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1993 Annual Water Monitoring Report
Water Monitoring Program

LEHR Environmental Restoration
Davis, California

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1993 ANNUAL WATER MONITORING REPORT
WATER MONITORING PROGRAM
LEHR ENVIRONMENTAL RESTORATION

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LIST OF ACRONYMS

ANOVA	Analysis of Variance
bgs	below ground surface
CEP	Controls for Environmental
CERCLA	Comprehensive Environmental Response Compensation and Liability Act
CLP	Contract Laboratory Program
CQA	Coordinator of Quality Assurance
CRDLs	Contract Required Detection Limits
DOE	(U.S.) Department of Energy
DQOs	Data Quality Objectives
EC	Electrical Conductivity
EPA	(U.S.) Environmental Protection Agency
HSU	Hydrostratigraphic Unit
LEHR	Laboratory for Energy-Related Health Research
PARCCs	Precision, Accuracy, Representativeness, Comparability and Completeness
PNL	Pacific Northwest Laboratories
QAPP	Quality Assurance Program Plan
QAPjP	Quality Assurance Project Plan
QC	Quality Control
RI/FS	Remedial Investigation/Feasibility Study
RPD	Relative Percent Difference
TDS	Total Dissolved Solids
TOP	Test of Proportions
UTL	Upper Tolerance Limit

1993 ANNUAL WATER MONITORING REPORT
WATER MONITORING PROGRAM
LEHR ENVIRONMENTAL RESTORATION

EXECUTIVE SUMMARY

This document presents the results of eight quarters of groundwater and surface water monitoring conducted from February 1992 through December 1993, at the Laboratory for Energy-Related Health Research (LEHR) portion of the University of California located in Davis, California. This monitoring program is being conducted by the Department of Energy (DOE) as part of the LEHR Environmental Restoration (ER) Program. The objective of this report is to assess the quality of data collected and to quantify the hydrologic and chemical trends observed in order to meet the surveillance and monitoring requirements for DOE sites as expressed in DOE Order 5400.1.

Groundwater elevation data was assessed by compiling groundwater elevation hydrographs and elevation contour plots in order to establish generalized flow conditions. This analysis supports previous conclusions that the uppermost water-bearing zone could be separated into the first and second hydrostratigraphic Units (HSUs). The lateral groundwater gradient in both first and second HSUs is from southwest to northeast with some local groundwater mounding effects observed seasonally in the first HSU.

For this report, approximately 32,800 chemical analytical values were reviewed with respect to data quality objectives stated in the Phase II Site Characterization Work Plan (Work Plan). The data were reviewed using validation procedures described in the Work Plan. After evaluation of the quality, the data was accepted, meeting the precision accuracy, representativeness, and completeness goals stated in the Work Plan.

Detailed statistical analysis of chemical and radiologic data from upgradient and downgradient groundwater samples was performed for total and hexavalent chromium, nitrate, chloroform, selenium, nickel, carbon-14, and tritium. The results suggest that 11 of 16 downgradient wells were impacted by total and hexavalent chromium which statistically exceeded upgradient levels. Nitrate, as well as chromium, was present in groundwater beneath the site. However, nitrate concentrations reported in upgradient groundwater samples was high relative to drinking water standards, therefore only 8 of 16 downgradient wells contained nitrate levels in excess of upgradient conditions based on statistical comparisons. Other constituents including selenium, nickel, chloroform, carbon-14 and tritium exceeded upgradient concentrations in one to three downgradient wells on a consistent and statistically significant basis.

Surface water samples were collected from two points along Putah Creek and at the effluent line of the U.C. Davis wastewater treatment plant which recharges Putah Creek. Examination of these data suggest that the chemical composition of surface water fluctuates seasonally, and that the general chemistry of Putah Creek in the vicinity of the site is dominated by the treatment plant outfall in summer and fall when creek flow essentially ceases.

1993 ANNUAL WATER MONITORING REPORT
WATER MONITORING PROGRAM
LEHR ENVIRONMENTAL RESTORATION

1.0 INTRODUCTION

This 1993 Annual Water Monitoring Report presents analytical data collected between February 1992 and December 1993 at the Laboratory for Energy-Related Health Research (LEHR) located at the University of California (UC), Davis. Analytical data presented in this report have been collected as part of the ongoing quarterly groundwater and surface water monitoring and in conjunction with the Phase II Site Characterization. These data will also be used to evaluate impacts to groundwater and surface water, supplementing data collected during the planned Remedial Investigation/Feasibility Study (RI/FS) under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA). These investigations are part of the United States Department of Energy-(DOE) sponsored Environmental Restoration program underway at the LEHR site. Additionally, water monitoring is intended to comply with applicable state and federal regulations and relevant DOE order and guidance documents, such as 5400.1 and DOE/EH-0173J.

The LEHR site is located approximately 1 ½ miles south of the City of Davis, California (Figure 1) and encompasses approximately 15 acres. Structures on the site include one- and two-story laboratories, office buildings, and animal handling facilities. The LEHR site was used to conduct radiological studies on laboratory animals for the DOE beginning in the late 1950s. DOE operations at the LEHR site ceased in 1989, therefore, current groundwater and surface water monitoring focuses primarily on environmental surveillance activities for non-operational facilities as defined in DOE 5400.1.

This 1993 Annual Report is intended to comply with the DOE General Environmental Protection Program presented in DOE 5400.1 and with monitoring and reporting requirements set forth in the site-specific Water Monitoring Plan (PNL, January 1994). The Water Monitoring Plan specifies that water monitoring data will be reported in the form of quarterly data transmittals and interpretive Annual Monitoring Reports. Quarterly data transmittals (titled Quarterly Groundwater and Surface Water Monitoring Results) have been prepared for each monitoring round since February 1992. However, because an interpretive annual report was not completed for 1992 data, this 1993 Annual Report encompasses data collected during both the 1992 and 1993 calendar years.

1.1 PURPOSE AND SCOPE

The purpose of this report is to present a quantitative evaluation of impacts to groundwater and surface water at the LEHR site, and includes a graphical presentation of monitoring data, a brief discussion of results and trends, and a quantitative discussion of impacts evident from the groundwater and surface water data. The water monitoring data collected at the LEHR site during eight quarterly monitoring rounds from February 1992 through December 1993 are presented. For this report, each quarterly monitoring round is referred to by the season and calendar year during which it took place (e.g., Summer 1993 Quarterly Monitoring round). Table 1 presents names and dates of monitoring rounds included in this report. Quarterly monitoring data collected prior to February 1992 were presented and discussed in the Phase II Site Characterization Report (Dames & Moore 1993) and are not included in this report.

1.2 ORGANIZATION OF REPORT

In Chapter 2 of this report, the water monitoring program implemented from Winter 1992 to Fall 1993 is described. This discussion includes monitoring points, sample collection frequency, and analytical parameters. Chapter 3 presents a summary of data validation results for data presented in this report and a summary of statistical methods used to evaluate the data. Chapter 4 presents the analytical results in tabular and graphical form. Due to the large number of tables and figures presented in this report, they have been included as separate sections at the end of the text. Chapter 5 discusses trends observed in the data and presents the results of statistical analysis for selected parameters. Chapter 6 is a summary of the major points of the report, and Chapter 7 presents a list of references.

Four appendices accompany this report. Appendix A presents complete data tables for groundwater between Winter 1992 and Fall 1993. Appendix B presents complete data tables for surface water monitoring for 1992 and 1993. These data tables include data reported as detected and non-detect, and include a complete presentation of data validation flags. Appendix C presents times series graphs for each well and for each parameter with a reported detection. Appendix D presents a detailed description of statistical methods applied to data in this report.

2.0 1993 WATER MONITORING PROGRAM

Water monitoring at the LEHR site, under the Phase II Site Characterization, began in November 1990 and has consisted of quarterly sampling and analysis of groundwater and surface water. The Phase II water monitoring system was developed initially by UC Davis and DOE. Since November 1990, monitoring has been conducted under the management of Pacific Northwest Laboratories (PNL) for the DOE. The following sections provide a description of quarterly water monitoring that took place from the Winter Quarter 1992 through the Fall Quarter 1993. Section 2.1 presents a brief description of the groundwater monitoring program; Section 2.2 presents a description of the surface water monitoring program; and Section 2.3 presents a review of the chemical analytical program. A detailed description of groundwater and surface water sampling monitoring procedures can be found in the Phase II Site Characterization Work Plan (Dames & Moore, 1990).

2.1 GROUNDWATER MONITORING

The groundwater monitoring program at the LEHR site consists of quarterly sample collection, field measurements, and laboratory analysis of groundwater samples. Groundwater samples are collected from the uppermost aquifer which has been separated into two HSUs based on lithology (Phase II Site Characterization Report Dames & Moore, 1993). The first HSU consists of fine-grained sediments from the water table down to approximately 80 feet below ground surface (bgs). The second (deeper) HSU consists of cobbles and gravels present between 80 and 135 feet bgs. The depth to the groundwater table generally ranges from 35 feet to 70 feet bgs. The groundwater monitoring system currently includes 23 monitoring wells. Eighteen wells are screened in the first HSU and five wells are screened in the second HSU. Figure 2 presents these well locations.

Because 5 wells (UCD-3, UCD-5, UCD-6, UCD-8, and UCD-9) are typically dry, quarterly groundwater monitoring is conducted at only 18 of the 23 existing wells. The 18 wells currently included in the quarterly monitoring are: UCD-1, UCD-4, UCD-10, UCD-12, UCD-13, UCD-18, UCD-19, UCD-20, UCD-21, UCD-22, UCD-23, and UCD-24 from the first HSU; and UCD-7, UCD-14, UCD-15, UCD-16, and UCD-17 from the second HSU. One first-HSU well, UCD-18, and one second-HSU well, UCD-17, are located off site and upgradient of the LEHR site (Dames & Moore, 1993); the other wells were placed to assess groundwater quality downgradient of potential source areas. Table 2 presents information on the existing wells on the LEHR site. A summary of groundwater samples collected between Winter Quarter 1992 and Fall Quarter 1993 is provided in Table 3.

2.2 SURFACE WATER MONITORING

The existing surface water monitoring program at the LEHR site also began in November 1990 and is conducted at three locations along the South Fork of Putah Creek (see Figure 2). Surface water samples are collected quarterly in conjunction with groundwater monitoring from three sampling points: point PCU is located upstream of the LEHR site; point PCD is located downstream of the LEHR site; and point STPO is located at the outfall of the UC Davis wastewater treatment plant which discharges into the South Fork of Putah Creek between points PCU and PCD. The outfall is located approximately 1 mile from the UC Davis treatment plant. A listing of surface water samples collected between February 1992 and December 1993 is provided in Summary Table 3.

2.3 ANALYTICAL PROGRAM

Table 4 summarizes the requested chemical and radiologic analyses of groundwater and surface water samples collected between the Winter Quarter 1992 and the Fall Quarter 1993 from the water monitoring locations discussed above. Groundwater and surface water samples were collected according to procedures described in Appendix A of the Phase II Site Characterization Work Plan (Dames & Moore, 1990) and the Interim Change Notice to that Work Plan (August 20, 1993). The Interim Change Notice identified a change in analytical laboratories, from Controls for Environmental Pollution (CEP) to Lockheed Analytical Laboratories (Lockheed). Additionally, the Interim Change Notice modified some of the analytical methods from methods used during previous quarters. The change in laboratories and analytical methods was made to satisfy data requirements of the planned CERCLA RI/FS program for the LEHR site. As a result, data for the Summer and Fall Quarters of 1993 include United States Environmental Protection Agency (EPA) Contract Laboratory Program (CLP), CLP-equivalent quality control documentation, and data validation qualifiers.

2.4 QUALITY ASSURANCE/QUALITY CONTROL PROGRAM

Field and laboratory Quality Assurance/Quality Control (QA/QC) procedures were performed according to the EMO Quality Assurance Program Plan (Dames & Moore, 1990), in compliance with the requirements for the Department of Energy established in Order DOE 5700.6C, entitled "Quality Assurance." Procedures for this project were based on those described in "Test Methods for Evaluating Solid Wastes" (SW-846, Third Edition, EPA, 1986), and the "Contract Laboratory Program Statement of Work" (CLP, EPA, 1991). Field procedures included collecting field duplicates, analyzing trip blanks, and following appropriate procedures for collecting and handling samples as outlined in the above

referenced documents. Analytical results were validated according to Data Quality Objectives in the Phase II Work Plan (Dames & Moore, 1990) for samples collected from the Winter Quarter 1992 through the Spring Quarter 1993, and according to National Functional Guidelines for the Summer and Fall Quarters 1993. A detailed description of the sampling QC program, results for quality control samples, and results for data validation are presented in Chapter 3.0 of this report.

In addition to collecting quality control samples and conducting data validation, surveillances and audits were conducted by the QA staff to compare field activities and laboratory activities with requirements of the project controlling documents. Surveillances were conducted according to Procedure 15 of the Quality Assurance Program Plan (QAPP). Each surveillance was conducted using a checklist prepared from various documents, including laboratory standard operating procedures, the field sampling plan, and approved technical procedures. The Coordinator of Quality Assurance (CQA) or assisting Dames & Moore auditor observed and checked compliance with the applicable procedures and guidelines. Field surveillances focused on:

- appropriateness of personnel assignments and expertise;
- availability of field equipment;
- adherence to SOPs for sample collection and identification;
- sample handling and transport;
- use of QA/QC samples;
- chain of custody procedures;
- equipment decontamination; and
- documentation with respect to all QA/QC requirements.

Laboratory audits included review of:

- chain of custody procedures;
- internal sample tracking;
- analytical data documentation;
- instrument calibration and QA/QC protocols; and
- data reporting.

Dames & Moore QA staff conducted a field surveillance of groundwater and surface water sampling in May 1993. In addition, two laboratory audits were performed — one at CEP Laboratories in Santa Fe, New Mexico in March 1993, and another at Lockheed Analytical Laboratory in Las Vegas, Nevada in May 1993. These activities are documented according to QAPP Procedure 15 and the records included in the QA project files.

3.0 DATA REVIEW

This chapter presents the methods and results used to review data collected during 1992 and 1993 groundwater and surface water monitoring. Section 3.1 presents the methods, criteria, and results of data validation. Section 3.2 outlines the methods for statistical analysis of groundwater and surface water data.

3.1 QUALITY ASSURANCE AND DATA VALIDATION SUMMARY

This section presents the results of Quality Assurance (QA) review and data validation of samples collected for the 1992 and 1993 Water Monitoring Programs. Samples collected during the 1992 and 1993 groundwater and surface water monitoring programs were analyzed and validated according to criteria established in the Quality Assurance Project Plan (QAPjP). The QAPjP is presented as an appendix in both the Phase II Site Characterization Work Plan (Rev. 1, December 31, 1990) and Water Monitoring Plan (Rev. 0, January 13, 1994). Included in the QAPjP are sections identifying quality control (QC) sample collection requirements and specific quality assurance objectives for the measurement data. These QA objectives, typically called Data Quality Objectives (DQOs), are quantitative and qualitative statements that specify the quality of data used to support project decisions. They are expressed in terms of precision, accuracy, representativeness, comparability, and completeness (PARCC).

Overall, there were few significant problems identified in the quality control data for 1992 and 1993 water monitoring samples. More than 96 percent of the sample data were valid, satisfying the DQOs established for this program. The data collected during the 1992 and 1993 rounds of groundwater and surface water sampling are considered valid as qualified and representative of field conditions. A review of data validation procedures and results is presented below. Detailed descriptions of sampling procedures, data validation results, and data validation problems were presented in quarterly data transmittals titled "Quarterly Groundwater and Surface Water Monitoring Results".

3.1.1 Quality Assurance Criteria

Table 5 presents the criteria used to review DQOs for each PARCC parameter. These criteria include review of QC samples collected in the field, laboratory QC samples, and analytical method performance. The field QC samples and analytical data reports were reviewed in accordance with validation procedures established in the QAPjP. Four sampling quarters in 1992 and two in 1993 (Winter and Spring) were validated according to procedures established in the Phase II Site Characterization Work Plan (Dames & Moore,

1990). Data validation procedures presented in the Water Monitoring Plan (PNL, 1994) were applied to data collected during the Summer and Fall 1993 monitoring activities.

QC samples included field duplicates, trip blanks, and laboratory method blanks/method blank spikes. One field duplicate was collected for every 10 primary samples and evaluated to identify sources of error affecting the quality of the data. Trip blanks were utilized to identify volatile contaminants which may have been introduced during sample transit (to or from the field) or during sample storage at the analytical laboratory. One set of trip blanks was included in each ice chest containing samples for volatile organic compound analysis. In addition, the laboratory analyzed a method blank and a method blank spike for each analytical batch to detect reagent contamination and evaluate proper instrument performance.

3.1.2 Data Validation Criteria

The three primary objectives of validation include: review of sampling, analytical, and data reduction protocols for correctness; quantitative assessment of the measurement data validity; and assessment of data completeness. The project data validation procedures were designed to review each data set and identify biases inherent to the data, including assessment of laboratory performance, overall precision and accuracy, representativeness, and completeness.

Standard data reports were received from the contracted laboratory (CEP) for samples collected from Winter 1992 through Spring 1993 quarters. The objective of validation for these quarters was to identify samples that exhibited questionable reliability, based on holding time violations, matrix interferences, and other data anomalies. A USEPA CLP or CLP-equivalent data package was obtained from Lockheed for samples collected during the Summer and Fall 1993 quarters. A CLP data package differs from the standard data report in that raw data generated during the analytical process is summarized and included with the sample results. At a minimum, ten percent of the laboratory data were subjected to validation in accordance with the *USEPA National Functional Guidelines for Laboratory Data Review* (Drafts 2/88, 10/89 and 6/91). This level of validation included a detailed review of sample data and was performed along with a complete review of QC summary information provided by the laboratory. The remaining 90 percent of the laboratory data were reviewed using a subset of the National Functional Guidelines validation criteria (Water Monitoring Plan, Appendix A, Attachment 1). This review included an assessment of holding time violations, blank contamination, calibration, precision, and accuracy.

3.1.3 Data Validation Results

This section presents a summary of data validation results with respect to the PARCC parameters and their impact on the established DQOs. Analytical results for the groundwater and surface water samples collected during 1992 and 1993 are tabulated in Appendices A and B. Data validation flags have been applied to those sample results which fell outside of specified tolerance limits, and, therefore, did not meet the program's quality assurance objectives. Tolerance limits used to evaluate PARCC parameters are presented in the QAPjP. An explanation of the data flags is provided as a key to Appendix A and Appendix B.

Precision

Precision measures the ability to reproduce measurements under a given set of conditions. Precision is expressed as the relative percent difference (RPD):

$$RPD = \frac{|A - B|}{(\,|A + B|\,)\,/\,2} \times 100$$

where: A = the measured concentration of the analyte in a sample.
B = the measured concentration of the analyte in a duplicate sample.

Analysis of blind duplicates and duplicate laboratory control samples evaluates sample collection and analytical precision. The results of blind duplicate data for the groundwaters and surface waters and calculated RPD values are presented in Tables 6A and 6B. Laboratory control samples were reviewed as part of the validation process. Overall, RPDs for the controlled duplicate samples, both field and laboratory, were within the established acceptance limits. These results indicate acceptable sample collection techniques and good laboratory precision.

Accuracy

Accuracy is a measure of the bias of a method or the level or agreement of a measurement with a known true value. Accuracy is assessed using percent recovery which is calculated using the following equation:

$$\frac{A - B}{C} \times 100$$

where: A = the measured concentration of the spiked analyte in a spiked sample.
B = the measured concentration of the spiked analyte in an unspiked sample.
C = the concentration of the analyte used for spiking.

Sampling and analytical accuracy are evaluated through analysis of matrix or surrogate spikes and laboratory control spike samples. The results of the sample matrix and surrogate recoveries and laboratory control spike samples were reviewed as part of the validation process. These results were found to be within the acceptable ranges established in the QAPjP. This evaluation indicates acceptable field and laboratory performance.

Representativeness

Representativeness is a qualitative parameter which evaluates how accurately the data represent the actual environmental conditions. Representativeness is determined by evaluating the results of trip blanks, laboratory method blanks, blind duplicate samples, and laboratory duplicate samples. The evaluation of duplicate samples collected and analyzed for this program indicate acceptable representativeness was achieved (Section 3.1.1).

The results of the trip blank samples are presented in Table 7. Trip blanks are submitted to the laboratory for the analysis of volatile organic compounds. Laboratory method blanks were reviewed as part of the validation process. Random occurrences of contamination associated with the trip and laboratory method blanks were identified (see Section 5.1.6). These detections could result from a number of factors including background conditions during sampling, sampling containers, laboratory glassware, or carry-over during analyses. Identification of these compounds at similar concentrations in primary samples is thus questionable due to analytical biases.

Comparability

Comparability is an expression of the confidence with which one data set can be compared to another. Comparability is achieved through the use of standard sampling procedures, analytical methods and units of measurement. All samples were analyzed in

accordance with the procedures outlined in the QAPjP. Laboratory reporting limits for sample results associated with the Summer 1993 monitoring program fluctuated around contract required detection limits (CRDLs) for some constituents due to changes in analytical protocols and laboratory subcontractors. Comparability was not adversely affected by these changes and the data collected from Winter 1992 through Fall 1993 are consistent.

Completeness

The completeness goal for this program, as specified in the QAPjP, is 90 percent. Completeness is defined as the percentage of valid data relative to the total number of analytes and is calculated with the following equation.

$$\textit{Percent Valid Data} = \frac{\textit{number of valid data points}}{\textit{total number of measurements}} \times 100$$

There were few significant problems identified in the sample data. Out of a total of approximately 32,800 individual analytical results (both detected and non-detect), 2,511 results were qualified by assigning various data validation flags. Data judged as rejected (validation flag "R") amounted to less than 4 percent of the total number of data points. The completeness objectives for this program were achieved.

3.1.4 Summary

Discrepancies identified during validation of 1992 and 1993 quarterly monitoring results involved equipment calibration failure, surrogate recovery problems, and holding time violations. Data associated with those anomalies have been flagged according to criteria presented in the work plan and subsequent addenda (see Appendices A and B). Generally, such flags do not render the data unusable for their intended purpose.

For samples analyzed outside of the required holding time, data have been evaluated with respect to historical data. A missed holding time suggests that a loss of analyte may have occurred; however, the findings for the affected samples are consistent with historical data.

3.2 STATISTICAL ANALYSIS

Groundwater sample analytical results from first- and second-HSU wells were compared by statistical analysis. Guidance for the statistical approach is based on "Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities" (EPA, 1989).

Figure 3, redrawn from that document, presents the types of analyses conducted, based on the characteristics of the data. As shown in Figure 3, the appropriate type of statistical analysis is determined by the frequency of detectable analytical values.

When the proportion of non-detectable analytical results exceeds 50 percent of the total analyses, only limited statistics can be performed on the data. A Test of Proportions can be conducted when 10 percent of the analytical data is above the detection limit. This test compares the frequency or proportion of detections in upgradient wells (in samples from UCD-18 in the first HSU, and from UCD-17 in the second HSU), to the proportion of detections of downgradient wells. A complete discussion of the statistical methods and calculations are presented in Appendix D.

When more than 50 percent detections are present for an analytical parameter in upgradient and downgradient wells, more detailed statistics are possible which include: analysis of variance (ANOVA) and calculations for the Upper Tolerance Limit (UTL). Where ANOVA simply indicates if all downgradient wells are significantly different from an upgradient well, the UTL calculation provides an upper limit concentration for the parameter in the upgradient well. Once this UTL concentration is established for the sample results of the upgradient well or wells, each downgradient well can be compared with this UTL value to observe site-related impacts to groundwater from any downgradient samples. The requirement for the UTL is that upgradient and downgradient analyses are collected at the same time so that data from individual wells could be evaluated. To evaluate data from individual wells, the calculation of the upgradient UTL concentration was used whenever possible in this report instead of the ANOVA comparison. For more discussion and details of these UTL calculations, see Appendix D.

A screening process was used to select the parameters for statistical analysis. This process used an initial survey of the percentage of detected values for every parameter for all upgradient and downgradient wells. Parameters with few or no detections in any wells were eliminated from consideration. Parameters with repeated detections in particular wells, especially those present in upgradient as well as downgradient wells, were selected for further analysis.

The process included screening results for inorganic salts, metals, organic compounds and radiologic constituents. General chemical parameters, field parameters, cations, and anions (with the exception of nitrate) were not considered for statistical analysis. Parameters which may be indicative of laboratory contamination such as methylene chloride or bis-2-ethylhexylphthalate, were not considered. The specific parameters analyzed statistically included nitrate, total chromium, hexavalent chromium, nickel, selenium, chloroform, carbon-14, and tritium.

4.0 RESULTS

This chapter presents analytical results for groundwater and surface water samples for eight rounds of sampling. Data collected through September 1993 have been presented previously in the form of quarterly data transmittals or in the Phase II Site Characterization Report. For this report, data are presented in summary tables and a variety of graphs. The remainder of Chapter 4 presents a description of each type of presentation, and a brief overview of results and trends. In addition, the results of the statistical analysis are presented. The complete presentation of data discussed in this report is presented in Appendix A.

4.1 GROUNDWATER RESULTS

The following sections present a summary of the groundwater analytical results for the LEHR site. Groundwater data are presented in several types of tables, figures, and graphs. Summary tables present reported detections and detections by well for the eight quarterly monitoring rounds presented in this report. Graphs included in this section have been selected to present various aspects of the monitoring data so that trends can be observed and described. These graphs allow comparisons of specific constituents over time, by well, or by location, and depict general water quality parameters.

4.1.1 Summary Tables

Analytical results for groundwater samples are summarized in two series of summary tables. Table 8 presents a summary of compounds detected during the eight quarters of monitoring. For each compound detected in groundwater during this period, the number of samples, number of detections, and the maximum value for the detections are presented. Data are presented separately for upgradient wells UCD-17 (second HSU) and UCD-18 (first HSU).

Tables 9A through 9G present a more extensive summary of groundwater parameters that were reported detected during the eight monitoring rounds. Separate tables are presented for general chemical parameters, metals, cations and anions, volatile organic compounds, semivolatile organic compounds, pesticides, and radiochemical parameters. Samples reported as non-detect are presented as the detection limits within parentheses. The validation flag "R" has been included in the summary tables to identify data rejected during data validation (see Chapter 3). A complete listing of validation flags, including reason codes, is presented within tables located in Appendix A.

The purpose of the "summary of detected parameters" tables is to present an overview of analytical parameters that were detected in groundwater over the previous eight quarters. Due to their nature, general chemical parameters and major cations and anions were detected in nearly every sample. The most frequently detected metals in both upgradient and downgradient wells were barium, chromium (total), hexavalent chromium, nickel, vanadium, and zinc. Only one organic parameter, bis(2-ethylhexyl)phthalate was reported in upgradient wells, and is a suspected laboratory contaminant. In contrast, several other volatile, semivolatile, and pesticide compounds were reported in samples from downgradient wells. The most frequently reported organic compounds included chloroform and bis(2-ethylhexyl)phthalate.

In upgradient wells UCD-18 and UCD-17, no radiochemical parameter was reported more than two times throughout the eight quarters. Reported radiochemical detections in downgradient wells consisted primarily of localized detections of tritium and carbon-14 and sporadic detections of gross alpha and gross beta.

4.1.2 Groundwater Elevations

Groundwater elevation data for the eight quarterly rounds discussed in this report are presented in the form of groundwater elevation hydrographs on Figures 4 through 21, and on groundwater elevation contour plots on Figures 22 through 37. Groundwater elevation contour plots are presented separately for the first and second HSUs and correspond to the approximated dates of quarterly monitoring. Hydrographs display groundwater elevation over time for each monitoring well during the eight quarters for this report. Data for hydrographs were collected weekly by UC Davis personnel.

Groundwater elevations in each well fluctuated seasonally during the period between February 1992 and December 1993. Water level variations in each well ranged from 30 feet to 38 feet, with lowest elevations occurring in August 1992 and highest levels in May 1993. Overall, groundwater elevations were significantly higher in 1993 than in 1992, as a result of the unusually wet winter season from October 1992 through May 1993.

Groundwater elevation contour maps are presented on Figures 22 through 37 for both first and second HSUs. Groundwater elevations are consistently highest in upgradient wells UCD-18 and UCD-17, located west of the site, and consistently lowest below the eastern portions of the site. The lateral groundwater gradient in the first HSU generally varies between northerly to easterly. Lateral groundwater gradient in the second HSU is more consistent and is toward the east/northeast.

4.1.3 Piper and Stiff Diagrams

The analytical results of major cations and anions for 1993 groundwater samples are presented on Figures 38 through 49 in the form of Piper and Stiff diagrams. Stiff diagrams plot the concentrations of major cations and anions in milliequivalents per liter. Cations (positively-charged ions) are plotted on the left-hand side of the diagram and anions (negatively-charged ions) are plotted on the right-hand side. When the points are connected, a shape is created for each sample. Diagram shapes are then compared visually to evaluate relative similarities and differences for samples taken from the different monitoring points.

Piper diagrams (Figures 44 through 49) are used to plot the percentages of cations and anions on trilinear graphs. On the Piper diagram, cations are plotted in the lower left triangle, anions are plotted on the lower right triangle, and anions and cations are combined and plotted in the center diamond. The circles that surround each data point in the center diamond are proportional to the total dissolved solids (TDS) for that sample. Piper diagrams are used to graphically compare the major cation and anion composition of several samples.

Stiff diagrams on Figures 38 through 43 present groundwater data for each 1993 quarterly round for first-HSU wells. Based on time-series graphs (see Section 4.1.6), general chemical data for 1992 is relatively consistent with 1993 data and is not presented on Piper and Stiff diagrams for this report. Upgradient well UCD-18 is plotted at the top of each figure for comparison. In general, most downgradient wells show similar patterns of major cation and anion concentrations when compared with samples from upgradient well UCD-18. Apparent differences consistently occur in wells UCD-13 with greater magnesium and bicarbonate concentrations, UCD-10 with greater sodium and sulfate concentrations, UCD-1 with greater magnesium and bicarbonate concentrations, UCD-19 with greater magnesium and sulfate concentrations, and UCD-12 with greater sodium, chloride, magnesium, and bicarbonate concentrations.

Piper diagrams for first-HSU wells (Figures 44 through 47) also show trends similar to Stiff diagrams. Data points for UCD-10 and UCD-12 consistently plot outside the groupings for other wells. The circles that present TDS for wells UCD-10, UCD-12, UCD-13, and UCD-19 are larger than circles plotted for the remaining wells including upgradient well UCD-18, reflecting higher TDS values. Piper diagrams also show that samples from well UCD-22 consistently plot outside the grouping of points for other wells. Samples from well UCD-22 are generally characterized by low TDS, but a high proportion of sodium.

Piper and Stiff diagrams for the second HSU exhibit much less variation than those for the first HSU. The main difference between second-HSU wells occur in generally higher TDS values for downgradient wells UCD-7 and UCD-14 than in upgradient well UCD-17.

In general, examination of the Stiff and Piper diagrams indicate that first- and second-HSU groundwater samples are predominantly of the magnesium-bicarbonate type. In addition, the overall range in concentration values for major cations, anions, and TDS are generally greater in first-HSU wells than in second-HSU wells. A comparison of upgradient wells UCD-17 and UCD-18 indicates that higher concentrations of each cation and anion and of TDS are consistently reported for well UCD-18.

4.1.4 Concentrations by Location Graphs

Graphs depicting parameter concentrations by well location are presented in Figures 50 through 58. These figures present a graphical summary of analytical results for selected parameters during the eight quarters covered in this report. Each graph plots the eight quarters of analytical results for one parameter, by monitoring location.

Figures 51 through 54 include statistical information in addition to the concentration by location information. For selected parameters, the upgradient upper tolerance limit concentration (UTL) value is presented as a dashed line to allow a visual comparison of the degree of impacts observed in the downgradient monitoring well data. A more thorough discussion of statistics, and the results of the statistical comparisons is included below in Section 4.1.5 and in Appendix D.

Data are grouped according to HSU and results from upgradient wells UCD-18 and UCD-17 are placed at the beginning of each HSU grouping. Some trends identified in these graphs are discussed below.

- **Chromium and Hexavalent Chromium** concentrations show similar trends, indicating most chromium in solution is in the hexavalent form. Highest values are consistently reported for wells UCD-12, UCD-11, and UCD-19.

- **Nitrate** concentrations show a great deal of variability across the site. First-HSU samples from several wells are consistently reported above concentrations in upgradient well UCD-18. The highest values are generally reported in first-HSU, downgradient wells UCD-12, UCD-21, and UCD-24. Reported concentrations from upgradient first-HSU well UCD-18 consistently exceed other downgradient wells including UCD-19, UCD-22, UCD-23 and all second-HSU wells.

- **Barium** values show significant variation across the site. Values reported for downgradient well UCD-10 are lowest, while highest values are reported for downgradient wells UCD-4, UCD-11, UCD-12, UCD-13, and UCD-14.

- **Selenium** is consistently reported in wells UCD-10, UCD-11, and UCD-12. Selenium detections in additional wells were reported during summer and fall 1993 rounds as a result of lower detection limits.

- **Nickel** has been reported in most wells at least once, but is most consistently reported in upgradient well UCD-18, and in downgradient wells UCD-21, UCD-22, and UCD-23. The highest values for nickel were reported in UCD-23.

- **Tritium and Carbon-14** detections are reported consistently in wells UCD-13 and UCD-14, with sporadic detections at lower concentrations in several additional first- and second-HSU wells.

- **Chloroform** is reported at its highest levels consistently in UCD-12. Chloroform was also detected consistently in wells UCD-13 and UCD-14, but at much lower levels.

- **Bis(2-ethylhexyl)phthalate** detections are reported sporadically across the site with no consistent trends.

- **Salts (Sulfate, TDS, and Chloride).** The highest chloride concentrations are consistently reported in well UCD-12. The highest sulfate is reported in well UCD-10. TDS varies across the site, but is highest in UCD-10 and UCD-12. Values for first-HSU wells are generally higher in first-HSU wells than in second-HSU wells.

- **Turbidity** values are consistently low (< 20 Ntu) across the site, with the exception of wells UCD-1 and UCD-4. Low water levels in these wells have required that these two wells be purged and sampled by bailer. Remaining wells were sampled with dedicated pumps.

4.1.5 Chemical Concentration Contour Plots

The areal distribution of select parameters in groundwater across the LEHR site is presented in the form of concentration contour plots for the first and second HSUs. Results presented in the contour plots are from the Fall 1993 monitoring round samples. Parameters were selected for plotting based on the following two criteria: the importance of the parameter to the site and, whether a sufficient number of detections was available for contouring. The parameters presented on contour plots are: TDS; nitrate; hexavalent chromium; barium; and selenium.

Contour patterns for each of the five parameters show significant variation in concentrations across the site. Contour plots for salts in the first HSU, as represented by

TDS and nitrate, are presented in Figures 59 through 62. Nitrate and TDS concentrations generally increase across the site from well UCD-18 to downgradient, on-site wells. TDS values are highest in wells UCD-12 and UCD-10, located downgradient of former landfill units. Highest nitrate concentrations are reported for UCD-12, UCD-24, and UCD-21. Concentrations of nitrate and TDS are generally lower in second-HSU wells but show somewhat similar patterns, with highest concentrations reported in wells UCD-7 and UCD-14.

Contour plots of three metals, hexavalent chromium, barium, and selenium, are presented in Figures 63 through 67. Highest concentrations for hexavalent chromium in the first HSU are reported for wells UCD-12, UCD-19, and UCD-11. Hexavalent chromium values in the second HSU show less variation, with highest values reported for UCD-7 and UCD-14.

Barium concentrations in the first HSU show a great deal of variability across the site. Lowest concentrations are reported for downgradient wells UCD-22, UCD-10, and UCD-20. Highest concentrations are reported in wells UCD-12 and UCD-13. Second-HSU barium data show a general increase across the site in a downgradient direction. Selenium data from the first HSU also show a general increase in values across the site in a downgradient direction. The number of detections reported in second-HSU wells was insufficient to produce a contour plot.

4.1.6 Time Series Graphs

Time series graphs plot the concentration of a parameter against time for one monitoring well. Times series graphs are presented for each parameter and well that has a reported detection in the eight quarters covered in this report. Graphs are not presented for wells or parameters with no detections. Time series graphs for groundwater data are presented in Appendix C and are separated according to HSU.

In general, the time series graphs indicate that for each well, the results for most parameters are relatively consistent over time. The exception to the consistent trend is observed in results for most inorganic parameters in second-HSU wells UCD-7 and UCD-14. Results for UCD-14 indicate highest concentrations of many parameters (calcium, chloride, magnesium, chromium, nitrate, and barium) are reported during the summer quarters, with lowest values reported for winter sampling rounds. Results for inorganic parameters (chromium, magnesium, nitrate, chloride) in UCD-7 show highest values during spring rounds and lower values for fall and winter sampling.

4.2 SURFACE WATER RESULTS

The purpose of this section is to present surface water analytical results for 1992 and 1993. Surface water summary tables are presented in a format similar to the groundwater summary tables that were described previously.

4.2.1 Summary Tables

Parameters detected in surface water samples are summarized in Tables 10 and 11. As observed in groundwater data, general chemical parameters and major cations and anions were detected in nearly every surface water sample. The most frequently detected metals were barium, chromium, hexavalent chromium, and zinc. Five volatile organic compounds were reported in surface water, with chloroform the parameter detected most often. Bis(2-ethylhexyl)phthalate was the most frequently reported semivolatile parameter, but is a suspected laboratory contaminant. Thirteen pesticide compounds were reported in surface water; alpha-BHC, 4,4-DDD, and delta-BHC were detected most frequently. Gross alpha and gross beta were the most frequently detected radiochemical parameters.

4.2.2 Piper and Stiff Diagrams

Piper and Stiff diagrams for surface water cation and anion results show significant seasonal variation. Piper diagrams in Figures 68 and 69 present data for Winter and Summer quarters 1992 and 1993, respectively. Data for 1992 indicate during the winter, general chemical composition of PCU and outfall sample STPO were apparently different, with the chemical composition of downstream sample PCD appearing intermediate. Data from the summer indicates that samples from all three locations have similar composition, and sample constituents appear to be consistent with compositions of STPO samples. Data from Winter and Summer quarters 1993 show that stream samples from locations PCD and PCU have much different chemical compositions than samples from location STPO. Stiff diagrams in Figures 70 and 71 show similar trends.

Changes in chemical composition of stream samples are most likely due to seasonal fluctuations in flow of the South Fork of Putah Creek. During winter months, higher flows dilute water entering the creek at the wastewater treatment plant outfall, resulting in different chemical compositions for stream and outfall samples. During summer months in 1992 when there was little or no flow in the creek, the general chemical composition of stream samples PCD and PCU was very similar to the composition of sample STPO.

4.2.3 Time Series Graphs

Time series graphs for surface water show that analytical results for locations PCU and PCD vary over time, while results for samples from STPO are generally more consistent. Variations are apparent for general chemical parameters (i.e., pH, temperature, EC), and major cations and anions. These variations appear to be seasonal and are most likely related to wide fluctuations in flow within Putah Creek that are highest in winter and spring, and relatively stagnant in the summer. Seasonal fluctuations in flow are not expected to affect samples from location STPO because flow at this location is the result of wastewater treatment plant discharge.

4.2.4 Concentrations by Location

Graphs depicting parameter concentrations by surface water location are presented on Figures 72 through 80. These figures present a graphical summary of analytical results for selected surface water parameters during the eight quarters covered in this report. Each graph plots the eight quarters of analytical results for one parameter according to sampling location along Putah Creek.

4.3 STATISTICAL RESULTS

Table 12 presents a summary of the results from the Upper Tolerance Limit (UTL) calculations performed for the selected eight groundwater parameters. A statistical analysis of surface water results is not presented because the upstream sample location (PCU) is only truly "upstream" during the Winter months (see Section 5.2.4). The shaded portions of Table 12 indicate that one or more downgradient sample results exceeded the upgradient UTL concentration one or more times during the eight quarters of sampling during 1992 and 1993. Values for the UTL were calculated separately for each HSU. The UTL calculation was possible for only parameters with greater than 50 percent detections during the eight quarters. These parameters include nitrate, total chromium, and hexavalent chromium in both the first and second HSUs, and for nickel in the first HSU. Table 12 indicates that nitrate concentration in 4 of 12 downgradient wells in the first HSU exceeded the upgradient UTL at least once in 1992 and 1993. Nitrate concentrations in all four second-HSU downgradient wells exceed the upgradient UTL concentrations at least once in the 1992 and 1993 sampling period. Total chromium exceeded the upgradient UTL at least once in 1992 and 1993 in all but two downgradient first- and second-HSU wells.

Table 13 presents a summary of the results for the Test of Proportions conducted for chloroform, selenium, carbon-14, and tritium in both first- and second-HSU wells, with nickel included in the second-HSU tests. The test of proportions was conducted on data for these parameters because there were less than 50 percent detections in the respective upgradient wells for the eight quarters. Review of Table 13 shows that UCD-10, UCD-11, UCD-12, and UCD-13 appear to be impacted by one or more constituents. Of the wells in the second HSU, only UCD-14 appears to be impacted with chloroform and tritium.

5.0 DISCUSSION

This chapter presents a discussion of water monitoring data collected between February 1992 and December 1993. The discussion below focuses on the following: the validity of existing upgradient wells to act as background monitoring points; seasonality of monitoring data; sitewide impacts; localized impacts; and important QA/QC issues. A discussion of groundwater trends is presented in section 5.1 and a discussion of surface water trends is presented in section 5.2.

5.1 GROUNDWATER

The following sections present a discussion of trends observed in groundwater data collected during 1992 and 1993 as part of the LEHR water monitoring program. The trends discussed below include an evaluation of data from upgradient wells, a discussion of sitewide and local impacts to groundwater in downgradient wells, seasonal trends in groundwater data, and parameters with QA/QC concerns.

5.1.1 Upgradient Wells

Monitoring wells UCD-17 and UCD-18 have been described previously (Dames & Moore, 1993) and in this report as upgradient monitoring points for groundwater. Both wells are located west of the site with well UCD-18 screened in the first HSU, and well UCD-17 screened in the second HSU. This section presents a discussion of groundwater hydrologic and chemical data in relation to the designated upgradient wells, in order to evaluate the use of data from these wells in establishing background concentrations.

Hydrology

During 1992 and 1993, groundwater levels in upgradient wells UCD-17 and UCD-18 showed trends similar to groundwater levels in downgradient wells, and generally had the highest reported groundwater elevations for each respective HSU (Figures 4 through 21). The lateral groundwater gradient in the first HSU is generally from the southwest to the northeast, but has exhibited variations on a local scale. These local variations in lateral gradient have been observed in previous data (Dames & Moore, 1993) and occur during periods of groundwater elevation decline or rise, creating temporary groundwater elevation "highs" and "lows." These highs and lows are most likely the result of stresses on the aquifer (e.g., local pumping for agriculture) that create large vertical gradients between the first and second HSUs (Phase II Site Characterization Report, Dames & Moore, 1993). During these periods, groundwater flow in the first HSU

is predominantly downward (during spring and summer) or upward (fall and winter). Small scale variations in local hydraulic conductivity and/or storativity cause the groundwater elevations to respond differently in different locations. These variations in response result in the temporary and local changes in the lateral groundwater gradient. Despite the variations, the lateral groundwater gradient is generally to the north and east.

In contrast to the first HSU, groundwater gradient in the second HSU shows very little seasonal variation and is consistently from the west/southwest to the east/northeast, placing well UCD-17 upgradient of the LEHR site.

