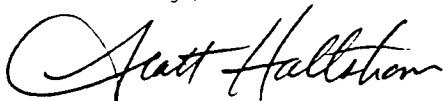
Dear Mr. Fuller:

Enclosed is the report of laboratory analyses for samples received  
May 11 - 12, 1993.

Footnotes are given at the end of the report.

If you have any questions concerning this report, please feel free  
to contact us.

Sincerely,



Scott A. Hallstrom  
Project Manager

Enclosures



# REPORT OF LABORATORY ANALYSIS

Federal Cartridge Company  
Twin Cities Ammunition Plant  
New Brighton, MN 55112

June 16, 1993  
PACE Project Number: 930511520

Attn: Mr. David Fuller

Client Reference: TCAAP New Wells

PACE Sample Number:	10 0107689	10 0107697	10 0107700
Date Collected:	05/11/93	05/11/93	05/11/93
Time Collected:	07:15	10:25	10:30
Date Received:	05/11/93	05/11/93	05/11/93
Client Sample ID:	Travel	03L855 FB	03L855*
Parameter:	Units	MDI	Blank

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

Date Analyzed		F 5/24/93	F 5/24/93	F 5/24/93
Vinyl chloride	ug/L	1.90	ND	-
Vinyl chloride	ug/L	9.50	-	ND
Methylene chloride	ug/L	16.0	-	ND
Methylene chloride	ug/L	3.20	3.98	ND
1,1-Dichloroethylene	ug/L	1.00	ND	ND
1,1-Dichloroethylene	ug/L	5.00	-	ND
1,1-Dichloroethane	ug/L	0.780	ND	ND
1,1-Dichloroethane	ug/L	3.90	-	ND
1,2-Dichloroethylene	ug/L	0.500	ND	ND
1,2-Dichloroethylene	ug/L	2.50	-	ND
Chloroform	ug/L	0.720	ND	ND
Chloroform	ug/L	3.60	-	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.00	ND	ND
1,1,2-Trichlorotrifluoroethane	ug/L	5.00	-	ND
1,2-Dichloroethane	ug/L	0.500	ND	ND
1,2-Dichloroethane	ug/L	2.50	-	ND
1,1,1-Trichloroethane	ug/L	1.00	ND	ND
1,1,1-Trichloroethane	ug/L	5.00	-	ND
Carbon Tetrachloride	ug/L	1.30	ND	ND
Carbon Tetrachloride	ug/L	6.50	-	ND
1,2-Dichloropropane	ug/L	1.00	ND	ND
1,2-Dichloropropane	ug/L	5.00	-	ND
Trichloroethylene	ug/L	0.500	ND	ND
Trichloroethylene	ug/L	2.50	-	150
1,1,2-Trichloroethane	ug/L	1.00	ND	ND
1,1,2-Trichloroethane	ug/L	5.00	-	ND
Tetrachloroethylene	ug/L	1.00	ND	ND

\* Well 03L855 was renamed 03L833 on August 4, 1993.

1710 Douglas Drive North  
Minneapolis, MN 55422  
TEL: 612-544-5543  
FAX: 612-525-3377

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New York, New York  
Pittsburgh, Pennsylvania  
Denver, Colorado

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Mr. David Fuller  
 Page 2

June 16, 1993  
 PACE Project Number: 930511520

Client Reference: TCAAP New Wells

PACE Sample Number:		10 0107689	10 0107697	10 0107700
Date Collected:		05/11/93	05/11/93	05/11/93
Time Collected:		07:15	10:25	10:30
Date Received:		05/11/93	05/11/93	05/11/93
Client Sample ID:		Travel	03L855 FB	03L855*
Parameter	<u>Units</u>	<u>MDL</u>	<u>Blank</u>	<u>Blank</u>

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

Tetrachloroethylene	ug/L	5.00	-	-	ND
---------------------	------	------	---	---	----

\* Well 03L855 was renamed 03L833 on August 4, 1993.