Groundwater Chemistry

A qualitative comparison suggests that there are distinct chemical differences in the composition of the upgradient and downgradient samples. Stiff diagrams in Figures 38 through 47 present a comparison between both upgradient wells and the remaining downgradient wells in each respective HSU. These figures suggest that there are differences in the TDS concentrations and concentrations and proportions of inorganic cations and anions between upgradient and downgradient wells. In addition, comparisons presented in Figures 50 through 58 suggest that concentrations for most site parameters of interest are also reported at their lowest concentrations in wells UCD-17 and UCD-18.

First Versus Second HSU

Groundwater data collected during quarterly monitoring indicate that there are significant differences in groundwater chemistry between samples from the first and second HSUs. Data from wells UCD-17 and UCD-18 (Table 8; Figures 38 and 49-Stiff and Piper Diagrams) indicate the general water quality in the two HSUs is different. The most important differences are in major cations, anions, and TDS which are reported at consistently higher concentrations in well UCD-18 than in UCD-17. The difference in concentrations of salts is especially evident for nitrate (Figure 51) where the calculated mean and UTL values were nearly ten times higher in UCD-18 than in UCD-17. Other general parameters that show significant differences between these two wells include turbidity and electrical conductivity (Table 9A). Based on differences in lithology and supported by differences in groundwater elevation and general chemical data, the two HSUs were evaluated separately to statistically establish background values (see Section 5.1.5).

5.1.2 Downgradient Wells - Sitewide Impacts

Data collected during monitoring of downgradient wells indicate that there are three parameters that impact large portions of the groundwater beneath the site. These parameters include nitrate, chromium, and hexavalent chromium and are generally detected in most groundwater samples on a quarterly basis (Table 9). In the first HSU, the highest concentrations of nitrate are reported from wells UCD-21, UCD-24, and UCD-12 located in the center of the site. These wells are located downgradient of the radium-226 and strontium-90 septic systems (UCD-21 and UCD-24), dog pens (UCD-24), and landfill disposal unit (UCD-12). Samples from wells UCD-11 and UCD-10 also contain statistically elevated levels of chromium, hexavalent chromium, and nitrate (see Chapter 4.0) and are located downgradient of former landfill disposal units. In the second HSU, the highest concentrations of chromium, hexavalent chromium, and nitrate are consistently reported in wells UCD-7 and UCD-14 (Table 9 and Figures 51 and 62). However, due to the fewer number of second-HSU wells, the extent of the impact is unclear.

Nitrate is observed to impact a large portion of the site as a result of the variety of potential sources that include the dog pens, septic systems, and landfill disposal units. In addition to potential on-site point sources, values of nitrate in upgradient well UCD-18 (5,090 μg/L to 19,800 μg/L) indicate that there may be a more regional source for nitrate in shallow groundwater. Regional sources could include livestock and agricultural fertilizers. The United States Geological Survey (USGS) reported groundwater sample concentrations up to 45 mg/L nitrate as N in its survey of groundwater quality in Yolo and Solano Counties (USGS, January 1985).

Chromium and hexavalent chromium are also reported in most wells each quarter. In most samples, concentrations of hexavalent chromium and chromium are similar, indicating that most chromium in solution in groundwater is in the hexavalent form (Dames & Moore, February 1993). Concentrations of both forms of chromium increase in a downgradient direction with the highest concentrations consistently reported in wells UCD-11, UCD-12, and UCD-19 (Figures 63 and 64). In its survey of the regional groundwater quality, the USGS resources reported groundwater sample concentrations up to 40 μg/L chromium in Yolo and Solano Counties in 1985 (USGS, January 1985).

5.1.3 Downgradient Wells - Localized Impacts

In contrast to the parameters that show statistical impacts to groundwater beneath a large portion of the site, several parameters show statistical impacts to only small areas. These parameters include several volatile organic parameters, carbon-14, tritium, selenium,

and pesticides. These parameters or groups of parameters are detected at elevated levels in only one to three wells over apparently small portions of the site.

Detections of volatile organic compounds are reported consistently and at the highest concentrations in well UCD-12. The highest concentrations of volatile compounds are reported for chloroform, which have exceeded 15,000 μg/L in Spring Quarter, 1992 (Table 9D). In other wells, chloroform is also reported sporadically but never higher than 4 μg/L. In addition to chloroform, the volatile compounds 1,1-dichloroethane, 1,1-dichloroethene, and 1,2-dichloroethane are also consistently reported in UCD-12, but at concentrations less than 45 μg/L. Due to the lack of repeated detections of VOCs in other monitoring wells (Table 9D) and the high concentrations reported in UCD-12, the presence of VOCs in groundwater appears to be limited to the area near UCD-12. Additional permanent monitoring points are proposed for the RI/FS program to further assess the extent of VOCs in groundwater.

Carbon-14 and tritium are reported in wells UCD-13 and UCD-14 (Table 9D). The highest levels are reported for well UCD-13, with consistent but lower detections of tritium in nearby well UCD-14. There are inconsistent detections of tritium reported in other wells, including upgradient well UCD-18, but at much lower levels (Table 9D, Figure 53). Selenium is reported in eight wells, but only in wells UCD-1, UCD-11, and UCD-12 on a consistent basis (Figure 52). Pesticides are only reported in groundwater in well UCD-13 (Table 9F).

5.1.4 Seasonality

In general, groundwater analytical data from first-HSU wells do not exhibit readily apparent seasonal variation. This lack of seasonality is despite large fluctuations in groundwater elevation that occur as a result of local groundwater pumping for irrigation during the dry season. The general lack of evidence for seasonality is best observed in the consistent results presented on First HSU Time Series Graphs in Appendix C.

In contrast, two second-HSU wells, UCD-7 and UCD-14, do exhibit seasonal trends for several inorganic parameters. These trends include relatively higher concentrations for magnesium, chloride, nitrate, chromium, and barium during Spring and Summer Quarters than in Fall and Winter Quarters. Possible explanation for this variability include the seasonal groundwater elevation fluctuations or heavy rainfall during the winter and spring months.

5.1.5 Statistical Analysis

Statistical comparisons between upgradient and downgradient groundwater monitoring points were performed for several parameters including nitrate, total chromium, hexavalent chromium, selenium, nickel, chloroform, carbon-14, and tritium. Methods and examples of statistical calculations are presented in Appendix D of this report. The statistical analysis was conducted by comparing on-site groundwater data to data collected from upgradient wells UCD-18 and UCD-17. During upcoming RI/FS activities, additional information will be collected and used in conjunction with current groundwater monitoring information to evaluate the adequacy of using UCD-18 and UCD-17 as background monitoring wells. If necessary, additional background monitoring wells may be installed.

Based on these statistical analyses, nitrate, total chromium, and hexavalent chromium concentrations in samples from several downgradient wells were significantly higher at the 95-percent confidence level than established upgradient concentrations. As a result, these three parameters appear to impact groundwater beneath a large portion of the site. Other constituents, including selenium, nickel, chloroform, carbon-14, and tritium were found at concentrations which exceeded upgradient concentrations at the 95-percent confidence level in only a few wells. These parameters appear to impact groundwater beneath only "location-specific" portions of the site. These results are discussed further below.

Sitewide Constituents

The upper tolerance limit (UTL) concentrations for nitrate, chromium, and hexavalent chromium in upgradient wells UCD-18 and UCD-17 suggest that most downgradient wells on the site are impacted with both total chromium and hexavalent chromium (Table 12). First-HSU wells UCD-11, UCD-12, UCD-13, and UCD-19 exceeded the upgradient UTL for total and hexavalent chromium throughout the eight quarters of sampling in 1992 and 1993, as indicated in Figure 50. In downgradient wells UCD-10, UCD-12, and UCD-19 most samples exceed 150 μg/L hexavalent chromium which is several times the upgradient UTL concentration (55.4 μg/L). The remaining first-HSU wells on-site reported detections above the UTL one or more times in the eight quarters of sampling in 1992 and 1993, with the exception of UCD-1 and UCD-4, which did not report detections above the UTL in this period.

Downgradient second-HSU wells also reported consistent detections of hexavalent and total chromium. Reported detections in second-HSU upgradient well UCD-17, resulted

in UTL concentrations of 24.6 μg/L hexavalent chromium, and 54.0 μg/L total chromium (Table 12). Second-HSU well UCD-7 samples also exceeded upgradient UTL concentrations for total and hexavalent chromium on a consistent basis. Sample results from downgradient well UCD-7 reported detections in excess of 49 μg/L hexavalent chromium, twice the upgradient UTL concentration, in four of eight quarters, as shown in Figure 50. Based on these repeated detections above the UTL in both first- and second-HSU downgradient wells, total and hexavalent chromium are constituents of sitewide interest.

Nitrate is also a sitewide constituent of interest based on several repeated detections in samples from downgradient wells which exceeded the upgradient UTL concentration in both first and second HSU, as shown in Table 12. The calculated upgradient UTL concentration for the first HSU (UCD-18) was 29 mg/L nitrate as N, approximately 10 times the upgradient UTL for the second HSU (UCD-17), which was 3.1 mg/L nitrate as N.

Despite the relatively high upgradient UTL concentration for UCD-18, several downgradient first-HSU wells consistently exceeded 29 mg/L nitrates as N. These wells included UCD-10, UCD-12, UCD-21, and UCD-24. Wells UCD-12, UCD-21, and UCD-24 appeared similarly impacted, exceeding 45 mg/L nitrate as N, approximately 5 out of eight quarters.

Second-HSU wells UCD-7, UCD-14, and UCD-16 exceeded the upgradient UTL concentration of 3.1 mg/L nitrate as N on a consistent basis. Of these wells, UCD-7 exceeded 16 mg/L nitrate as N, in five of eight quarters of sampling. Well UCD-15 exceeded 3.1 mg/L nitrate as N only once in the eight quarters during 1992 and 1993.

Location-Specific Constituents

Nickel was reported in six of eight quarters in UCD-18, allowing the calculation of an upgradient UTL concentration for the first HSU. In the second HSU, nickel was detected only twice out of eight quarters, less than the required 50-percent detections for further UTL calculation. In the downgradient wells in the first HSU, only four samples exceeded the upgradient UTL concentration, three from UCD-23 and one from UCD-22.

Other constituents which were not detected in more than 50 percent of the samples from upgradient wells included chloroform, selenium, carbon-14, and tritium. The Test of Proportions analysis was applied to downgradient wells paired with upgradient wells for the constituents listed above.

Results from the Test of Proportions (Table 13) indicate that UCD-12 is significantly impacted by chloroform and selenium at the 95-percent confidence level. First-HSU well UCD-13 was significantly impacted by carbon-14 and tritium. Second-HSU well UCD-14 was impacted by both chloroform and tritium. Other first-HSU wells which were significantly impacted by a single parameter included UCD-10, UCD-11 (chloroform), and UCD-19 (nickel). Data presented in Table 13 indicates that other wells may have been impacted by other constituents, but that some of the Test of Proportions parameters failed to meet the required criteria. For further discussion of the Test of Proportions see Appendix D.

5.1.6 QA/QC

One organic compound, bis (2-ethylhexyl)phthalate, is repeatedly reported in groundwater and surface water samples collected during the quarterly monitoring program. Detections of this compound, however, are not consistently reported in any single well, but appear to be randomly distributed through out the data set. In addition, this compound has commonly been reported in laboratory method blanks analyzed with the groundwater samples. The lack of pattern in the sample detections and the recurring detections in laboratory quality control samples indicates that detections of this parameter in groundwater and surface water samples are unreliable and do not indicate impact from the site.

5.2 SURFACE WATER

Surface water grab samples are collected from three points near the LEHR site to evaluate possible impacts from the site to nearby Putah Creek, and to evaluate possible impacts from Putah Creek to groundwater in the vicinity of the site. Two of the three monitoring locations are located along Putah Creek for the collection of stream samples. Location PCU is located upstream of the site and has previously been considered a background location. Sample location PCD is located downstream of the site. The third location sample point, STPO, is located at the outfall of the UC Davis Wastewater Treatment Plant, before it discharges into Putah Creek. This section presents a discussion of trends observed in surface water analytical results that were presented in Chapter 4.

5.2.1 Background Monitoring Point

PCU, located upstream of the LEHR site, has exhibited seasonal variation in general water chemistry and flow. During summer months, there is often no flow in Putah Creek in the vicinity of the site. The only water in the creek during the dry months appears to be

the result of the relatively consistent discharge from the wastewater treatment plant outfall. This is reflected in the chemical concentration of the samples collected in 1992 in which during the Summer Quarter, the composition of upstream location PCU was nearly identical to the composition of sample STPO (Figure 70). However during the Winter and Spring Quarters of 1992, and during the wet year of 1993, the results from sample PCU were significantly different from those of sample STPO both in TDS and in the proportion of major cation and anions (Figure 71).

5.2.2 Seasonality

Due to the fluctuation in surface water flow in Putah Creek, results from samples from upstream and downstream locations PCU and PCD do exhibit seasonal variations in water chemistry. This variation is primarily the result of the greater influence on the stream water chemistry that water discharged from the treatment plant outfall has when flow in Putah Creek is low or non-existent. This variation is shown in Figures 68 through 71 and in the Time Series Graphs presented in Appendix C. During periods of high flow in Putah Creek, concentrations of most individual salts and TDS in PCU and PCD stream samples were relatively low compared to results from STPO. However, during periods of little or no flow in Putah Creek (generally during the Summer and Fall Quarters), salts and TDS in samples from locations PCD and PCU increase due to influence from the wastewater treatment plant outfall.

5.2.3 Impacts to Surface Water

Impacts to surface water in Putah Creek are more difficult to define as a result of variable flow conditions at the upstream sampling point. However, several parameters that include salts and anthropogenic volatile organic parameters and pesticides do appear to be impacting Putah Creek in general in the vicinity of the LEHR site.

Salts, (calcium, magnesium, sodium, chloride, sulfate, nitrate, and TDS) are impacted in Putah Creek as a result of discharge from the wastewater treatment plant. During periods of low stream flow, this discharge appears to be undiluted and concentrations of these parameters increase both upstream and downstream of the site and outfall. In addition to salts, several VOC parameters, including chloroform, are consistently present in STPO samples and periodically impact surface water collected at the PCU and PCD locations.

Several pesticide compounds, including alpha-BHC and delta-BHC, are detected in samples from each of the surface water sample locations. In contrast to salts and VOCs,

these compounds do not appear to be derived from the wastewater treatment plant discharge. The pesticide detections instead are mostly likely derived from runoff to Putah Creek from surrounding agricultural land.

5.2.4 Statistical Analysis of Surface Water

Based on the seasonal flows in Putah Creek, a year-round, upstream monitoring point could not be identified. As discussed above, during summer and fall, flow in Putah Creek diminishes to a point where the three monitoring points PCU, PCD and STPO do not appear to be hydrologically separate. Therefore, upstream versus downstream statistical comparisons are inappropriate and were not conducted.

6.0 SUMMARY

Eight quarterly water monitoring rounds were conducted at the LEHR site in Davis, California between February 1992 and December 1993. The water monitoring program during this period was conducted according to procedures described in the Phase II Site Characterization Work Plan.

Water monitoring consisted of quarterly sample collection, field measurements, and laboratory analysis of groundwater and surface water samples. Groundwater samples were collected from 18 groundwater monitoring wells. Groundwater wells are screened within two hydrostratigraphic units. The upper, first HSU is characterized by fine-grained sediments from the water table down to 80 feet bgs. The lower, second HSU, consists of cobbles and gravels below 80 feet bgs. Two wells, UCD-18 in the first HSU, and UCD-17 in the second HSU are located upgradient of the LEHR site. Surface water samples were collected from three locations along Putah Creek. Both groundwater and surface water samples were analyzed for general chemical parameters, cations and anions, metals, volatile organic compounds, semi-volatile organic compounds, pesticides, and radiochemicals.

Groundwater and surface water samples were collected, analyzed, and validated according to criteria established in the Quality Assurance Project Plan. In all, approximately 32,800 analytical values were reviewed, with more than 96 percent of these data valid. Data collected during 1992 and 1993 water monitoring are therefore considered valid and representative of field conditions.

Analytical results are presented in a variety of tables, figures, and graphs that include: Summary of Detections Tables, Summary Tables, Piper diagrams, Stiff diagrams, Groundwater Elevation Hydrographs, Contour Plots, Chemical Concentration Contour Plots, Time Series Graphs, and Concentration by Location Graphs.

Groundwater elevation monitoring data was assessed by compiling groundwater elevation hydrographs and elevation contour plots in order to establish generalized flow conditions. The lateral groundwater gradient in both first and second HSUs was generally from southwest to northeast with some local groundwater mounding effects observed seasonally in the first HSU. From this assessment of groundwater gradients, it is concluded that monitoring wells UCD-18 (first HSU) and UCD-17 (second HSU) located southwest of the LEHR site, proximal to Putah Creek, are upgradient of the site. Additional information will be collected during the upcoming RI/FS program to further

evaluate the use of UCD-18 and UCD-17 as background monitoring points. If necessary, new monitoring wells may be installed to provide additional background data.

Detailed statistical analysis were performed on eight groundwater parameters. The eight parameters were selected based on an initial screening of percentage of detections reported in upgradient and downgradient wells and include: total chromium, hexavalent chromium, nitrate, chloroform, tritium, carbon-14, nickel, and selenium. Due to a lack of an appropriate year-round, upstream sampling location, no statistics were performed on surface water data.

Statistical analyses of analytical results consisted of calculating a 95 percent upper tolerance limit (UTL) for parameters with greater than 50 percent reported detections. For parameters with less than 50 percent reported detections, a Test of Proportions calculation was used. These results suggest that 12 of 16 downgradient wells were impacted by total and hexavalent chromium which statistically exceeded upgradient levels. Nitrate and chromium were present in groundwater throughout the site. However, nitrate concentrations reported in upgradient groundwater samples was high relative to drinking water standards; therefore, only 5 of 16 downgradient wells contained nitrate levels in excess of upgradient conditions based on statistical comparisons. Other constituents including selenium, nickel, chloroform, carbon-14, and tritium exceeded upgradient concentrations in one to three downgradient wells on a consistent and statistically significant basis.

7.0 REFERENCES

Dames and Moore, 1990. Work Plan, Phase II Site Characterization, LEHR Environmental Restoration, University of California, Davis.

Dames and Moore, 1993. Phase II Site Characterization Report for the LEHR Environmental.

Pacific Northwest Laboratory (PNL), 1994. Water Monitoring Plan, LEHR Environmental Restoration, Davis, California.

United States Environmental Protection Agency, Drafts, February 1988, October 1989, June 1991. National Functional Guidelines for Laboratory Data Review.

United States Environmental Protection Agency, 1989. Statistical Analysis of Groundwater Monitoring Data of RCRA facilities.

United States Geological Survey, 1985. Chemical Quality of Groundwater in Yolo and Solano Counties, California, January.

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LIST____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 5/14
D.O.E REP _____ Date _____
Sampler D. Zboes

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-16		X	5/14	0915	10	
UCD-12		X	5/14	1315	10	
TRIP BLANK		X			2	
UCD-24		X	5/14	1445	10	
UCD-21		X	5/14	1600	10	
TRIP BLANK		X			2	

Analyses Requested for All Samples Listed.

* 17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity.
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.

* As, Cd, Pb, Se, Sb, Tl by GFAA
Detection limit for Tl = 1 ppb
Hg by CVAA
Rest of Metals by ICP

Relinquished by: [signature] Date 5/14 Time 1730
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Relinquished by: Date Time

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Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 5/16
D.O.E REP ___ Date ___
Sampler DAVID ZUBER SUSAN McHugh

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
STPO-1		X	5/16	0930	10	
STPO-1B		X	5/16	0900	10	
TRIP BLANK		X			2	
PCU Surface		X	5/16	1130	10	
PCD Surface		X	5/16	1330	10	
TRIP BLANK		X			2	

Analyses Requested for All Samples Listed.

* 17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity.
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625 - semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.

Turbidity & Cr(VI) cancelled As per Jeff Tye 5/20/91

As, Cd, Pb, Se, Sb, Tl by GFAA
Detection Limit for Tl = 1 ppb
Hg by CVAA
All other metals by ICP

Relinquished by: [signature]	Date 5/16	Time 1600	Rec'd by: FED EX # 9517666636	Date 5/16	Time 1600
Relinquished by: ___	Date	Time	Rec'd by: [signature]	Date 5/20/91	Time 7:30
Relinquished by: ___	Date	Time	Rec'd by: ___	Date	Time

[illegible] arrived Saturday 5/16, [illegible] on arrival samples were refrigerated [illegible]

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3 coolers

340

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Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 5/21
D.O.E REP _____ Date _____
Sampler D. Zuber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
STPO-1		X	5/21	1440	1	
STPO-1B		X	5/21	1500	1	
PCU surface		X	5/21	1450	1	
PCD surface		X	5/21	1515	1	

Analyses Requested for All Samples Listed.

~~17 CAM Metals, Na, K, Mg, Ca~~
~~Hexavalent Chromium, TDS,~~
~~Sulfate, Turbidity,~~
~~Chloride, Alkalinity.~~
~~Nitrates (as Nitrogen), COD,~~
~~Phosphate.~~
~~Formaldehyde.~~
~~608 - Organochlorine pesticides~~
~~625 - semi-volitile organic compounds.~~
~~624 - volitile organic compounds.~~
~~Gross alpha, Gross beta,~~
~~Strontium 90~~
~~Gamma Emitters.~~
~~Tritium.~~

TURBIDITY and Cr(VI) only

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Relinquished by: _____ Date _____ Time _____

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Rec'd by: _____ Date _____ Time _____

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D. Zuber
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Signatures
Dames & Moore [signature] Date 5/13
D.O.E REP _____ Date _____
Sampler [signature] (ZUBER)

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-17		X	5/13	1145	10	
UCD-18		X	5/13	1330	10	
TRIP BLANK.		X			2	
UCD-15		X	5/13	1545	10	
TRIP BLANK		X			2	

Analyses Requested for All Samples Listed.

* 17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity.
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.
C^{14} by Barium precipitate (see Dr Neary)
* As, Cd, Pb Se, Sb Tl by GFAA
Detection Limit for Tl = 1 ppb
Hg by CVAA
Rest of Metals by ICP

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GROUNDWATER AND SURFACE WATER SAMPLES

SPRING QUARTER, MAY 1991

PHASE II SITE CHARACTERIZATION
LEHR ENVIRONMENTAL RESTORATION

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Project # 10805-454-044

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Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 2/4/91
D.O.E REP Date
Sampler R. Moren

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD 16		X	2/4/91	0935	10	
~~UCD 15~~		~~X~~	~~2/4/91~~	~~0900~~	~~10~~	
Trip Blank						

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity.
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.

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Relinquished by: [signature] Date 2/4/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

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Rec'd by: C. Rodriguez Date 2/5/91 Time 5:00
Rec'd by: Date Time

Fed Ex 6496396794

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DOE Site Characterization

Project # 10805-454-044

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Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore David Moren Date 2/12/91
D.O.E REP _____ Date _____
Sampler DAVID MORIER

EDX

6496396794
1

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-13		X	2/12/91	1130	10	
UCD-14		X	2/12/91	1400	10	
TRIP BLANK		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Relinquished by: David Moren Date 2/12/91 Time _____ Rec'd by: C. Lodrigo Date 2/13/91 Time 9:15
Relinquished by: _____ Date _____ Time _____ Rec'd by: _____ Date _____ Time _____
Relinquished by: _____ Date _____ Time _____ Rec'd by: _____ Date _____ Time _____

4.1p
1558190791

::: IMPORTANT :::

Upon receipt of this f :
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephone

LIST 2 CHAIN OF CUSTODY

Project Name UCD/ IEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 2/5/91
D.O.E REP _____ Date _____
Sampler R. MOREN

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-17		X	2/5/91	0915	10	
Trip Blank		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

FedX 9588190791

Relinquished by: [signature] Date 2/5/91 Time
Relinquished by: _____ Date _____ Time
Relinquished by: _____ Date _____ Time

Rec'd by: [signature] Date 2/5 Time
Rec'd by: Kathy Ortega Date 2/6/91 Time 4:30
Rec'd by: _____ Date _____ Time

!!! IMPORTANT !!!

Upon receipt of this form:
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephone.

LIST 2 CHAIN OF CUSTODY

Project Name UCD/ IEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 2/4/91
D.O.E REP Date
Sampler R. Moren

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD 15		x	2/4	1200	10	
UCD-18		x	2/4	1415	10	
Trip Blank						

624 as per [illegible]

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity. 32 oz
Nitrates (as Nitrogen), COD,
Phosphate. 32 oz glass
Formaldehyde. 40 ml
608 - Organochlorine pesticides 1 gal
625 - Semi-volitile organic compounds
624 - volitile organic compounds. 40 ml
Gross alpha, Gross beta, 1 gal a.h.
Strontium 90
Gamma-Emitters.
Tritium. 1/02 glass

Fed X

Relinquished by: [signature] Date 2/4/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: 9588190253 Date Time
Rec'd by: [signature] Date 2/5/91 Time 9:00
Rec'd by: Date Time

Express

!!! IMPORTANT !!!

Upon receipt of this f
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephone

LIST 2 CHAIN OF CUSTODY

Project Name UCD/ IEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore R. Moren Date 2/5/91
D.O.E REP Date
Sampler R. Moren

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-22		X	2/5/91	1530	10	
UCD-22B		X		1600	10	
Trip Blank		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Fed X

Relinquished by: R. Moren Date 2/5/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: 9588190986 Date 2/5/91 Time
Rec'd by: Karla Ortega Date 2-5-91 Time 1:30
Rec'd by: Date Time

N-10 Express

!!! IMPORTANT !!!

Upon receipt of this form:
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephone.

LIST 2 CHAIN OF CUSTODY

Project Name UCD/ IEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 2/5/91
D.O.E REP Date
Sampler R. Moren

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-21		X	2/5/91	14:45	10	
Trip Blank		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Fed X

Relinquished by: [signature] Date 2/5/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: 9588190765 Date 2/5 Time
Rec'd by: Kathy Ortega Date 2/6/91 Time 9:30
Rec'd by: Date Time

Upon receipt of this n:
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephon

LIST ___ CHAIN OF CUSTODY

Project Name UCD/ IEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore David T. Moore Date 2/7/91

D.O.E REP ___ Date ___

Sampler DAVID MORIER

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-1		X	2/7/91	1130	10	
TRIP BLANK		X			1	
UCD-4		X	2/7/91	1330	10	
TRIP BLANK		X			1	
UCD-7		X	2/7/91	1530	10	
TRIP BLANK		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Relinquished by: [signature] Date 2/7/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: [signature] Date 2/8/91 Time 9:00
Rec'd by: Date Time
Rec'd by: Date Time

Only 2 containers TRIP Blank Received, one in Cooler, 2 sets of samples in, 1 set of samples in

4 u
4 P.
9588190726

Upon receipt of this form:
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephone.

LIST 2 CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 2/5/91
D.O.E REP Date
Sampler R. MOREN

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-24		X	2/5/91	1130	10	
Trip Blank					1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

FedX

Relinquished by: [signature] Date 2/5/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: 9588190776 Date 2/5/91 Time
Rec'd by: Kathy Irish Date 2/6/91 Time 0 50
Rec'd by: Date Time

Fed Express — 1584140920

!!! IMPORTANT !!!

Upon receipt of this form:
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to: RICK MOREN / DAMES & MOORE FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by teleph

LIST 2 CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore [signature] Date 2/6/91
D.O.E REP Date
Sampler R. MOREN

Fed X/Lab

	Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
9588190975 (1)	UCD-20		X	2/6/91	0930	10	
	Trip Blank		X			1	
9588190964 (2)	UCD-19		X	2/6/91	1230	10	
	UCD-23		X	2/6/91	1040	10	
	Trip Blank		X			1	
9588190953 (3)	STPO		X	2/6/91	1330	10	
	Trip Blank		X			1	
9588190931 (4)	PCD-1		X	2/6/91	1500	10	
	Trip Blank		X			1	
9588190920 (5)	PCU 1		X	2/6/91	1400	10	
	PCU 10		X	2/6/91	1415	10	
	Trip Blank		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Relinquished by: [signature] Date 2/6/91 Time
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: L. Herrick Date 2/7/91 Time 9:3
Rec'd by: Date Time
Rec'd by: Date Time

Fed Exp 9588190883

!!! IMPORTANT !!!

Upon receipt of this form:
1. Inspect all samples.
2. Note any damaged containers.
3. Sign and date this form.
4. Send a FAX of this form to:
   RICK MOREN / DAMES & MOORE
   FAX # (916) 362-7987
5. Do not begin work until authorization is received from Dames & Moore by telephone.

LIST ____ CHAIN OF CUSTODY

Project Name UCD/ IAHR
DOE Site Characterization

Project # 10305-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Rick Moren

Signatures
Dames & Moore David Morier Date 2/11/91
D.O.E REP _____ Date _____
Sampler DAVID MORIER

1 of Control

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-10		X	2/11/91	0945	10	
UCD 11		X	2/11/91	1230	10	
TRIP BLANK		X			1	
UCD 12		X	2/11/91	1330	10	
UCD-12d		X	2/11/91	1400	10	
TRIP BLANK		X			1	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625 - semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Relinquished by: David Morier Date 2/11/91 Time _____ Rec'd by: C. Rodgers Date 2/12/91 Time 9:00
Relinquished by: _____ Date _____ Time _____ Rec'd by: _____ Date _____ Time _____
Relinquished by: _____ Date _____ Time _____ Rec'd by: _____ Date _____ Time _____

CHAIN-OF-CUSTODIES
GROUNDWATER AND SURFACE WATER SAMPLES

WINTER QUARTER, FEBRUARY 1991

PHASE II SITE CHARACTERIZATION
LEHR ENVIRONMENTAL RESTORATION

1955

ed 4PP 93?

LIST____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Paul Zuber Date 11/8/90
D.O.E REP Not Available Date
Sampler Dave Zeber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
TRIP BLANK		X			2	
UCD-10		X	11/8	1045	10	
UCD-15		X	11/8	1500	10	
UCD-15B		X	11/8	1530	10	
TRIP BLANK					2	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity,
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.

FED EX #

Relinquished by: J. Paul Zuber Date 11/8 Time 1730
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: 9330995505 Date 11/8 Time 1730
Rec'd by: [illegible] Date 11/9 Time 7:30
Rec'd by: Date Time

Fed Ex 41P 9330995520

LIST ____ **CHAIN OF CUSTODY**

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Paul Zuber Date 11-7-90
D.O.E REP R. Kaufman Date 11-7-90
Sampler Dave Zuber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
Trip Blank		X			2	
UCD-22		X	11/7	1515	10	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity,
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625 - Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.

Fed Ex # 9330995520

Relinquished by; J. Paul Zuber Date 11/7 Time 1720 Rec'd by; Date 11/7 Time 1720
Relinquished by; Date Time Rec'd by; Kathy Ortega Date 11/8/90 Time 9:30
Relinquished by; Date Time Rec'd by; Date Time

4P
9330995564

LIST ____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Daniel Zuber Date 11/6/90
D.O.E REP R Bulmer Date 11-6-90
Sampler Dave Zuber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
TRIP BLANK		X			2	
UCD-24		X	11/6	1545	10	
UCD-24B		X	11/6	1430	10	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS,
Sulfate, Turbidity,
Chloride, Alkalinity,
Nitrates (as Nitrogen), COD,
Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta,
Strontium 90
Gamma-Emitters.
Tritium.

FED EX#

Relinquished by: J. Daniel Zuber Date 11/6 Time 1700 Rec'd by: 9330995564 Date 11/6 Time 1900
Relinquished by: ____ Date ____ Time ____ Rec'd by: C. Rodriguez Date 11/7 Time 7:00
Relinquished by: ____ Date ____ Time ____ Rec'd by: ____ Date ____ Time ____

lec
express
9330995483

LIST____ **CHAIN OF CUSTODY**

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore David Morier Date 11/9/90
D.O.E REP Richard L. Bubin Date 11-9-90
Sampler DAVID MORIER & DAVID ZUBER

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
TRIP BLANK		X			2	
UCD-16		X	11/9	1000	10	
UCD-17		X	11/9	1130	10	
TRIP BLANK		X			2	
PCU-1		X	11/9	0900	10	
PCU-1d		X	11/9	0900	10	
TRIP BLANK		X			2	
PCD-1		X	11/9	1210	10	
TRIP BLANK		X			2	
STPO		X	11/9	1050	10	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

FED EX #

Relinquished by: David Morier Date 11/9/90 Time 1730 Rec'd by: 9330995483 Date 11/9/90 Time 1730
Relinquished by: L. Nernigh Date 11/12/90 Time 9:30 Rec'd by: Date Time
Relinquished by: Date Time Rec'd by: Date Time

LIST____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Paul Zuber Date 11/5/90
D.O.E REP R. Zuber Date 11-5-90
Sampler D. Zuber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
TRIP BLANK		X			2	
UCD-23		X	11/5	1500	10	
UCD-11		X	11/5	1400	10	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca.
Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, Phosphate.
Formaldehyde.
608 - Organochlorine pesticides
625 - semi-volitile organic compounds.
624 - volitile organic compounds.
Gross alpha, Gross beta, Strontium 90
Gamma-Emitters.
Tritium.

Fed-Ex #

Relinquished by: J. Paul Zuber Date 11/5 Time 1730
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: 9330995531 Date 11/5 Time 1730
Rec'd by: L. Hizny Date 11/6 Time 9:30
Rec'd by: Date Time

Jed 11 933 5354
alf

LIST____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Daniel Zuber Date 10/30
D.O.E REP R.L. Baker Date 10/30/90
Sampler Dave Zuber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-19		X	10/30	0900	10	
Trip Blank		X			2	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca. ✓
Hexavalent Chromium, TDS, ✓
Sulfate, Turbidity, ✓
Chloride, Alkalinity.
Nitrates (as Nitrogen), COD, ✓
Phosphate. ✓
Formaldehyde. ✓
608 - Organochlorine pesticides
625-Semi-volitile organic compounds. ✓
624 - volitile organic compounds. ✓
Gross alpha, Gross beta, ✓
Strontium 90 ✓
Gamma-Emitters. ✓
Tritium. ✓

Relinquished by: J. Daniel Zuber Date 10/30 Time 1745 Rec'd by: 9530995354 Date 10/30 Time 1745
Relinquished by: Date Time Rec'd by: Darby Ortiga Date 10/31/90 Time 4:30
Relinquished by: Date Time Rec'd by: Date Time

Field expense

LIST ____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Daniel Zuber Date 10/29
D.O.E REP R D Batson Date 10/29/90
Sampler DAVE ZUBER Daniel Zuber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
UCD-7		X	10/29	1200	10	
9010 TRIP BLANK		X			2	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca. ✓
Hexavalent Chromium, TDS, ✓
Sulfate, Turbidity, ✓
Chloride, Alkalinity. ✓
Nitrates (as Nitrogen), COD, ✓
Phosphate. ✓
Formaldehyde. ✓
608 - Organochlorine Pesticides
625-Semi-volitile organic compounds.
624 - volitile organic compounds. ✓
Gross alpha, Gross beta, ✓
Strontium 90 ✓
Gamma-Emitters. ✓
Tritium. ✓

Relinquished by: J. Daniel Zuber Date 10/29 Time 1730
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: #9330995366 Date 10/29 Time 1730
Rec'd by: L Hernight Date 10/30 Time 9:30
Rec'd by: Date Time

Fed w/ 9330995

LIST____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore J. Paul Zuber Date 10/31
D.O.E REP Sarah Edberg Date 10/31/90
Sampler Dave Baer

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
TRIP BLANK		X			2	
UCD-18		X	10/31	1330	10	
UCD-12		X	10/31	1200	10	

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca ✓

Hexavalent Chromium, TDS, Sulfate, Turbidity, Chloride, Alkalinity ✓ ✓

Nitrates, COD, Phosphate ✓

Formaldehyde ✓

608, 625 ✓

624 ✓

Gross alpha, Gross beta, Strontium 90, Gamma ✓

Tritium ✓

Relinquished by: J. Paul Zuber Date 1730 Time 10/31 Rec'd by: 9330995343 Date 10/31 Time 1730
Relinquished by: Date Time Rec'd by: C. Rodriguez Date 11/1/90 Time 9:00
Relinquished by: Date Time Rec'd by: Date Time

90-110-10

Jed
4/4
9330995.

LIST____ CHAIN OF CUSTODY

Project Name UCD/ LEHR
DOE Site Characterization

Project # 10805-454-044

Clients Name;
Dames & Moore
9300 Tech Center Drive, Ste 100
Sacramento, California 95826
(916)364-8698
Attention: Mr. Joe Niland

Signatures
Dames & Moore [signature] Date 11/1/90
D.O.E REP [signature] Date 11-1-90
Sampler Dave Ziber

Sample No.	S	W	Date	Time	# of Containers	Laboratory Number
TRIP BLANK		X				
UCD-13		X	11/1	1030	10	
UCD-14		X	11/1	1600	10	
UCD-20		X	11/1	1430	10	
TRIP BLANK		X				

Analyses Requested for All Samples Listed.

17 CAM Metals, Na, K, Mg, Ca. ✓
Hexavalent Chromium, TDS, ✓
Sulfate, Turbidity, ✓
Chloride, Alkalinity. ✓
Nitrates (as Nitrogen), COD, ✓
Phosphate. ✓
Formaldehyde.
608 - Organochlorine pesticides ✓
625-Semi-volitile organic compounds. ✓
624 - volitile organic compounds. ✓
Gross alpha, Gross beta, ✓
Strontium 90 ✓
Gamma-Emitters. ✓
Tritium. ✓

9330995553 + 11/1 1740

Relinquished by: [signature] Date 11/1 Time 1740
Relinquished by: Date Time
Relinquished by: Date Time

Rec'd by: [redacted] Date [redacted] Time [redacted]
Rec'd by: [signature] Date 11/2/90 Time 9:00
Rec'd by: Date Time

CHAIN-OF-CUSTODIES
GROUNDWATER AND SURFACE WATER SAMPLES

FALL QUARTER, NOVEMBER 1990

PHASE II SITE CHARACTERIZATION
LEHR ENVIRONMENTAL RESTORATION

TABLE 1

1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION

SUMMARY OF QUARTERLY MONITORING ROUNDS

FEBRUARY 1992 THROUGH DECEMBER 1993

Quarterly Monitoring Round	Dates of Sampling
Winter 1992	February 18 through February 27, 1992
Spring 1992	May 11 through May 19, 1992
Summer 1992	August 3 through August 11, 1992
Fall 1992	November 16 through November 24, 1992
Winter 1993	February 16 through March 4, 1993
Spring 1993	May 17 through May 27, 1993
Summer 1993	August 23 through September 1, 1993
Fall 1993	November 23 through December 8, 1993

TABLE 2
ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF MONITORING WELLS
INCLUDED IN GROUNDWATER MONITORING PROGRAM

Well Number	Total Depth (feet bgs)	Screened Interval (feet bgs)	HSU	Date Completed
UCD - 1	56.5	46.5 - 56.5	First	10/09/87
UCD - 4	57.2	45 - 55	First	10/14/87
UCD - 7	90	80 - 90	Second	11/05/87
UCD - 10	70.0	54 - 69	First	10/11/89
UCD - 11	66.5	50 - 65	First	10/17/89
UCD - 12	65.0	49.5 - 64.5	First	10/19/89
UCD - 13	65.0	50 - 65	First	10/26/89
UCD - 14	85	75 - 85	Second	11/15/89
UCD - 15	120.5	91 - 116	Second	03/28/90
UCD - 16	122	92 - 117	Second	04/04/90
UCD - 17	143	88 - 113	Second	04/10/90
UCD - 18	70	54 - 69	First	10/04/90
UCD - 19	74.5	56.5 - 71.5	First	10/01/90
UCD - 20	73	57 - 72	First	10/09/90
UCD - 21	73	57 - 72	First	10/11/90
UCD - 22	73	57 - 72	First	10/25/90
UCD - 23	73	56.5 - 71.5	First	10/17/90
UCD - 24	73	57 - 72	First	10/22/90

HSU = Hydrostratigraphic Unit
bgs = below ground surface

TABLE 3
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF WATER MONITORING SAMPLING SCHEDULE

Well or Sample Location	Winter 1992 2/18-2/27	Spring 1992 5/11-5/19	Summer 1992 8/3-8/11	Fall 1992 11/16-11/24	Winter 1993 2/16-3/4	Spring 1993 5/17-5/27	Summer 1993 8/23-9/1	Fall 1993 11/23-12/8
UCD-1	SB	SB	DRY	SB	SB	SB	SB	S
UCD-4	SB	SB	DRY	DRY	SB	SB	SB	S
UCD-7	S	S	S	S	S	S	S	S
UCD-10	S	S	DRY	S	S	S	S	S
UCD-11	S	S	DRY	S	S	S	S	S
UCD-12	SB	SB	DRY	S	S	S	S	S*
UCD-13	S	S	DRY	S	S	S	S	S*
UCD-14	S*	S	S	S	S	S	S	S
UCD-15	S	S*	S	S	S	S	S	S
UCD-16	S	S	S*	S	S	S	S	S
UCD-17	S	S	S*	S	S	S	S*	S
UCD-18	S	S	S	S	S	S	S	S
UCD-19	S	S	SB	S	S	S	S	S
UCD-20	S	S*	S	S	S	S	S	S
UCD-21	S	S	S	S	S*	S*	S	S
UCD-22	S	S	S	S*	S	S	S	S
UCD-23	S	S	S	S*	S	S	S	S
UCD-24	S	S	S	S	S*	S*	S*	S
PCU	G	G*	G	G	G	G	G*	G
PCD	G	G	G	G	G	G*	G	G
STPO	G*	G	G*	G*	G*	G	G	G*

Wells UCD-3, -5, -6, -8, and -9 were not sampled during quarterly sampling for the Phase II Investigation.

S - Well purged and sampled with dedicated bladder or submersible pump. A full suite of samples was obtained.
* - Replicated well.
DS - Well was developed with a submersible pump, then sampled with a disposable bailer.
SB - Well was purged and/or sampled by bailer due to low water levels.
DRY - No water in well; no sample obtained.
SP - Only a partial sample suite recovered due to low water levels.
G - Grab surface water sample.

TABLE 4
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
WATER MONITORING PARAMETERS AND ANALYTICAL METHODS
FEBRUARY 1992 THROUGH DECEMBER 1993

FIELD PARAMETERS:		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992-SPRING 1993 METHOD
pH	Field	Field
EC	Field	Field
Temperature	Field	Field
Turbidity	Field	Field
Eh	Field	N/A
Water Level	Field	Field
ORGANIC ANALYSES:		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992 - SPRING 1993 METHOD
Volatile organic Compounds	CLP SOW OLC 02.0	624
Semivolatile organic compounds	CLP SOW OLM 01.8	625
Pesticides and PCBs	CLP SOW OLM 01.8(M)[2]	608
RADIOLOGIC ANALYSES:		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992 - SPRING 1993 METHOD
Gross Alpha	9310	900.0
Gross Beta	9310	900.0
Tritium	906.0	Radioassay Procedures for Environmental Samples
Carbon-14	LSC C-01	Radioassay Procedures for Environmental Samples

Abbreviations used in Table 4

SOP	Standard Operating Procedure	LSC	Liquid Scintillation Counter
CLP	Contract Laboratory Program	OLM	Organic Analysis Multimedia Multiconcentration
SOW	Statement of Work	NA	Not Analyzed prior to Summer 1993

TABLE 4 (CONTINUED)

WATER MONITORING PARAMETERS AND ANALYTICAL METHODS

RADIOLOGIC ANALYSES:		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992 - SPRING 1993 METHOD
Strontium-90	905.0(M)	Radioassay Procedures for Environmental Samples
Gamma Spectral Analysis	901.1	D-04 HASL-300
Radium-226	903.1	N/A
METALS ANALYSES:		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992- SPRING 1993 METHOD
Hexavalent Chromium	7196	EPA 10-124-13-1-A
Total Chromium	CLP SOW ILC 02.0	6010
Antimony	CLP SOW ILC 02.0	6010
Arsenic	CLP SOW ILC 02.0	7060
Barium	CLP SOW ILC 02.0	6010
Beryllium	CLP SOW ILC 02.0	200.7
Cadmium	CLP SOW ILC 02.0	7131
Cobalt	CLP SOW ILC 02.0	6010
Copper	CLP SOW ILC 02.0	6010
Iron	CLP SOW ILC 02.0	N/A
Lead	CLP SOW ILC 02.0	7421
Manganese	CLP SOW ILC 02.0	7450

TABLE 4 (CONTINUED)

WATER MONITORING PARAMETERS AND ANALYTICAL METHODS

METALS ANALYSES: (continued)		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992-SPRING 1993 METHOD
Mercury	CLP SOW ILC 02.0	245.1
Molybdenum	CLP SOW ILC 02.0	6010
Nickel	CLP SOW ILC 02.0	6010
Selenium	CLP SOW ILC 02.0	7740
Silver	CLP SOW ILC 02.0	6010
Thallium	CLP SOW ILC 02.0	7841
Vanadium	CLP SOW ILC 02.0	6010
Zinc	CLP SOW ILC 02.0	6010

TABLE 4 (CONTINUED)

WATER MONITORING PARAMETERS AND ANALYTICAL METHODS

GENERAL CHEMICAL ANALYSES:		
ANALYTE	CURRENT METHOD (SUMMER AND FALL 1993)	WINTER 1992 - SPRING 1993 METHOD
Alkalinity	310.1	2320
Sodium	6010	7770
Potassium		7610
Calcium		6010
Magnesium		7450
Chloride	300.0	EPA 10-117-07-1-B
Sulfate		300.0
Phosphate	365.2	EPA 10-115-D1-1-A
Nitrate (as Nitrogen)	300.0	EPA 10-107-04-1-13
Total Kjeldahl Nitrogen	351.2	N/A
Total Dissolved Solids	160.1	160.1
Formaldehyde	3500 Modified NIOSH	3500 Modified NIOSH
Total Organic Carbon	415.2	N/A
Ammonia	350.1	N/A
Turbidity	180.1	EPA 214-A

N/A - parameter not analyzed prior to Summer 1993.

TABLE 5
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
QUALITY CONTROL SAMPLE EVALUATION

Objective	QC Program	Evaluation Criteria
Precision	• Field duplicate pairs • Matrix spike • Matrix spike duplicate	Relative percent difference
Accuracy	• Matrix spike • Matrix spike duplicate • Surrogate spikes	Percent recovery
Representativeness	• Trip blanks • Field duplicates • Method blanks	Qualitative degree of confidence
Completeness	• Holding time • Valid data	Percent valid data
Comparability	• Analytical methods • Field duplicates	Qualitative degree of confidence

TABLE 6A
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, WINTER QUARTER, 1992

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-14	ALKALINITY TOTAL(AS CACO3)	mg/L	357	348	2.55
	TOTAL DISSOLVED SOLIDS	mg/L	456	459	0.66
	TURBIDITY	NTU	1.78	1.532	14.98
	BARIUM (TOTAL)	ug/L	130	140	7.41
	CHROMIUM (TOTAL)	ug/L	30	30	0.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	10	10	0.00
	CALCIUM (TOTAL)	ug/L	33200	35200	5.85
	CHLORIDE	ug/L	28600	28300	1.05
	MAGNESIUM (TOTAL)	ug/L	59400	56000	5.89
	NITROGEN, NITRATE (AS N)	ug/L	2660	2680	0.75
	PHOSPHATE, TOTAL (AS P)	ug/L	100	< 100	0.00
	POTASSIUM (TOTAL)	ug/L	800	900	11.76
	SODIUM (TOTAL)	ug/L	32400	34400	5.99
	SULFATE	ug/L	44900	40800	9.57
	CHLOROFORM	ug/L	2.1	1.7	21.05
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	8.7	< 2.5	110.71
	GROSS BETA	pCi/L	6	< 3	66.67
	STRONTIUM-90	pCi/L	4	< 0.5	155.56

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, SPRING QUARTER 1992

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-15	ALKALINITY TOTAL(AS CACO3)	mg/L	336	339	0.89
	TOTAL DISSOLVED SOLIDS	mg/L	631	595	5.87
	TURBIDITY	NTU	1.26	0.22	140.54
	BARIUM (TOTAL)	ug/L	140	140	0.00
	CHROMIUM (TOTAL)	ug/L	< 10	30	100.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	10	10	0.00
	MOLYBDENUM (TOTAL)	ug/L	10	< 10	0.00
	NICKEL (TOTAL)	ug/L	10	10	0.00
	VANADIUM (TOTAL)	ug/L	10	< 10	0.00
	ZINC (TOTAL)	ug/L	20	20	0.00
	CALCIUM (TOTAL)	ug/L	26400	27500	4.08
	CHLORIDE	ug/L	20700	21400	3.33
	MAGNESIUM (TOTAL)	ug/L	62700	63900	1.90
	NITROGEN, NITRATE (AS N)	ug/L	9500	2850	107.69
	PHOSPHATE, TOTAL (AS P)	ug/L	490	690	33.90
	POTASSIUM (TOTAL)	ug/L	810	780	3.77
	SODIUM (TOTAL)	ug/L	41000	23600	53.87
	SULFATE	ug/L	32600	36600	11.56
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	2.8	3	6.90
	TRITIUM	pCi/L	5302	< 500	165.53
UCD-20	ALKALINITY TOTAL(AS CACO3)	mg/L	439	439	0.00
	CHEMICAL OXYGEN DEMAND	ug/L	20000	35000	54.55
	TOTAL DISSOLVED SOLIDS	mg/L	602	630	4.55
	TURBIDITY	NTU	14.15	11.12	23.98
	BARIUM (TOTAL)	ug/L	90	80	11.76
	CADMIUM (TOTAL)	ug/L	2	< 2	0.00
	CHROMIUM (TOTAL)	ug/L	30	50	50.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	44	46	4.44
	VANADIUM (TOTAL)	ug/L	10	10	0.00
	ZINC (TOTAL)	ug/L	20	20	0.00
	CALCIUM (TOTAL)	ug/L	24700	23100	6.69
	CHLORIDE	ug/L	6920	6920	0.00
	MAGNESIUM (TOTAL)	ug/L	79400	80900	1.87
	NITROGEN, NITRATE (AS N)	ug/L	21300	21600	1.40
	PHOSPHATE, TOTAL (AS P)	ug/L	180	190	5.41
	POTASSIUM (TOTAL)	ug/L	1300	1360	4.51
	SODIUM (TOTAL)	ug/L	47200	45000	4.77
	SULFATE	ug/L	49800	48200	3.27
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	3.3	4.6	32.91

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, SUMMER QUARTER 1992

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-16	ALKALINITY TOTAL(AS CACO3)	mg/L	360	360	0.00
	CHEMICAL OXYGEN DEMAND	ug/L	1200	< 1000	18.18
	TOTAL DISSOLVED SOLIDS	mg/L	459	469	2.16
	BARIUM (TOTAL)	ug/L	140	140	0.00
	CHROMIUM (TOTAL)	ug/L	50	40	22.22
	CHROMIUM, HEXAVALENT (+6)	ug/L	30	30	0.00
	CALCIUM (TOTAL)	ug/L	29500	29500	0.00
	CHLORIDE	ug/L	19500	19400	0.51
	MAGNESIUM (TOTAL)	ug/L	57700	54200	6.26
	NITROGEN, NITRATE (AS N)	ug/L	2950	2580	13.38
	PHOSPHATE, TOTAL (AS P)	ug/L	110	110	0.00
	POTASSIUM (TOTAL)	ug/L	500	500	0.00
	SODIUM (TOTAL)	ug/L	41000	40300	1.72
	SULFATE	ug/L	42400	44400	4.61
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	< 2.5	31.6	170.67
	GROSS ALPHA	pCi/L	< 2	5	85.71
UCD-17	ALKALINITY TOTAL(AS CACO3)	mg/L	335	336	0.30
	TOTAL DISSOLVED SOLIDS	mg/L	424	424	0.00
	TURBIDITY	NTU	0.15	7.82	192.47
	BARIUM (TOTAL)	ug/L	110	140	24.00
	CHROMIUM (TOTAL)	ug/L	40	40	0.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	10	10	0.00
	SILVER (TOTAL)	ug/L	10	< 10	0.00
	CALCIUM (TOTAL)	ug/L	31400	35900	13.37
	CHLORIDE	ug/L	17700	17700	0.00
	MAGNESIUM (TOTAL)	ug/L	56700	59400	4.65
	NITROGEN, NITRATE (AS N)	ug/L	1130	1870	49.33
	PHOSPHATE, TOTAL (AS P)	ug/L	100	70	35.29
	POTASSIUM (TOTAL)	ug/L	500	1010	67.55
	SODIUM (TOTAL)	ug/L	28000	28900	3.16
	SULFATE	ug/L	35500	33600	5.50
	GROSS ALPHA	pCi/L	3	< 2	40.00

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, FALL QUARTER 1992

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-22	ALKALINITY TOTAL(AS CACO3)	mg/L	415	415	0.00
	CHEMICAL OXYGEN DEMAND	ug/L	3110	1040	99.76
	TOTAL DISSOLVED SOLIDS	mg/L	543	534	1.67
	TURBIDITY	NTU	1.13	1.3	13.99
	BARIUM (TOTAL)	ug/L	50	50	0.00
	CHROMIUM (TOTAL)	ug/L	20	20	0.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	10	< 10	0.00
	NICKEL (TOTAL)	ug/L	50	40	22.22
	VANADIUM (TOTAL)	ug/L	10	< 10	0.00
	ZINC (TOTAL)	ug/L	10	10	0.00
	CALCIUM (TOTAL)	ug/L	24300	24200	0.41
	CHLORIDE	ug/L	34000	32000	6.06
	MAGNESIUM (TOTAL)	ug/L	62700	62300	0.64
	NITROGEN, NITRATE (AS N)	ug/L	6550	6680	1.97
	PHOSPHATE, TOTAL (AS P)	ug/L	160	160	0.00
	POTASSIUM (TOTAL)	ug/L	1020	1010	0.99
	SODIUM (TOTAL)	ug/L	70100	68400	2.45
	SULFATE	ug/L	30000	36000	18.18
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	< 2.5	3.32	28.18
	DI-N-BUTYLPHTHALATE	ug/L	9.76	7.07	31.97
	4,4'-DDD	ug/L	7.5	< 0.011	199.41
	GROSS ALPHA	pCi/L	6	10	50.00
	GROSS BETA	pCi/L	12	18	40.00
UCD-23	ALKALINITY TOTAL(AS CACO3)	mg/L	472	471	0.21
	CHEMICAL OXYGEN DEMAND	ug/L	< 1000	2070	69.71
	TOTAL DISSOLVED SOLIDS	mg/L	590	595	0.84
	TURBIDITY	NTU	0.88	0.95	7.65
	BARIUM (TOTAL)	ug/L	80	70	13.33
	CHROMIUM (TOTAL)	ug/L	110	30	114.29
	CHROMIUM, HEXAVALENT (+6)	ug/L	20	20	0.00
	MOLYBDENUM (TOTAL)	ug/L	70	< 10	150.00
	NICKEL (TOTAL)	ug/L	390	120	105.88
	VANADIUM (TOTAL)	ug/L	20	20	0.00
	ZINC (TOTAL)	ug/L	20	10	66.67
	CALCIUM (TOTAL)	ug/L	30800	30500	0.98
	CHLORIDE	ug/L	29000	28000	3.51
	MAGNESIUM (TOTAL)	ug/L	81900	88800	8.08
	NITROGEN, NITRATE (AS N)	ug/L	7550	7680	1.71
	PHOSPHATE, TOTAL (AS P)	ug/L	190	200	5.13
	POTASSIUM (TOTAL)	ug/L	980	930	5.24
	SODIUM (TOTAL)	ug/L	40800	39600	2.99
	SULFATE	ug/L	26000	25000	3.92
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	16.3	< 2.5	146.81
	DI-N-BUTYLPHTHALATE	ug/L	14.4	10	36.07
	GROSS ALPHA	pCi/L	< 2	4	66.67
	GROSS BETA	pCi/L	< 3	7	80.00

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, WINTER QUARTER 1993

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-21	ALKALINITY TOTAL(AS CACO3)	mg/L	591	601	1.68
	CHEMICAL OXYGEN DEMAND	ug/L	15900	3980	119.92
	TOTAL DISSOLVED SOLIDS	mg/L	964	927	3.91
	TURBIDITY	NTU	1.172	0.447	89.56
	BARIUM (TOTAL)	ug/L	90	120	28.57
	CHROMIUM (TOTAL)	ug/L	70	90	25.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	70	60	15.38
	VANADIUM (TOTAL)	ug/L	< 10	10	0.00
	ZINC (TOTAL)	ug/L	< 10	10	0.00
	CALCIUM (TOTAL)	ug/L	32600	41300	23.55
	CHLORIDE	ug/L	17400	17100	1.74
	MAGNESIUM (TOTAL)	ug/L	160000	172000	7.23
	NITROGEN, NITRATE (AS N)	ug/L	47300	37200	23.91
	PHOSPHATE, TOTAL (AS P)	ug/L	140	110	24.00
	POTASSIUM (TOTAL)	ug/L	900	1200	28.57
	SODIUM (TOTAL)	ug/L	72900	89700	20.66
	SULFATE	ug/L	64800	64100	1.09
	GROSS ALPHA	pCi/L	4	< 2	66.67
	GROSS BETA	pCi/L	4	< 3	28.57
UCD-24	ALKALINITY TOTAL(AS CACO3)	mg/L	548	545	0.55
	CHEMICAL OXYGEN DEMAND	ug/L	< 1000	15900	176.33
	TOTAL DISSOLVED SOLIDS	mg/L	858	932	8.27
	TURBIDITY	NTU	0.821	0.803	2.22
	BARIUM (TOTAL)	ug/L	60	90	40.00
	CHROMIUM (TOTAL)	ug/L	30	40	28.57
	CHROMIUM, HEXAVALENT (+6)	ug/L	40	40	0.00
	NICKEL (TOTAL)	ug/L	< 10	20	66.67
	SILVER (TOTAL)	ug/L	10	10	0.00
	ZINC (TOTAL)	ug/L	10	20	66.67
	CALCIUM (TOTAL)	ug/L	13800	20000	36.69
	CHLORIDE	ug/L	19300	19200	0.52
	MAGNESIUM (TOTAL)	ug/L	60200	90900	40.64
	NITROGEN, NITRATE (AS N)	ug/L	46900	45500	3.03
	PHOSPHATE, TOTAL (AS P)	ug/L	150	140	6.90
	POTASSIUM (TOTAL)	ug/L	600	< 500	18.18
	SODIUM (TOTAL)	ug/L	30900	39900	25.42
	SULFATE	ug/L	49000	47800	2.48
	TRITIUM	pCi/L	965	< 500	63.48

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, SPRING QUARTER 1993

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-10	ALKALINITY TOTAL(AS CACO3)	mg/L	703	703	0.00
	CHEMICAL OXYGEN DEMAND	ug/L	36300	15600	79.77
	TOTAL DISSOLVED SOLIDS	mg/L	1298	1329	2.36
	TURBIDITY	NTU	1.55	3.64	80.54
	BARIUM (TOTAL)	ug/L	40	30	28.57
	CHROMIUM (TOTAL)	ug/L	150	140	6.90
	CHROMIUM, HEXAVALENT (+6)	ug/L	80	80	0.00
	COPPER (TOTAL)	ug/L	10	10	0.00
	MOLYBDENUM (TOTAL)	ug/L	10	< 10	0.00
	NICKEL (TOTAL)	ug/L	40	40	0.00
	SELENIUM (TOTAL)	ug/L	20	20	0.00
	SILVER (TOTAL)	ug/L	30	30	0.00
	VANADIUM (TOTAL)	ug/L	20	30	40.00
	ZINC (TOTAL)	ug/L	40	20	66.67
	CALCIUM (TOTAL)	ug/L	41500	39800	4.18
	CHLORIDE	ug/L	44500	44700	0.45
	MAGNESIUM (TOTAL)	ug/L	167000	155000	7.45
	NITROGEN, NITRATE (AS N)	ug/L	36230	34280	5.53
	PHOSPHATE, TOTAL (AS P)	ug/L	110	120	8.70
	POTASSIUM (TOTAL)	ug/L	2000	1000	66.67
	SODIUM (TOTAL)	ug/L	190000	170000	11.11
	SULFATE	ug/L	282100	206000	31.18
UCD-21	ALKALINITY TOTAL(AS CACO3)	mg/L	614	610	0.65
	CHEMICAL OXYGEN DEMAND	ug/L	10400	20800	66.67
	TOTAL DISSOLVED SOLIDS	mg/L	1032	989	4.26
	TURBIDITY	NTU	0.4	0.47	16.09
	BARIUM (TOTAL)	ug/L	120	140	15.38
	CHROMIUM (TOTAL)	ug/L	100	90	10.53
	CHROMIUM, HEXAVALENT (+6)	ug/L	60	60	0.00
	MOLYBDENUM (TOTAL)	ug/L	20	< 10	66.67
	NICKEL (TOTAL)	ug/L	70	10	150.00
	VANADIUM (TOTAL)	ug/L	10	20	66.67
	ZINC (TOTAL)	ug/L	10	10	0.00
	CALCIUM (TOTAL)	ug/L	45000	49100	8.71
	CHLORIDE	ug/L	18700	18200	2.71
	MAGNESIUM (TOTAL)	ug/L	127000	142000	11.15
	NITROGEN, NITRATE (AS N)	ug/L	51450	48780	5.33
	PHOSPHATE, TOTAL (AS P)	ug/L	130	140	7.41
	POTASSIUM (TOTAL)	ug/L	1200	1400	15.38
	SODIUM (TOTAL)	ug/L	88400	99600	11.91
	SULFATE	ug/L	69100	67500	2.34
	GROSS ALPHA	pCi/L	3	3	0.00
	GROSS BETA	pCi/L	4	5	22.22
	TRITIUM	pCi/L	811	608	28.61

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, SUMMER QUARTER 1993

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-17	ALKALINITY TOTAL(AS CACO3)	mg/L	310	330	6.25
	TOTAL DISSOLVED SOLIDS	mg/L	380	380	0.00
	TOTAL ORGANIC CARBON	mg/L	1.3	1.2	8.00
	TURBIDITY	NTU	0.27	0.53	65.00
	BARIUM (TOTAL)	ug/L	121	108	11.35
	CHROMIUM (TOTAL)	ug/L	21.4	14.3	39.78
	LEAD (TOTAL)	ug/L	< 2	8.8	125.93
	CALCIUM (TOTAL)	ug/L	34000	34000	0.00
	CHLORIDE	ug/L	17000	17000	0.00
	IRON	ug/L	158	154	2.56
	MAGNESIUM (TOTAL)	ug/L	57500	57100	0.70
	NITROGEN, NITRATE (AS N)	ug/L	1500	1500	0.00
	POTASSIUM (TOTAL)	ug/L	257	96.2	91.05
	SODIUM (TOTAL)	ug/L	28500	27900	2.13
	SULFATE	ug/L	33000	33000	0.00
	CARBON-14	pCi/L	61	< 49	21.82
UCD-24	ALKALINITY TOTAL(AS CACO3)	mg/L	560	590	5.22
	TOTAL DISSOLVED SOLIDS	mg/L	930	940	1.07
	TOTAL ORGANIC CARBON	mg/L	< 1	1.1	9.52
	TURBIDITY	NTU	1	0.73	31.21
	BARIUM (TOTAL)	ug/L	181	180	0.55
	CHROMIUM (TOTAL)	ug/L	30.8	29.3	4.99
	CHROMIUM, HEXAVALENT (+6)	ug/L	31	33	6.25
	LEAD (TOTAL)	ug/L	3.9	7.1	58.18
	SELENIUM (TOTAL)	ug/L	3.6	3.1	14.93
	VANADIUM (TOTAL)	ug/L	11.6	10.7	8.07
	ZINC (TOTAL)	ug/L	< 10	11.3	12.21
	CALCIUM (TOTAL)	ug/L	53700	54900	2.21
	CHLORIDE	ug/L	23000	23000	0.00
	IRON	ug/L	216	207	4.26
	MAGNESIUM (TOTAL)	ug/L	132000	136000	2.99
	NITROGEN, NITRATE (AS N)	ug/L	54000	55000	1.83
	POTASSIUM (TOTAL)	ug/L	1400	431	105.84
	SODIUM (TOTAL)	ug/L	79000	81300	2.87
	SULFATE	ug/L	44000	44000	0.00
	CHLOROFORM	ug/L	1.5	1.5	0.00
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	37	< 10	114.89
	GROSS ALPHA	pCi/L	9.9	< 8	21.23

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6A (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, GROUND WATER, FALL QUARTER 1993

Well	Chemical	Units	Result	Duplicate	RPD% (1)
UCD-12	ALKALINITY TOTAL(AS CACO3)	mg/L	780	790	1.27
	FORMALDEHYDE	ug/ml	< 1	< 1	0.00
	TOTAL DISSOLVED SOLIDS	mg/L	1400	1400	0.00
	TOTAL ORGANIC CARBON	mg/L	1.9	1.8	5.41
	TURBIDITY	NTU	6.4	5.5	15.13
	ARSENIC (TOTAL)	ug/L	3	4.1	30.99
	BARIUM (TOTAL)	ug/L	292	285	2.43
	CHROMIUM (TOTAL)	ug/L	187	189	1.06
	CHROMIUM, HEXAVALENT (+6)	ug/L	140	140	0.00
	SELENIUM (TOTAL)	ug/L	10.5	14.1	29.27
	VANADIUM (TOTAL)	ug/L	< 10	10.5	4.88
	CALCIUM (TOTAL)	ug/L	74800	73300	2.03
	CHLORIDE	ug/L	210000	210000	0.00
	IRON	ug/L	203	210	3.39
	MAGNESIUM (TOTAL)	ug/L	234000	228000	2.60
	NITROGEN, NITRATE (AS N)	ug/L	57000	57000	0.00
	POTASSIUM (TOTAL)	ug/L	4150	5240	23.22
	SODIUM (TOTAL)	ug/L	102000	98700	3.29
	SULFATE	ug/L	77000	78000	1.29
	1,1-DICHLOROETHANE	ug/L	10	10	0.00
	1,1-DICHLOROETHENE	ug/L	19	20	5.13
	1,2-DICHLOROETHANE	ug/L	6.1	5.95	2.49
	BROMODICHLOROMETHANE	ug/L	1.2	2.6	73.68
	CARBON TETRACHLORIDE	ug/L	< 1	1.4	33.33
	CHLOROFORM	ug/L	8000	8300	3.68
	CARBON-14	pCi/L	360	193	60.40
	STRONTIUM-90	pCi/L	< 0.87	2.6	99.71
UCD-13	ALKALINITY TOTAL(AS CACO3)	mg/L	850	860	1.17
	FORMALDEHYDE	ug/ml	< 1	< 1	0.00
	TOTAL DISSOLVED SOLIDS	mg/L	970	1000	3.05
	TOTAL ORGANIC CARBON	mg/L	4.8	1.5	104.76
	TURBIDITY	NTU	0.28	0.31	10.17
	ARSENIC (TOTAL)	ug/L	2.3	2.2	4.44
	BARIUM (TOTAL)	ug/L	281	301	6.87
	CHROMIUM (TOTAL)	ug/L	81.8	85.3	4.19
	CHROMIUM, HEXAVALENT (+6)	ug/L	79	79	0.00
	MERCURY (TOTAL)	ug/L	0.39	0.75	63.16
	VANADIUM (TOTAL)	ug/L	10.8	10.3	4.74
	CALCIUM (TOTAL)	ug/L	74800	74100	0.94
	CHLORIDE	ug/L	35000	35000	0.00
	IRON	ug/L	177	172	2.87
	MAGNESIUM (TOTAL)	ug/L	188000	186000	1.07
	NITROGEN, NITRATE (AS N)	ug/L	17000	17000	0.00
	POTASSIUM (TOTAL)	ug/L	1560	1720	9.76
	SODIUM (TOTAL)	ug/L	57700	57300	0.70
	SULFATE	ug/L	76000	75000	1.32
	CHLOROFORM	ug/L	2.8	1.9	38.30
	DIELDRIN	ug/L	0.059	0.051	14.55
	ENDRIN	ug/L	0.027	0.025	7.69
	CARBON-14	pCi/L	1559	1793	13.96
	RADIUM-226	pCi/L	< 0.38	0.67	55.24
	STRONTIUM-90	pCi/L	1.33	< 0.95	33.33
	TRITIUM	pCi/L	20040	20590	2.71

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, WINTER QUARTER 1992

Location	Chemical	Units	Result	Duplicate	RPD% (1)
STPO	ALKALINITY TOTAL(AS CACO3)	mg/L	155	170	9.23
	CHEMICAL OXYGEN DEMAND	ug/L	20200	25300	22.42
	TOTAL DISSOLVED SOLIDS	mg/L	625	622	0.48
	TURBIDITY	NTU	2.58	2.53	1.96
	THALLIUM (TOTAL)	ug/L	60	< 10	142.86
	ZINC (TOTAL)	ug/L	30	40	28.57
	CALCIUM (TOTAL)	ug/L	19200	19300	0.52
	CHLORIDE	ug/L	181000	176000	2.80
	MAGNESIUM (TOTAL)	ug/L	21700	21600	0.46
	NITROGEN, NITRATE (AS N)	ug/L	8750	8490	3.02
	PHOSPHATE, TOTAL (AS P)	ug/L	4700	4700	0.00
	POTASSIUM (TOTAL)	ug/L	11900	11700	1.69
	SODIUM (TOTAL)	ug/L	103000	126000	20.09
	SULFATE	ug/L	41000	40800	0.49
	CHLOROFORM	ug/L	4.7	5.1	8.16
	METHYLENE CHLORIDE	ug/L	4.1	4.9	17.78
	2-CHLOROPHENOL	ug/L	< 3.3	4.6	32.91
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	2.7	3.3	20.00
	DI-N-BUTYLPHTHALATE	ug/L	< 2.5	4.1	48.48
	4,4'-DDD	ug/L	0.051	0.048	6.06
	ALPHA-BHC	ug/L	< 0.003	0.004	28.57
	ENDRIN	ug/L	< 0.006	0.056	161.29
	GROSS ALPHA	pCi/L	3	3	0.00
	GROSS BETA	pCi/L	15	13	14.29
	TRITIUM	pCi/L	752	< 500	40.26

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, SPRING QUARTER 1992

Location	Chemical	Units	Result	Duplicate	RPD% (1)
PCU	ALKALINITY TOTAL(AS CACO3)	mg/L	219	227	3.59
	CHEMICAL OXYGEN DEMAND	ug/L	5000	< 1000	133.33
	TOTAL DISSOLVED SOLIDS	mg/L	400	354	12.20
	TURBIDITY	NTU	30.5	30.7	0.65
	BARIUM (TOTAL)	ug/L	80	90	11.76
	CHROMIUM (TOTAL)	ug/L	< 10	30	100.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	10	< 10	0.00
	MERCURY (TOTAL)	ug/L	0.4	0.9	76.92
	MOLYBDENUM (TOTAL)	ug/L	< 10	10	0.00
	NICKEL (TOTAL)	ug/L	< 10	10	0.00
	VANADIUM (TOTAL)	ug/L	< 10	10	0.00
	ZINC (TOTAL)	ug/L	30	30	0.00
	CALCIUM (TOTAL)	ug/L	18700	18800	0.53
	CHLORIDE	ug/L	18800	18400	2.15
	COBALT (TOTAL)	ug/L	< 10	10	0.00
	MAGNESIUM (TOTAL)	ug/L	36100	35600	1.39
	PHOSPHATE, TOTAL (AS P)	ug/L	220	280	24.00
	POTASSIUM (TOTAL)	ug/L	1890	1880	0.53
	SODIUM (TOTAL)	ug/L	22100	22600	2.24
	SULFATE	ug/L	29400	31300	6.26
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	3	4.2	33.33
	GROSS BETA	pCi/L	4	5	22.22

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, SUMMER QUARTER 1992

Location	Chemical	Units	Result	Duplicate	RPD% (1)
STPO	ALKALINITY TOTAL(AS CACO3)	mg/L	224	224	0.00
	TOTAL DISSOLVED SOLIDS	mg/L	575	571	0.70
	TURBIDITY	NTU	1.82	2.22	19.80
	BARIUM (TOTAL)	ug/L	30	30	0.00
	BERYLLIUM (TOTAL)	ug/L	< 1	1	0.00
	CADMIUM (TOTAL)	ug/L	2	2	0.00
	CHROMIUM (TOTAL)	ug/L	10	10	0.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	45	39	14.29
	ZINC (TOTAL)	ug/L	30	< 30	0.00
	CALCIUM (TOTAL)	ug/L	16200	16300	0.62
	CHLORIDE	ug/L	148000	130000	12.95
	MAGNESIUM (TOTAL)	ug/L	22000	22000	0.00
	NITROGEN, NITRATE (AS N)	ug/L	5720	5720	0.00
	PHOSPHATE, TOTAL (AS P)	ug/L	2220	2230	0.45
	POTASSIUM (TOTAL)	ug/L	56900	7800	151.78
	SODIUM (TOTAL)	ug/L	139000	140000	0.72
	SULFATE	ug/L	52500	52200	0.57
	BROMODICHLOROMETHANE	ug/L	1.3	1.2	8.00
	CHLOROFORM	ug/L	5.5	5.2	5.61
	METHYLENE CHLORIDE	ug/L	5.2	5	3.92
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	< 2.5	2.8	11.32
	BIS(2-ISOPROPYL)ETHER	ug/L	5.7	< 5.7	0.00
	ALPHA-BHC	ug/L	0.031	0.017	58.33
	DELTA-BHC	ug/L	0.048	0.048	0.00
	GAMMA-BHC	ug/L	0.052	0.045	14.43
	GROSS BETA	pCi/L	7	< 3	80.00
	STRONTIUM-90	pCi/L	1.5	< 0.5	100.00

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
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< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, FALL QUARTER 1992

Location	Chemical	Units	Result	Duplicate	RPD% (1)
STPO	ALKALINITY TOTAL(AS CACO3)	mg/L	216	216	0.00
	CHEMICAL OXYGEN DEMAND	ug/L	27500	16600	49.43
	TOTAL DISSOLVED SOLIDS	mg/L	515	568	9.79
	TURBIDITY	NTU	3.45	3.05	12.31
	ANTIMONY (TOTAL)	ug/L	< 10	10	0.00
	BARIUM (TOTAL)	ug/L	20	20	0.00
	CHROMIUM (TOTAL)	ug/L	10	< 10	0.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	10	10	0.00
	ZINC (TOTAL)	ug/L	30	40	28.57
	CALCIUM (TOTAL)	ug/L	13700	13700	0.00
	CHLORIDE	ug/L	124000	110000	11.97
	MAGNESIUM (TOTAL)	ug/L	23700	22900	3.43
	NITROGEN, NITRATE (AS N)	ug/L	2200	2780	23.29
	PHOSPHATE, TOTAL (AS P)	ug/L	4780	4410	8.05
	POTASSIUM (TOTAL)	ug/L	15000	15400	2.63
	SODIUM (TOTAL)	ug/L	136000	131000	3.75
	SULFATE	ug/L	65000	55000	16.67
	CHLOROFORM	ug/L	5.8	6	3.39
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	13.3	8.98	38.78
	DI-N-BUTYLPHTHALATE	ug/L	< 2.5	4.9	64.86
	ALPHA-BHC	ug/L	0.011	0.042	116.98
	DELTA-BHC	ug/L	0.095	0.35	114.61
	ENDOSULFAN I	ug/L	< 0.014	0.055	118.84
	GROSS ALPHA	pCi/L	12	9	28.57
	GROSS BETA	pCi/L	37	43	15.00
	TRITIUM	pCi/L	1724	< 500	110.07

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, WINTER QUARTER 1993

Location	Chemical	Units	Result	Duplicate	RPD% (1)
STPO	ALKALINITY TOTAL(AS CACO3)	mg/L	192	177	8.13
	CHEMICAL OXYGEN DEMAND	ug/L	43800	39800	9.57
	FORMALDEHYDE	ug/ml	2.1	2.05	2.41
	TOTAL DISSOLVED SOLIDS	mg/L	591	586	0.85
	TURBIDITY	NTU	10.78	10.52	2.44
	BARIUM (TOTAL)	ug/L	30	20	40.00
	CHROMIUM (TOTAL)	ug/L	40	10	120.00
	CHROMIUM, HEXAVALENT (+6)	ug/L	20	20	0.00
	MOLYBDENUM (TOTAL)	ug/L	20	< 10	66.67
	NICKEL (TOTAL)	ug/L	130	< 10	171.43
	ZINC (TOTAL)	ug/L	40	40	0.00
	CALCIUM (TOTAL)	ug/L	14500	12500	14.81
	CHLORIDE	ug/L	139000	136000	2.18
	MAGNESIUM (TOTAL)	ug/L	23000	21800	5.36
	NITROGEN, NITRATE (AS N)	ug/L	2190	4950	77.31
	PHOSPHATE, TOTAL (AS P)	ug/L	1460	2810	63.23
	POTASSIUM (TOTAL)	ug/L	16000	13600	16.22
	SODIUM (TOTAL)	ug/L	148000	123300	18.21
	SULFATE	ug/L	62900	62600	0.48
	CHLOROFORM	ug/L	6.9	7	1.44
	METHYLENE CHLORIDE	ug/L	8.2	8	2.47
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	3.4	2.7	22.95
	4,4'-DDD	ug/L	< 0.011	0.049	126.67
	4,4'-DDE	ug/L	0.007	0.006	15.38
	ALDRIN	ug/L	0.011	0.015	30.77
	ALPHA-BHC	ug/L	< 0.003	0.031	164.71
	DELTA-BHC	ug/L	0.069	0.068	1.46
	DIELDRIN	ug/L	< 0.002	0.027	172.41
	ENDOSULFAN II	ug/L	0.004	< 0.004	0.00
	GAMMA-BHC	ug/L	< 0.004	0.006	40.00
	GROSS ALPHA	pCi/L	4	4	0.00
	GROSS BETA	pCi/L	13	14	7.41

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, SPRING QUARTER 1993

Location	Chemical	Units	Result	Duplicate	RPD% (1)
PCD	ALKALINITY TOTAL(AS CACO3)	mg/L	218	212	2.79
	CHEMICAL OXYGEN DEMAND	ug/L	36300	36300	0.00
	FORMALDEHYDE	ug/ml	0.37	< 0.25	38.71
	TOTAL DISSOLVED SOLIDS	mg/L	298	307	2.98
	TURBIDITY	NTU	24.8	24.7	0.40
	BARIUM (TOTAL)	ug/L	80	80	0.00
	MOLYBDENUM (TOTAL)	ug/L	10	10	0.00
	ZINC (TOTAL)	ug/L	10	10	0.00
	CALCIUM (TOTAL)	ug/L	26100	24300	7.14
	CHLORIDE	ug/L	25200	25300	0.40
	MAGNESIUM (TOTAL)	ug/L	35300	32200	9.19
	NITROGEN, NITRATE (AS N)	ug/L	1080	1300	18.49
	PHOSPHATE, TOTAL (AS P)	ug/L	160	150	6.45
	POTASSIUM (TOTAL)	ug/L	2500	2300	8.33
	SODIUM (TOTAL)	ug/L	27600	24300	12.72
	SULFATE	ug/L	38100	43300	12.78
	ALPHA-BHC	ug/L	0.006	0.006	0.00
	GROSS ALPHA	pCi/L	3	< 2	40.00
	GROSS BETA	pCi/L	7	< 3	80.00
	TRITIUM	pCi/L	< 500	891	56.22

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, SUMMER QUARTER 1993

Location	Chemical	Units	Result	Duplicate	RPD% (1)
PCU	ALKALINITY TOTAL(AS CACO3)	mg/L	210	200	4.88
	TOTAL DISSOLVED SOLIDS	mg/L	290	240	18.87
	TOTAL ORGANIC CARBON	mg/L	11	5.3	69.94
	TURBIDITY	NTU	19	21	10.00
	BARIUM (TOTAL)	ug/L	59	83.1	33.92
	LEAD (TOTAL)	ug/L	7.3	5.1	35.48
	AMMONIA-NITROGEN	ug/L	67	81	18.92
	CALCIUM (TOTAL)	ug/L	25500	25600	0.39
	CHLORIDE	ug/L	16000	13000	20.69
	IRON	ug/L	< 100	106	5.83
	MAGNESIUM (TOTAL)	ug/L	35800	35400	1.12
	NITROGEN, NITRATE (AS N)	ug/L	540	560	3.64
	POTASSIUM (TOTAL)	ug/L	1550	1510	2.61
	SODIUM (TOTAL)	ug/L	19700	19300	2.05
	SULFATE	ug/L	38000	27000	33.85
	ACETONE	ug/L	< 5	20	120.00
	BIS(2-ETHYLHEXYL)PHTHALATE	ug/L	13	< 10	26.09
	CARBON-14	pCi/L	36	< 12	100.00
	GROSS BETA	pCi/L	2.7	< 2.3	16.00

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 6B (Continued)
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
RELATIVE PERCENT DIFFERENCE FOR FIELD DUPLICATES, SURFACE WATER, FALL QUARTER 1993

Location	Chemical	Units	Result	Duplicate	RPD% (1)
STPO	ALKALINITY TOTAL(AS CACO3)	mg/L	210	220	4.65
	FORMALDEHYDE	ug/ml	1.1	< 1	9.52
	TOTAL DISSOLVED SOLIDS	mg/L	590	600	1.68
	TOTAL ORGANIC CARBON	mg/L	7.1	7.4	4.14
	TURBIDITY	NTU	4.7	5.2	10.10
	ANTIMONY (TOTAL)	ug/L	7.1	5.5	25.40
	ARSENIC (TOTAL)	ug/L	5	5.2	3.92
	BARIUM (TOTAL)	ug/L	23.9	23.1	3.40
	MERCURY (TOTAL)	ug/L	0.25	< 0.2	22.22
	MOLYBDENUM (TOTAL)	ug/L	61.3	58.5	4.67
	ZINC (TOTAL)	ug/L	32.6	27.8	15.89
	AMMONIA-NITROGEN	ug/L	8300	8200	1.21
	CALCIUM (TOTAL)	ug/L	19400	19400	0.00
	CHLORIDE	ug/L	150000	150000	0.00
	IRON	ug/L	112	< 100	11.32
	MAGNESIUM (TOTAL)	ug/L	20300	20300	0.00
	NITROGEN, NITRATE (AS N)	ug/L	3100	3300	6.25
	POTASSIUM (TOTAL)	ug/L	13100	12600	3.89
	SODIUM (TOTAL)	ug/L	164000	163000	0.61
	SULFATE	ug/L	58000	58000	0.00
	TOTAL KJELDAHL NITROGEN	ug/L	9200	9200	0.00
	CHLOROFORM	ug/L	14	5	94.74
	METHYLENE CHLORIDE	ug/L	5.7	6.7	16.13
	CARBON-14	pCi/L	65	< 40	47.62
	GROSS BETA	pCi/L	41	43.5	5.92

(1) Relative Percent Difference (RPD) = 100*(A-B) / ((A+B)/2)
Analytes included with at least one detection above reporting limit
If results were below reporting limit then the limit was used for the RPD calculation.
< = Not detected at reporting limit.