Mr. David Fuller  
 Page 3

June 16, 1993  
 PACE Project Number: 930511520

Client Reference: TCAAP New Wells

PACE Sample Number:		10 0107719	10 0107727	10 0107735
Date Collected:		05/11/93	05/11/93	05/11/93
Time Collected:		10:30	12:45	15:45
Date Received:		05/11/93	05/11/93	05/11/93
Client Sample ID:		03L855 Dup	04U855 *	04J852 **
<u>Parameter</u>	<u>Units</u>	<u>MDL</u>		

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

			F 5/24/93	F 5/24/93	F 5/24/93
Date Analyzed			ND	ND	ND
Vinyl chloride	ug/L	9.50	ND	ND	ND
Methylene chloride	ug/L	16.0	ND	ND	ND
1,1-Dichloroethylene	ug/L	5.00	ND	ND	ND
1,1-Dichloroethane	ug/L	3.90	ND	ND	ND
1,2-Dichloroethylene	ug/L	2.50	ND	ND	ND
Chloroform	ug/L	3.60	ND	ND	ND
1,1,2-Trichlorotrifluoroethane	ug/L	5.00	ND	ND	ND
1,2-Dichloroethane	ug/L	2.50	ND	ND	ND
1,1,1-Trichloroethane	ug/L	5.00	ND	14	ND
Carbon Tetrachloride	ug/L	6.50	ND	ND	ND
1,2-Dichloropropane	ug/L	5.00	ND	ND	ND
Trichloroethylene	ug/L	2.50	150	100	ND
1,1,2-Trichloroethane	ug/L	5.00	ND	ND	ND
Tetrachloroethylene	ug/L	5.00	ND	ND	ND

\* Well 04U855 was renamed 04U833 on August 4, 1993.

\*\* Sample I.D. 04J852 was mislabeled by the laboratory. It should read 04J882 (see attached Chain of Custody)

Mr. David Fuller  
 Page 4

June 16, 1993  
 PACE Project Number: 930511520

Client Reference: TCAAP New Wells

PACE Sample Number:		10 0109517	10 0109525	10 0109533
Date Collected:		05/12/93	05/12/93	05/12/93
Time Collected:		07:15	11:00	13:15
Date Received:		05/12/93	05/12/93	05/12/93
Client Sample ID:		Travel	04J844*	04U844*
Parameter:	<u>Units</u>	<u>MDI</u>	<u>Blank</u>	<u>Blank</u>

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

Date Analyzed		F 5/24/93	F 5/24/93	F 5/24/93
Vinyl chloride	ug/L	1.90	ND	ND
Methylene chloride	ug/L	3.20	3.63	ND
1,1-Dichloroethylene	ug/L	1.00	ND	ND
1,1-Dichloroethane	ug/L	0.780	ND	1.42
1,2-Dichloroethylene	ug/L	0.500	ND	ND
Chloroform	ug/L	0.720	ND	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.00	ND	ND
1,2-Dichloroethane	ug/L	0.500	ND	ND
1,1,1-Trichloroethane	ug/L	1.00	ND	1.78
Carbon Tetrachloride	ug/L	1.30	ND	ND
1,2-Dichloropropane	ug/L	1.00	ND	ND
Trichloroethylene	ug/L	0.500	ND	10.3
1,1,2-Trichloroethane	ug/L	1.00	ND	ND
Tetrachloroethylene	ug/L	1.00	ND	21.1

\* Well 04J844 was renamed 04J834 on August 4, 1993.  
 Well 04U844 was renamed 04U834 on August 4, 1993.

Mr. David Fuller  
 Page 5

June 16, 1993  
 PACE Project Number: 930511520

Client Reference: TCAAP New Wells

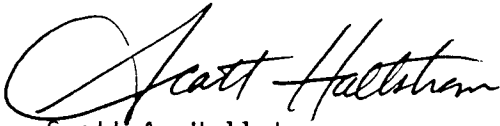
PACE Sample Number: 10 0109541  
 Date Collected: 05/12/93  
 Time Collected: 16:15  
 Date Received: 05/12/93  
 Client Sample ID: 04J815 \*  
Parameter                      Units                      MDI

ORGANIC ANALYSIS

HALOCARBONS IN WATER - GC/HALL

Date Analyzed			F 5/24/93
Vinyl chloride	ug/L	1.90	ND
Methylene chloride	ug/L	3.20	ND
1,1-Dichloroethylene	ug/L	1.00	ND
1,1-Dichloroethane	ug/L	0.780	ND
1,2-Dichloroethylene	ug/L	0.500	ND
Chloroform	ug/L	0.720	ND
1,1,2-Trichlorotrifluoroethane	ug/L	1.00	ND
1,2-Dichloroethane	ug/L	0.500	ND
1,1,1-Trichloroethane	ug/L	1.00	ND
Carbon Tetrachloride	ug/L	1.30	ND
1,2-Dichloropropane	ug/L	1.00	ND
Trichloroethylene	ug/L	0.500	ND
1,1,2-Trichloroethane	ug/L	1.00	ND
Tetrachloroethylene	ug/L	1.00	ND

These data have been reviewed and are approved for release.