TABLE 7
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF DETECTIONS IN TRIP BLANKS
FEBRUARY 1992 THROUGH DECEMBER 1993

SAMPLE	DATE	ACETONE ug/liter	METHYLENE CHLORIDE ug/liter	TOLUENE ug/liter	TRICHLORO-ETHENE ug/liter	TRICHLORO-FLUOROMETHANE ug/liter
TRIP BLANK-41	2/18/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-42	2/18/92		3.70000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-43	2/19/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-44	2/19/92		6.70000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-45	2/20/92		3.70000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-46	2/20/92		3.30000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-47	2/24/92		4.40000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-48	2/24/92		4.40000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-49	2/25/92		4.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-50	2/25/92		8.40000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-23	2/26/92		6.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-24	2/26/92		14.50000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-51	2/27/92		4.10000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-52	5/11/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-53	5/11/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-54	5/12/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-55	5/12/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-56	5/13/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-57	5/13/92		2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-58	5/13/92		3.00000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-59	5/14/92		2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-60	5/14/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-25	5/18/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-26	5/18/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-61	5/19/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-62	5/19/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-63	8/3/92		< 2.80000	12.00000	< 1.90000	< 5.00000
TRIP BLANK-64	8/4/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-65	8/5/92		< 2.80000	4.90000	< 1.90000	< 5.00000
TRIP BLANK-66	8/5/92		< 2.80000	13.00000	< 1.90000	< 5.00000
TRIP BLANK-67	8/6/92		< 2.80000	4.00000	< 1.90000	< 5.00000
TRIP BLANK-68	8/6/92		< 2.80000	4.00000	< 1.90000	< 5.00000
TRIP BLANK-69	8/10/92		2.30000	15.00000	1.30000	4.50000
TRIP BLANK-70	8/10/92		2.40000	3.50000	2.30000	< 5.00000
TRIP BLANK-27	8/11/92		< 2.80000	4.00000	< 1.90000	< 5.00000
TRIP BLANK-28	8/11/92		1.30000	5.90000	< 1.90000	< 5.00000
TRIP BLANK-71	11/16/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-72	11/16/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-73	11/17/92		3.40000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-74	11/17/92		3.00000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-75	11/18/92		3.60000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-76	11/18/92		3.50000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-77	11/18/92		2.90000	14.00000	< 1.90000	< 5.00000
TRIP BLANK-29	11/19/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-30	11/19/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-78	11/23/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-79	11/23/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-80	11/24/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TRIP BLANK-81	11/24/92		< 2.80000	< 6.00000	< 1.90000	< 5.00000

TABLE 7
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF DETECTIONS IN TRIP BLANKS
FEBRUARY 1992 THROUGH DECEMBER 1993

SAMPLE	DATE	ACETONE ug/liter	METHYLENE CHLORIDE ug/liter	TOLUENE ug/liter	TRICHLORO-ETHENE ug/liter	TRICHLORO-FLUOROMETHANE ug/liter
TB-01	2/16/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-01	2/17/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-02	2/17/93		< 2.80000	10.60000	< 1.90000	< 5.00000
TB-01	2/18/93		< 2.80000	8.10000	< 1.90000	< 5.00000
TB-02	2/18/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-06	2/22/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-07	2/22/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-08	2/23/93		< 2.80000	9.50000	< 1.90000	< 5.00000
TB-09	2/24/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-10	2/24/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-11	2/24/93		< 2.80000	9.60000	< 1.90000	< 5.00000
TB-12	2/25/93		4.40000	< 6.00000	< 1.90000	< 5.00000
TB-13	2/25/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-14	2/25/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-15	3/4/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-16	3/4/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-01	5/17/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-02	5/18/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-03	5/19/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-04	5/19/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-05	5/20/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-07	5/24/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-08	5/24/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-09	5/25/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-10	5/26/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-11	5/26/93		3.60000	< 6.00000	< 1.90000	< 5.00000
TB-12	5/27/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-13	5/27/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-14	5/27/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-15	5/27/93		< 2.80000	< 6.00000	< 1.90000	< 5.00000
TB-01	8/23/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-02	8/24/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-03	8/25/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-04	8/26/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-05	8/30/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-06	8/31/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-07	9/1/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-1	11/23/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-2	11/29/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-3	11/30/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-6A	12/6/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-6B	12/8/93	31.00000	< 2.00000	< 1.00000	< 1.00000	
TB-7	12/8/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	
TB-8	12/8/93	< 5.00000	< 2.00000	< 1.00000	< 1.00000	

TABLE 8
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF DETECTED PARAMETERS IN GROUNDWATER
FEBRUARY 1992 THROUGH DECEMBER 1993

	PARAMETER	Upgradient Wells				Downgradient Wells			
		Number of Samples & Duplicates	Number of Detections	Maximum Value Detected	Location of Maximum Detection	Number of Samples & Duplicates	Number of Detections	Maximum Value Detected	Location of Maximum Detection
General Chemical Parameters	ALKALINITY TOTAL(AS CACO3) (mg/liter)	18	18	465	UCD-18	136	136	890	UCD-13
	CHEMICAL OXYGEN DEMAND (ug/liter)	13	7	51,900	UCD-18	101	47	65,000	UCD-04
	EC-F (umhos/cm)	18	18	1,205	UCD-18	128	128	4,640	UCD-12
	EH-F (mvolts)	2	2	118	UCD-18	16	16	127	UCD-15
	FORMALDEHYDE (ug/ml)	18	3	500	UCD-18	136	34	500	UCD-13
	TEMPERATURE (degree C)	18	16	19.6	UCD-17	128	128	24.9	UCD-23
	TOTAL DISSOLVED SOLIDS mg/liter)	18	18	887	UCD-18	136	136	2,451	UCD-12
	TOTAL ORGANIC CARBON (mg/liter)	5	3	1.3	UCD-17	35	28	5.8	UCD-10
	TURBIDITY (NTU)	18	18	28.5	UCD-18	136	133	949	UCD-01
	TURBIDITY-F (NTU)	17	17	26.3	UCD-18	126	118	200	UCD-01
	pH-F	18	18	8.06	UCD-17	128	128	8.26	UCD-15
Metals	ANTIMONY (TOTAL)	18	0	-	-	136	6	10	UCD-21
(µg/liter)	ARSENIC (TOTAL)	18	2	10	UCD-17	136	18	10	UCD-21
	BARIUM (TOTAL)	18	18	170	UCD-18	136	134	430	UCD-12
	BERYLLIUM (TOTAL)	18	1	1.5	UCD-18	136	3	3	UCD-22
	CADMIUM (TOTAL)	18	0	-	-	136	1	2	UCD-21
	CHROMIUM (TOTAL)	18	16	50	UCD-18	136	131	450	UCD-11
	CHROMIUM, HEXAVALENT (+6)	18	12	40	UCD-18	136	123	350	UCD-11
	COBALT (TOTAL)	13	1	30	UCD-17	101	2	30	UCD-23
	COPPER (TOTAL)	18	0	-	-	136	10	30	UCD-23
	LEAD (TOTAL)	18	2	8.8	UCD-17	136	22	63	UCD-07
	MERCURY (TOTAL)	18	1	0.4	UCD-17	136	8	2.2	UCD-21
	MOLYBDENUM (TOTAL)	18	5	30	UCD-17	136	27	70	UCD-23
	NICKEL (TOTAL)	18	8	80	UCD-18	136	60	390	UCD-23
	SELENIUM (TOTAL)	18	0	-	-	136	29	26	UCD-10
	SILVER (TOTAL)	18	1	30	UCD-17	136	13	30	UCD-12
	THALLIUM (TOTAL)	18	0	-	-	136	11	130	UCD-12
	VANADIUM (TOTAL)	18	10	30	UCD-17	136	72	40	UCD-04
	ZINC (TOTAL)	18	9	30	UCD-18	136	73	60	UCD-24
Anions and Cations	AMMONIA-NITROGEN	5	1	51	UCD-17	136	0	-	-
(mg/liter)	CALCIUM (TOTAL)	18	18	41	UCD-18	136	136	77	UCD-12
	CHLORIDE	18	18	42	UCD-18	136	136	370	UCD-12
	IRON	5	4	0.2	UCD-18	35	34	0.3	UCD-13
	MAGNESIUM (TOTAL)	18	18	111	UCD-18	136	136	333	UCD-12
	NITROGEN, NITRATE (AS N)	18	18	20	UCD-18	136	136	65	UCD-12
	PHOSPHATE, TOTAL (AS P)	18	10	1.0	UCD-17	136	89	1.0	UCD-12
	POTASSIUM (TOTAL)	18	18	1.3	UCD-18	136	131	44	UCD-16
	SODIUM (TOTAL)	18	18	43	UCD-18	136	136	190	UCD-10
	SULFATE	18	18	44	UCD-18	136	136	897	UCD-10
Volatile Organics	1,1-DICHLOROETHANE	18	0	-	-	136	8	24	UCD-12
(µg/liter)	1,1-DICHLOROETHENE	18	0	-	-	136	8	44	UCD-12
	1,2-DICHLOROETHANE	18	0	-	-	136	8	15	UCD-12
	ACETONE	18	0	-	-	35	1	25	UCD-01
	BROMODICHLOROMETHANE	18	0	-	-	136	3	5	UCD-01
	CARBON TETRACHLORIDE	18	0	-	-	136	1	5	UCD-01
	CHLOROFORM	18	0	-	-	136	30	16,000	UCD-12
	METHYLENE CHLORIDE	18	0	-	-	136	9	10	UCD-01
	TOLUENE	18	0	-	-	136	1	13	UCD-15
	TRICHLOROETHENE	18	0	-	-	136	1	5	UCD-01
Semivolatile Organics	BIS(2-ETHYLHEXYL)PHTHALATE	18	5	10.1	UCD-18	134	38	37	UCD-24
(µg/liter)	DI-N-BUTYLPHTHALATE	18	0	-	-	134	5	14.4	UCD-23
Pesticides and PCBs	4,4'-DDD	18	0	-	-	133	1	0.11	UCD-12
(ug/liter)	4,4'-DDT	18	0	-	-	133	1	0.11	UCD-12
	ALPHA-BHC	18	0	-	-	133	2	0.057	UCD-01
	BETA-BHC	18	0	-	-	133	1	0.057	UCD-01
	DIELDRIN	18	0	-	-	133	8	0.11	UCD-12
	ENDOSULFAN I	18	0	-	-	133	1	0.057	UCD-01
	ENDRIN	18	0	-	-	133	6	0.11	UCD-12
	GAMMA-BHC	18	0	-	-	133	4	0.057	UCD-01
	HEPTACHLOR	18	0	-	-	133	2	0.057	UCD-01
Radiochemical Analyses	CARBON-14	18	2	500	UCD-17	58	23	2,464	UCD-13
(pCi/liter)	GROSS ALPHA	18	1	6.8	UCD-18	136	41	40	UCD-20
	GROSS BETA	18	2	7	UCD-18	136	44	24	UCD-20
	RADIUM-226	18	0	-	-	16	2	0.67	UCD-13
	STRONTIUM-90	18	1	1.7	UCD-18	138	18	8.4	UCD-19
	TRITIUM	18	2	965	UCD-18	136	32	29,838	UCD-13

- Not applicable

TBL8ANL&.XLS

TABLE 9A
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - General Chemical Parameters
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
FORMALDEHYDE																			
1	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	NA
2	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	NA
3	(500)	-	-	-	-	-	-	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	NA
4	(500)	(500)	-	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	NA
5	(0.25)	0.28	0.9	(0.25)	0.65	(0.25)	1.13	1.55	1.63	(0.25)	0.9	1.65	(0.25)	0.45	0.33	1.03	0.65	0.55	NA
6	1.07	0.26	(0.25)	(0.25)	(0.25)	(0.25)	(0.25)	1.2	1.84	(0.25)	0.91	0.62	(0.25)	0.36	0.47	(0.25)	(0.25)	1.44	NA
7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	NA
8	(1)	2.2	(1)	3.2	3.2	3.8	2.7	2	1.7	6	1.3	1.4	5.5	(1)	2.6	1.4	(1)	(1)	NA
TEMPERATURE																			
1	17.8	17.9	17.8	17.5	17.3	17.9	18.1	18.9	18.7	19.8	19.5	19.8	19.3	17.6	17.8	17.4	17.2	17.5	NA
2	18.9	18.4	18.9	18.6	18	18.7	17.8	19.7	19	20.2	19.8	21.2	19.9	18.3	17.7	17.4	18.7	18.9	NA
3	19.2	-	-	-	-	-	-	23.6	21.2	22.1	20.7	24.9	20.8	18.8	19.7	18.9	19.1	18.7	NA
4	18.1	16.1	-	16.5	17.6	17.3	15.6	18.2	19	19.7	18.9	18.3	19.2	17.9	15.6	15.6	17.2	18.2	NA
5	16.4	17	17.2	15.2	16.3	16.2	17	16.9	17.3	18.8	17.2	16.7	16.1	16.1	16.1	16.8	19.3	16.9	NA
6	19.5	20.8	20.2	18.3	18.8	19.4	19.3	20.1	20.2	19.5	20.3	19.8	19.4	19.6	19.8	18.3	18.3	19.5	NA
7	19.3	21.1	19.4	21.1	19.7	21.2	20.6	18.9	19.2	19.7	20.2	19.4	19.2	18.3	20.5	20.3	18.8	19.1	NA
8	18.5	19.8	19	18.5	18.6	19.2	19.1	19.7	19.5	20.1	19.5	19.1	20	18.3	19.1	18.8	17.9	18.5	NA
TOTAL DISSOLVED SOLIDS																			
1	560	848	525	1320	727	1340	1020	941	690	993	487	519	852	444	572	456	452	467	NA
2	887	906	763	1450	915	2451	1180	983	602	1040	611	651	1090	548	786	890	631	592	NA
3	579	-	-	-	-	-	-	683	647	973	542	582	943	424	564	896	420	459	NA
4	497	878	-	1300	781	1760	1020	823	617	925	543	590	850	430	475	474	426	460	NA
5	580	785	608	1320	726	1430	1030	892	422	888	552	687	82	365	673	418	392	452	NA
6	639	855	766	1298	357	1259	1060	952	480	1032	628	611	949	412	557	742	466	447	NA
7	590	840	670	1400	770	1400	1000	900	480	940	600	660	930	380	700	660	410	470	NA
8	520	800	550	1300	790	1400	970	940	480	980	630	670	920	380	600	720	420	440	NA
TOTAL ORGANIC CARBON																			
7	1.1	2.9	1.8	2.7	1.1	3.6	1.7	1.3	(1)	1.2	1.2	1.3	(1)	1.3	1.4	1.3	(1)	3.9	NA
8	(1)	1.4	1.3	5.8	1.6	1.9	4.8	1.4	1.2	2.2	1.2	(1)	(1)	(1)	(1)	1.3	1	(1)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

SUM_TBL.XLS

TABLE 9A
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - General Chemical Parameters
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
ALKALINITY TOTAL(AS CACO3)																			
1	411	760	366	673	499	735	861	864	465	648	378	408	495	349	400	357	359	364	NA
2	338	703	529	655	500	777	783	719	439	582	382	473	512	449	406	526	336	357	NA
3	435	-	-	-	-	-	-	533	468	628	430	346	500	335	384	719	350	360	NA
4	397	513	-	635	515	629	480	757	478	622	415	472	497	331	357	383	322	353	NA
5	465	758	535	707	490	697	838	828	374	606	460	505	556	333	396	333	359	348	NA
6	445.5	723	598	703	515	733	868	802	361	614	497	522	590	319.8	381	619	346	346.5	NA
7	420	710	570	730	540	720	890	800	390	630	460	610	560	310	480	540	350	380	NA
8	410	740	230	730	520	780	850	840	390	610	500	590	550	320	440	620	340	350	NA
CHEMICAL OXYGEN DEMAND																			
1	(1000)	9570	(1000)	(1000)	(1000)	7020	(1000)	(1000)	(1000)	(1000)	2350	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	NA
2	25000	55000	65000	(1000)	(1000)	15000	30000	(1000)	20000	5000	(1000)	(1000)	(1000)	20000	(1000)	(1000)	(1000)	35000	NA
3	12400	-	-	-	-	-	-	(1000)	10800	3540	2390	(1000)	3220	(1000)	1910	3810	5450	1200	NA
4	(1000)	(1000)	-	6220	(1000)	4660	(1000)	(1000)	(1000)	(1000)	3110	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	NA
5	4200	3980	27900	7960	(1000)	(1000)	33600	(1000)	(1000)	(1000)	19900	(1000)	19900	31900	(1000)	(1000)	39800	(1000)	NA
6	51900	10400	(1000)	36300	41500	31200	26000	(1000)	5200	10400	(1000)	5190	5200	5190	(1000)	15600	10400	(1000)	NA
EC-F																			
1	1102	1366	889	1856	1203	2740	1641	1250	1202	1766	889	1053	1325	870	883	746	910	886	NA
2	1036	1351	1122	1907	1153	3080	1633	1343	914	1549	885	989	1336	675	1088	1113	571	716	NA
3	679	-	-	-	-	-	-	870	925	1262	702	772	1326	440	770	1342	440	552	NA
4	860	1339	-	1780	1180	2270	1402	1112	961	1533	957	986	1390	678	732	838	671	734	NA
5	785	486	498	1340	359	465	255	475	375	421	968	364	1028	543	362	260	596	594	NA
6	1087	1210	689	1902	1327	2187	1745	1337	768	1286	971	957	1531	717	1047	1317	667	750	NA
7	1205	1490	1410	2400	1550	4640	2090	1465	953	1850	1230	1429	1729	790	1400	1420	867	943	NA
8	804	1131	656	1499	924	1615	1155	1212	638	1059	916	788	1071	466	718	842	630	572	NA
EH-F																			
8	118	93	65	18	77	62	87	95	95	110	78	81	109	99	63	67	127	105	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
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TABLE 9A
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - General Chemical Parameters
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
TURBIDITY																			
1	28.5	108.7	437	2.4	2.02	3.3	0.872	0.79	5.78	7.9	6.5	28.7	0.76	0.7	610	1.78	0.82	0.12	NA
2	25.7	949	441	3.26	1.74	27.7	2.54	0.87	14.15	9.14	5.33	28.6	6.59	0.206	1.67	2.04	1.26	0.365	NA
3	14.7	-	-	-	-	-	-	20.6	7.3	22	41.5	29.5	27	0.15	0.289	0.626	(0.1)	(0.1)	NA
4	4.2	467	-	3.57	1.2	15.2	7.55	0.67	1.34	1.4	1.13	0.88	8.45	0.08	0.74	0.4	0.273	0.09	NA
5	0.998	52.2	16.4	0.9	4.53	5.39	1.126	0.848	1.99	19.2	4.25	1.29	0.542	0.358	1.573	18.27	0.756	1.11	NA
6	2.39	205	264	1.55	2.57	3.77	1.73	0.63	0.26	0.4	0.45	0.43	130	0.224	1.55	2.39	0.33	0.14	NA
7	5.2	770	310	0.7	0.65	2.2	0.33	2.8	0.6	2.6	0.57	0.16	1	0.27	3.9	1.3	0.82	0.3	NA
8	2	120	48	0.66	0.3	6.4	0.28	0.2	0.29	0.37	1.2	0.27	0.27	0.04	0.12	0.29	0.3	0.17	NA
TURBIDITY-F																			
1	24.8	101.8	200	6.63	6.77	7.37	3.48	8.47	1.89	4.84	12	30.3	0.55	0.65	1.26	18.4	0.24	0.42	NA
2	26.3	200	200	15.3	7.04	12.36	10.19	5.95	23.8	54.2	9.19	65.5	3.09	0.66	2.9	2.12	0.77	0.58	NA
3	12.33	-	-	-	-	-	-	200	97	3.99	11.1	72.2	46	0.23	1.38	4.02	0.17	0.17	NA
4	9.32	200	-	2.25	2.93	4.25	3.21	2.51	1.8	1.09	2.52	1.71	2.52	1.9	4.25	6.98	1.89	0.5	NA
5	0.39	5	4.26	0.92	1.99	2.01	1.9	1.41	1.91	1.51	8.06	2.01	0.48	0.18	1.06	7.9	0.65	0.11	NA
6	3.73	200	200	4.83	6.02	10.06	4.23	1.07	0.91	2.64	0.98	1.51	1.02	0.91	3.99	3.92	0.92	0.6	NA
7	7.5	200	102	1.6	1.2	3.5	0.8	2.82	1.67	2.28	0.65	1.05	1.17	0.18	6.6	2	0.4	1.57	NA
8	-	3.46	42.8	1.32	1.71	6.01	1.74	2.13	0.51	0.91	0.26	0.49	0.98	0.26	4.62	0.91	-	-	NA
pH-F																			
1	7.6	7.27	7.64	7.98	7.85	7.85	7.83	7.7	7.55	7.52	7.81	7.75	7.54	8.06	7.88	7.93	8.26	7.31	NA
2	7.51	7.21	7.47	7.66	7.53	7.94	7.65	7.68	7.68	7.51	7.64	7.63	7.5	7.85	7.65	7.64	7.8	7.8	NA
3	7.67	-	-	-	-	-	-	7.6	7.62	7.4	7.6	7.61	7.44	7.81	7.72	7.42	7.73	7.81	NA
4	7.55	7.03	-	7.5	7.42	7.26	7.18	7.54	7.6	7.38	7.5	7.6	7.29	7.64	7.64	7.58	7.67	7.64	NA
5	7.89	7.62	7.2	7.46	7.41	7.02	7.64	7.11	7.44	7.16	7.74	7.47	7.52	7.55	7.14	7.59	7.58	7.89	NA
6	7.46	7.67	7.72	7.47	7.48	7.47	7.07	7.47	7.57	7.52	7.87	7.86	7.22	7.78	7.47	7.23	7.92	7.67	NA
7	7.6	7.25	7.29	7.41	7.65	7.38	7.36	7.63	7.91	7.67	7.6	7.65	7.55	7.71	7.65	7.48	7.86	8.08	NA
8	7.6	6.88	7.08	7.4	7.5	7.31	7.11	7.29	7.58	7.31	7.52	7.51	7.3	7.64	7.44	7.29	7.72	7.7	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
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SUM_TBL.XLS

TABLE 9B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Metals
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
ANTIMONY (TOTAL)																			
1	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	6
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	6
3	(10)	-	-	-	-	-	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	6
4	(10)	10	-	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10	10	(10)	(10)	6
5	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	6
6	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	6
7	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	6
8	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	6
ARSENIC (TOTAL)																			
1	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
3	(10)	-	-	-	-	-	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
4	(10)	(10)	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
5	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
6	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
7	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	50
8	2.8	2.6	2.9	3.4	3.5	3	2.3	3.4	3.2	2.9	3	3.2	3.1	2.8	3.5	2.6	2.2	2.5	50
BARIUM (TOTAL)																			
1	120	250	240	(30)	190	190	330	70	110	130	60	60	120	140	180	130	160	140	1000
2	170	190	280	(30)	180	430	260	70	90	100	50	60	160	150	200	240	140	140	1000
3	120	-	-	-	-	-	-	50	110	120	50	80	150	110	170	300	150	140	1000
4	120	200	-	20	170	380	220	80	100	140	50	80	170	130	150	190	140	160	1000
5	170	230	280	20	250	250	280	70	90	130	60	80	180	130	190	120	140	130	1000
6	170	230	320	40	310	300	330	80	90	120	60	100	200	130	200	270	150	140	1000
7	140	216	297	26.3	226	296	281	71.9	86.5	112	69.2	105	181	121	225	207	126	135	1000
8	156	212	267	29.7	267	292	281	83.7	99.5	127	61.7	133	202	130	200	256	158	140	1000

( ) = Nondetect, number in parentheses is the reported detection limit.
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TABLE 9B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Metals
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
BERYLLIUM (TOTAL)																			
1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
2	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
3	(1)	-	-	-	-	-	-	(1)	(1)	2	3	2	(1)	(1)	(1)	(1)	(1)	(1)	4
4	(1)	(1)	-	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
6	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
8	1.5	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	4
CADMIUM (TOTAL)																			
1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	10
2	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	2	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	10
3	(2)	-	-	-	-	-	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	10
4	(2)	(2)	-	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	10
5	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	10
6	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	10
7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	10
8	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	10
CHROMIUM (TOTAL)																			
1	30	80	30	100	370	210	130	300	80	90	(30)	(30)	60	(30)	60	30	(30)	50	50
2	40	60	40	70	320	260	120	270	30	70	40	40	70	30	120	60	(10)	40	50
3	50	-	-	-	-	-	-	270	90	130	40	20	70	40	60	100	30	50	50
4	30	70	-	80	340	240	120	280	70	80	20	110	60	20	30	50	20	40	50
5	30	50	40	100	300	200	120	210	40	90	30	20	60	20	100	30	30	40	50
6	40	60	50	150	450	280	170	220	40	100	50	40	50	20	120	110	30	30	50
7	18.6	50.5	50.6	80.5	322	208	104	184	43	55.5	21.2	23.7	30.8	21.4	62.4	47	11.1	30.8	50
8	13.2	34.1	22.3	65.1	319	187	81.8	191	47.7	62.2	(10)	24.5	31.8	(10)	48.9	36.9	12.8	25.2	50

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

SUM_TBL.XLS

TABLE 9B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Metals
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
CHROMIUM, HEXAVALENT (+6)																			
1	(10)	30	(10)	50	330	153	80	270	70	60	(10)	(10)	30	15	30	10	11	20	NA
2	20	34	13	53	290	180	79	260	44	60	(10)	(10)	30	10	80	42	10	30	NA
3	40	-	-	-	-	-	-	230	90	210	250	170	80	10	34	51	(10)	30	NA
4	20	50	-	60	310	190	110	290	60	60	10	20	50	20	30	30	10	30	NA
5	20	40	30	70	350	180	80	250	40	60	20	10	40	10	110	10	50	30	NA
6	29	20	30	80	340	190	80	200	40	60	20	20	30	15	70	50	10	42	NA
7	(20)	32	29	67	330	180	77	200	42	59	(20)	23	31	(20)	49	32	(20)	25	NA
8	(20)	(20)	(20)	46	160	140	79	150	47	63	(20)	24	33	(20)	31	30	(20)	25	NA
COBALT (TOTAL)																			
1	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10	(10)	10	(10)	(10)	(10)	(10)	(10)	NA
3	(30)	-	-	-	-	-	-	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
4	(10)	(10)	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
5	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
6	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
8	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
COPPER (TOTAL)																			
1	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	1300
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	1300
3	(30)	-	-	-	-	-	-	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	1300
4	(10)	(10)	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	20	1300
5	(10)	(10)	20	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	1300
6	(10)	(10)	(10)	10	10	10	10	(10)	(10)	(10)	10	(10)	(10)	(10)	10	10	(10)	(10)	1300
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	1300
8	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	1300
LEAD (TOTAL)																			
1	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	50
2	(3)	4	18	(3)	4	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	63	(3)	(3)	(3)	50

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Metals
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
LEAD (TOTAL) continued																			
3	(3)	-	-	-	-	-	-	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	50
4	(3)	(3)	-	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	50
5	(3)	(3)	(3)	(3)	(3)	(3)	33	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	50
6	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	(3)	3	(3)	4	(3)	(3)	(3)	(3)	50
7	(2)	3.9	3.6	6.2	7.4	8.4	4.6	4.6	4.6	4.6	10.5	(2)	3.9	(2)	(2)	4.2	(2)	8.2	50
8	(2)	2.5	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	2.6	(2)	(2)	(2)	50
MERCURY (TOTAL)																			
1	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	2
2	(0.4)	(0.4)	(0.4)	1.1	(0.4)	(0.4)	(0.4)	1.4	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	1	(0.4)	(0.4)	2
3	(0.4)	-	-	-	-	-	-	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	2
4	(0.4)	(0.4)	-	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	2
5	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	2
6	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	(0.4)	2
7	0.38	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	2.2	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	2
8	(0.2)	(0.2)	(0.2)	(0.2)	0.44	(0.2)	0.39	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	(0.2)	0.28	(0.2)	(0.2)	2
MOLYBDENUM (TOTAL)																			
1	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
2	20	(10)	(10)	20	(10)	10	20	10	(10)	10	10	(10)	(10)	(10)	20	20	10	10	NA
3	(30)	-	-	-	-	-	-	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
4	10	(10)	-	(10)	(10)	(10)	(10)	10	10	(10)	(10)	70	(10)	10	(10)	(10)	(10)	10	NA
5	10	20	20	(10)	(10)	(10)	10	(10)	(10)	10	(10)	(10)	10	(10)	(10)	(10)	10	10	NA
6	10	10	(10)	10	(10)	10	10	(10)	(10)	20	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	NA
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
8	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
NICKEL (TOTAL)																			
1	30	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	100
2	30	(10)	10	20	20	30	20	20	(10)	10	50	170	10	(10)	30	(10)	10	(10)	100
3	80	-	-	-	-	-	-	(30)	(30)	90	130	380	(30)	(30)	(30)	40	(30)	(30)	100
4	50	(10)	-	(10)	10	30	20	10	10	10	50	390	10	20	(10)	(10)	10	20	100

( ) = Nondetect, number in parentheses is the reported detection limit.
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SUM_TBL.XLS

TABLE 9B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Metals
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
NICKEL (TOTAL) continued																			
5	30	(10)	20	20	20	30	30	10	10	40	40	60	20	20	(10)	20	20	30	100
6	20	20	10	40	40	40	40	(10)	(10)	70	50	30	(10)	(10)	30	40	10	(10)	100
7	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	21.7	(20)	(20)	(20)	(20)	(20)	(20)	100
8	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	100
SELENIUM (TOTAL)																			
1	(10)	(10)	(10)	12	12	13	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10
3	(10)	-	-	-	-	-	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10
4	(10)	(10)	-	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10
5	(10)	(10)	(10)	22	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10
6	(10)	(10)	(10)	20	10	10	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10
7	(3)	(3)	(3)	22.9	12.3	11.6	(3)	9.2	3	4.9	(3)	(3)	3.6	(3)	(3)	(3)	(3)	4.3	10
8	(3)	(3)	3.4	26	11.3	10.5	(3)	9.3	(3)	4.3	(3)	(3)	(3)	(3)	(3)	(3)	(3)	3.5	10
SILVER (TOTAL)																			
1	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	50
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
3	(10)	-	-	-	-	-	-	(10)	(10)	(10)	(10)	(10)	(10)	10	(10)	(10)	(10)	(10)	50
4	(10)	10	-	(10)	(10)	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	10	(10)	50
5	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
6	(10)	(10)	(10)	30	30	30	30	(10)	(10)	(10)	20	(10)	(10)	(10)	20	30	(10)	(10)	50
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
8	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	50
THALLIUM (TOTAL)																			
1	(10)	20	(10)	30	130	130	100	40	20	110	(10)	(10)	10	(10)	30	(10)	(10)	20	2
2	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	2
3	(10)	-	-	-	-	-	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	2
4	(5)	(5)	-	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	2
5	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	2
6	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	2

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Metals
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
THALLIUM (TOTAL) continued																			
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	2
8	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	2
VANADIUM (TOTAL)																			
1	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
2	10	20	10	20	(10)	30	20	20	10	10	(10)	(10)	10	10	10	10	10	(10)	NA
3	(30)	-	-	-	-	-	-	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
4	20	10	-	10	10	20	10	20	20	20	10	20	20	10	(10)	(10)	(10)	20	NA
5	20	30	40	30	10	20	20	20	20	20	20	20	30	20	(10)	(10)	20	20	NA
6	20	20	20	20	20	30	30	20	20	10	10	20	20	20	10	20	10	10	NA
7	10	(10)	(10)	(10)	(10)	(10)	(10)	(10)	11.7	(10)	(10)	10	11.6	(10)	(10)	(10)	(10)	(10)	NA
8	10.5	(10)	(10)	12	(10)	(10)	10.8	11.4	11.4	10.4	(10)	11.7	12	(10)	(10)	(10)	(10)	(10)	NA
ZINC (TOTAL)																			
1	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
2	30	20	20	20	30	20	20	20	20	20	30	20	30	20	20	20	20	20	NA
3	(30)	-	-	-	-	-	-	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	(30)	NA
4	10	10	-	20	10	20	10	30	20	20	10	20	20	10	10	10	10	20	NA
5	30	30	30	20	20	20	30	20	20	20	30	20	60	20	10	10	30	30	NA
6	10	20	20	40	20	20	30	20	20	10	20	20	20	10	40	20	20	20	NA
7	18.3	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA
8	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	(20)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9C
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Anions and Cations
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
AMMONIA-NITROGEN																			
7	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	NA
8	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	(50)	51	(50)	(50)	(50)	(50)	NA
CALCIUM (TOTAL)																			
1	37900	59400	46200	44800	39400	68400	65700	58000	38500	55000	27800	33100	45800	37100	37500	33200	38800	34900	NA
2	31200	45900	44300	34300	31100	73800	52300	37100	24700	36800	22600	27700	34400	29300	29800	39100	26400	25800	NA
3	34400	-	-	-	-	-	-	33100	30400	49500	28700	33100	42400	31400	33300	53600	31600	29500	NA
4	26600	64400	-	36400	33900	73000	53400	41700	29100	43000	24300	30800	37600	26600	26900	33600	28010	27700	NA
5	35500	50000	43400	38700	36200	58600	56000	52200	23000	14600	27600	34600	41700	28800	29900	25500	30600	30000	NA
6	38250	53700	52000	41500	42200	64200	66000	52700	24400	45000	31700	42200	46400	32350	31700	48500	34000	31410	NA
7	41400	56800	61800	48100	46100	76600	72600	55600	29900	53000	35800	48600	53700	34000	48500	43400	36400	38500	NA
8	38900	58000	48100	49100	46200	74800	74800	39200	32100	56200	38000	50300	53300	35700	32000	55600	40300	36300	NA
CHLORIDE																			
1	33800	14900	66600	35600	58800	182000	38900	13400	10400	22200	36800	34000	26400	19200	14800	28600	21500	19400	NA
2	41800	12500	60600	34400	49800	370000	38700	13700	6920	17100	36600	30600	21500	19900	25300	33600	20700	19400	NA
3	31600	-	-	-	-	-	-	12700	8610	21700	38700	34100	23900	17700	24000	36500	21100	19500	NA
4	28000	10000	-	25000	45000	364000	35000	11000	8000	22000	34000	29000	21000	16000	20000	31000	18000	17000	NA
5	39400	4660	37700	41000	54800	204000	37600	13300	3670	15700	32000	29000	18000	16500	23300	30000	19600	18000	NA
6	37676	7000	35000	44500	59200	143600	37500	15100	3800	18700	30400	29600	20200	18167	21800	36000	21400	17977	NA
7	33000	5600	36000	43000	60000	240000	35000	14000	4200	16000	3300	26000	23000	17000	24000	42000	20000	17000	NA
8	33000	5300	35000	43000	66000	210000	35000	15000	4200	19000	35000	26000	25000	17000	23000	38000	20000	17000	NA
IRON																			
7	171	266	265	218	247	317	338	227	130	229	166	203	216	158	238	208	154	151	NA
8	122	174	148	137	127	203	177	158	(100)	144	140	139	158	(100)	105	136	114	110	NA

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TABLE 9C
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Anions and Cations
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
MAGNESIUM (TOTAL)																			
1	70000	136000	68000	151000	92000	173000	164000	107000	74000	98000	51000	66000	83000	46000	63000	59400	48000	55600	NA
2	98900	152000	101000	174000	111000	333000	184000	144000	79400	131000	58200	89600	126000	60500	100000	121000	62700	60700	NA
3	84900	-	-	-	-	-	-	88800	86000	133000	62300	89800	110000	56700	66200	133000	57000	57700	NA
4	86200	110000	-	118000	101000	281000	187000	113000	78800	109000	62700	81900	101000	65700	61300	94900	60400	68800	NA
5	111000	168000	191000	186000	123000	333000	194000	173000	74100	260000	90100	109000	140000	78400	153300	73900	85800	79700	NA
6	86000	124000	97000	167000	97000	190000	171000	163000	65700	127000	61000	94400	136000	50000	72600	97000	55500	53000	NA
7	101000	138000	108000	179000	118000	234000	182000	149000	79900	124000	72600	112000	132000	57500	99800	104000	62500	67800	NA
8	95600	138000	85200	184000	121000	234000	188000	101000	80000	136000	73900	115000	130000	58300	62600	133000	67400	63600	NA
NITROGEN, NITRATE (AS N)																			
1	5090	11500	1930	21000	24100	52700	15800	10500	25200	40300	500	3940	42900	1900	12400	2660	2540	3060	10000
2	19800	18700	3000	13200	27400	9800	9800	10000	21300	44900	4140	8010	56400	1920	34100	11500	9500	1990	10000
3	7380	-	-	-	-	-	-	5000	12400	32900	3070	4440	13000	1130	9530	6350	830	2950	10000
4	8240	11300	-	21600	24400	9490	16200	11300	19600	4470	6550	7550	5100	2600	8490	5830	1960	3220	10000
5	17000	16600	10200	28500	23800	55400	14100	10800	8920	44100	4660	7800	45200	1760	30200	2620	2460	3500	10000
6	16139	16540	10300	36230	26030	54970	18340	13180	8750	51450	9970	12300	46660	1557	20370	10120	2490	4140	10000
7	13000	15000	6900	36000	26000	65000	18000	13000	9400	49000	9100	9200	54000	1500	31000	7000	2000	4400	10000
8	9300	16000	1800	36000	26000	57000	17000	12000	9600	52000	9300	8600	54000	1500	17000	8200	2300	3200	10000
PHOSPHATE, TOTAL (AS P)																			
1	100	100	200	(100)	(100)	200	100	(100)	(100)	(100)	(100)	100	(100)	(100)	(100)	100	(100)	(100)	NA
2	(100)	580	590	720	710	710	920	810	180	810	730	640	830	(100)	720	770	490	(100)	NA
3	200	-	-	-	-	-	-	510	230	350	170	200	190	100	100	120	110	110	NA
4	220	134	-	180	210	177	220	220	180	170	160	190	180	150	150	160	150	170	NA
5	200	170	140	130	167	150	130	180	160	150	130	160	160	110	80	110	100	120	NA
6	182	280	320	110	180	180	140	180	160	130	130	150	140	102	100	120	100	105	NA
7	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	NA
8	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	(1000)	NA

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NA = not applicable

SUM_TBL.XLS

TABLE 9C
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Anions and Cations
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
POTASSIUM (TOTAL)																			
1	1200	1100	1100	1700	1000	7000	9200	1200	1400	1700	1200	1200	1300	700	800	800	800	700	NA
2	1000	1120	1120	1260	1140	4500	2800	1500	1300	1630	1370	1150	1090	620	900	980	810	690	NA
3	1200	-	-	-	-	-	-	2190	1200	2000	1700	1600	1210	500	700	900	600	500	NA
4	690	1100	-	1600	1030	4000	3100	790	990	1200	1020	980	870	440	1100	1100	700	1130	NA
5	737	900	700	930	700	4700	4200	1200	800	1200	1140	1000	754	472	640	620	561	520	NA
6	800	100	700	2000	1100	5000	4600	1700	1000	1200	1800	1200	1100	600	1100	1000	600	700	NA
7	325	654	(1)	943	109	3190	2070	830	843	1160	988	584	1400	257	321	141	1040	385	NA
8	1290	1040	768	874	(670)	4150	1560	756	1280	1210	1720	(670)	1230	756	712	892	(670)	714	NA
SODIUM (TOTAL)																			
1	35300	30200	29800	153000	57000	73000	54600	60500	45500	77100	57100	34900	63400	26000	42600	32400	25600	48100	NA
2	40100	36700	37900	128000	81900	102000	48900	61800	47200	86300	69000	37100	69700	25800	52600	39400	41000	37400	NA
3	35500	-	-	-	-	-	-	67300	45300	98200	80200	42100	72600	28000	44600	47900	27300	41000	NA
4	38800	36100	-	151000	72900	108000	54100	66900	44400	84900	70100	40800	69700	21500	35900	40800	27900	42600	NA
5	39900	38100	36000	166000	77600	93000	61900	75500	42300	103000	85200	42300	75200	27030	62000	36400	25600	43400	NA
6	42800	36200	42800	190000	75800	11100	63300	73200	40200	88400	103600	44100	63200	29600	54700	44100	30900	42100	NA
7	38300	32500	37600	168000	77400	95700	58600	71200	40300	99600	90100	43600	79000	28500	60600	39600	28900	46400	NA
8	40800	32500	32300	170000	76000	102000	57700	43000	39400	94400	102000	43100	73800	28400	41100	46400	29900	45100	NA
SULFATE																			
1	43600	52400	42800	897000	232000	103000	246000	85100	51900	76200	34800	34200	63700	39800	44100	44900	39100	42300	400000
2	40100	32400	38800	402000	45100	123000	84500	68600	49800	62300	31800	27800	52700	32900	41200	64300	32600	68600	400000
3	40300	-	-	-	-	-	-	67500	51300	80300	55200	45600	69700	35500	41300	88400	35400	42400	400000
4	32000	31000	-	300000	39000	101000	71000	58000	39000	42000	30000	26000	49000	31000	34000	47000	32000	35000	400000
5	38600	16500	32800	304000	41900	83800	77900	55200	30000	60800	37300	26300	47200	32700	38600	36100	30700	38200	400000
6	42960	88400	56000	282100	44700	92600	87200	68400	32400	69100	40000	34200	46800	33417	31690	70700	37600	39102	400000
7	37000	25000	34000	320000	44000	80000	77000	61000	32000	63000	33000	29000	44000	33000	43000	59000	37000	40000	400000
8	35000	26000	36000	290000	42000	77000	76000	59000	31000	64000	35000	30000	47000	34000	40000	65000	37000	38000	400000

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TABLE 9D
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Volatile Organics
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
1,1-DICHLOROETHANE																			
1	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	6.3	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	5
2	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	24	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	5
3	(4.7)	-	-	-	-	-	-	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	5
4	(4.7)	(4.7)	-	(4.7)	(4.7)	6.8	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	5
5	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	9.6	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	5
6	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	8.1	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	(4.7)	5
7	(1)	(5)	(1)	(1)	(1)	10	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	5
8	(1)	(1)	(1)	(1)	(1)	10	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	5
1,1-DICHLOROETHENE																			
1	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	7.6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6
2	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	44	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6
3	(2.8)	-	-	-	-	-	-	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6
4	(2.8)	(2.8)	-	(2.8)	(2.8)	6.7	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6
5	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	21.6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6
6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	13.6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6
7	(1)	(5)	(1)	(1)	(1)	21	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	6
8	(1)	(1)	(1)	(1)	(1)	19	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	6
1,2-DICHLOROETHANE																			
1	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	3.6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	0.5
2	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	15	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	0.5
3	(2.8)	-	-	-	-	-	-	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	0.5
4	(2.8)	(2.8)	-	(2.8)	(2.8)	8	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	0.5
5	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	0.5
6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	4.8	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	0.5
7	(1)	(5)	(1)	(1)	(1)	7	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	0.5
8	(1)	(1)	(1)	(1)	(1)	6.1	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	0.5

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TABLE 9D
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Summary of Detected Parameters in Groundwater - Volatile Organics
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
ACETONE																			
7	(5R)	(25R)	(5R)	17	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	(5R)	NA
8	(5)	(5)	(5)	(5R)	(5R)	(5R)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5)	(5R)	(5)	(5)	NA
BROMODICHLOROMETHANE																			
1	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	100
2	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	100
3	(2.2)	-	-	-	-	-	-	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	100
4	(2.2)	(2.2)	-	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	100
5	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	100
6	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	(2.2)	100
7	(1)	(5)	(1)	(1)	(1)	1.4	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	100
8	(1)	(1)	(1)	(1)	(1)	1.2	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	100
CHLOROFORM																			
1	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	160	(1.6)	(1.6)	(1.6)	2.6	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	2.1	(1.6)	(1.6)	100
2	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	16000	1.6	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	2.4	(1.6)	(1.6)	100
3	(1.6)	-	-	-	-	-	-	(1.6)	(1.6)	1.2	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	100
4	(1.6)	(1.6)	-	(1.6)	(1.6)	7900	(1.6)	(1.6)	(1.6)	1.6	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	3.3	(1.6)	(1.6)	100
5	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	8710	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	1.6	(1.6)	(1.6)	100
6	(1.6)	1.6	(1.6)	(1.6)	(1.6)	7660	1.8	(1.6)	(1.6)	(1.6)	(1.6)	(1.6)	2.4	(1.6)	(1.6)	1.8	(1.6)	(1.6)	100
7	(1)	(5)	(1)	(1)	(1)	4900	2.1	(1)	(1)	(1)	(1)	(1)	1.5	(1)	(1)	3.7	(1)	(1)	100
8	(1)	(1)	(1)	(1)	(1)	8000	2.8	(1)	(1)	(1)	(1)	1	1.3	(1)	(1)	2.1	(1)	(1)	100
METHYLENE CHLORIDE																			
1	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	2.8	(2.8)	(2.8)	9.6	(2.8)	3.7	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	5
2	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	5
3	(2.8)	-	-	-	-	-	-	(2.8)	(2.8)	1.9	1.9	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	5
4	(2.8)	(2.8)	-	(2.8)	(2.8)	(2.8)	(2.8)	2.7	2.7	4.7	(2.8)	(2.8)	4.4	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	5
5	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	5
6	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	(2.8)	5
7	(2)	(10)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	5
8	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	5

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9D
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Volatile Organics
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
TOLUENE																			
1	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	1000
2	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	1000
3	(6)	-	-	-	-	-	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	13	(6)	1000
4	(6)	(6)	-	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	1000
5	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	1000
6	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	(6)	1000
7	(1)	(5)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1000
8	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	1000
TRICHLOROETHENE																			
1	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	5
2	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	5
3	(1.9)	-	-	-	-	-	-	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	1.5	(1.9)	5
4	(1.9)	(1.9)	-	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	5
5	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	5
6	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	(1.9)	5
7	(1)	(5)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	5
8	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	(1)	5

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

SUM_TBL.XLS

TABLE 9E
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Semivolatile Organic Compounds
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
BIS(2-ETHYLHEXYL)PHTHALATE																			
1	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	9.7	(2.5)	(2.5)	(2.5)	(2.5)	10.4	(2.5)	(2.5)	(2.5)	(2.5)	8.7	(2.5)	(2.5)	4
2	10.1	(2.5)	13.6	2.7	(2.5)	(2.5)	(2.5)	(2.5)	3.3	3	2.6	(2.5)	(2.5)	5.3	6.4	(2.5)	2.8	2.7	4
3	(2.5)	-	-	-	-	-	-	(2.5)	(2.5)	4.8	6.4	8.9	(2.5)	(2.5)	10.1	(2.5)	5.7	(2.5)	4
4	3.2	(2.5)	-	5.04	(2.5)	5.92	4.22	(2.5)	(2.5)	(2.5)	(2.5)	16.3	2.6	3.51	5.38	22.4	(2.5)	3.56	4
5	(2.5)	(2.5)	3.8	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	3.9	2.9	(2.5)	-	(2.5)	4
6	(2.5)	4.6	(2.5)	(2.5)	(2.5)	(2.5)	2.8	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	3.2	2.8	(2.5)	(2.5)	4
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	15	-	(10)	(10)	19	37	(10)	(5)	(10)	(5)	(10R)	4
8	(10)	10	(10)	(11)	(10)	(11)	(11)	(10)	(10)	(10)	(11)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	4
DI-N-BUTYLPHTHALATE																			
1	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	2.8	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	NA
2	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	NA
3	(2.5)	-	-	-	-	-	-	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	NA
4	(2.5)	(2.5)	-	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	9.76	14.4	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	NA
5	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	-	(2.5)	NA
6	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	(2.5)	NA
7	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	-	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	(10R)	NA
8	(10)	(10)	(10)	(11)	(10)	(11)	(11)	(10)	(10)	(10)	(11)	(10)	(10)	(10)	(10)	(10)	(10)	(10)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9F
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Pesticides and PCB's
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
4,4'-DDD																			
1	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	NA
2	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	NA
3	(0.011)	-	-	-	-	-	-	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	NA
4	(0.011)	(0.011)	-	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	-	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	NA
5	(0.011)	(0.011)	0.013	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	-	(0.011)	NA
6	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	(0.011)	NA
7	(0.1)	(0.11)	(0.1)	(0.01)	(0.01)	(0.11)	-	(0.1)	(0.1)	(0.1)	(0.01)	(0.1)	(0.1)	(0.01)	(0.01)	(0.01)	(0.1)	(0.1)	NA
8	(0.021)	(0.021)	(0.021)	(0.02)	(0.02)	(0.021)	(0.02)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	(0.021)	(0.02)	(0.021)	(0.021)	NA
4,4'-DDT																			
1	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	NA
2	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	NA
3	(0.012)	-	-	-	-	-	-	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	NA
4	(0.012)	(0.012)	-	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	-	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	NA
5	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	-	(0.012)	NA
6	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	(0.012)	NA
7	(0.1)	(0.11)	(0.1)	(0.01)	(0.01)	(0.11)	-	(0.1)	(0.1)	(0.1)	(0.01)	(0.1)	(0.1)	(0.01)	(0.01)	(0.01)	(0.1)	(0.1)	NA
8	(0.021)	(0.021)	(0.021)	(0.02)	(0.02)	(0.021)	(0.02)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.034	0.021R)	(0.021)	(0.02)	(0.021)	(0.021)	NA
ALPHA-BHC																			
1	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.7
2	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.7
3	(0.003)	-	-	-	-	-	-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.7
4	(0.003)	(0.003)	-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.7
5	(0.003)	0.004	0.004	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	-	(0.003)	0.7
6	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.7
7	(0.05)	(0.057)	(0.052)	(0.005)	0.0051)	(0.053)	-	(0.05)	(0.05)	(0.051)	(0.005)	(0.05)	(0.05)	(0.005)	(0.005)	0.0051)	(0.05)	(0.05)	0.7
8	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.011)	(0.01)	(0.01R)	(0.01R)	0.011R)	(0.01R)	(0.01R)	(0.01R)	0.011R)	(0.01)	(0.01)	(0.011)	(0.01)	0.7

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

SUM_TBL.XLS

TABLE 9F
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Pesticides and PCB's
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
BETA-BHC																			
1	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.3
2	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.3
3	(0.006)	-	-	-	-	-	-	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.3
4	(0.006)	(0.006)	-	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	-	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.3
5	(0.006)	0.011	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	-	(0.006)	0.3
6	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.3
7	(0.05)	(0.057)	(0.052)	(0.005)	0.0051)	(0.053)	-	(0.05)	(0.05)	(0.051)	(0.005)	(0.05)	(0.05)	(0.005)	(0.005)	0.0051)	(0.05)	(0.05)	0.3
8	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.011)	(0.01)	(0.01R)	(0.01R)	0.011R)	(0.01R)	(0.01R)	(0.01R)	0.011R)	(0.01)	(0.01)	(0.011)	(0.01)	0.3
DIELDRIN																			
1	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	NA
2	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	0.06	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	NA
3	(0.002)	-	-	-	-	-	-	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	NA
4	(0.002)	(0.002)	-	(0.002)	(0.002)	(0.002)	0.085	(0.002)	(0.002)	(0.002)	-	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	NA
5	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	0.03	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	0.006	-	(0.002)	NA
6	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	0.07	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	(0.002)	0.003	(0.002)	NA
7	(0.1)	(0.11)	(0.1)	(0.01)	(0.01)	(0.11)	-	(0.1)	(0.1)	(0.1)	(0.01)	(0.1)	(0.1)	(0.01)	(0.01)	(0.01)	(0.1)	(0.1)	NA
8	(0.021)	(0.021)	(0.021)	(0.02)	(0.02)	(0.021)	0.059	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	(0.021)	(0.02)	(0.021)	(0.021)	NA
ENDOSULFAN I																			
1	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	NA
2	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	NA
3	(0.014)	-	-	-	-	-	-	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	NA
4	(0.014)	(0.014)	-	(0.014)	(0.014)	(0.014)	0.018	(0.014)	(0.014)	(0.014)	-	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	NA
5	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	-	(0.014)	NA
6	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	(0.014)	NA
7	(0.05)	(0.057)	(0.052)	(0.005)	0.0051)	(0.053)	-	(0.05)	(0.05)	(0.051)	(0.005)	(0.05)	(0.05)	(0.005)	(0.005)	0.0051)	(0.05)	(0.05)	NA
8	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.011)	(0.01)	(0.01R)	(0.01R)	0.011R)	(0.01R)	(0.01R)	(0.01R)	0.011R)	(0.01)	(0.01)	(0.011)	(0.01)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9F
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Pesticides and PCB's
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
ENDRIN																			
1	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.2
2	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.05	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.2
3	(0.006)	-	-	-	-	-	-	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.2
4	(0.006)	(0.006)	-	(0.006)	(0.006)	(0.006)	0.04	(0.006)	(0.006)	(0.006)	-	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.2
5	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.013	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	-	(0.006)	0.2
6	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.02	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	(0.006)	0.2
7	(0.1)	(0.11)	(0.1)	(0.01)	(0.01)	(0.11)	-	(0.1)	(0.1)	(0.1)	(0.01)	(0.1)	(0.1)	(0.01)	(0.01)	(0.01)	(0.1)	(0.1)	0.2
8	(0.021)	(0.021)	(0.021)	(0.02)	(0.02)	(0.021)	0.027	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	0.021R)	(0.021)	(0.02)	(0.021)	(0.021)	0.2
GAMMA-BHC																			
1	(0.004)	0.004	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	4
2	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	0.004	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	4
3	(0.004)	-	-	-	-	-	-	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	4
4	(0.004)	(0.004)	-	(0.004)	(0.004)	(0.004)	0.011	(0.004)	(0.004)	(0.004)	-	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	4
5	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	-	(0.004)	4
6	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	0.007	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	(0.004)	4
7	(0.05)	(0.057)	(0.052)	(0.005)	0.0051)	(0.053)	-	(0.05)	(0.05)	(0.051)	(0.005)	(0.05)	(0.05)	(0.005)	(0.005)	0.0051)	(0.05)	(0.05)	4
8	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.011)	(0.01)	(0.01R)	(0.01R)	0.011R)	(0.01R)	(0.01R)	(0.01R)	0.011R)	(0.01)	(0.01)	(0.011)	(0.01)	4
HEPTACHLOR																			
1	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.01
2	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.01
3	(0.003)	-	-	-	-	-	-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.01
4	(0.003)	(0.003)	-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	-	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.01
5	(0.003)	0.004	(0.003)	(0.003)	(0.003)	(0.003)	0.005	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	-	(0.003)	0.01
6	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	(0.003)	0.01
7	(0.05)	(0.057)	(0.052)	(0.005)	0.0051)	(0.053)	-	(0.05)	(0.05)	(0.051)	(0.005)	(0.05)	(0.05)	(0.005)	(0.005)	0.0051)	(0.05)	(0.05)	0.01
8	(0.01)	(0.01)	(0.01)	(0.01)	(0.01)	(0.011)	(0.01)	(0.01R)	(0.01R)	0.011R)	(0.01R)	(0.01R)	(0.01R)	0.011R)	(0.01)	(0.01)	(0.011)	(0.01)	0.01

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9G

1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Radiochemical Analyses
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
STRONTIUM-90																			
1	1.7	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	6.1	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	4	(0.5)	(0.5)	8
2	(0.5)	(1)	(1)	(0.5)	(1)	(1)	(0.5)	(0.5)	(1)	(1)	(1)	(1)	(1)	(0.5)	(1)	(0.5)	(1)	(0.5)	8
3	(1)	-	-	-	-	-	-	8.4	(1)	(0.5)	1.4	2.5	(0.5)	(0.5)	(0.5)	(0.5)	(1)	(1)	8
4	(0.5)	(0.5)	-	1.2	(0.5)	1	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	0.9	(0.5)	8
5	(0.5)	(0.5)	0.9	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	1.9	1	(0.5)	1.3	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	8
6	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	(0.5)	8
7	(1.2)	(0.97)	(0.95)	(0.86)	(1)	1.94	(1.1)	(1.1)	(1.1)	(1.1)	(0.98)	(1.4)	(1.4)	(1.1)	(0.93)	(0.95)	(1.1)	(1.3)	8
8	(0.65)	(0.71)	(0.61)	(1.1)	(0.93)	(0.87)	1.33	(0.62)	(0.69)	(0.68)	(0.67)	(0.68)	(0.65)	(0.64)	(0.66)	1.68	(1.1)	(0.66)	8
TRITIUM																			
1	(500)	(500)	(500)	(500)	(500)	(500)	22594	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	(500)	20000
2	(500)	(500)	(500)	(500)	(500)	(500)	20589	(500)	(500)	(500)	(500)	2081	(500)	(500)	(500)	3848	5302	(500)	20000
3	965	-	-	-	-	-	-	(500)	(500)	(500)	(500)	(500)	(500)	(500)	691	5525	(500)	(500)	20000
4	614	(500)	-	(500)	(500)	(500)	29838	(500)	(500)	509	(500)	(500)	(500)	(500)	(500)	1204	(500)	1200	20000
5	(500)	625	(500)	(500)	1024	921	20705	1640	1550	(500)	(500)	(500)	(500)	(500)	(500)	908	(500)	(500)	20000
6	(500)	2211	2022	(500)	(500)	(500)	20917	(500)	(500)	811	(500)	734	(500)	(500)	(500)	5949	1524	(500)	20000
7	(220)	(230)	(230)	(230)	(230)	(230)	19620	(220)	(220)	(220)	(230)	(220)	(220)	(230)	(220)	3810	(220)	(220)	20000
8	(240)	(240)	(240)	(240)	(240)	(240)	20040	(240)	(240)	(240)	(240)	(240)	(240)	(240)	(240)	4760	(240)	(250)	20000

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

TABLE 9G
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Groundwater - Radiochemical Analyses
February 1992 Through December 1993

Analyte/Quarter	First HSU Wells													Second HSU Wells					MCL
	18	01	04	10	11	12	13	19	20	21	22	23	24	17	07	14	15	16	
CARBON-14																			
1	(500)	-	(500)	-	-	-	2464	-	-	-	-	-	-	(500)	-	(500)	(500)	-	NA
2	(500)	-	(500)	-	-	-	1875	-	-	-	-	-	-	(500)	-	(500)	(500)	-	NA
3	(500)	-	-	-	-	-	-	-	-	-	-	-	-	(500)	-	1598	(500)	-	NA
4	(500)	-	-	-	-	-	1794	-	-	-	-	-	-	(500)	-	(500)	(500)	-	NA
5	(500)	-	(500)	-	-	-	1867	-	-	-	-	-	-	(500)	-	(500)	(500)	-	NA
6	(500)	-	(500)	-	-	-	1930	-	-	-	-	-	-	(500)	-	945	(500)	-	NA
7	(12)	46	57	(49)	195	190	994	88	(12)	(12)	92	107	(12)	61	(49)	568	(12)	(12)	NA
8	(40)	72	(39)	(40)	(40)	360	1559	(39)	(39)	(40)	(39)	358	(39)	145	(40)	864	(39)	(40)	NA
GROSS ALPHA																			
1	(2)	4	4	(2)	3	(2)	10	3	3	(2)	(2)	(2)	(2)	(2)	4	(2)	(2)	(2)	15
2	(2)	10	4	4	(2)	6	3	(2)	(2)	(2)	(2)	3	(2)	(2)	4	(2)	(2)	(2)	15
3	(2)	-	-	-	-	-	-	6	40	4	5	4	5	3	(2)	6	16	(2)	15
4	(2)	4	-	3	(2)	5	(2)	(2)	(2)	(2)	6	(2)	(2)	(2)	(2)	(2)	(2)	(2)	15
5	(2)	(2)	(2)	(2)	4	5	10	4	(2)	(2)	(2)	5	(2)	(2)	3	7	(2)	(2)	15
6	(2)	(2)	(2)	(2)	(2)	(2)	4	(2)	(2)	3	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)	15
7	(6.8)	(9.6)	(8)	(11)	(7.6)	(18)	(11)	(8.9)	(6)	(7.8)	(6.9)	(8.6)	9.9	(4.5)	(7.2)	(7.2)	(4.9)	(4.4)	15
8	(5.5)	(8.8)	(6.3)	(12)	(7.5)	(13)	(12)	(10)	(5)	(10)	(5.4)	(6.1)	(7.2)	(4.1)	(5.8)	(9.3)	(3.9)	(4.2)	15
GROSS BETA																			
1	(3)	4	20	(3)	(3)	(3)	10	4	4	6	(3)	(3)	7	(3)	(3)	6	(3)	(3)	50
2	4	13	5	(3)	(3)	5	(3)	(3)	(3)	(3)	(3)	6	(3)	(3)	6	6	(3)	(3)	50
3	7	-	-	-	-	-	-	7	24	6	7	22	4	(3)	4	8	12	(3)	50
4	(3)	21	-	8	(3)	9	4	(3)	(3)	(3)	12	(3)	(3)	(3)	(3)	(3)	(3)	(3)	50
5	(3)	9	(3)	(3)	4	18	20	(3)	5	(3)	(3)	8	(3)	(3)	6	22	(3)	(3)	50
6	(3)	7	7	(3)	(3)	(3)	(3)	(3)	(3)	4	(3)	(3)	(3)	(3)	(3)	5	(3)	(3)	50
7	(6.3)	(9.2)	(8)	(14)	(9)	(19)	(14)	(8.2)	(4.8)	(7.8)	(6.7)	(7.9)	(9.1)	(4.6)	(7.8)	(9.1)	(4)	(4.6)	50
8	(5.7)	(7.7)	(4.5)	(10)	(7)	(12)	(9.6)	(9.3)	(5)	(8.7)	(6.6)	(6.9)	(7.4)	(4.4)	(5.6)	(7.1)	(4)	(4.5)	50
RADIUM-226																			
8	(0.37)	(0.21)	(0.27)	(0.28)	(0.2)	(0.25)	(0.38)	(0.24)	(0.15)	(0.24)	-	(0.22)	-	(0.18)	0.26	(0.21)	(0.2)	(0.19)	5

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA = not applicable

SUM_TBL.XLS

TABLE 10
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF DETECTED PARAMETERS IN SURFACE WATER
FEBRUARY 1992 THROUGH DECEMBER 1993

	PARAMETER	SURFACE WATER			
		Number of Samples & Duplicates	Number of Detections	Maximum Value Detected	Location of Maximum Detection
General Chemical Parameters	ALKALINITY TOTAL(AS CACO3) (mg/liter)	33	33	228	PCU
	CHEMICAL OXYGEN DEMAND (ug/liter)	25	19	55,800	STPO
	EC-F (umhos/cm)	29	29	1,402	STPO
	EH-F (mvolts)	3	3	52	STPO
	FORMALDEHYDE (ug/ml)	33	7	500	STPO
	TEMPERATURE (degree C)	29	29	28.8	STPO
	TOTAL DISSOLVED SOLIDS mg/liter)	33	33	625	STPO
	TOTAL ORGANIC CARBON (mg/liter)	8	8	11	PCU
	TURBIDITY (NTU)	33	33	128	PCU
	TURBIDITY-F (NTU)	26	19	200	PCU
	pH-F	25	25	8.89	PCU
Metals	ANTIMONY (TOTAL)	33	8	10	STPO
(ug/liter)	ARSENIC (TOTAL)	33	5	10	STPO
	BARIUM (TOTAL)	33	31	90	PCU
	BERYLLIUM (TOTAL)	33	3	1	STPO
	CADMIUM (TOTAL)	33	4	500	STPO
	CHROMIUM (TOTAL)	33	11	80	PCD
	CHROMIUM, HEXAVALENT (+6)	33	11	45	STPO
	COBALT (TOTAL)	25	1	30	STPO
	COPPER (TOTAL)	33	3	40	PCU
	LEAD (TOTAL)	33	5	11.2	STPO
	MERCURY (TOTAL)	33	5	0.9	PCU
	MOLYBDENUM (TOTAL)	33	9	110	STPO
	NICKEL (TOTAL)	33	5	310	PCD
	THALLIUM (TOTAL)	33	2	60	STPO
	VANADIUM (TOTAL)	33	3	30	STPO
	ZINC (TOTAL)	33	23	60	STPO
Anions and Cations	AMMONIA-NITROGEN	8	7	8.3	STPO
(µg/liter)	CALCIUM (TOTAL)	33	33	26.9	PCU
	CHLORIDE	33	33	181	STPO
	IRON	8	2	0.1	STPO
	MAGNESIUM (TOTAL)	33	33	36.1	PCU
	NITROGEN, NITRATE (AS N)	33	31	11.1	STPO
	PHOSPHATE, TOTAL (AS P)	33	23	10.0	STPO
	POTASSIUM (TOTAL)	33	33	56.9	STPO
	SODIUM (TOTAL)	33	33	164	STPO
	SULFATE	33	33	130	STPO
	TOTAL KJELDAHL NITROGEN	8	5	9.2	STPO
Volatile Organics	ACETONE	8	3	36	STPO
(µg/liter)	BROMODICHLOROMETHANE	33	5	13	STPO
	CHLOROFORM	33	20	33	STPO
	DIBROMOCHLOROMETHANE	33	3	4.8	STPO
	METHYLENE CHLORIDE	33	11	8.2	STPO
Semivolatile Organics	2-CHLOROPHENOL	33	1	10	PCU
(µg/liter)	BIS(2-ETHYLHEXYL)PHTHALATE	33	18	13.3	STPO
	BIS(2-ISOPROPYL)ETHER	21	2	5.7	STPO
	DI-N-BUTYLPHTHALATE	33	3	10	PCU
Pesticides and PCBs	4,4'-DDD	33	7	0.1	STPO
(µg/liter)	4,4'-DDE	33	3	0.1	STPO
	ALDRIN	33	4	0.051	PCD
	ALPHA-BHC	33	15	0.055	PCU
	BETA-BHC	33	2	0.051	PCD
	DELTA-BHC	33	7	0.35	STPO
	DIELDRIN	33	3	0.1	STPO
	ENDOSULFAN I	33	3	0.055	STPO
	ENDOSULFAN II	33	1	0.1	STPO
	ENDRIN	33	1	0.1	STPO
	ENDRIN ALDEHYDE	33	1	0.1	STPO
	GAMMA-BHC	33	6	0.052	STPO
	HEPTACHLOR	33	2	0.051	PCD
Radiochemical Analyses	CARBON-14	8	3	122	PCU
(pCi/liter)	GROSS ALPHA	33	14	12	STPO
	GROSS BETA	33	28	43.5	STPO
	RADIUM-226	4	1	0.38	STPO
	STRONTIUM-90	33	5	6.9	PCU
	TRITIUM	33	8	1,724	STPO

TABLE 11A
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - General Chemical Parameters
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
TEMPERATURE continued				
6	19.8	19.9	20.7	NA
7	24	23.3	27.1	NA
8	11.2	10.2	19.3	NA
TOTAL DISSOLVED SOLIDS				
1	296	210	625	NA
2	507	400	619	NA
3	562	572	575	NA
4	593	582	515	NA
5	236	225	514	NA
6	298	289	595	NA
7	290	290	560	NA
8	280	260	590	NA
TOTAL ORGANIC CARBON				
7	11	11	7.7	NA
8	4.3	3.6	7.1	NA
TURBIDITY				
1	77.3	110	2.58	NA
2	13.5	30.5	2.75	NA
3	8.6	8.05	1.82	NA
4	18.1	3.89	3.45	NA
5	112	128	5.91	NA
6	24.8	9.7	15.6	NA
7	16	19	7.1	NA
8	10	4.8	4.7	NA
TURBIDITY-F				
1	200	200	3.18	NA
2	16.21	42.2	4.97	NA
3	200	30.4	6.01	NA
4	17.3	4.2	4.99	NA
5	200	200	9.42	NA
6	200	200	63.1	NA
7	15.8	19.13	8.52	NA
pH-F				
1	7.99	8.4	7.26	NA
2	8.29	8.89	7.22	NA
3	7.79	7.75	7.52	NA
4	7.69	7.5	7.48	NA
6	7.73	7.62	7.97	NA
7	7.06	8.14	7.5	NA
8	7.83	8.07	7.38	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11A
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - General Chemical Parameters
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
ALKALINITY TOTAL(AS CACO3)				
1	140	133	155	NA
2	200	219	174	NA
3	194	190	224	NA
4	160	185	216	NA
5	141	146	172	NA
6	218	228	218	NA
7	200	210	210	NA
8	200	190	210	NA
CHEMICAL OXYGEN DEMAND				
1	10400	10800	20200	NA
2	10000	5000	(1000)	NA
3	(1000)	(1000)	(1000)	NA
4	20200	16600	27500	NA
5	3980	27900	55800	NA
6	36300	5200	31200	NA
EC-F				
1	518	333	1111	NA
2	728	487	953	NA
3	1390	840	770	NA
4	894	967	1042	NA
5	404	453	1190	NA
6	749	670	1310	NA
7	566	488	1101	NA
8	0.41	0.332	0.979	NA
EH-F				
8	41	39	52	NA
FORMALDEHYDE				
1	(500)	(500)	(500)	NA
2	(500)	(500)	(500)	NA
3	(500)	(500)	(500)	NA
4	(500)	(500)	(500)	NA
5	0.28	(0.25)	0.49	NA
6	0.37	(0.25)	1.08	NA
7	(1)	(1)	(1)	NA
8	(1)	(1)	1.1	NA
TEMPERATURE				
1	19.7	14.4	23.6	NA
2	27.7	22.4	24.7	NA
3	25.8	20.8	28.8	NA
4	14.1	14.1	20.8	NA
5	9.2	9.4	17.1	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Metals
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
ANTIMONY (TOTAL)				
1	(10)	(10)	(10)	6
2	(10)	(10)	(10)	6
3	10	10	(10)	6
4	10	10	(10)	6
5	(10)	(10)	10	6
6	(10)	(10)	(10)	6
7	(5)	(5)	(5)	6
8	(5)	(5)	7.1	6
ARSENIC (TOTAL)				
1	(10)	(10)	(10)	50
2	(10)	(10)	(10)	50
3	(10)	(10)	(10)	50
4	(10)	(10)	(10)	50
5	(10)	(10)	(10)	50
6	(10)	(10)	(10)	50
7	(2)	(2)	2.1	50
8	2.7	2.2	5	50
BARIUM (TOTAL)				
1	60	60	(30)	1000
2	70	80	30	1000
3	50	50	30	1000
4	30	30	20	1000
5	50	50	20	1000
6	80	80	40	1000
7	78.3	59	23.1	1000
8	73.3	80.1	23.9	1000
BERYLLIUM (TOTAL)				
1	(1)	(1)	(1)	4
2	(1)	(1)	(1)	4
3	1	1	(1)	4
4	(1)	(1)	(1)	4
5	(1)	(1)	(1)	4
6	(1)	(1)	(1)	4
7	(1)	(1)	(1)	4
8	(1)	(1)	(1)	4
CADMIUM (TOTAL)				
1	(1)	(1)	(1)	10
2	(2)	(2)	(2)	10
3	2	2	2	10
4	(2)	(2)	(2)	10
5	(2)	(2)	(2)	10

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Metals
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
CADMIUM (TOTAL) continued				
6	(2)	(2)	(2)	10
7	(1)	(1)	(1)	10
8	(1)	(1)	(1)	10
CHROMIUM (TOTAL)				
1	(30)	(30)	(30)	50
2	10	(10)	(10)	50
3	10	30	10	50
4	(10)	20	10	50
5	80	(10)	(10)	50
6	(10)	(10)	(10)	50
7	(10)	(10)	(10)	50
8	(10)	(10)	(10)	50
CHROMIUM, HEXAVALENT (+6)				
1	(10)	(10)	(10)	NA
2	(10)	10	(10)	NA
3	42	43	45	NA
4	(10)	10	10	NA
5	(10)	(10)	10	NA
6	(10)	(10)	(10)	NA
7	(20)	(20)	(20)	NA
8	(20)	(20)	(20)	NA
COPPER (TOTAL)				
1	(30)	(30)	(30)	1300
2	(10)	(10)	(10)	1300
3	(30)	(30)	(30)	1300
4	(10)	(10)	(10)	1300
5	(10)	40	10	1300
6	(10)	(10)	10	1300
7	(10)	(10)	(10)	1300
8	(10)	(10)	(10)	1300
LEAD (TOTAL)				
1	(3)	(3)	(3)	50
2	(3)	(3)	(3)	50
3	(3)	(3)	(3)	50
4	10	(3)	(3)	50
5	(3)	(3)	(3)	50
6	(3)	(3)	(3)	50
7	6	7.3	11.2	50
8	(2)	(2)	(2)	50

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Metals
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
MERCURY (TOTAL)				
1	(0.4)	(0.4)	(0.4)	2
2	(0.4)	0.4	(0.4)	2
3	(0.4)	(0.4)	(0.4)	2
4	(0.4)	(0.4)	(0.4)	2
5	(0.4)	(0.4)	(0.4)	2
6	(0.4)	(0.4)	(0.4)	2
7	0.27	(0.2)	0.63	2
8	(0.2)	(0.2)	0.25	2
MOLYBDENUM (TOTAL)				
1	(30)	(30)	(30)	NA
2	(10)	(10)	(10)	NA
3	(30)	(30)	(30)	NA
4	(10)	(10)	(10)	NA
5	10	(10)	(10)	NA
6	10	(10)	110	NA
7	(10)	(10)	57.9	NA
8	(10)	(10)	61.3	NA
NICKEL (TOTAL)				
1	(30)	(30)	(30)	100
2	(10)	(10)	(10)	100
3	(30)	50	(30)	100
4	(10)	(10)	(10)	100
5	310	10	(10)	100
6	(10)	(10)	(10)	100
7	(20)	(20)	(20)	100
8	(20)	(20)	(20)	100
THALLIUM (TOTAL)				
1	(10)	50	60	2
2	(10)	(10)	(10)	2
3	(10)	(10)	(10)	2
4	(5)	(5)	(5)	2
5	(10)	(10)	(10)	2
6	(10)	(10)	(10)	2
7	(10)	(10)	(10)	2
8	(10)	(10)	(10)	2
VANADIUM (TOTAL)				
1	(30)	(30)	(30)	NA
2	20	(10)	10	NA
3	(30)	(30)	(30)	NA
4	(10)	(10)	(10)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11B
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Metals
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
VANADIUM (TOTAL) continued				
5	(10)	(10)	(10)	NA
6	(10)	(10)	(10)	NA
7	(10)	(10)	(10)	NA
8	(10)	(10)	(10)	NA
ZINC (TOTAL)				
1	(30)	(30)	30	NA
2	10	30	40	NA
3	(30)	(30)	30	NA
4	20	30	30	NA
5	30	20	40	NA
6	10	10	60	NA
7	(10)	(10)	21.1	NA
8	(20)	(20)	32.6	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11C
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Anions and Cations
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
AMMONIA-NITROGEN				
7	560	67	3900	NA
8	530	(50)	8300	NA
CALCIUM (TOTAL)				
1	20100	21400	19200	NA
2	21000	18700	14300	NA
3	16100	15100	16200	NA
4	14400	14100	13700	NA
5	26100	26400	16300	NA
6	26100	25400	18300	NA
7	24800	25500	19300	NA
8	26800	26900	19400	NA
CHLORIDE				
1	48900	11700	181000	NA
2	92900	18800	147000	NA
3	139000	160000	148000	NA
4	165000	147000	124000	NA
5	13400	13000	121000	NA
6	25200	19100	128100	NA
7	26000	16000	130000	NA
8	32000	15000	150000	NA
IRON				
7	(100)	(100)	(100)	NA
8	(100)	(100)	112	NA
MAGNESIUM (TOTAL)				
1	18600	19000	21700	NA
2	28200	36100	20700	NA
3	22000	21400	22000	NA
4	22900	23900	23700	NA
5	20500	20200	23000	NA
6	35300	34400	21400	NA
7	33200	35800	21600	NA
8	35000	35800	20300	NA
NITROGEN, NITRATE (AS N)				
1	2340	300	8750	10000
2	3510	(100)	11100	10000
3	3960	5980	5720	10000
4	4090	3960	2200	10000
5	280	230	8950	10000
6	1080	1210	4700	10000
7	690	540	3100	10000
8	1700	1000	3100	10000

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11C
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Anions and Cations
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
PHOSPHATE, TOTAL (AS P)				
1	900	(100)	4700	NA
2	1100	220	2500	NA
3	1490	1730	2220	NA
4	3440	4070	4780	NA
5	120	90	2910	NA
6	160	(50)	2940	NA
7	(1000)	(1000)	(10000)	NA
8	(1000)	(1000)	(10000)	NA
POTASSIUM (TOTAL)				
1	4900	2800	11900	NA
2	6140	1890	8370	NA
3	7900	7200	56900	NA
4	11200	16300	15000	NA
5	2370	1610	13200	NA
6	2500	2000	25400	NA
7	2200	1550	8140	NA
8	2540	1020	13100	NA
SODIUM (TOTAL)				
1	41100	15200	103000	NA
2	88400	22100	131000	NA
3	143000	147000	139000	NA
4	132000	136000	136000	NA
5	23600	23200	131000	NA
6	27600	23700	32200	NA
7	31400	19700	140000	NA
8	38600	19500	164000	NA
SULFATE				
1	26600	24400	41000	400000
2	44100	29400	54800	400000
3	66600	61900	52500	400000
4	78000	60000	65000	400000
5	50200	52000	130000	400000
6	38100	34500	62800	400000
7	30000	38000	59000	400000
8	29000	25000	58000	400000
TOTAL KJELDAHL NITROGEN				
7	670	(500)	4000	NA
8	1300	(500)	9200	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11D
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Volatile Organic Compounds
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
ACETONE				
7	9.2	(5R)	36	NA
8	(5)	(5)	(5)	NA
BROMODICHLOROMETHANE				
1	(2.2)	(2.2)	(2.2)	100
2	(2.2)	(2.2)	13	100
3	2.8	7.1	1.3	100
4	(2.2)	(2.2)	(2.2)	100
5	(2.2)	(2.2)	(2.2)	100
6	(2.2)	(2.2)	(2.2)	100
7	(1)	(1)	(1)	100
8	(1)	(1)	(1)	100
CHLOROFORM				
1	(1.6)	(1.6)	4.7	100
2	4.7	(1.6)	33	100
3	8.9	19	5.5	100
4	4.7	3.6	5.8	100
5	(1.6)	(1.6)	5	100
6	(1.6)	(1.6)	7.9	100
7	1.2	(1)	16	100
8	(1)	(1)	14	100
DIBROMOCHLOROMETHANE				
1	(3.1)	(3.1)	(3.1)	100
2	(3.1)	(3.1)	4.8	100
3	1.1	2.7	(3.1)	100
4	(3.1)	(3.1)	(3.1)	100
5	(3.1)	(3.1)	(3.1)	100
6	(3.1)	(3.1)	(3.1)	100
7	(1)	(1)	(1)	100
8	(1)	(1)	(1)	100
METHYLENE CHLORIDE				
1	3	(2.8)	4.1	5
2	(2.8)	(2.8)	(2.8)	5
3	(2.8)	(2.8)	5.2	5
4	(2.8)	(2.8)	(2.8)	5
5	(2.8)	(2.8)	(2.8)	5
6	(2.8)	(2.8)	3.8	5
7	(2)	(2)	3.9	5
8	(2)	(2)	5.7	5

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11E
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Semivolatile Organic Compounds
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
BIS(2-ETHYLHEXYL)PHTHALATE				
1	3.1	(2.5)	2.7	4
2	3.1	3	5.6	4
3	(2.5)	4.5	(2.5)	4
4	12.6	4.98	13.3	4
5	(2.5)	(2.5)	2.6	4
6	(2.5)	(2.5)	4	4
7	(5)	13	(5)	4
8	(10)	(10)	(10)	4
BIS(2-ISOPROPYL)ETHER				
1	(5.7)	(5.7)	(5.7)	NA
2	(5.7)	(5.7)	(5.7)	NA
3	3.6	(5.7)	5.7	NA
4	(5.7)	(5.7)	(5.7)	NA
5	(5.7)	(5.7)	(5.7)	NA
DI-N-BUTYLPHTHALATE				
1	(2.5)	(2.5)	(2.5)	NA
2	(2.5)	(2.5)	(2.5)	NA
3	(2.5)	(2.5)	(2.5)	NA
4	(2.5)	3.41	(2.5)	NA
5	(2.5)	(2.5)	(2.5)	NA
6	(2.5)	(2.5)	(2.5)	NA
7	(10)	(10)	(10)	NA
8	(10)	(10)	(10)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11F
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Pesticides and PCB's
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
4,4'-DDD				
1	0.023	0.014	0.051	NA
2	(0.011)	(0.011)	(0.011)	NA
3	(0.011)	(0.011)	(0.011)	NA
4	0.093	(0.011)	(0.011)	NA
5	(0.011)	(0.011)	0.03	NA
6	(0.011)	(0.011)	(0.011)	NA
7	(0.1)	(0.1)	(0.1)	NA
8	(0.02)	(0.02)	(0.021)	NA
4,4'-DDE				
1	(0.004)	(0.004)	(0.004)	NA
2	(0.004)	(0.004)	(0.004)	NA
3	(0.004)	(0.004)	(0.004)	NA
4	(0.004)	(0.004)	(0.004)	NA
5	(0.004)	(0.004)	0.012	NA
6	(0.004)	(0.004)	(0.004)	NA
7	(0.1)	(0.1)	(0.1)	NA
8	(0.02)	(0.02)	(0.021)	NA
ALDRIN				
1	0.006	(0.004)	(0.004)	0.05
2	(0.004)	(0.004)	(0.004)	0.05
3	(0.004)	(0.004)	(0.004)	0.05
4	(0.004)	(0.004)	(0.004)	0.05
5	(0.004)	(0.004)	(0.004)	0.05
6	(0.004)	(0.004)	0.007	0.05
7	(0.051)	(0.05)	(0.05)	0.05
8	(0.01)	(0.01)	(0.01)	0.05
ALPHA-BHC				
1	(0.003)	(0.003)	(0.003)	0.7
2	0.014	(0.003)	(0.003)	0.7
3	0.01	0.055	0.031	0.7
4	0.038	0.032	0.011	0.7
5	(0.003)	(0.003)	0.007	0.7
6	0.006	(0.003)	(0.003)	0.7
7	(0.051)	(0.05)	(0.05)	0.7
8	(0.01)	0.011	(0.01)	0.7
BETA-BHC				
1	(0.006)	(0.006)	(0.006)	0.3
2	(0.006)	(0.006)	(0.006)	0.3
3	(0.006)	(0.006)	(0.006)	0.3
4	0.008	(0.006)	(0.006)	0.3
5	(0.006)	(0.006)	0.017	0.3

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11F
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Pesticides and PCB's
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
BETA-BHC continued				
6	(0.006)	(0.006)	(0.006)	0.3
7	(0.051)	(0.05)	(0.05)	0.3
8	(0.01)	(0.01)	(0.01)	0.3
DELTA-BHC				
1	(0.009)	(0.009)	(0.009)	NA
2	(0.009)	(0.009)	(0.009)	NA
3	(0.009)	(0.009)	0.048	NA
4	(0.009)	0.055	0.095	NA
5	(0.009)	(0.009)	(0.009)	NA
6	(0.009)	(0.009)	(0.009)	NA
7	(0.051)	(0.05)	(0.05)	NA
8	(0.01)	(0.01)	(0.01)	NA
DIELDRIN				
1	(0.002)	(0.002)	(0.002)	NA
2	(0.002)	(0.002)	(0.002)	NA
3	(0.002)	(0.002)	(0.002)	NA
4	0.043	(0.002)	(0.002)	NA
5	(0.002)	(0.002)	0.006	NA
6	(0.002)	(0.002)	(0.002)	NA
7	(0.1)	(0.1)	(0.1)	NA
8	(0.02)	(0.02)	(0.021)	NA
ENDOSULFAN I				
1	(0.014)	(0.014)	(0.014)	NA
2	(0.014)	(0.014)	(0.014)	NA
3	(0.014)	(0.014)	(0.014)	NA
4	0.026	0.026	(0.014)	NA
5	(0.014)	(0.014)	(0.014)	NA
6	(0.014)	(0.014)	(0.014)	NA
7	(0.051)	(0.05)	(0.05)	NA
8	(0.01)	(0.01)	(0.01)	NA
ENDOSULFAN II				
1	(0.004)	(0.004)	(0.004)	NA
2	(0.004)	(0.004)	(0.004)	NA
3	(0.004)	(0.004)	(0.004)	NA
4	(0.004)	(0.004)	(0.004)	NA
5	(0.004)	(0.004)	(0.004)	NA
6	(0.004)	(0.004)	(0.004)	NA
7	(0.1)	(0.1)	(0.1)	NA
8	(0.02)	(0.02)	(0.021)	NA

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11F
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Pesticides and PCB's
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
ENDRIN ALDEHYDE				
1	(0.023)	(0.023)	(0.023)	NA
2	(0.023)	(0.023)	(0.023)	NA
3	(0.023)	(0.023)	(0.023)	NA
4	0.041	(0.023)	(0.023)	NA
5	(0.023)	(0.023)	(0.023)	NA
6	(0.023)	(0.023)	(0.023)	NA
7	(0.1)	(0.1)	(0.1)	NA
8	(0.02)	(0.02)	(0.021)	NA
GAMMA-BHC				
1	(0.004)	0.004	(0.004)	4
2	(0.004)	(0.004)	(0.004)	4
3	(0.004)	(0.004)	0.052	4
4	0.019	(0.004)	(0.004)	4
5	(0.004)	(0.004)	(0.004)	4
6	(0.004)	(0.004)	0.009	4
7	(0.051)	(0.05)	(0.05)	4
8	(0.01)	(0.01)	(0.01)	4
HEPTACHLOR				
1	(0.003)	(0.003)	(0.003)	0.01
2	(0.003)	(0.003)	(0.003)	0.01
3	(0.003)	(0.003)	(0.003)	0.01
4	0.032	0.026	(0.003)	0.01
5	(0.003)	(0.003)	(0.003)	0.01
6	(0.003)	(0.003)	(0.003)	0.01
7	(0.051)	(0.05)	(0.05)	0.01
8	(0.01)	(0.01)	(0.01)	0.01

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 11G
1993 Annual Water Monitoring Report, LEHR Environmental Restoration
Summary of Detected Parameters in Surface Water - Radiochemical Analyses
February 1992 Through December 1993

Analyte/Quarter	Sample			MCL
	PCD	PCU	STPO	
CARBON-14				
7	(12)	36	(12)	NA
8	(40)	122	65	NA
GROSS ALPHA				
1	(2)	(2)	3	15
2	(2)	(2)	(2)	15
3	3	3	(2)	15
4	9	8	12	15
5	(2)	(2)	3	15
6	3	4	3	15
7	(4)	(2.7)	(5.1)	15
8	(3.3)	(3.1)	(5.7)	15
GROSS BETA				
1	4	7	15	50
2	10	4	6	50
3	16	15	7	50
4	34	29	37	50
5	(3)	5	9	50
6	7	10	9	50
7	4.3	2.7	27.3	50
8	5.5	(2.7)	41	50
RADIUM-226				
8	0.29	(0.28)	(0.38)	5
STRONTIUM-90				
1	(0.5)	(0.5)	(0.5)	8
2	(1)	(1)	(1)	8
3	2.5	6.9	1.5	8
4	(0.5)	0.9	(0.5)	8
5	(0.5)	(0.5)	1	8
6	(0.5)	(0.5)	(0.5)	8
7	(1.2)	(1.3)	(1.2)	8
8	(0.89)	(0.79)	(1.2)	8
TRITIUM				
1	754	(500)	752	20000
2	(500)	(500)	(500)	20000
3	800	650	(500)	20000
4	851	(500)	1724	20000
5	(500)	(500)	(500)	20000
6	(500)	(500)	(500)	20000
7	(220)	(220)	300	20000
8	(240)	(240)	(240)	20000

( ) = Nondetect, number in parentheses is the reported detection limit.
- = Not analyzed.
NA - not applicable

TABLE 12
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
UPGRADIENT VERSUS DOWNGRADIENT WELL STATISTICAL COMPARISONS
95% UPPER TOLERANCE LIMIT (UTL)

First HSU				
	Percentage of sample results that exceed the UTL value			
Well #	NO_3 - N	Cr (Total)	Cr VI	Ni
UCD-01	0	28.6	0	0
UCD-04	0	0	0	0
UCD-10	42.9	85.7	57.1	0
UCD-11	0	100	100	0
UCD-12	71.4	100	100	0
UCD-13	0	100	100	0
UCD-19	0	100	100	0
UCD-20	0	37.5	37.5	0
UCD-21	87.5	75	100	0
UCD-22	0	0	12.5	12.5
UCD-23	0	12.5	12.5	37.5
UCD-24	75	25	12.5	0
95% UTL value for UCD-18 (µg/l)	28,980.0	69.5	55.4	113.0
Second HSU				
	Percentage of sample results that exceed the UTL value			
Well #	NO_3 - N	Cr (total)	Cr VI	Ni
UCD-07	100	75	100	NA
UCD-14	75	37.5	75	NA
UCD-15	12.5	0	12.5	NA
UCD-16	62.5	0	87.5	NA
95% UTL value for UCD-17 (µg/l)	3,117.0	54.0	24.6	NA

NA - Not Applicable, > 50% non-detects, see Table 13 for summary of Test of Proportion results.