Scott A. Hallstrom  
 Project Manager

\* Well 04J815 was renamed 04J835 on August 4, 1993.

Mr. David Fuller  
Page 6

FOOTNOTES  
for pages 1 through 5

June 16, 1993  
PACE Project Number: 930511520

Client Reference: TCAAP New Wells

MDL Method Detection Limit  
ND Not detected at or above the MDL.

**CHAIN-OF-CUSTODY RECORD  
Analytical Request**

Client Federal Cartridge  
Address \_\_\_\_\_  
Phone \_\_\_\_\_

Report To: \_\_\_\_\_  
Bill To: \_\_\_\_\_  
P.O. # / Billing Reference \_\_\_\_\_  
Project Name / No. JCAAP New Wells

Pace Client No. 017410  
Pace Project Manager SAH  
Pace Project No. 930511-520  
\*Requested Due Date: \_\_\_\_\_

Sampled By (PRINT) Peter Proehl  
Sampler Signature [Signature] Date Sampled 5/11/93

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
						UNPRESERVED	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	VOA		
1	Travel BI	0715	H <sub>2</sub> O	10768.9	4					4	Category 1 (1993)
2	03L 855 FB	1025		10769.7	3					3	
3	03L 855	1030		10770.0	4					4	
4	03L 855 Dup	1030		10771.9	4					4	
5	04U 855	1245		10772.7	4					4	
6	045 882	1545		10773.5	4					4	

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
OUT / DATE	RETURNED / DATE							
					<u>10 Peter Proehl, PACE</u>	<u>[Signature]</u>	<u>5/11/93</u>	<u>1900</u>

Additional Comments

Project Mgr, TJB

**CHAIN-OF-CUSTODY RECORD  
Analytical Request**

Client Federal Cartridge  
Address \_\_\_\_\_  
Phone \_\_\_\_\_

Report To: \_\_\_\_\_  
Bill To: \_\_\_\_\_  
P.O. # / Billing Reference \_\_\_\_\_  
Project Name / No. TCAAP New Wells

Pace Client No. 128290  
~~012410~~  
Pace Project Manager SAH  
Pace Project No. #930511.520  
\*Requested Due Date: \_\_\_\_\_

Sampled By (PRINT): Peter Proehl  
Sampler Signature [Signature] Date Sampled 5/12/93

ITEM NO.	SAMPLE DESCRIPTION	TIME	MATRIX	PACE NO.	NO. OF CONTAINERS	PRESERVATIVES				ANALYSES REQUEST	REMARKS
						UNPRESERVED	H <sub>2</sub> SO <sub>4</sub>	HNO <sub>3</sub>	VOA		
1	Travel B1	0745		10957.7	4			4		✓	* USE Same Lab # as samples from 5/11/93
2	045 844	1100		10952.5	4			4		✓	
3	044 844	1315		10953.3	4			4		✓	
4	045 815	1615		10954.1	4			4		✓	
5											
6											
7											
8											

COOLER NOS.	BAILERS	SHIPMENT METHOD		ITEM NUMBER	RELINQUISHED BY / AFFILIATION	ACCEPTED BY / AFFILIATION	DATE	TIME
OUT / DATE	RETURNED / DATE							
				14	<u>[Signature] PACE</u>	<u>[Signature]</u>	5/12/93	1800

Additional Comments  
Project Mgr, TJB, 930511.520



INTERPOLL LABORATORIES, INC.  
 4500 BALL ROAD N.E.  
 CIRCLE PINES, MINNESOTA 55014-1819  
 TEL: 612/786-6020  
 FAX: 612/786-7854

January 5, 1994

Federal Cartridge Company  
 Twin Cities Army Ammunition Plant  
 New Brighton, MN 55112

Attention: David Fuller

LABORATORY REPORT: #2014  
 PURCHASE ORDER: #3348-01

SAMPLES COLLECTED: December 20 & 21, 1993  
 SAMPLES RECEIVED: December 20 & 21, 1993

USATHAMA METHOD: UG07

Sample Identification:  
 Laboratory Log Number:  
 USATHAMA ID Number:

Method	Trip
Blank	Blank
<u>CEE001</u>	<u>2014-01</u>
	<u>CEE003</u>

<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	12/27/93			
C2H3CL	MJE	4.10	< 4.10	< 4.10
TCLTFE	MJE	4.47	< 4.47	< 4.47
11DCE	MJE	1.01	< 1.01	< 1.01
CH2CL2	MJE	1.41	< 1.41	< 1.41
T12DCE	MJE	1.06	< 1.06	< 1.06
11DCLE	MJE	0.973	< 0.973	< 0.973
C12DCE	MJE	0.890	< 0.890	< 0.890
CHCL3	MJE	1.08	< 1.08	< 1.08
111TCE	MJE	1.16	< 1.16	< 1.16
CCL4	MJE	1.20	< 1.20	< 1.20
12DCLE	MJE	4.63	< 4.63	< 4.63
TRCLE	MJE	1.04	< 1.04	< 1.04
12DCLP	MJE	3.94	< 3.94	< 3.94
112TCE	MJE	1.52	< 1.52	< 1.52
TCLEE	MJE	2.41	< 2.41	< 2.41

Sample Identification:	03L833	04U833
Laboratory Log Number:	2014-02	2014-03
USATHAMA ID Number:	<u>CEE007</u>	<u>CEE009</u>

<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	12/27/93			
C2H3CL	MJE	4.10	< 4.10	< 4.10
TCLTFE	MJE	4.47	< 4.47	< 4.47
11DCE	MJE	1.01	< 1.01	2.01
CH2CL2	MJE	1.41	< 1.41	< 1.41
T12DCE	MJE	1.06	< 1.06	< 1.06
11DCLE	MJE	0.973	< 0.973	8.03
C12DCE	MJE	0.890	< 0.890	1.63
CHCL3	MJE	1.08	< 1.08	< 1.08
111TCE	MJE	1.16	1.50	< 1.16
CCL4	MJE	1.20	< 1.20	< 1.20
12DCLE	MJE	4.63	< 4.63	< 4.63
TRCLE	MJE	1.04	14 <sup>a</sup>	10.7
12DCLP	MJE	3.94	< 3.94	< 3.94
112TCE	MJE	1.52	< 1.52	< 1.52
TCLEE	MJE	2.41	< 2.41	< 2.41



Sample Identification:	04J835	04U834
Laboratory Log Number:	2014-04	2014-05
USATHAMA ID Number:	<u>CEE010</u>	<u>CEE011</u>

<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	12/27/93			
C2H3CL	MJE	4.10	< 4.10	< 4.10
TCLTFE	MJE	4.47	< 4.47	< 4.47
11DCE	MJE	1.01	< 1.01	1.17
CH2CL2	MJE	1.41	< 1.41	< 1.41
T12DCE	MJE	1.06	< 1.06	< 1.06
11DCLE	MJE	0.973	< 0.973	2.92
C12DCE	MJE	0.890	< 0.890	1.04
CHCL3	MJE	1.08	< 1.08	< 1.08
111TCE	MJE	1.16	< 1.16	< 1.16
CCL4	MJE	1.20	< 1.20	< 1.20
12DCLE	MJE	4.63	< 4.63	< 4.63
TRCLE	MJE	1.04	< 1.04	19.0
12DCLP	MJE	3.94	< 3.94	< 3.94
112TCE	MJE	1.52	< 1.52	< 1.52
TCLEE	MJE	2.41	< 2.41	< 2.41

Sample Identification:	04J834	04J882
Laboratory Log Number:	2014-06	2014-07
USATHAMA ID Number:	<u>CEE012</u>	<u>CEE006</u>

<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	12/27/93			
C2H3CL	MJE	4.10	< 4.10	< 4.10
TCLTFE	MJE	4.47	< 4.47	< 4.47
11DCE	MJE	1.01	< 1.01	< 1.01
CH2CL2	MJE	1.41	< 1.41	< 1.41
T12DCE	MJE	1.06	< 1.06	< 1.06
11DCLE	MJE	0.973	1.02	< 0.973
C12DCE	MJE	0.890	< 0.890	< 0.890
CHCL3	MJE	1.08	< 1.08	< 1.08
111TCE	MJE	1.16	< 1.16	< 1.16
CCL4	MJE	1.20	< 1.20	< 1.20
12DCLE	MJE	4.63	< 4.63	< 4.63
TRCLE	MJE	1.04	< 1.04	< 1.04
12DCLP	MJE	3.94	< 3.94	< 3.94
112TCE	MJE	1.52	< 1.52	< 1.52
TCLEE	MJE	2.41	< 2.41	< 2.41

Sample Identification:	04J882	Field
Laboratory Log Number:	DUP	Blank
USATHAMA ID Number:	2014-08	2014-09
	<u>CEE005</u>	<u>CEE004</u>