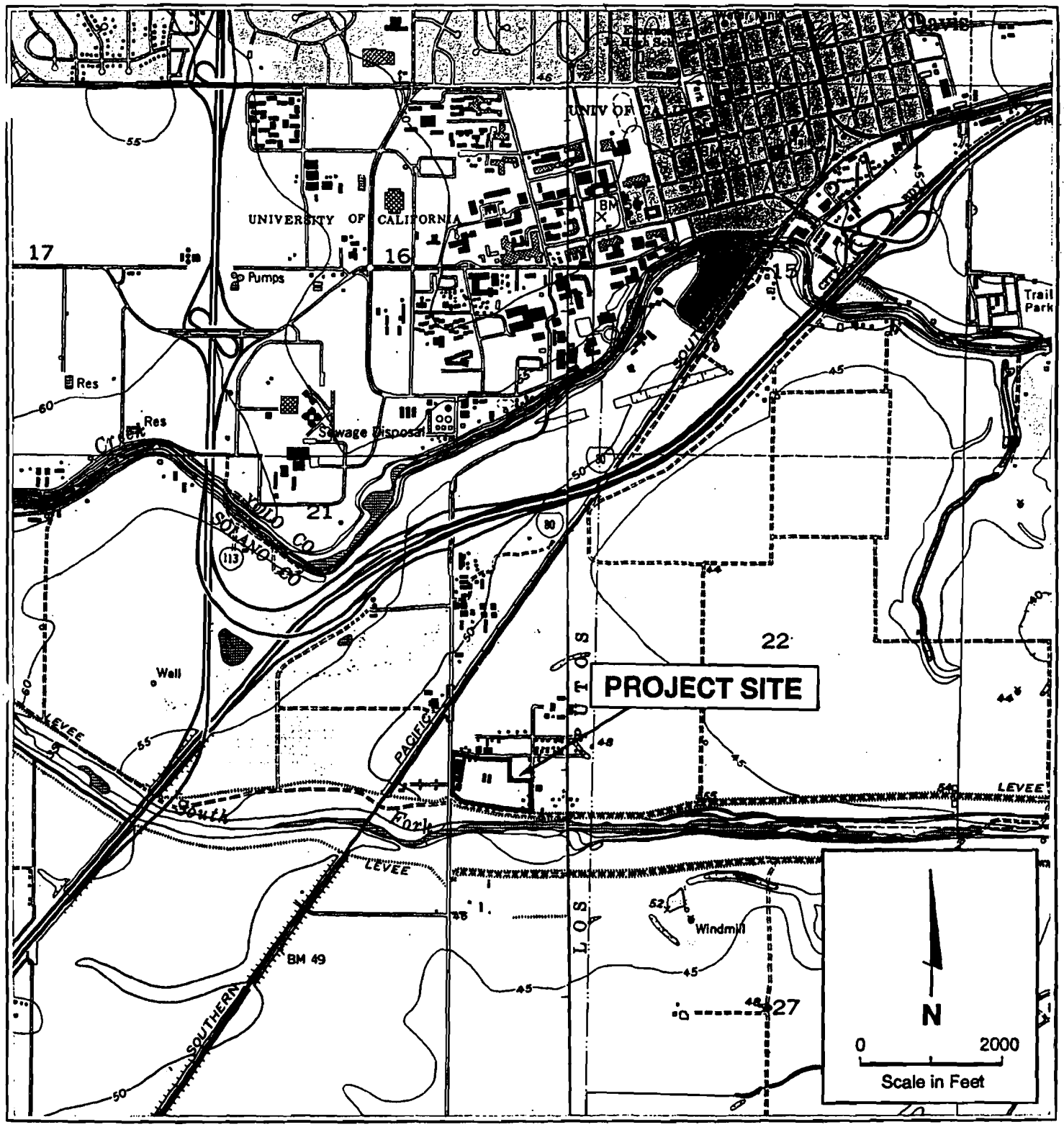
TABLE 13
1993 ANNUAL WATER MONITORING REPORT, LEHR ENVIRONMENTAL RESTORATION
SUMMARY OF TEST PROPORTIONS (Z VALUES)

	First HSU				
	Z Values				
Well #	CHLOROFORM	Se	Ni	C-14	TRITIUM
UCD-01	1.11*	-	0.52*	3.16*	0.16*
UCD-04	-	1.20*	0.97	1.20*	0.38*
UCD-10	-	2.93	1.27	-	1.42*
UCD-11	-	2.93	0.73	2.11*	0.52*
UCD-12	3.87	2.93	0.73	3.16*	0.52*
UCD-13	2.50*	-	0.73	3.87	2.96
UCD-19	-	2.31*	1.51	3.16*	0.64*
UCD-20	-	1.03*	2.00	-	-
UCD-21	1.92*	1.51*	0.54	2.11*	0.64*
UCD-22	-	-	0.54	-	0.57*
UCD-23	1.03*	-	0.00*	2.11*	1.51*
UCD-24	1.92*	1.03*	1.51	3.16*	0.00*
	Second HSU				
	Z Values				
Well #	CHLOROFORM	Se	Ni	C-14	TRITIUM
UCD-07	-	-	0.00*	0.79*	1.03*
UCD-14	3.53	-	0.54	1.03	3.53
UCD-15	-	-	1.03	1.51*	1.51*
UCD-16	-	1.51*	0.00*	0.79*	1.03*

NOTE: Shaded number indicates that Z value is greater than 1.96, a significant difference between upgradient well and downgradient wells at the 95% confidence level. This is an indication of a statistical impact.

* Some of the Test of Proportions components failed to qualify. For further discussion, see Appendix D. (np or n(1-p)) are less than 5.

\- Not applicable, division by zero.

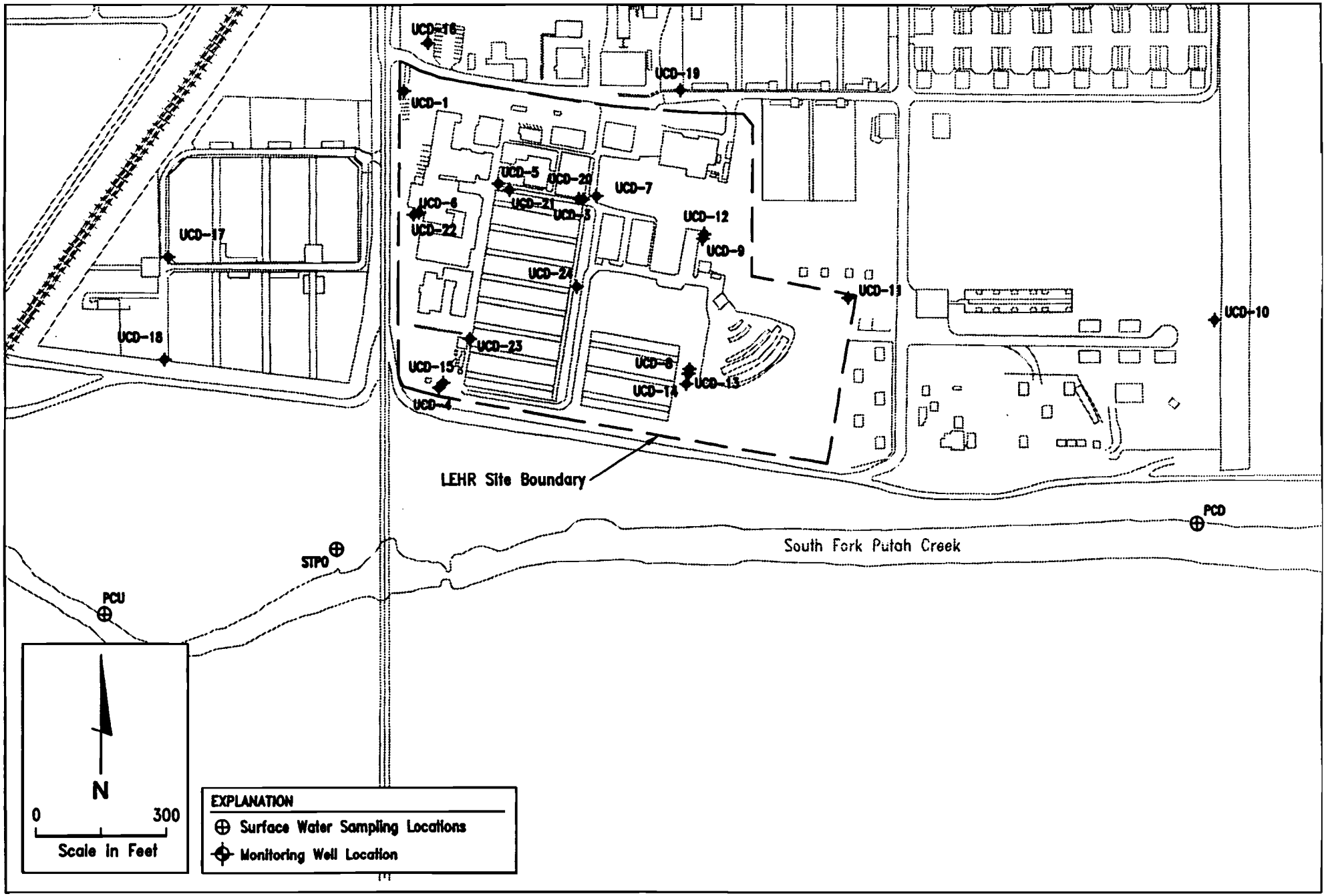


REFERENCE: USGS 7.5 Minute Series Quadrangles; Merritt, CA, 1981 and Davis, CA, 1982

SITE VICINITY MAP

10805-720-044

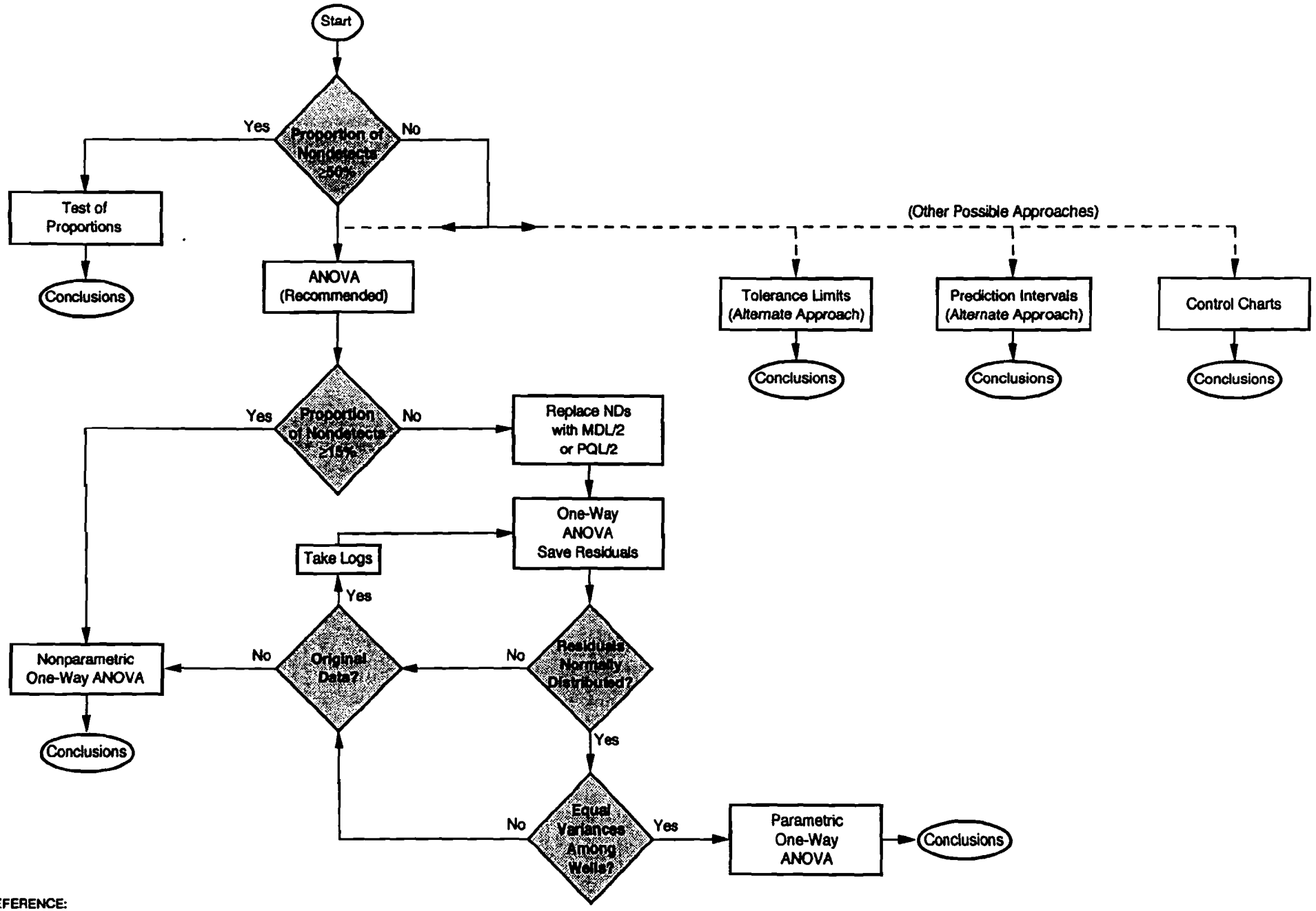
FIGURE 1



LOCATION MAP
GROUNDWATER MONITORING WELLS
AND SURFACE WATER SAMPLING LOCATIONS

FIGURE 2

10805-720-04 SJR 4/6/94 6905S

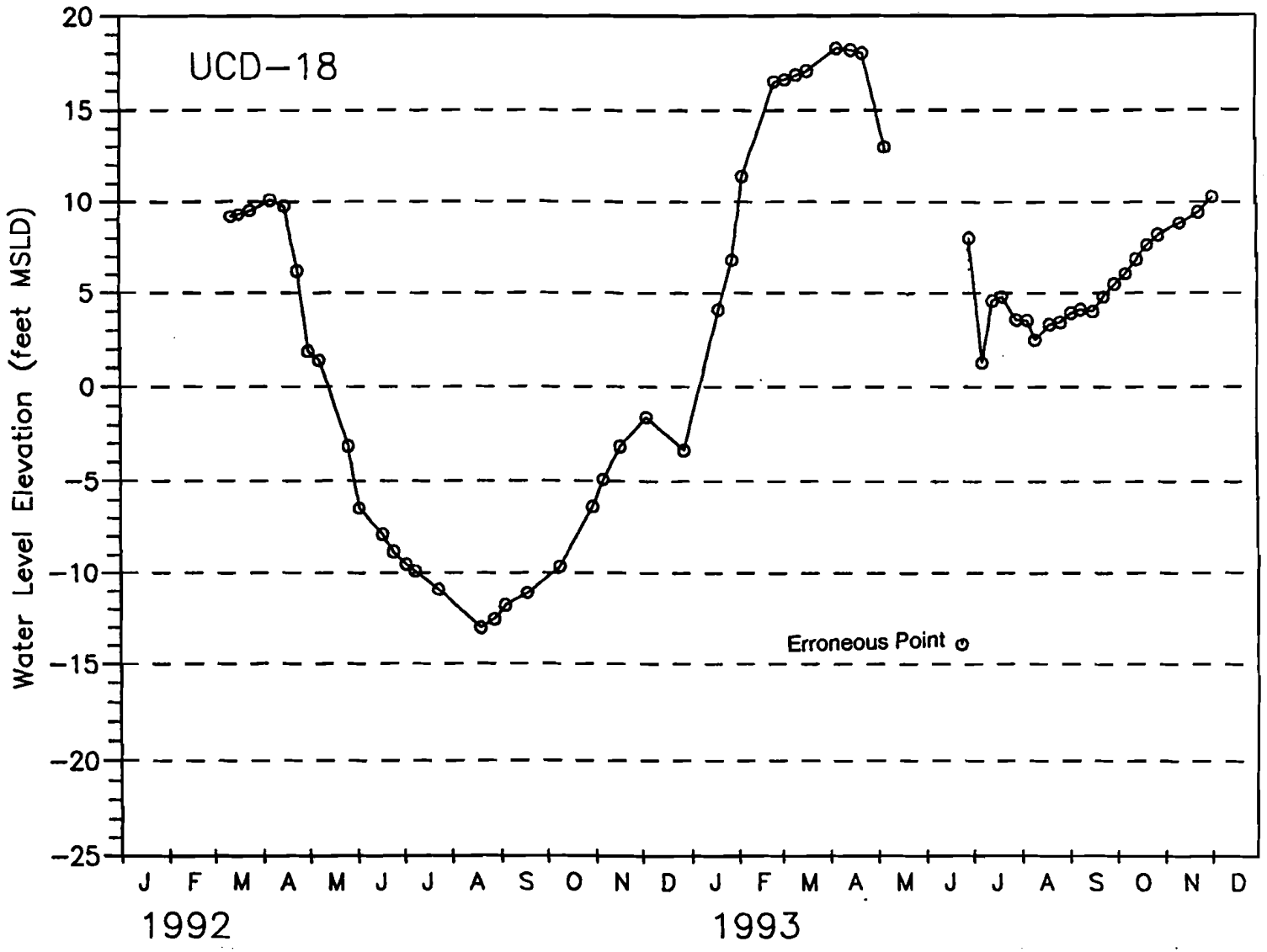


REFERENCE:
Redrawn from "Statistical Analysis of Ground-Water Monitoring Data at RCRA Facilities" (EPA, 1989)

STATISTICAL ANALYSIS FLOW CHART
BACKGROUND WELL TO COMPLIANCE WELL COMPARISONS

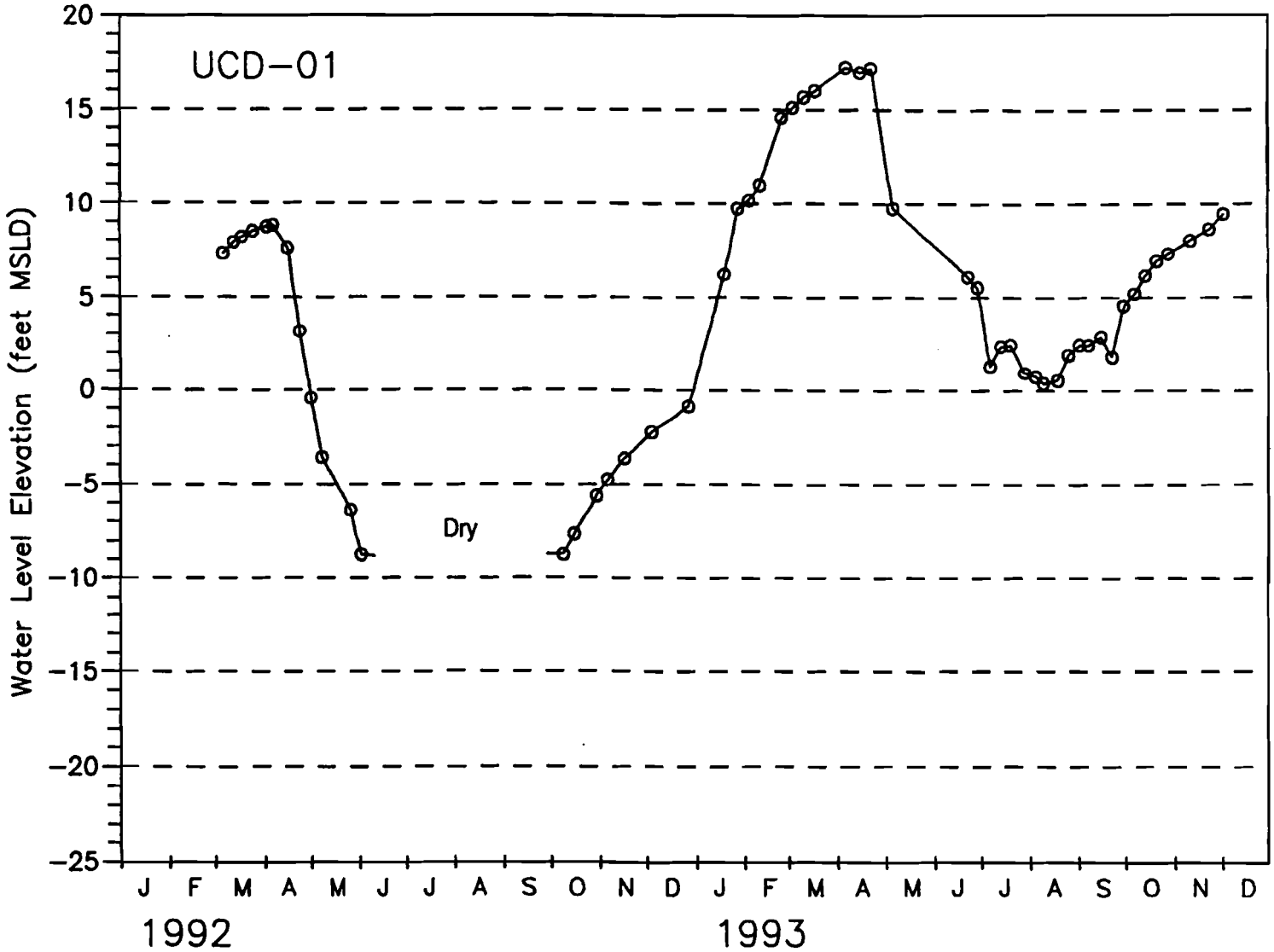
10805-720-044.sjr.4/11/94.5705.bk

FIGURE 3



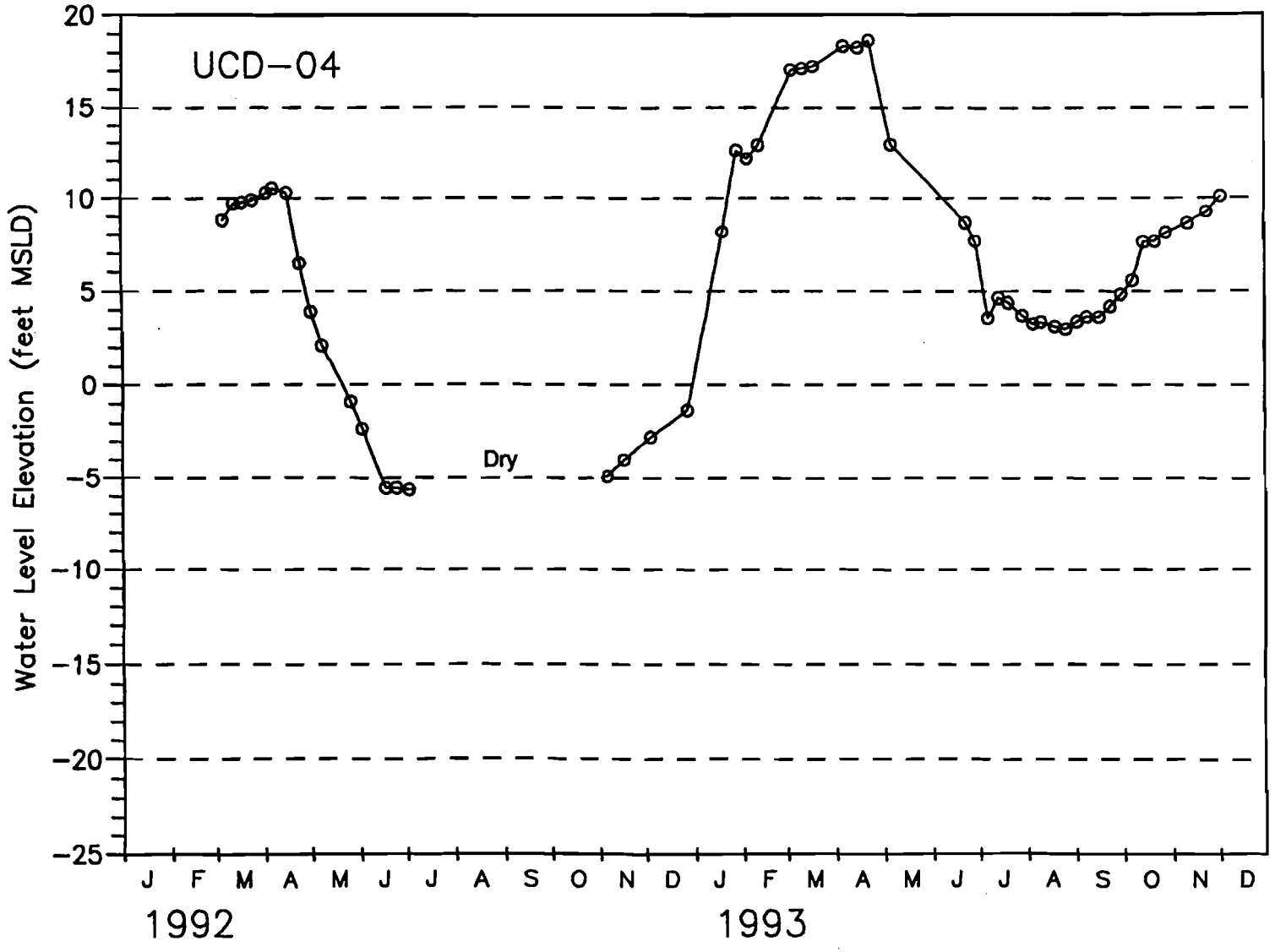
GROUNDWATER ELEVATION HYDROGRAPH
UCD-18

FIGURE 4



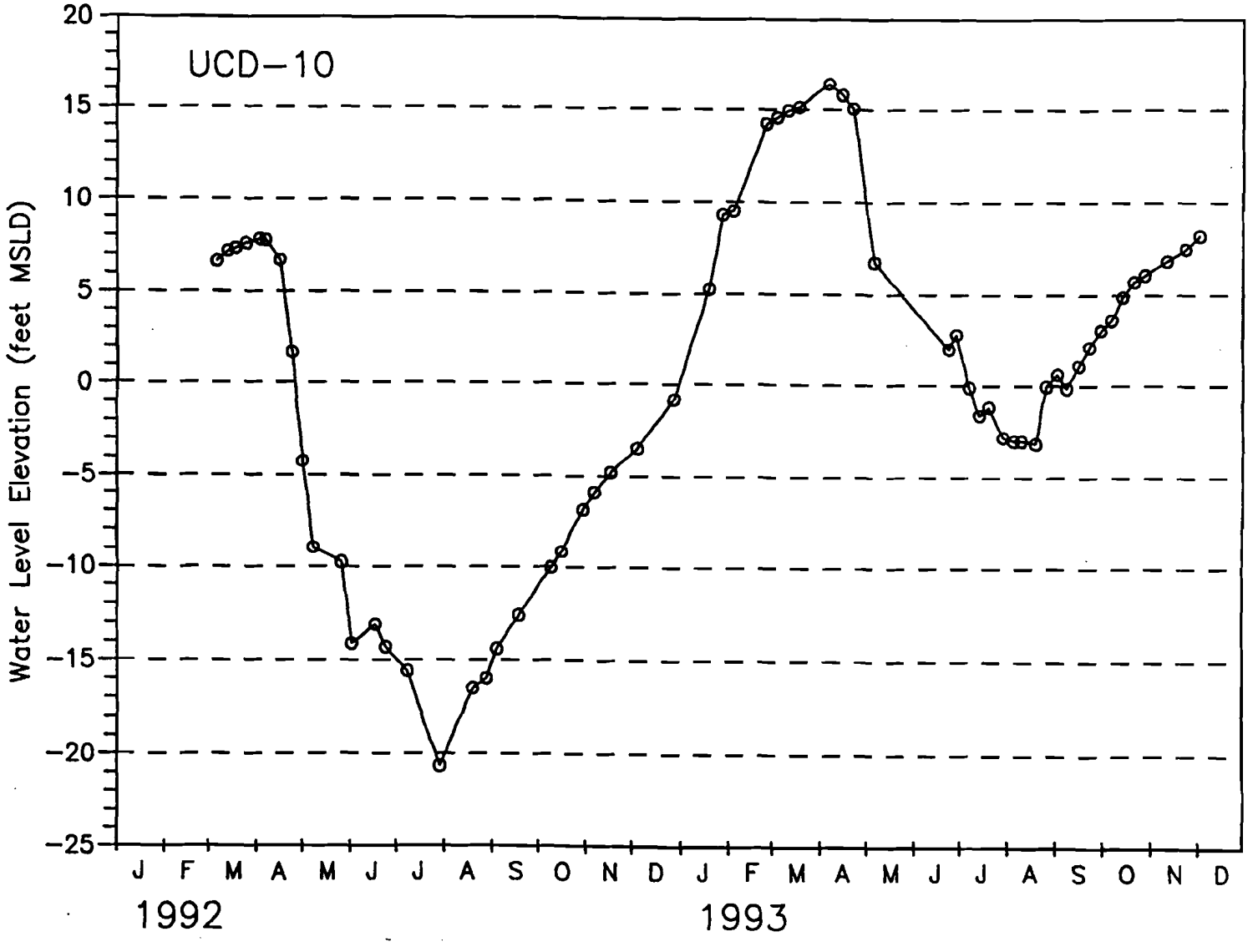
GROUNDWATER ELEVATION HYDROGRAPH
UCD-1

FIGURE 5



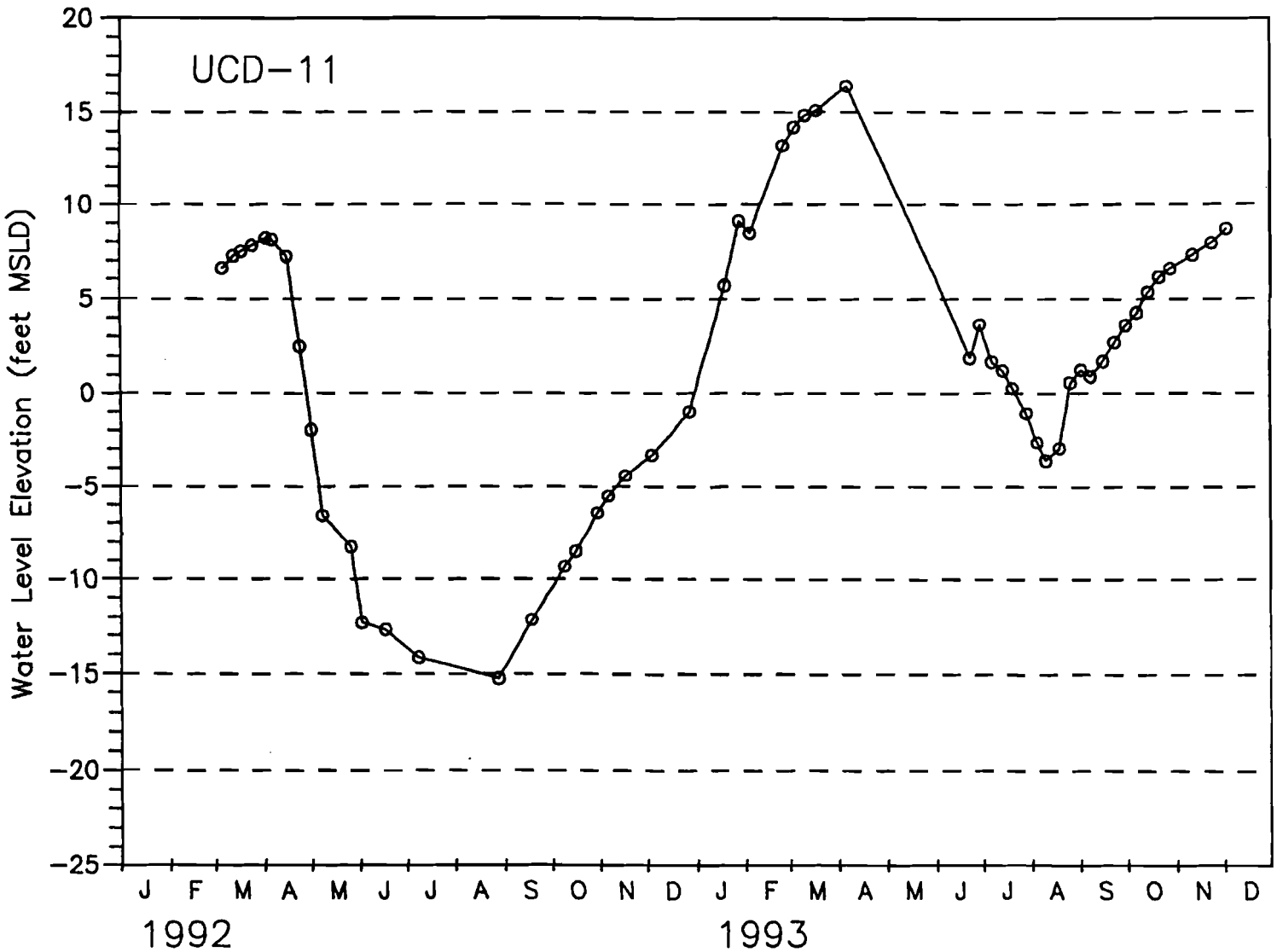
GROUNDWATER ELEVATION HYDROGRAPH
UCD-4

FIGURE 6



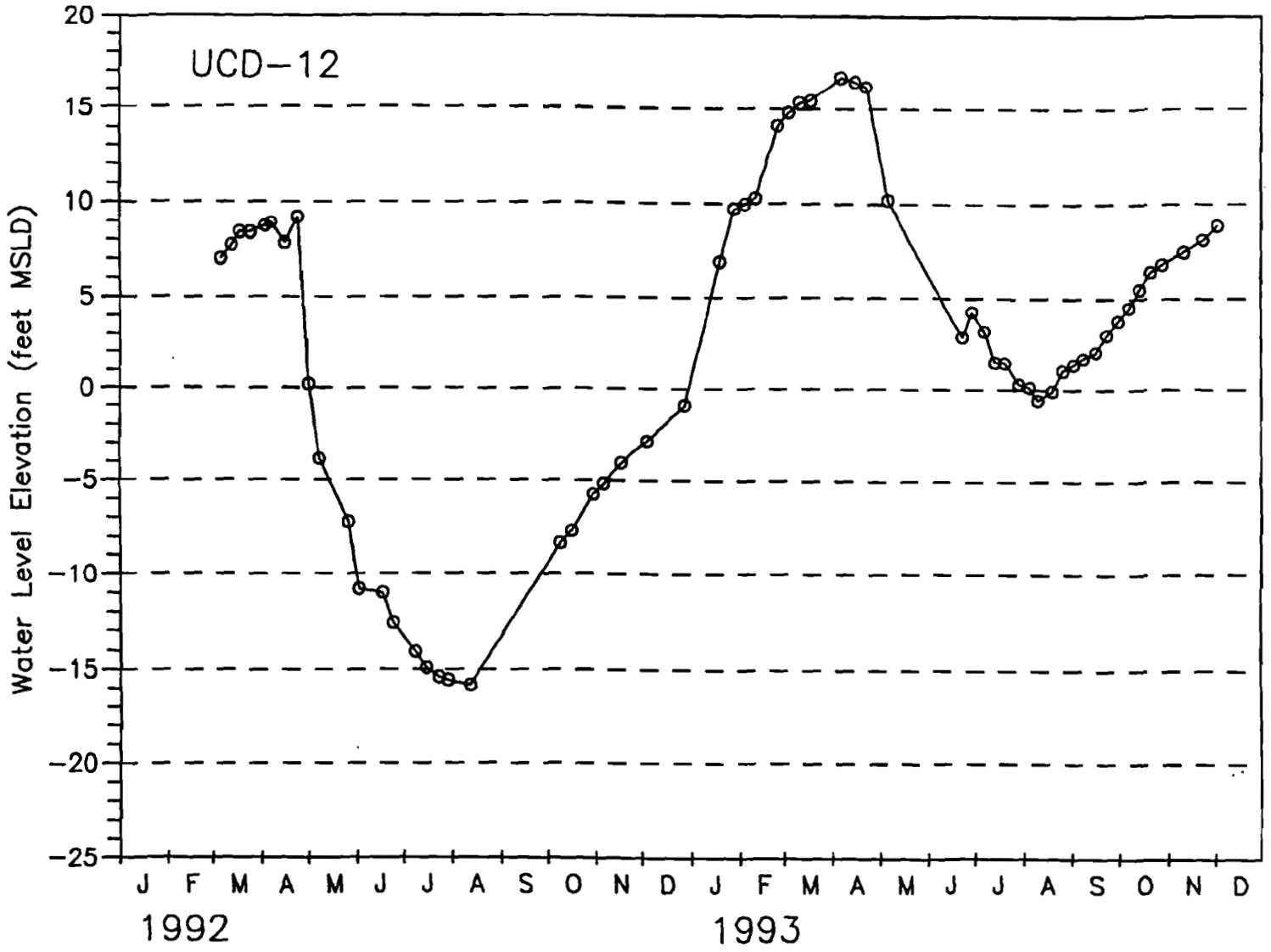
GROUNDWATER ELEVATION HYDROGRAPH
UCD-10

FIGURE 7



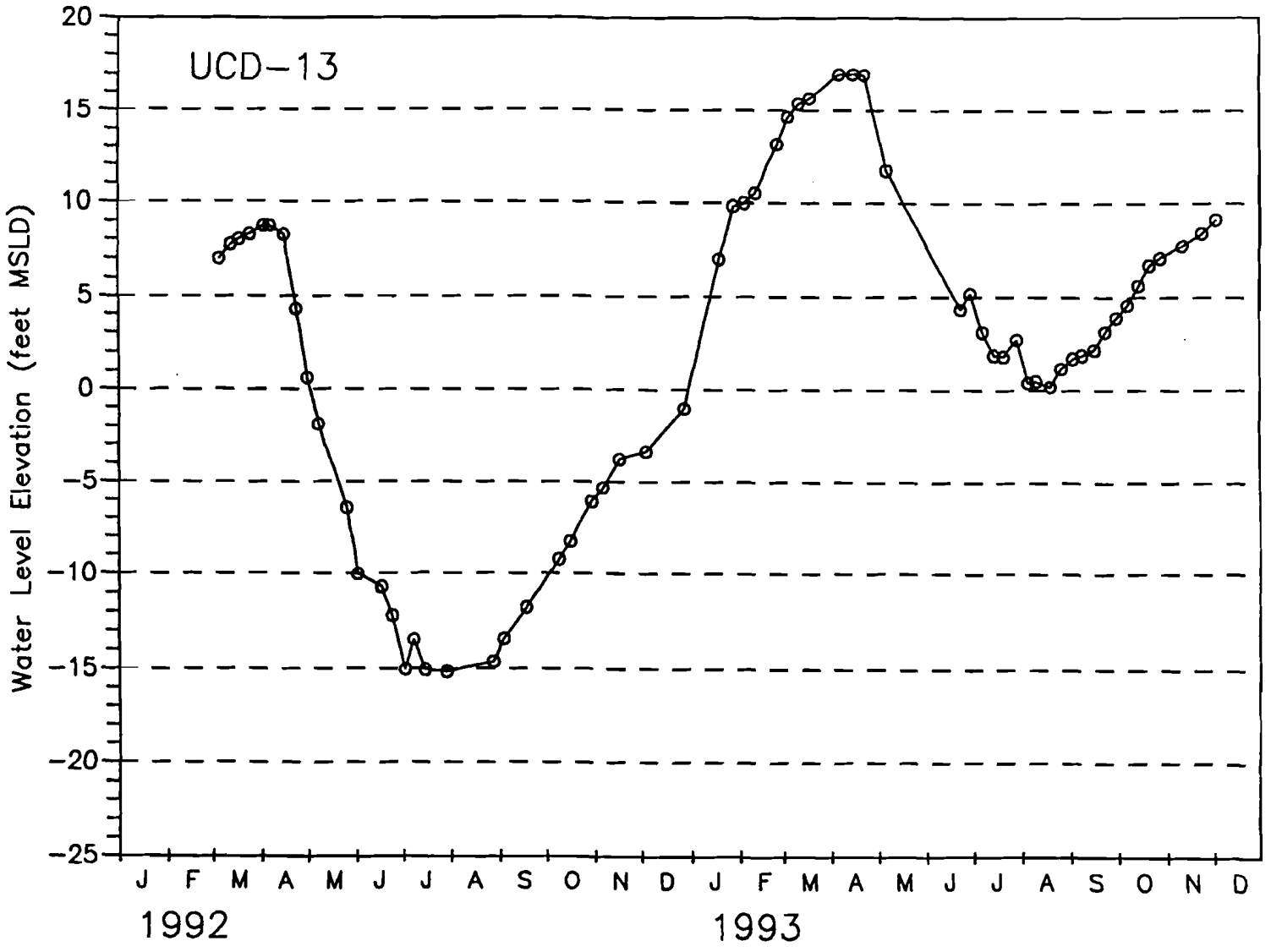
GROUNDWATER ELEVATION HYDROGRAPH
UCD-11

FIGURE 8



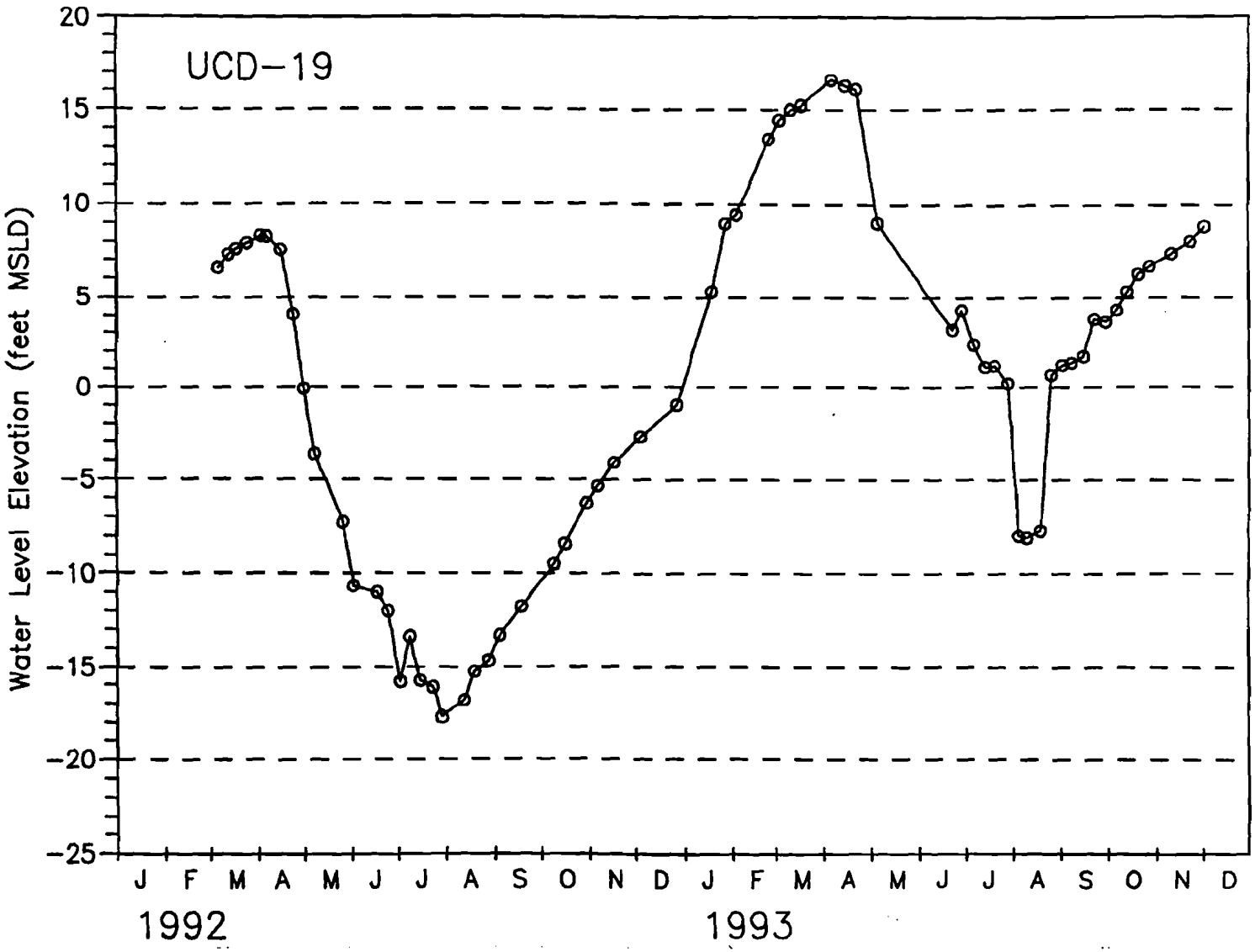
GROUNDWATER ELEVATION HYDROGRAPH
UCD-12

FIGURE 9



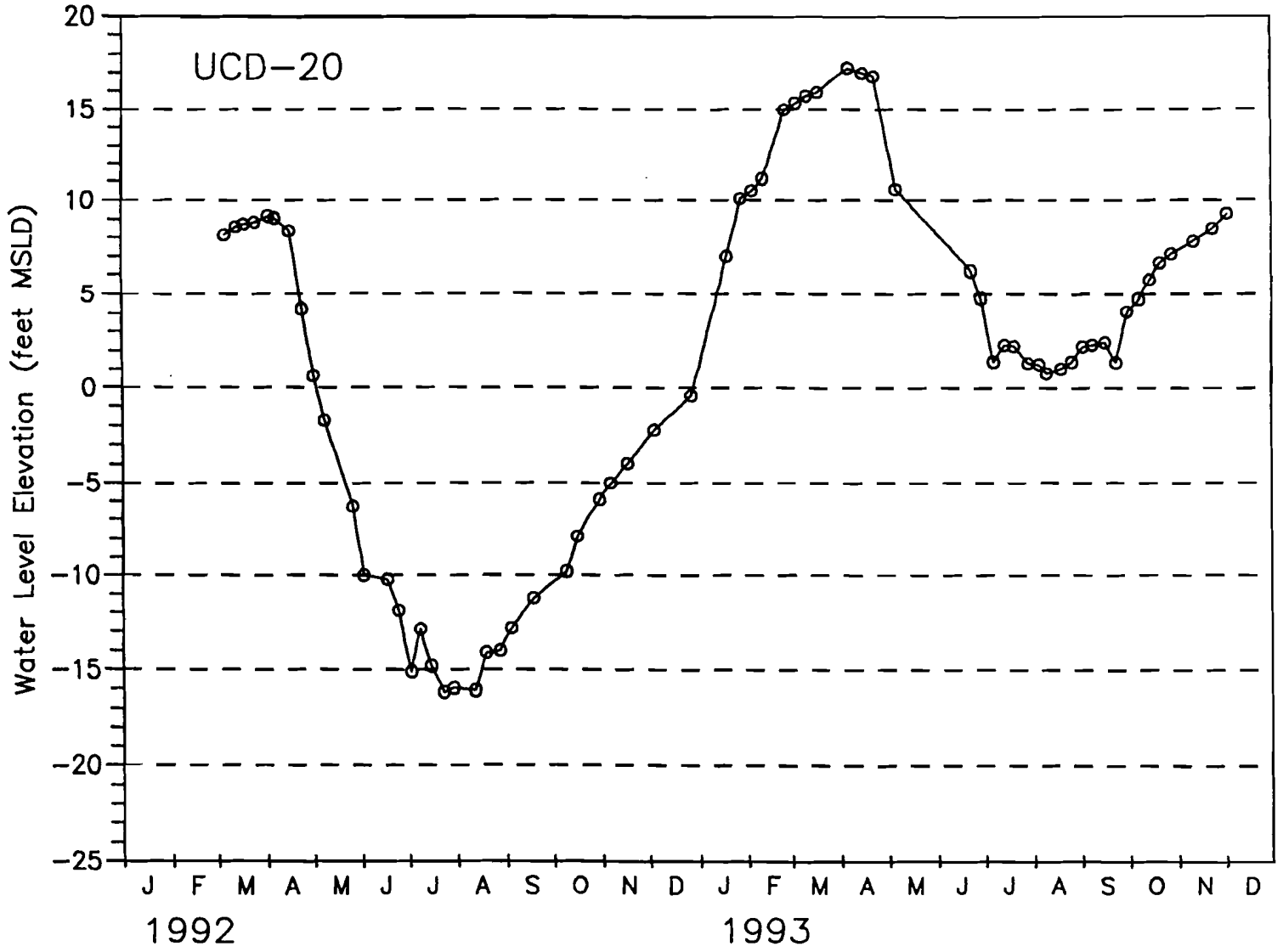
GROUNDWATER ELEVATION HYDROGRAPH
UCD-13

FIGURE 10



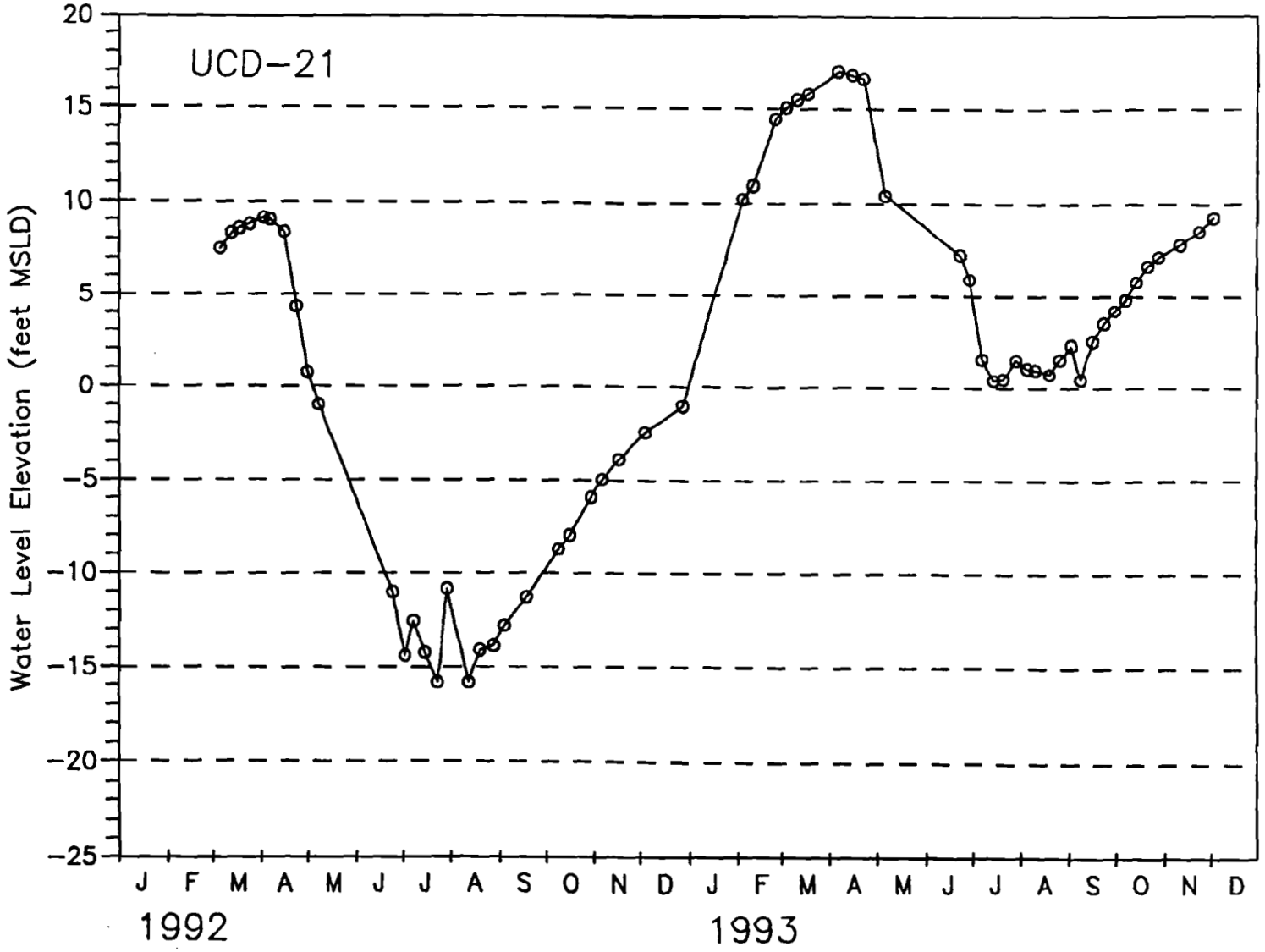
GROUNDWATER ELEVATION HYDROGRAPH
UCD-19

FIGURE 11



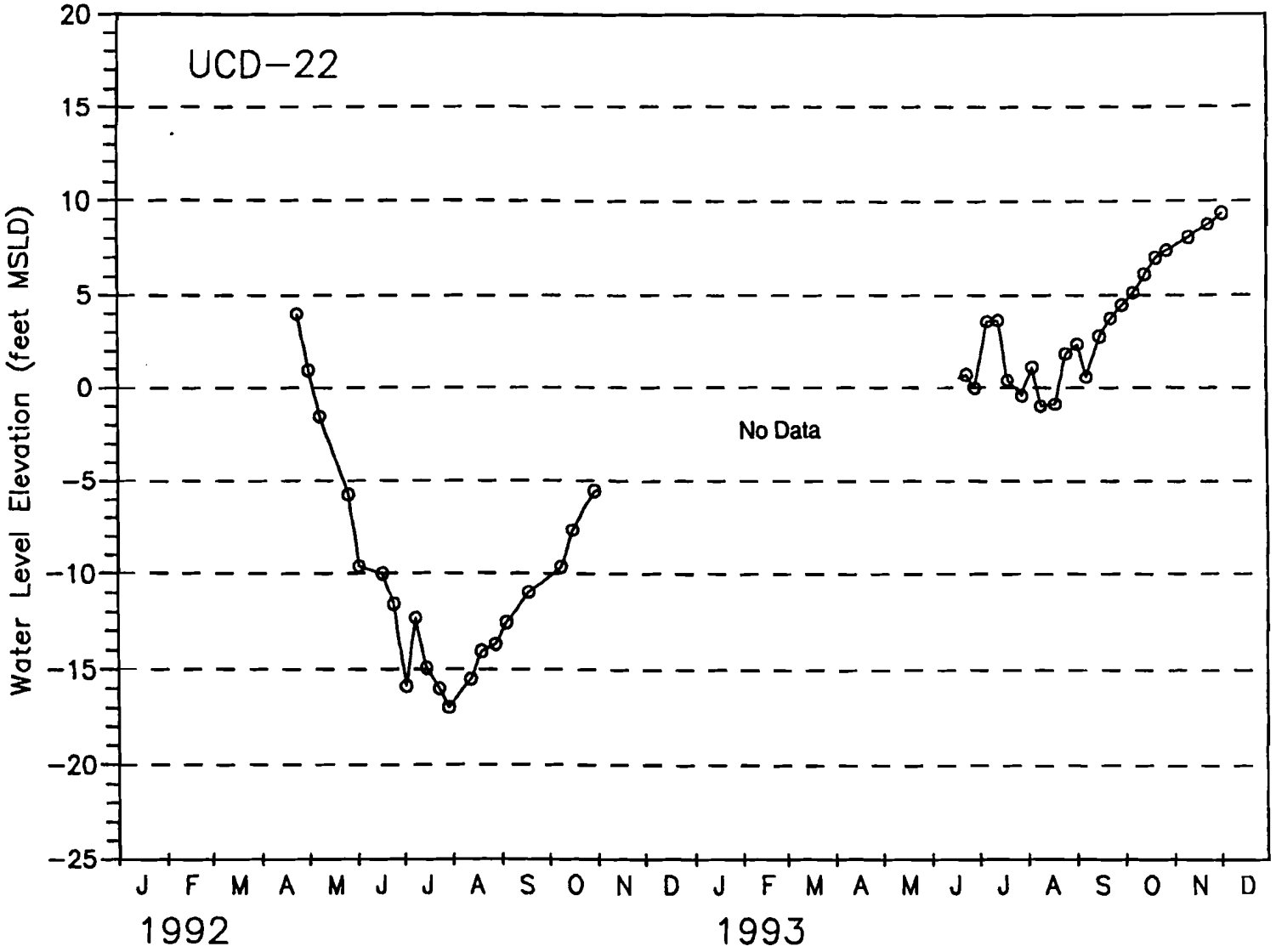
GROUNDWATER ELEVATION HYDROGRAPH
UCD-20

FIGURE 12



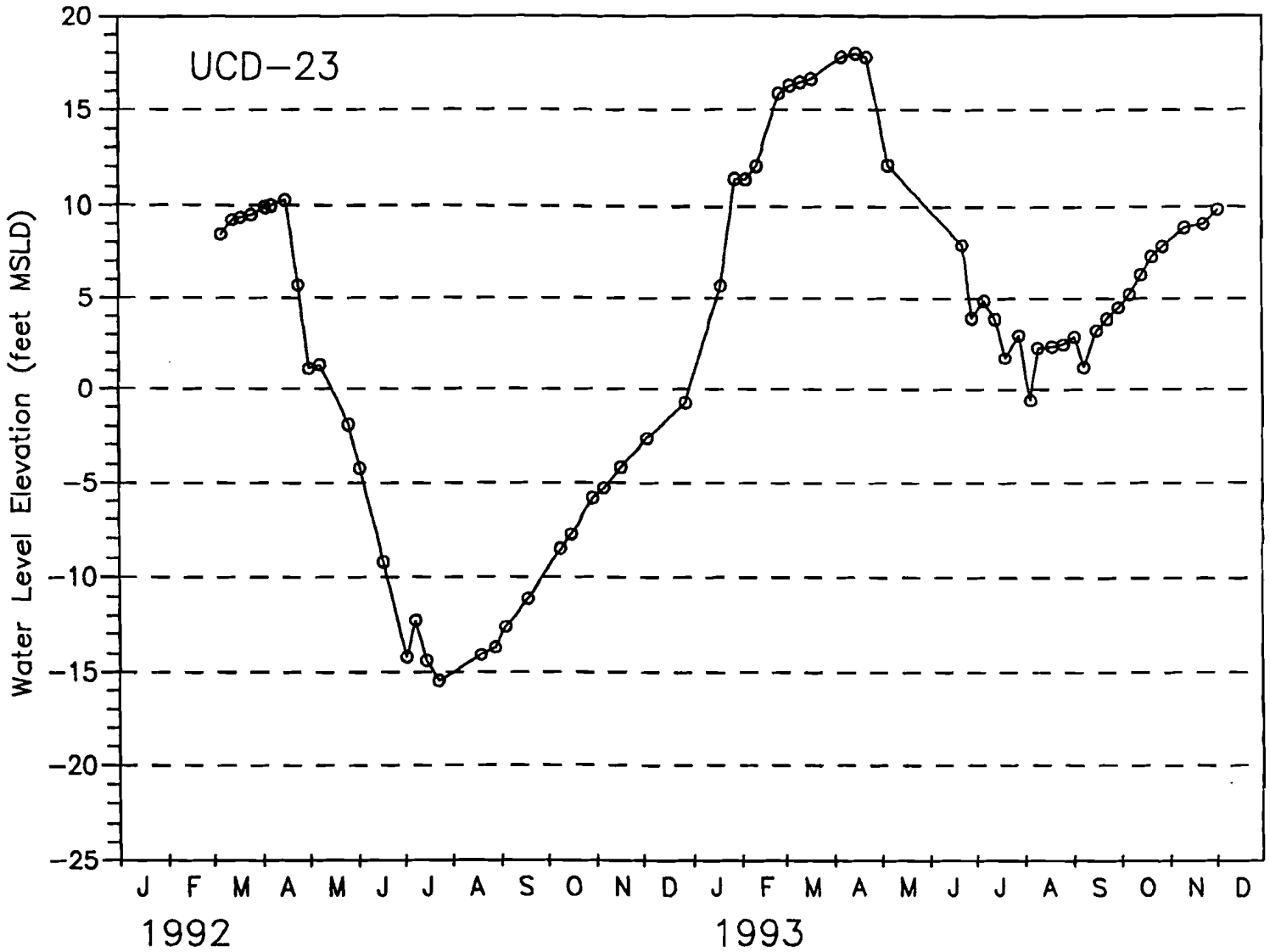
GROUNDWATER ELEVATION HYDROGRAPH
UCD-21

FIGURE 13



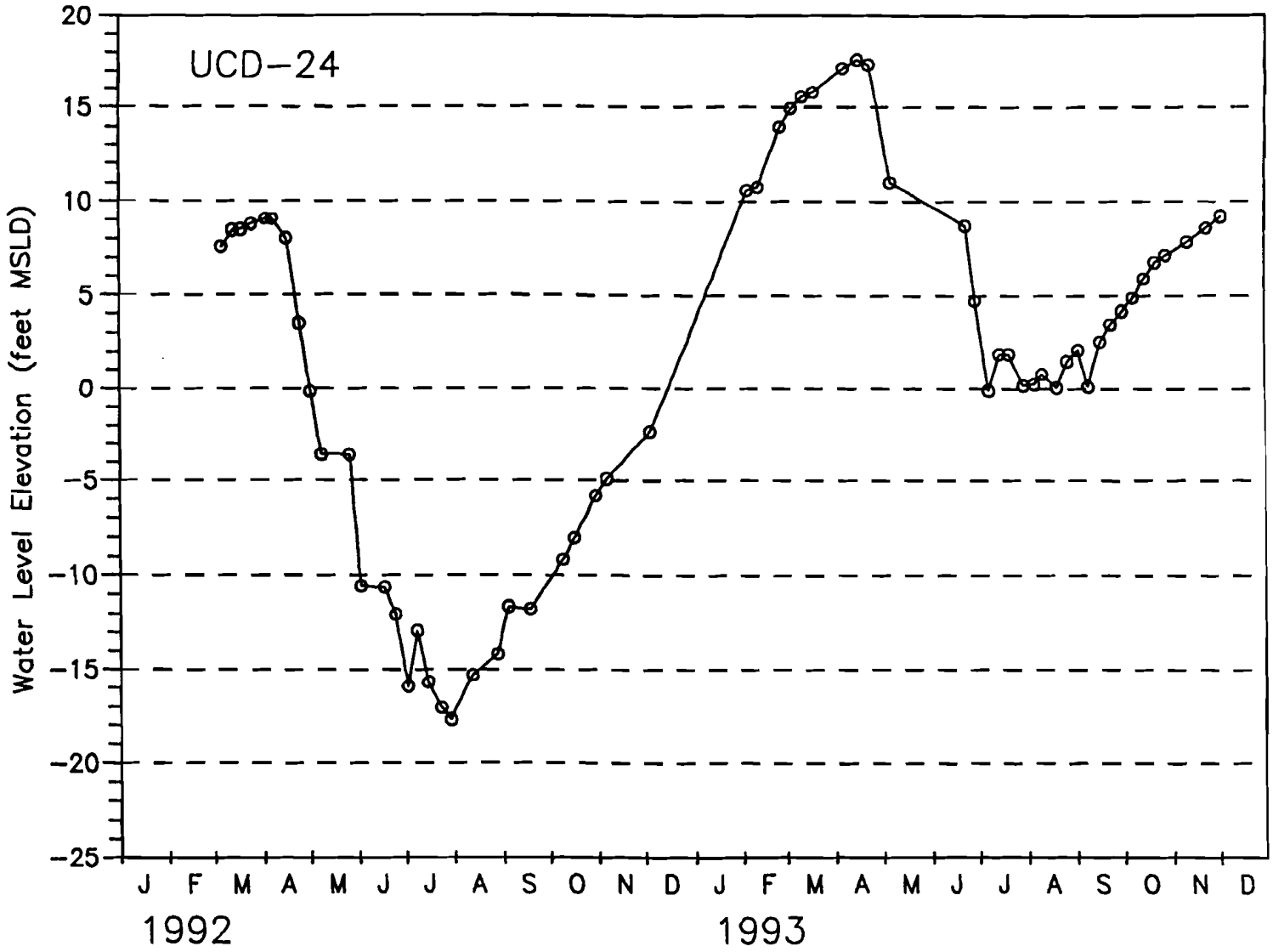
GROUNDWATER ELEVATION HYDROGRAPH
UCD-22

FIGURE 14



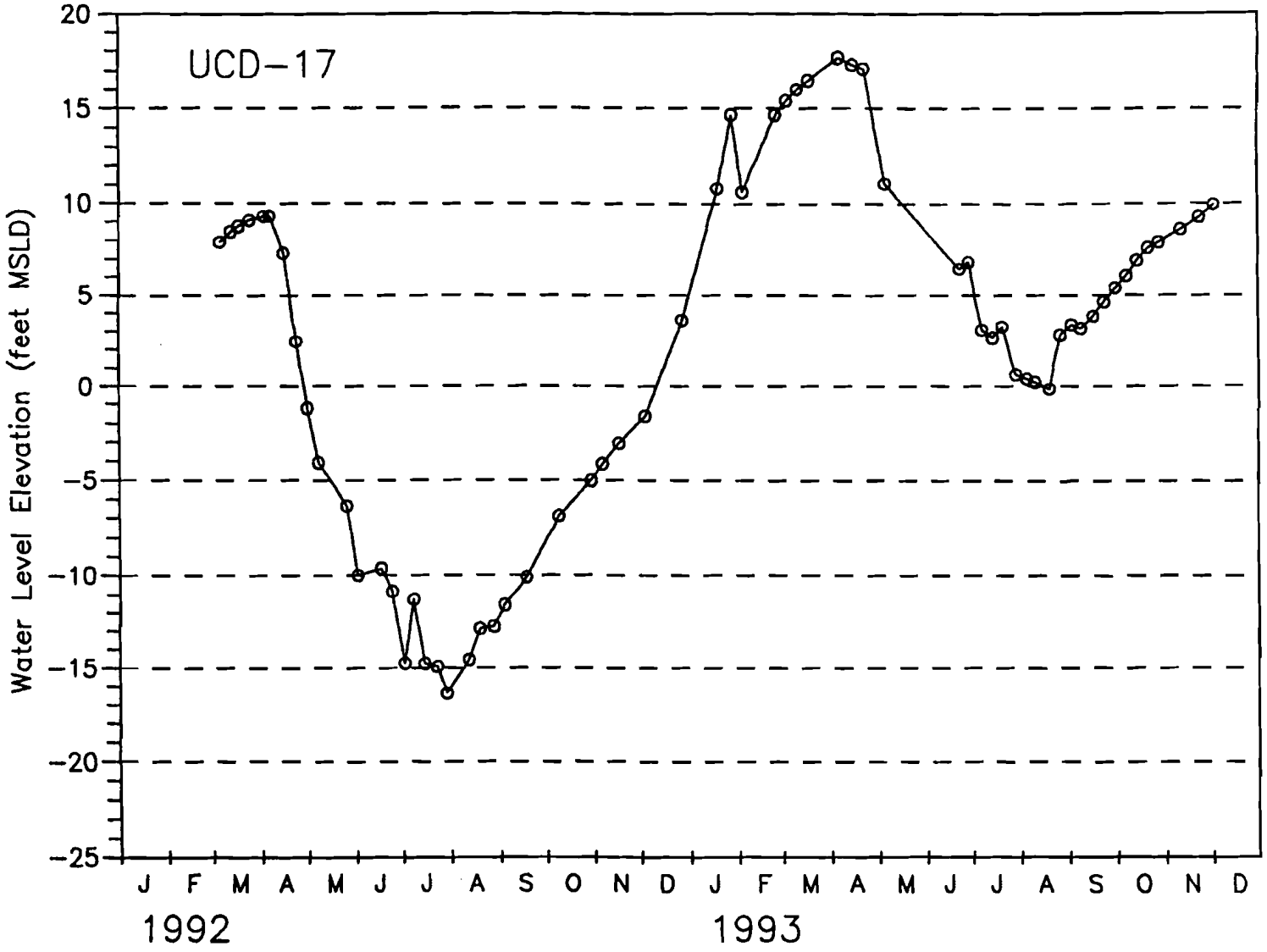
GROUNDWATER ELEVATION HYDROGRAPH
UCD-23

FIGURE 15



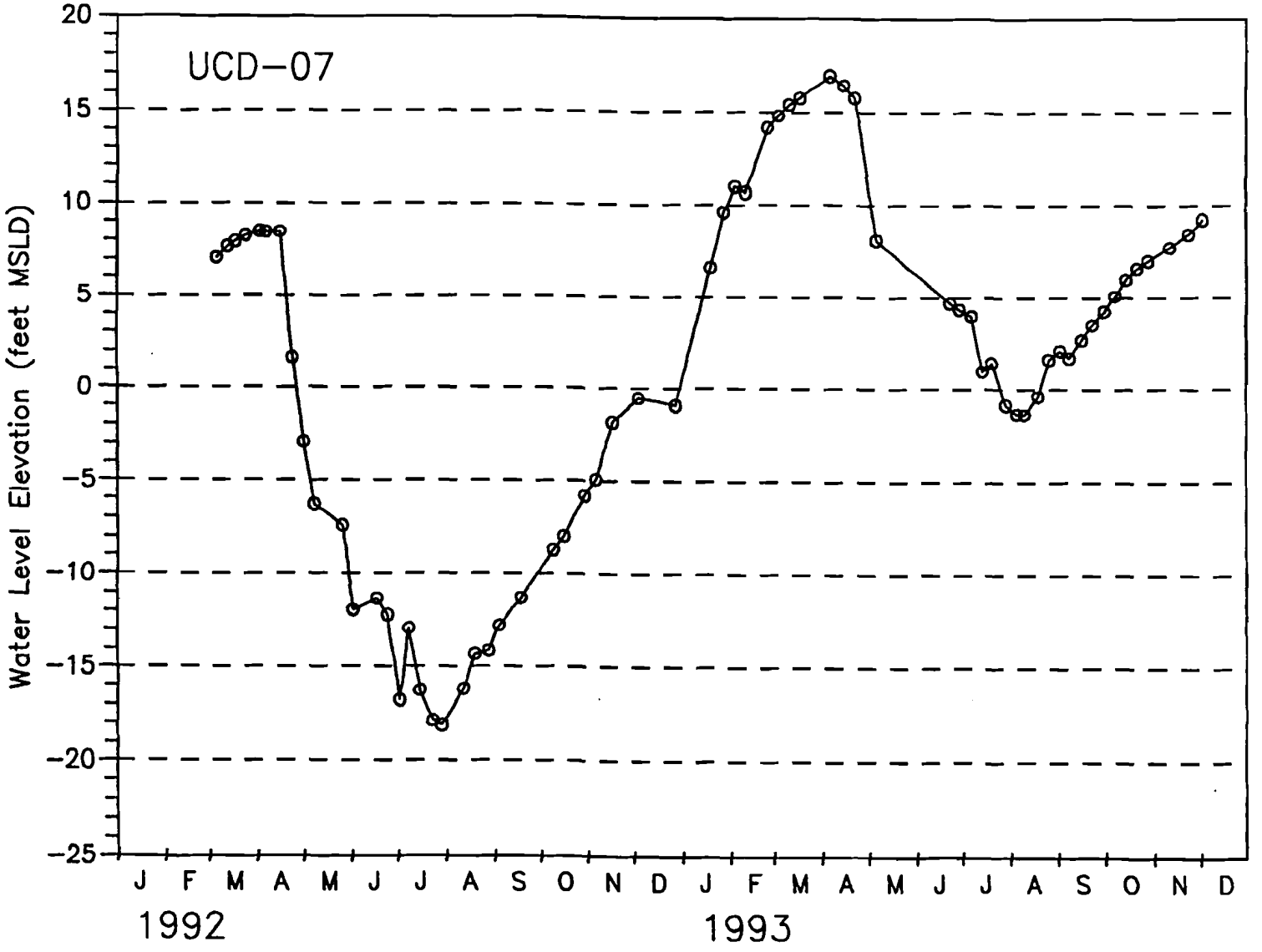
GROUNDWATER ELEVATION HYDROGRAPH
UCD-24

FIGURE 16



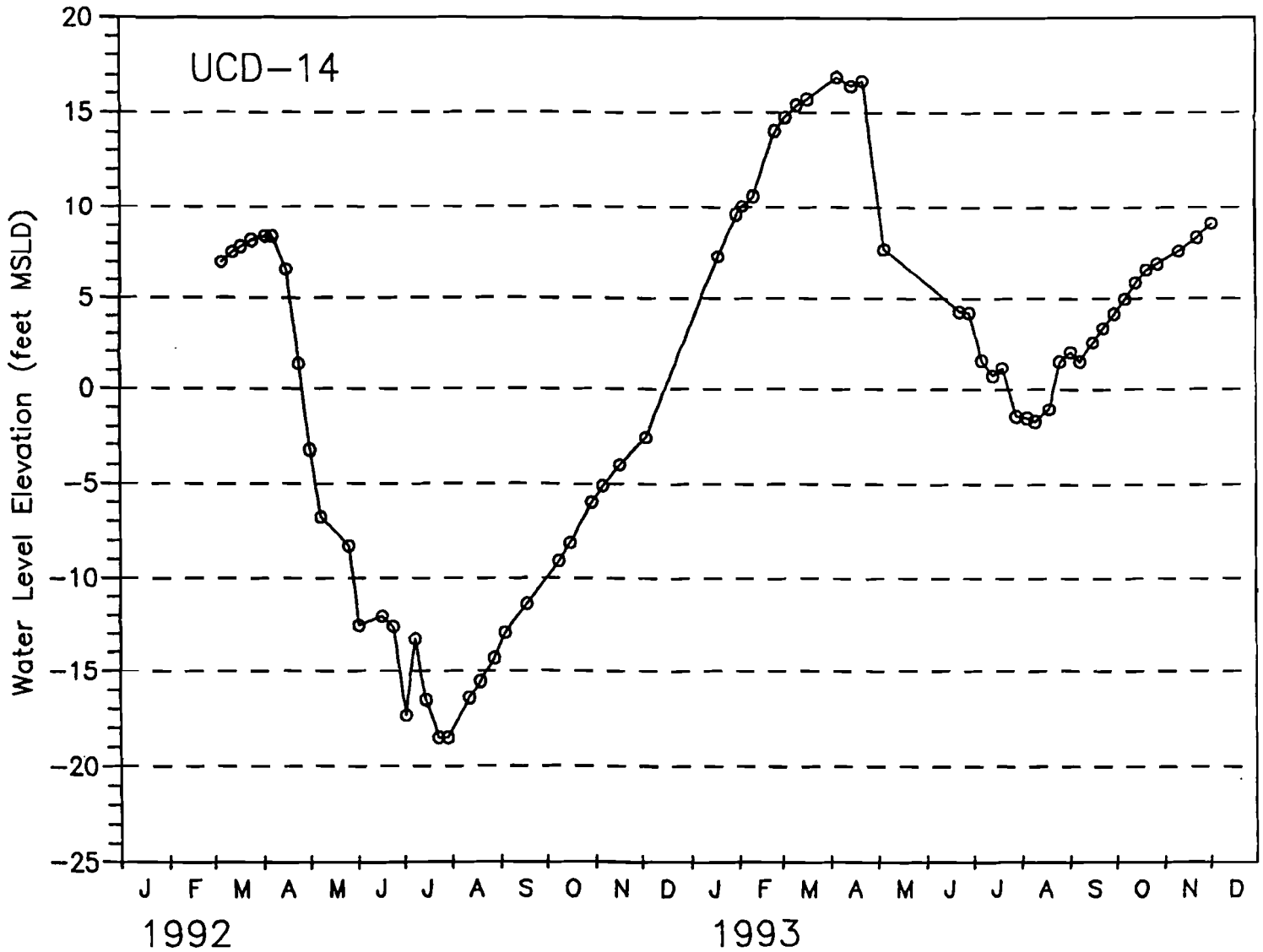
GROUNDWATER ELEVATION HYDROGRAPH
UCD-17

FIGURE 17



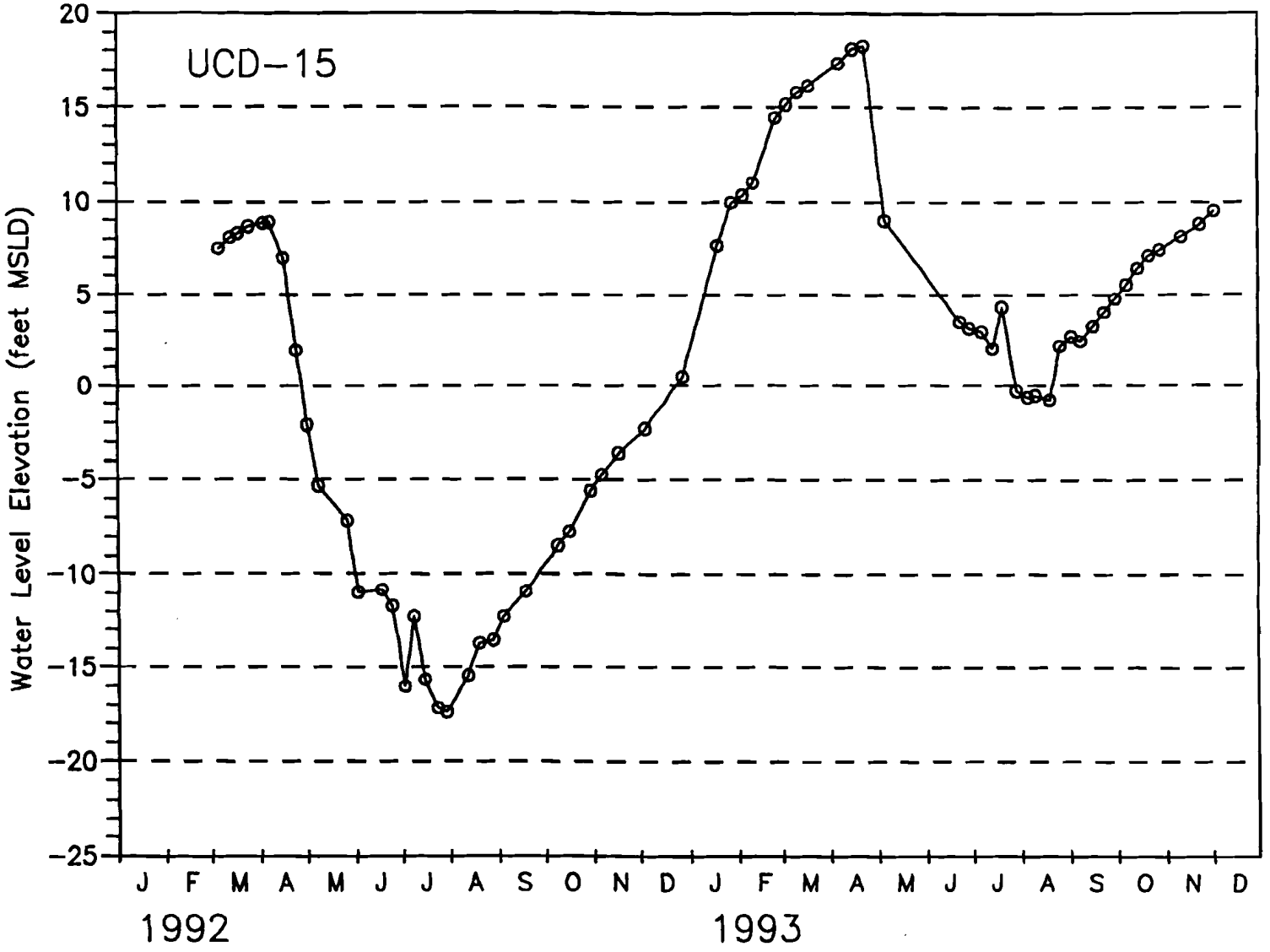
GROUNDWATER ELEVATION HYDROGRAPH
UCD-7

FIGURE 18



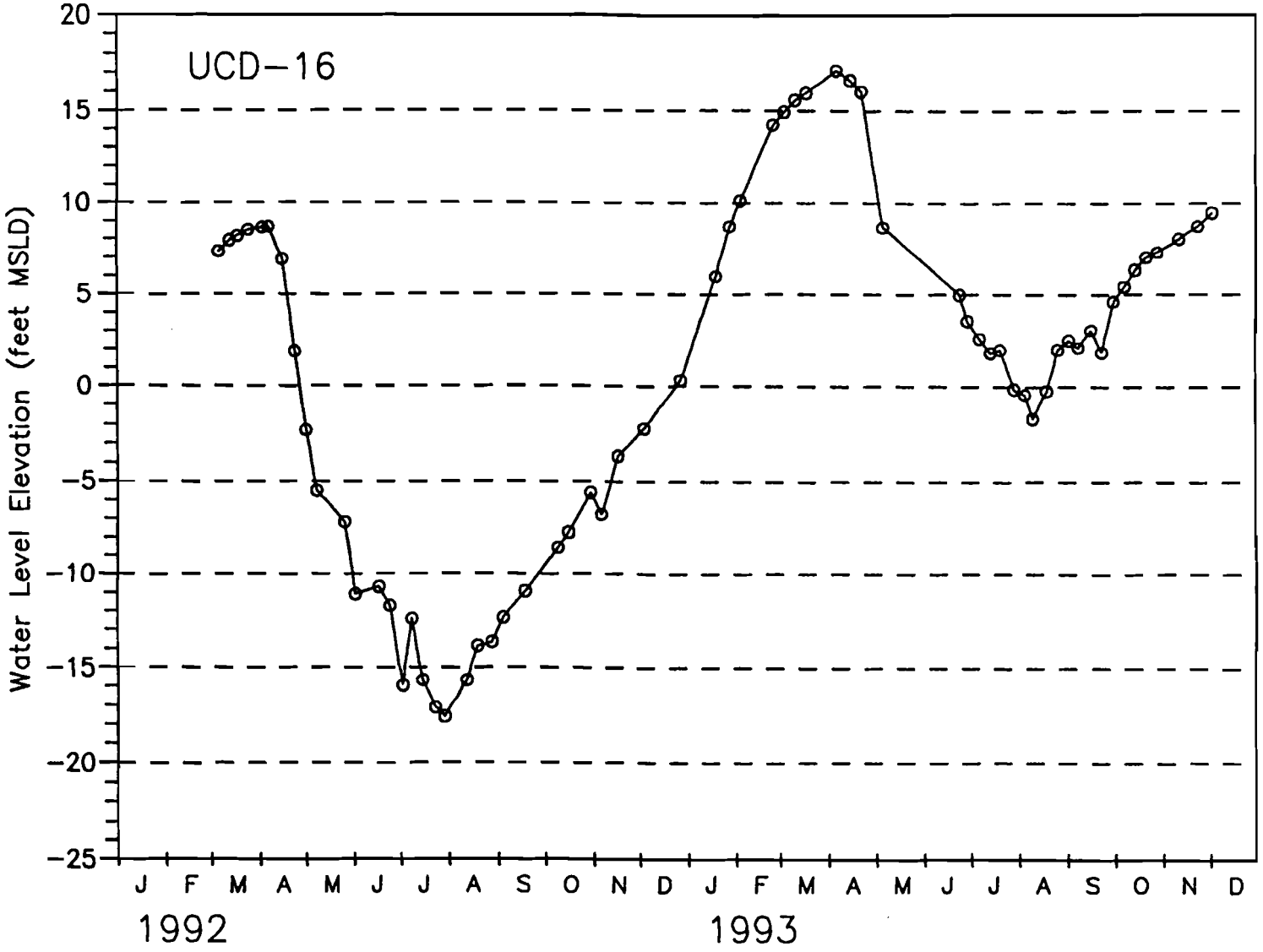
GROUNDWATER ELEVATION HYDROGRAPH
UCD-14

FIGURE 19



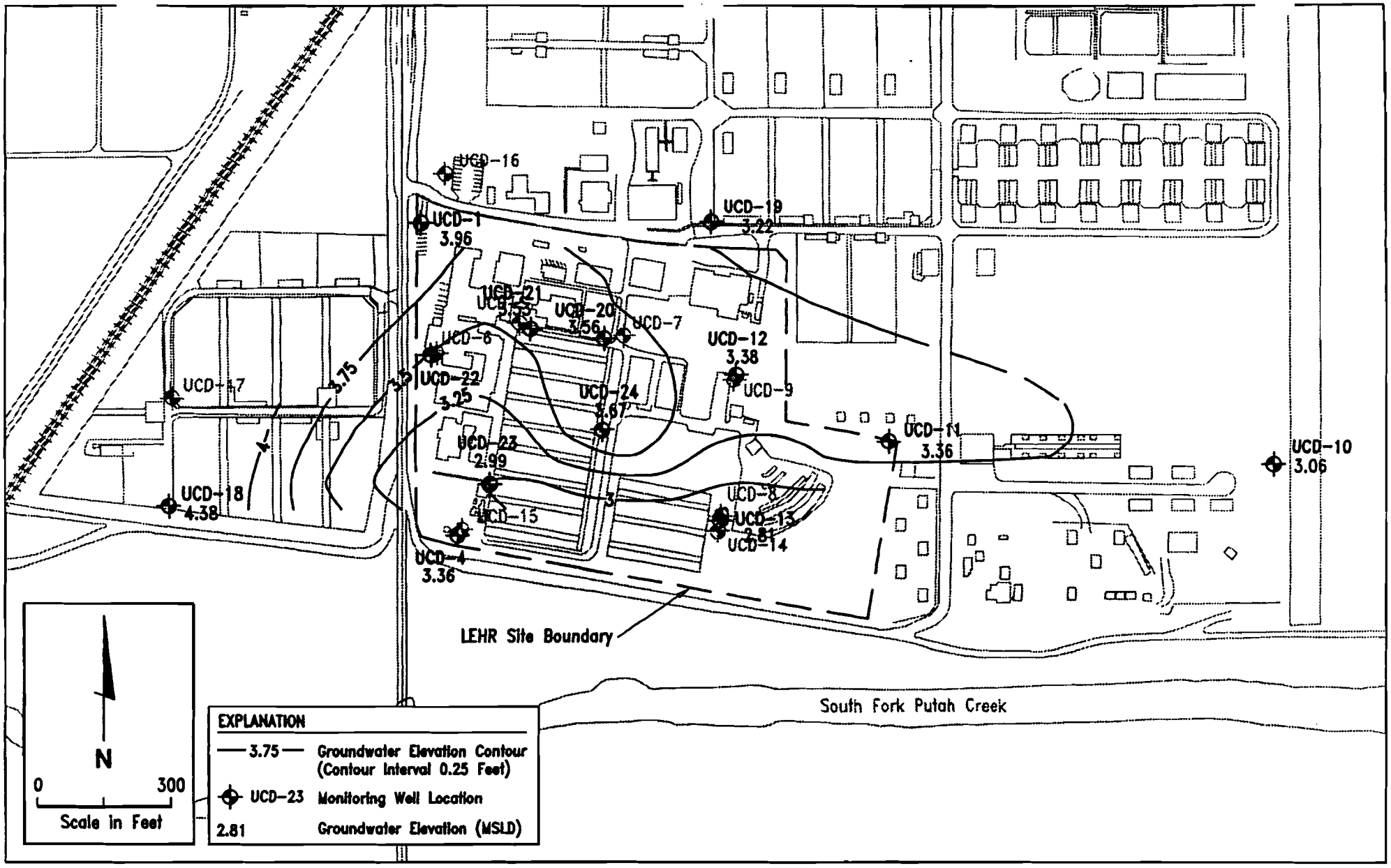
GROUNDWATER ELEVATION HYDROGRAPH
UCD-15

FIGURE 20



GROUNDWATER ELEVATION HYDROGRAPH
UCD-16

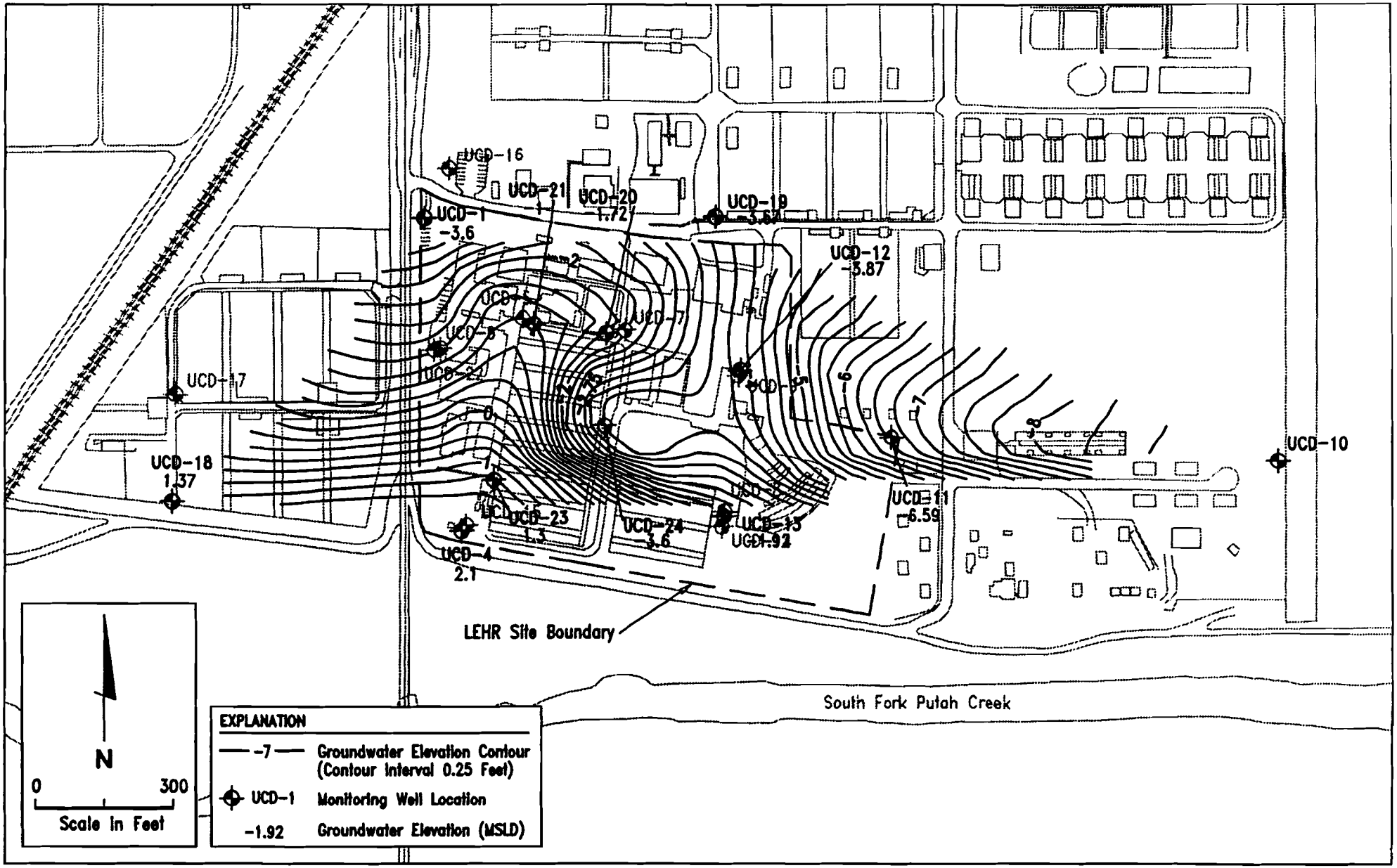
FIGURE 21