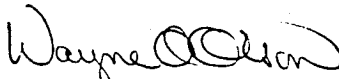
<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	12/27/93			
C2H3CL	MJE	4.10	< 4.10	< 4.10
TCLTFE	MJE	4.47	< 4.47	< 4.47
11DCE	MJE	1.01	< 1.01	< 1.01
CH2CL2	MJE	1.41	< 1.41	< 1.41
T12DCE	MJE	1.06	< 1.06	< 1.06
11DCLE	MJE	0.973	< 0.973	< 0.973
C12DCE	MJE	0.890	< 0.890	< 0.890
CHCL3	MJE	1.08	< 1.08	< 1.08
111TCE	MJE	1.16	< 1.16	< 1.16
CCL4	MJE	1.20	< 1.20	< 1.20
12DCLE	MJE	4.63	< 4.63	< 4.63
TRCLE	MJE	1.04	< 1.04	< 1.04
12DCLP	MJE	3.94	< 3.94	< 3.94
112TCE	MJE	1.52	< 1.52	< 1.52
TCLEE	MJE	2.41	< 2.41	< 2.41

Sample Identification: USATHAMA ID Number:			<u>Low Spike CEE002</u>	<u>True Value</u>
<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	11/24/93			
C2H3CL	MJE	4.10	5.07	5.02
TCLTFE	MJE	4.47	9.05	10.3
11DCE	MJE	1.01	6.58	5.01
CH2CL2	MJE	1.41	4.74	5.00
T12DCE	MJE	1.06	4.90	5.01
11DCLE	MJE	0.973	5.61	5.30
C12DCE	MJE	0.890	5.64	4.85
CHCL3	MJE	1.08	5.79	5.00
111TCE	MJE	1.16	5.69	5.00
CCL4	MJE	1.20	5.71	5.00
12DCLE	MJE	4.63	6.59	5.21
TRCLE	MJE	1.04	4.94	5.00
12DCLP	MJE	3.94	5.45	5.01
112TCE	MJE	1.52	5.19	5.00
TCLEE	MJE	2.41	5.41	5.01

Sample Identification: USATHAMA ID Number:			High Spike <u>CEE008</u>	<u>True Value</u>
<u>Parameter, ug/L</u>	Analysis Date & <u>Initials</u>	<u>Detection Limit</u>		
	11/24/93			
C2H3CL	MJE	4.10	31.8	35.2
TCLTFE	MJE	4.47	33.3	36.1
11DCE	MJE	1.01	37.3	35.1
CH2CL2	MJE	1.41	33.3	35.0
T12DCE	MJE	1.06	37.3	35.1
11DCLE	MJE	0.973	38.8	37.1
C12DCE	MJE	0.890	38.1	34.0
CHCL3	MJE	1.08	30.0	35.0
111TCE	MJE	1.16	37.7	35.0
CCL4	MJE	1.20	36.1	35.0
12DCLE	MJE	4.63	40.0	36.5
TRCLE	MJE	1.04	33.6	35.0
12DCLP	MJE	3.94	35.1	35.1
112TCE	MJE	1.52	32.4	35.0
TCLEE	MJE	2.41	35.2	35.0

Sample Identification: USATHAMA ID Number:			<u>High Spike CEE013</u>	<u>True Value</u>
<u>Parameter, ug/L</u>	<u>Analysis Date &amp; Initials</u>	<u>Detection Limit</u>		
	11/24/93			
C2H3CL	MJE	4.10	32.8	35.2
TCLTFE	MJE	4.47	32.9	36.1
11DCE	MJE	1.01	37.0	35.1
CH2CL2	MJE	1.41	33.9	35.0
T12DCE	MJE	1.06	36.7	35.1
11DCLE	MJE	0.973	38.0	37.1
C12DCE	MJE	0.890	37.8	34.0
CHCL3	MJE	1.08	33.6	35.0
111TCE	MJE	1.16	37.4	35.0
CCL4	MJE	1.20	38.1	35.0
12DCLE	MJE	4.63	37.1	36.5
TRCLE	MJE	1.04	34.4	35.0
12DCLP	MJE	3.94	36.6	35.1
112TCE	MJE	1.52	32.4	35.0
TCLEE	MJE	2.41	37.0	35.0

Respectfully submitted,

  
Wayne A. Olson, Manager  
Organic Chemistry Group

WAO/cg  
< = less than

<sup>a</sup>Sample was diluted by a factor of 5 to accommodate the analyte concentration. To obtain the correct detection limit and result for this analyte, the stated detection limit and result must be multiplied by 5.