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
FEBRUARY 5, 1992

10805-720-044 TXL 3/24/94 020592H1

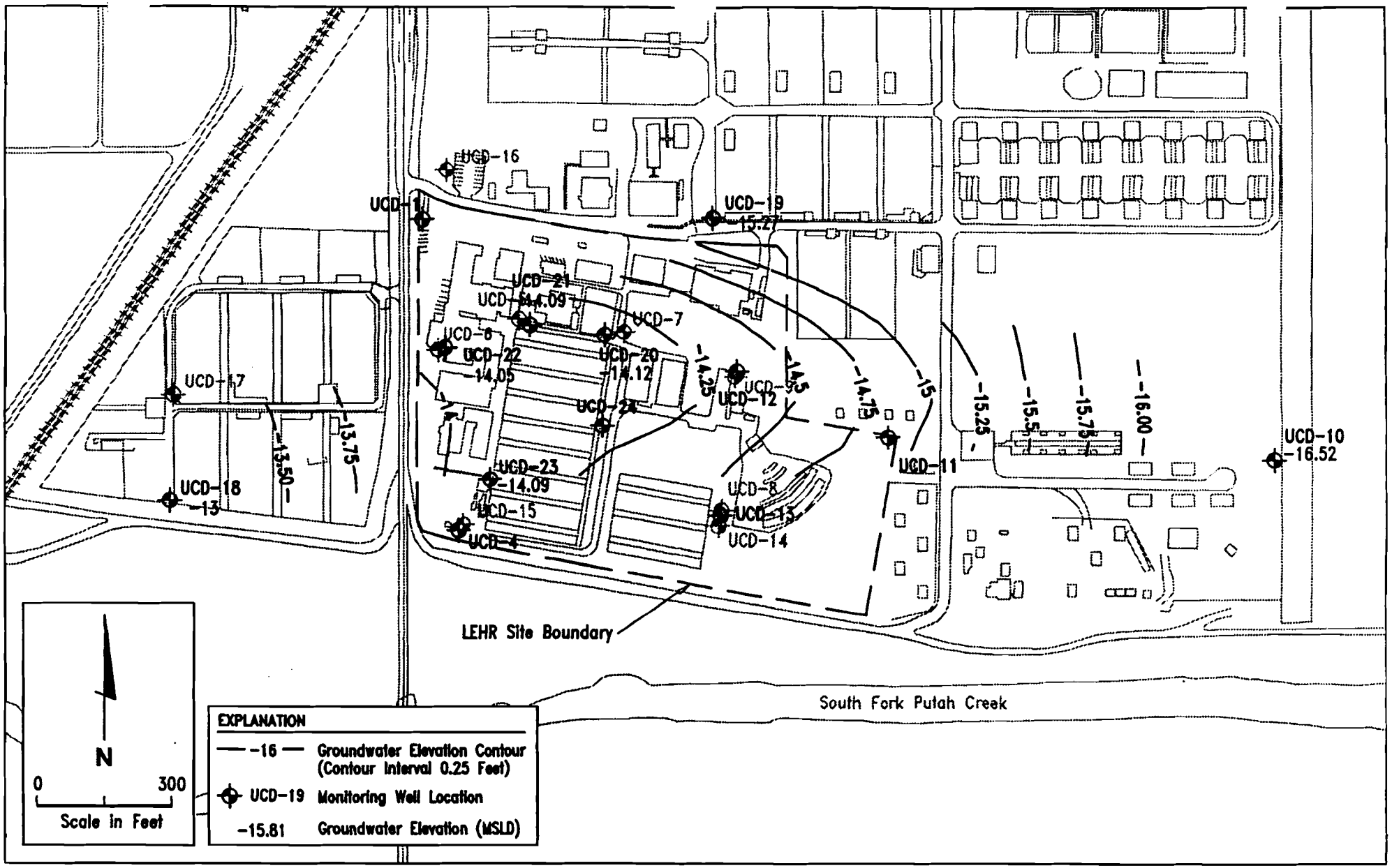
FIGURE 22



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
MAY 8, 1992

10805-720-04 TXL 3/24/94 050892H1

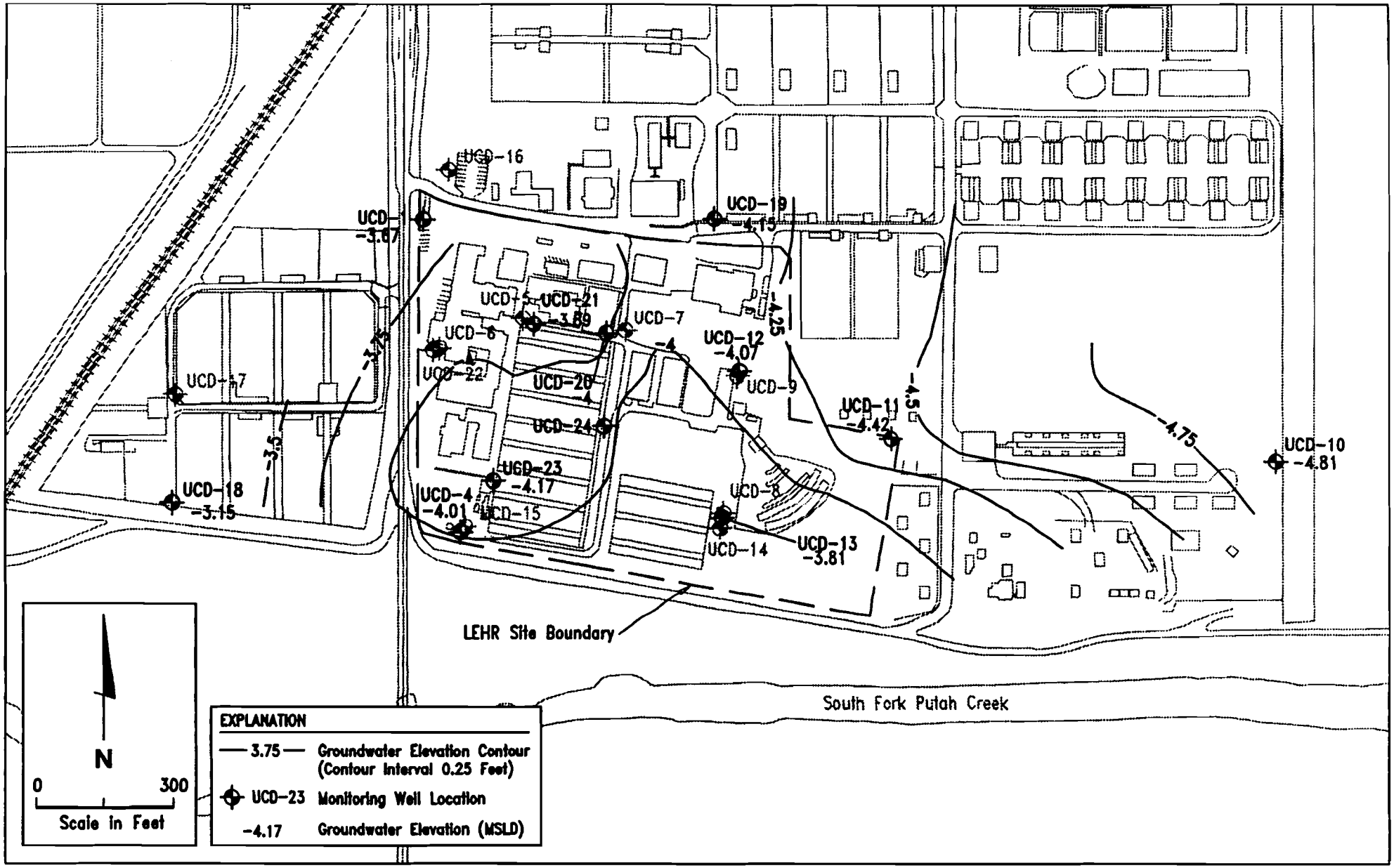
FIGURE 23



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
AUGUST 19, 1992

10805-720-044 TXL 3/24/94 081992H1

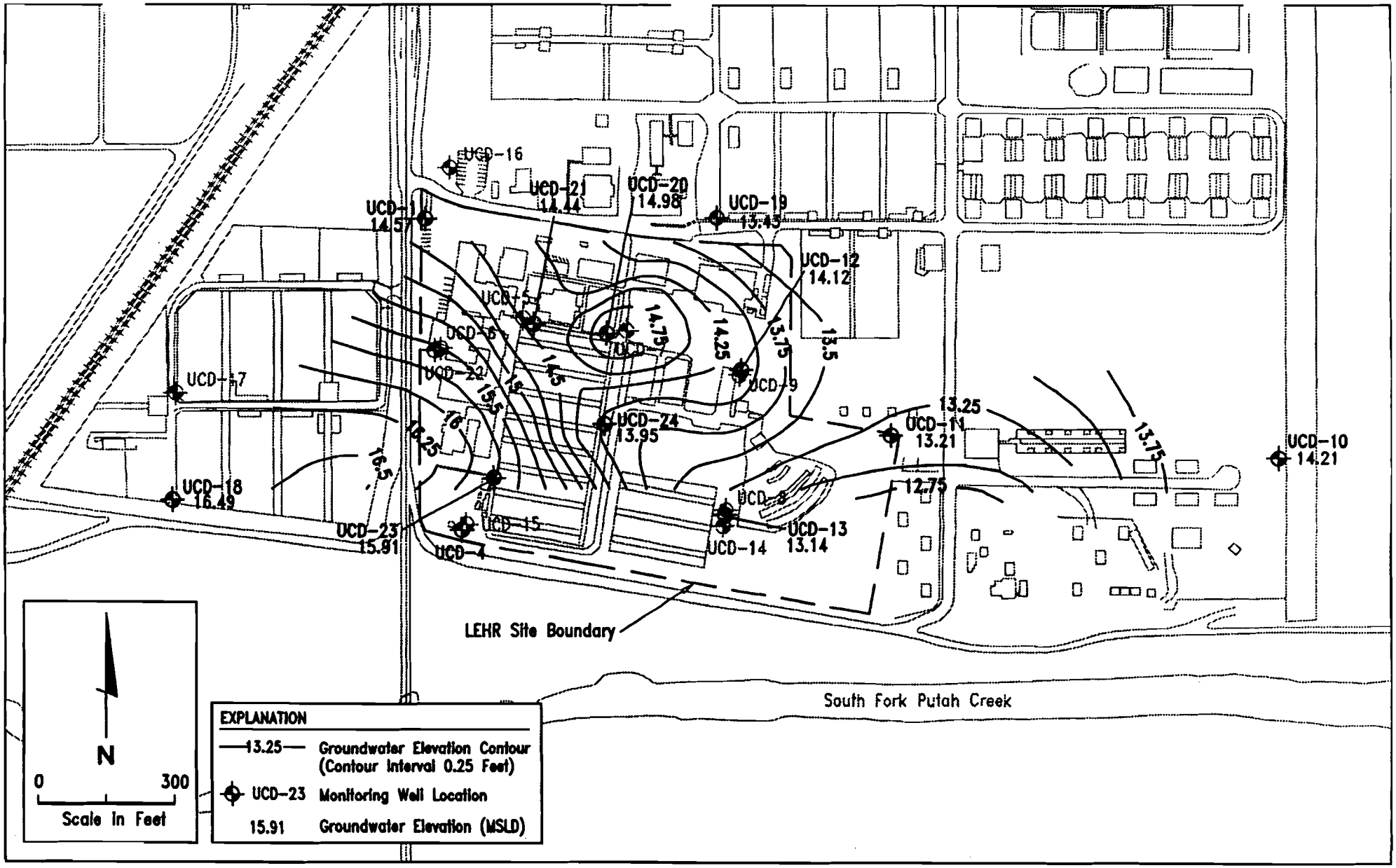
FIGURE 24



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
NOVEMBER 11, 1992

FIGURE 25

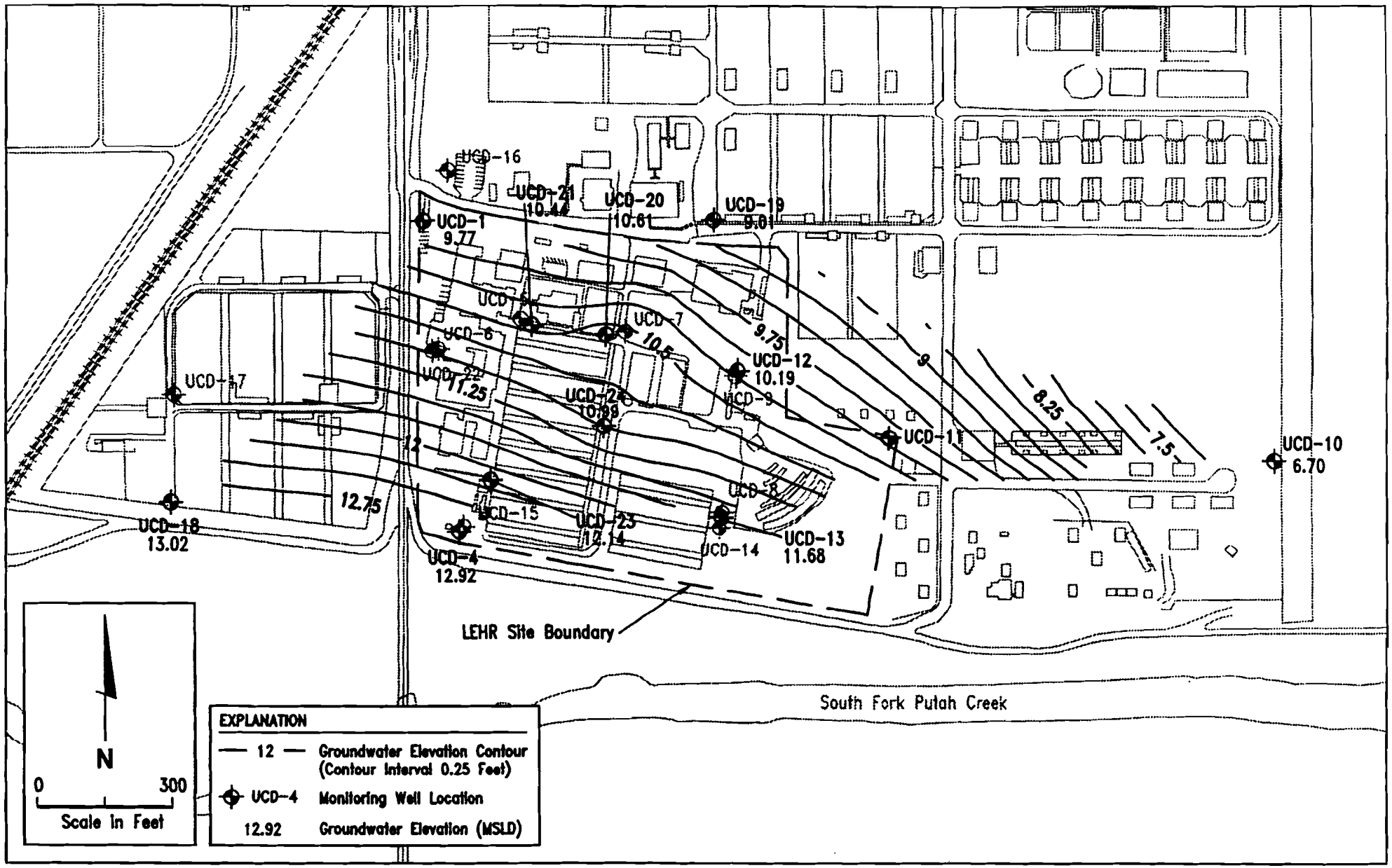
10805-720-04 SJR 4/6/94 111792H1



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
FEBRUARY 26, 1993

10805-720-044 SJR 4/6/94 022693H1

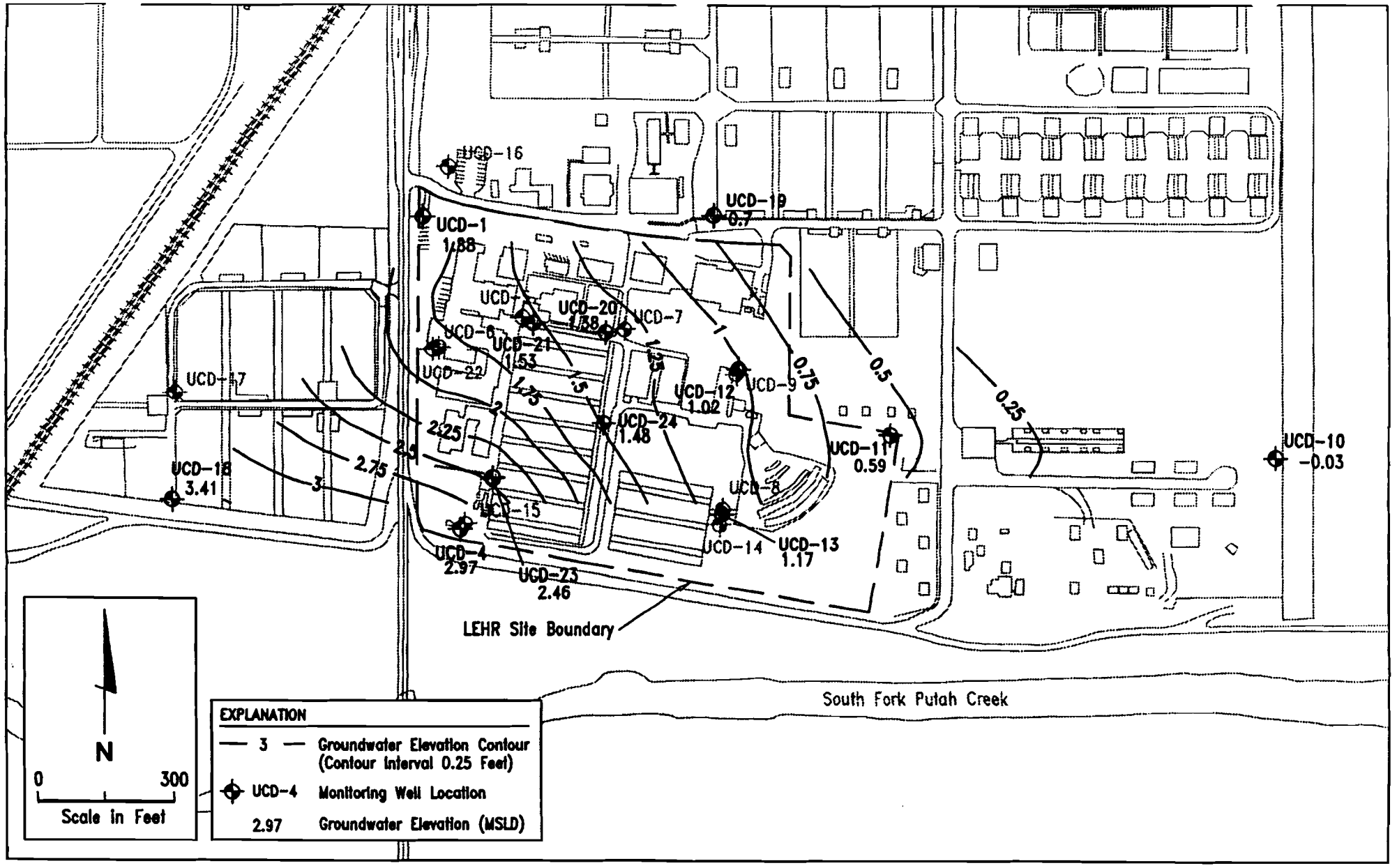
FIGURE 26



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
ELEVATIONS MAY 7, 1993

FIGURE 27

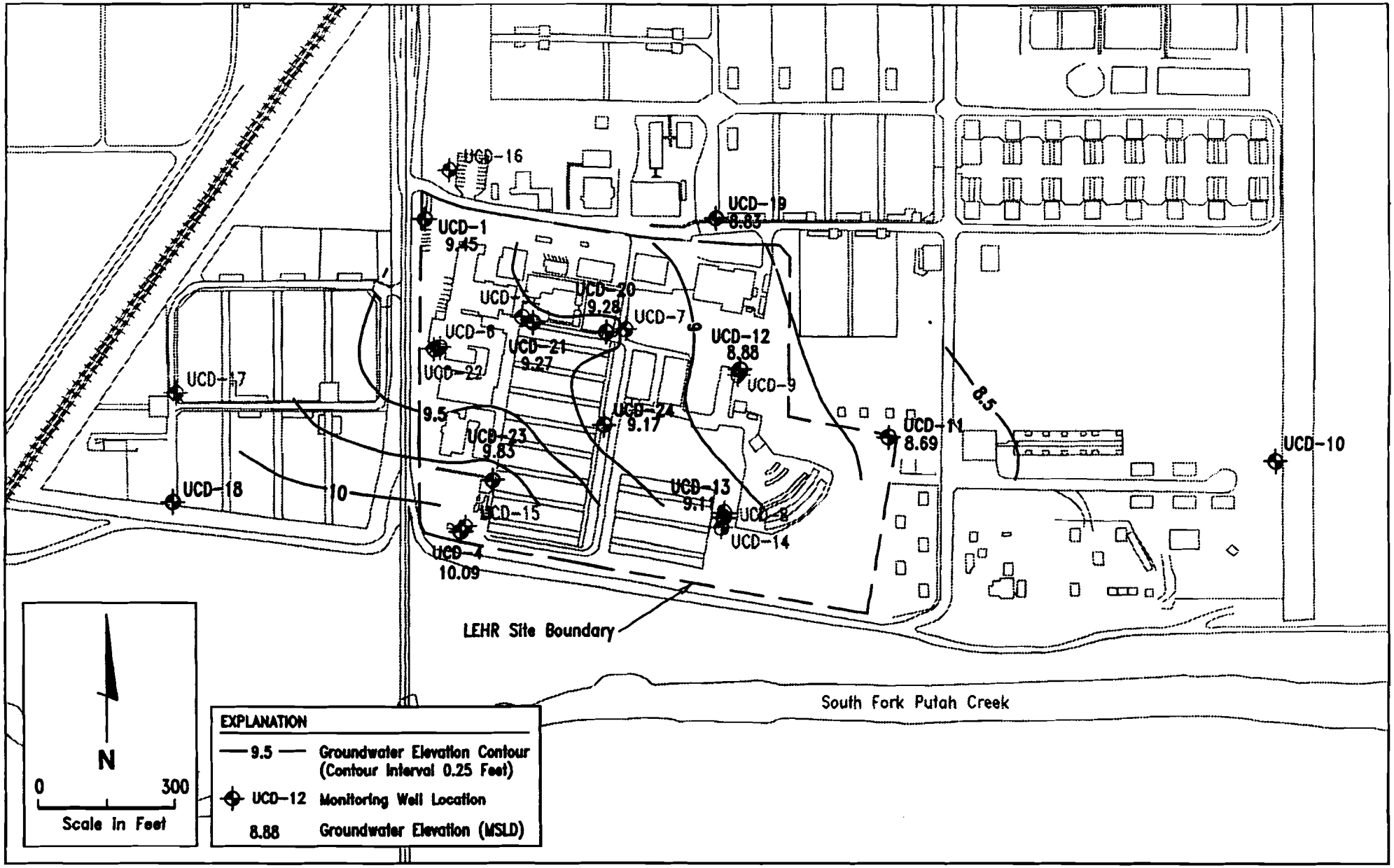
10805-720-(SJR 4/6/94 050793H1



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
AUGUST 27, 1993

10805-720-044 SJR 4/6/94 082793H1

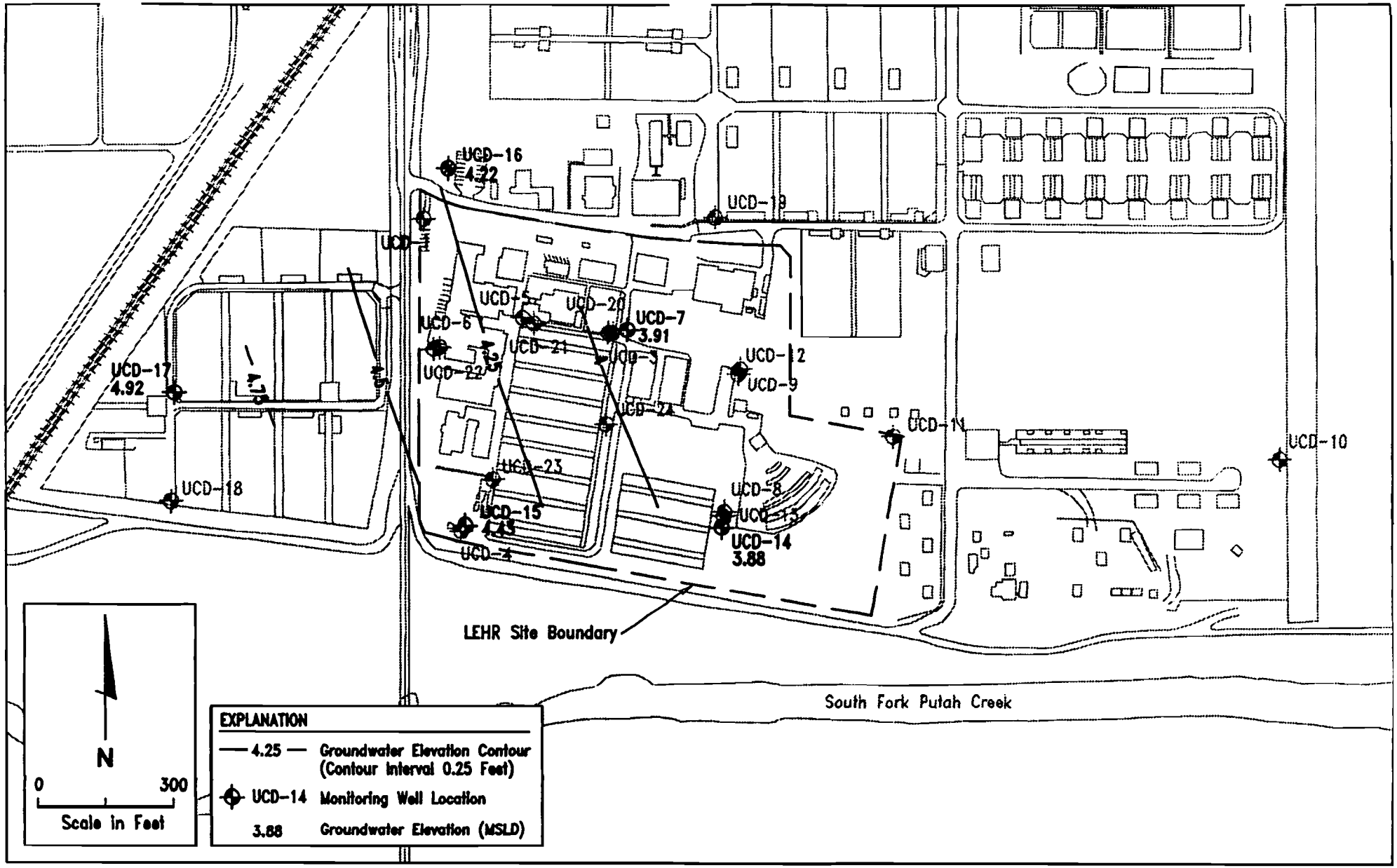
FIGURE 28



GROUNDWATER ELEVATION CONTOUR PLOT
FIRST HSU
DECEMBER 3, 1993

10805-720-04 TXL 3/24/94 120393H1

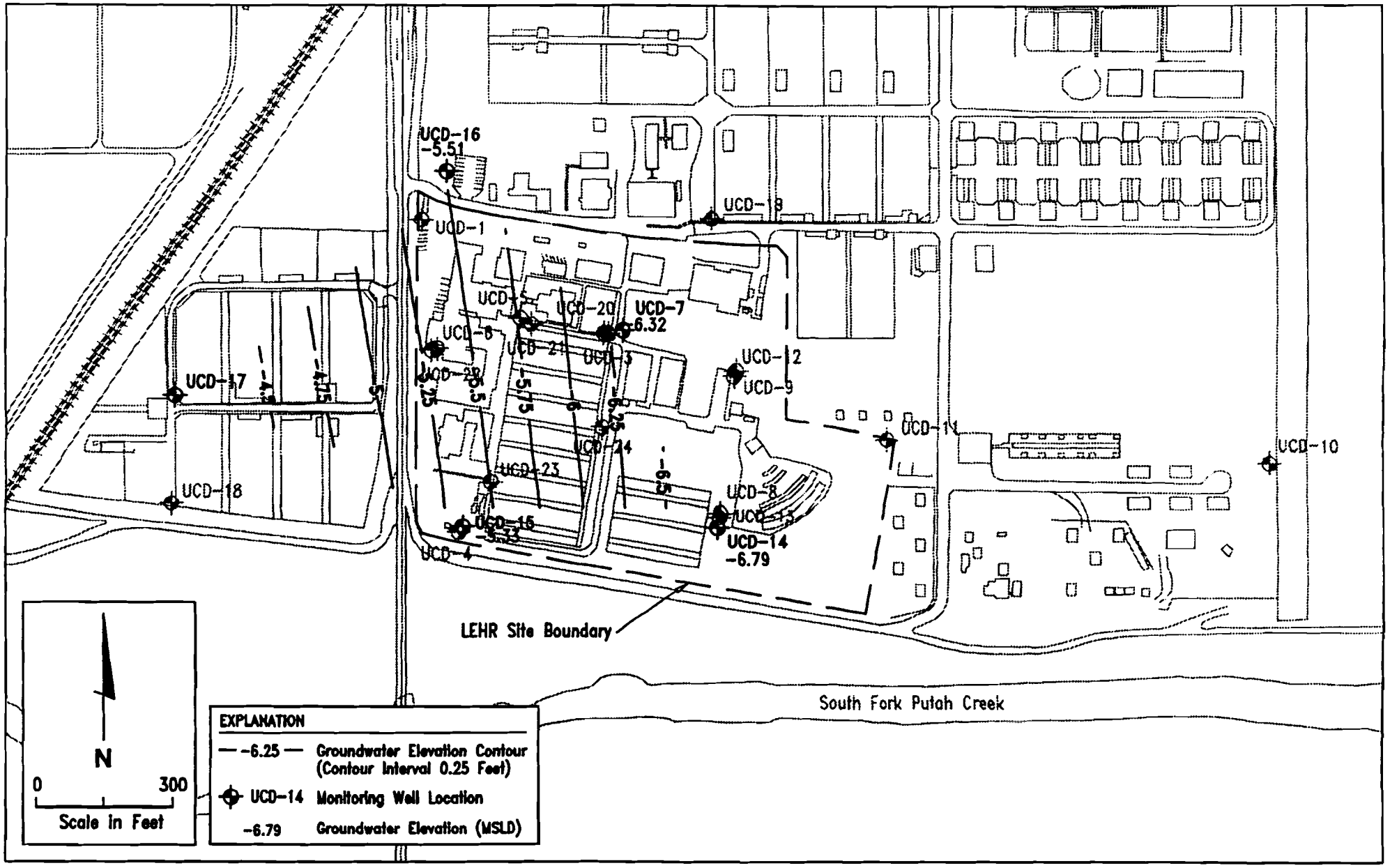
FIGURE 29



GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
FEBRUARY 5, 1992

10805-720-044 TXL 3/24/94 020592H2

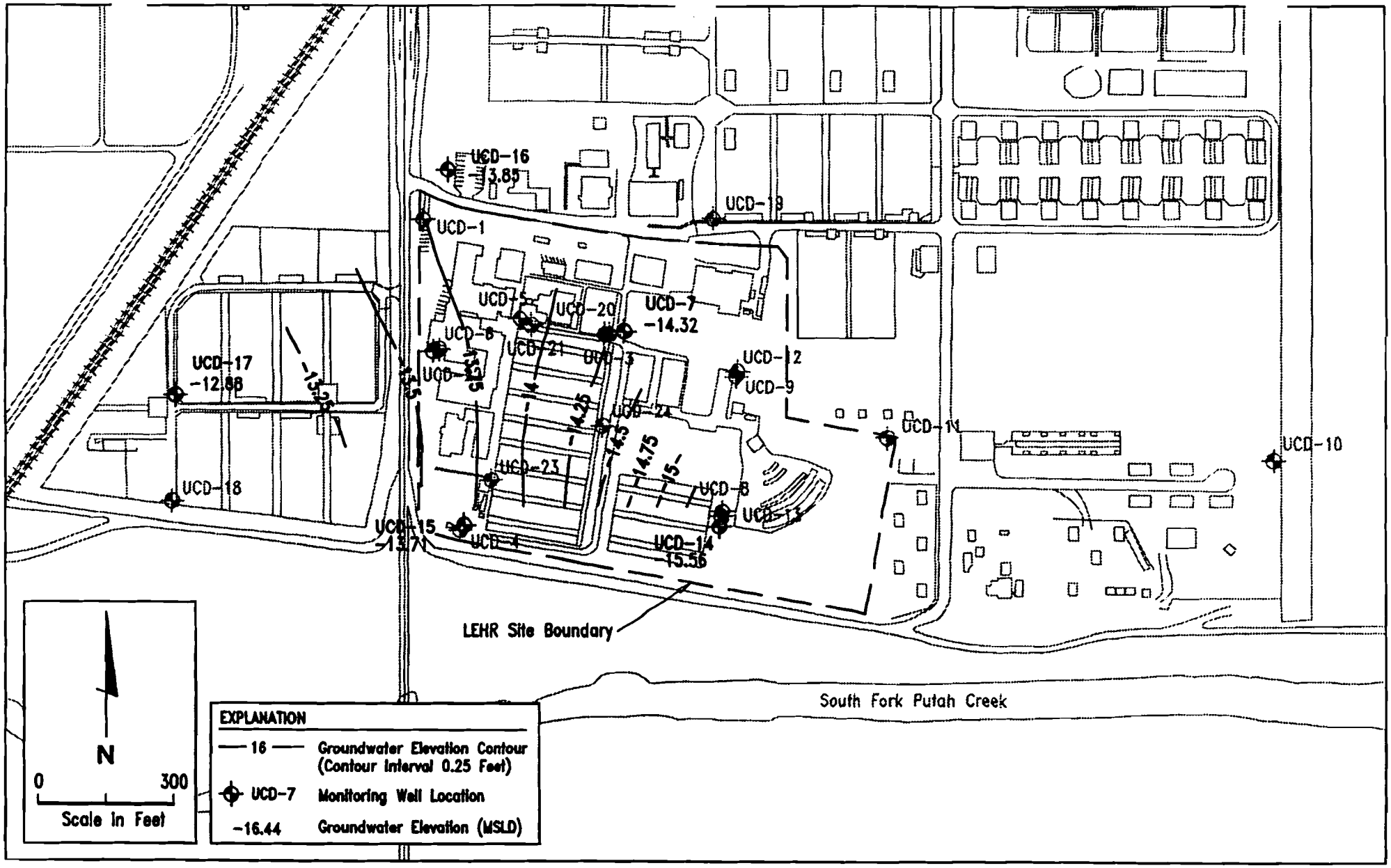
FIGURE 30



GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
'''Y 8, 1992

FIGURE 31

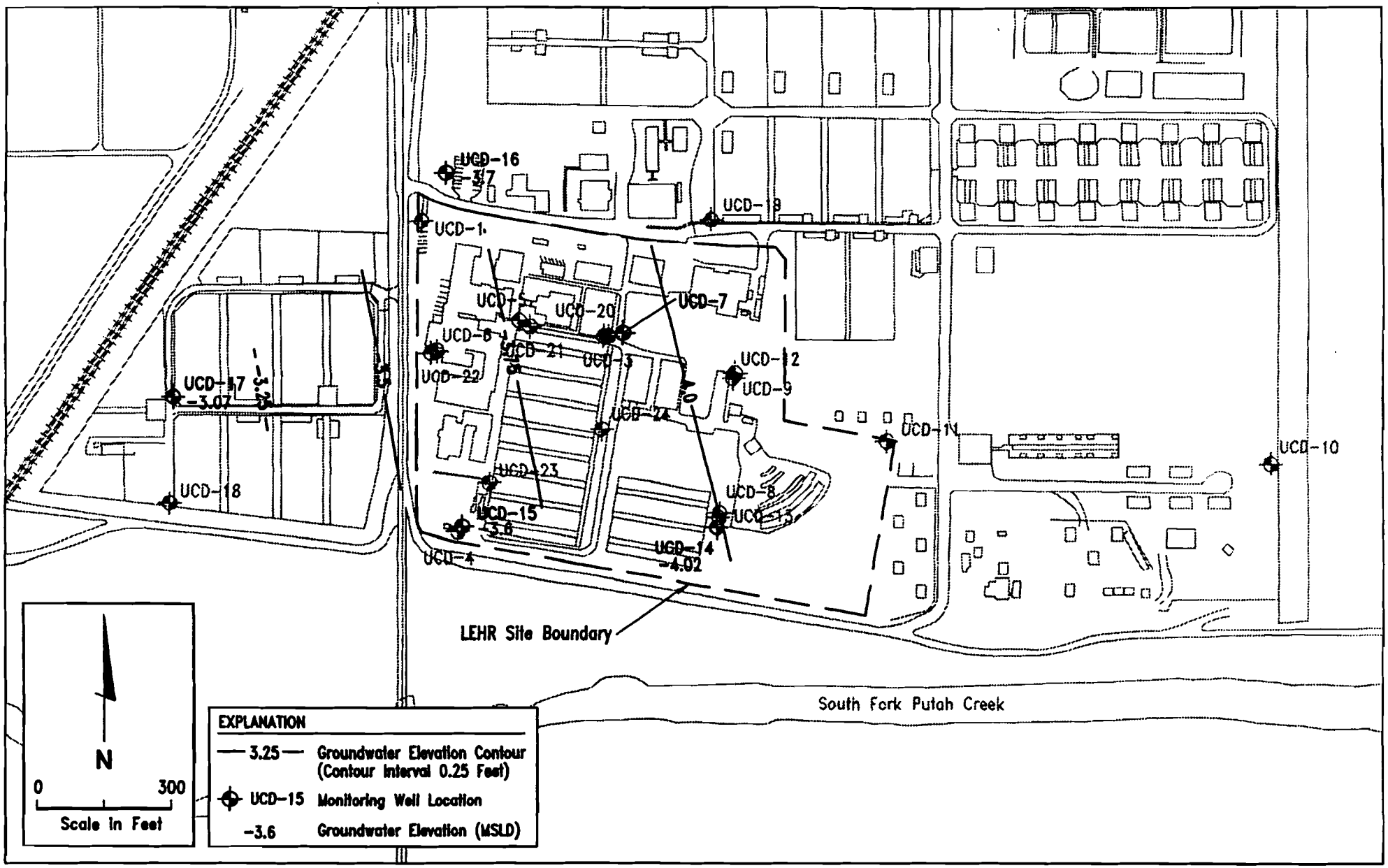
10805-720-04 TXL 3/24/94 050892H2



GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
AUGUST 19, 1992

10805-720-044 TXL 3/24/94 081992H2

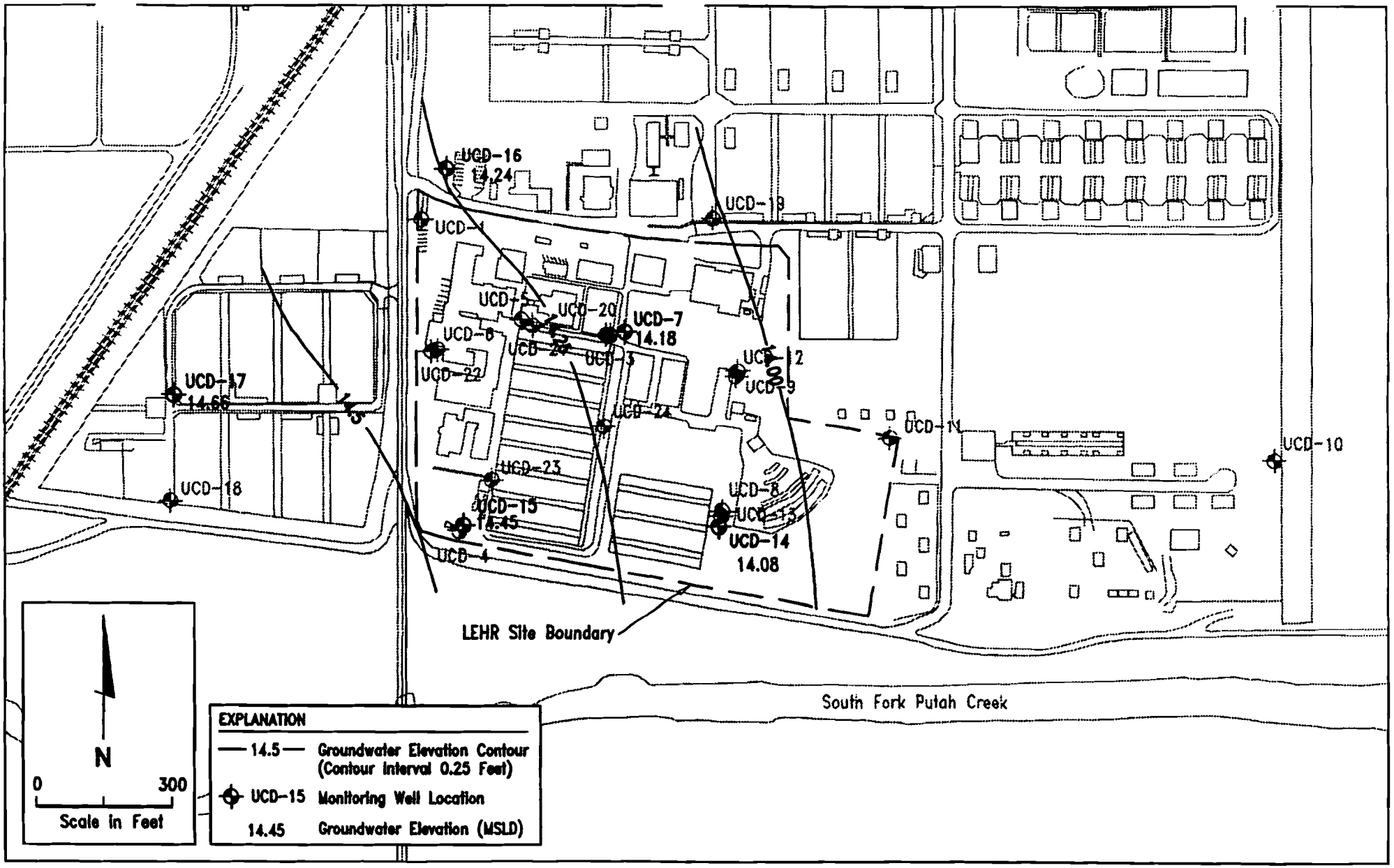
FIGURE 32



GROUNDWATER ELEVATION CONTOUR PLOT
SECOUND HSU
NOVEMBER 17, 1992

10805-720-0 TXL 3/24/94 111792H2

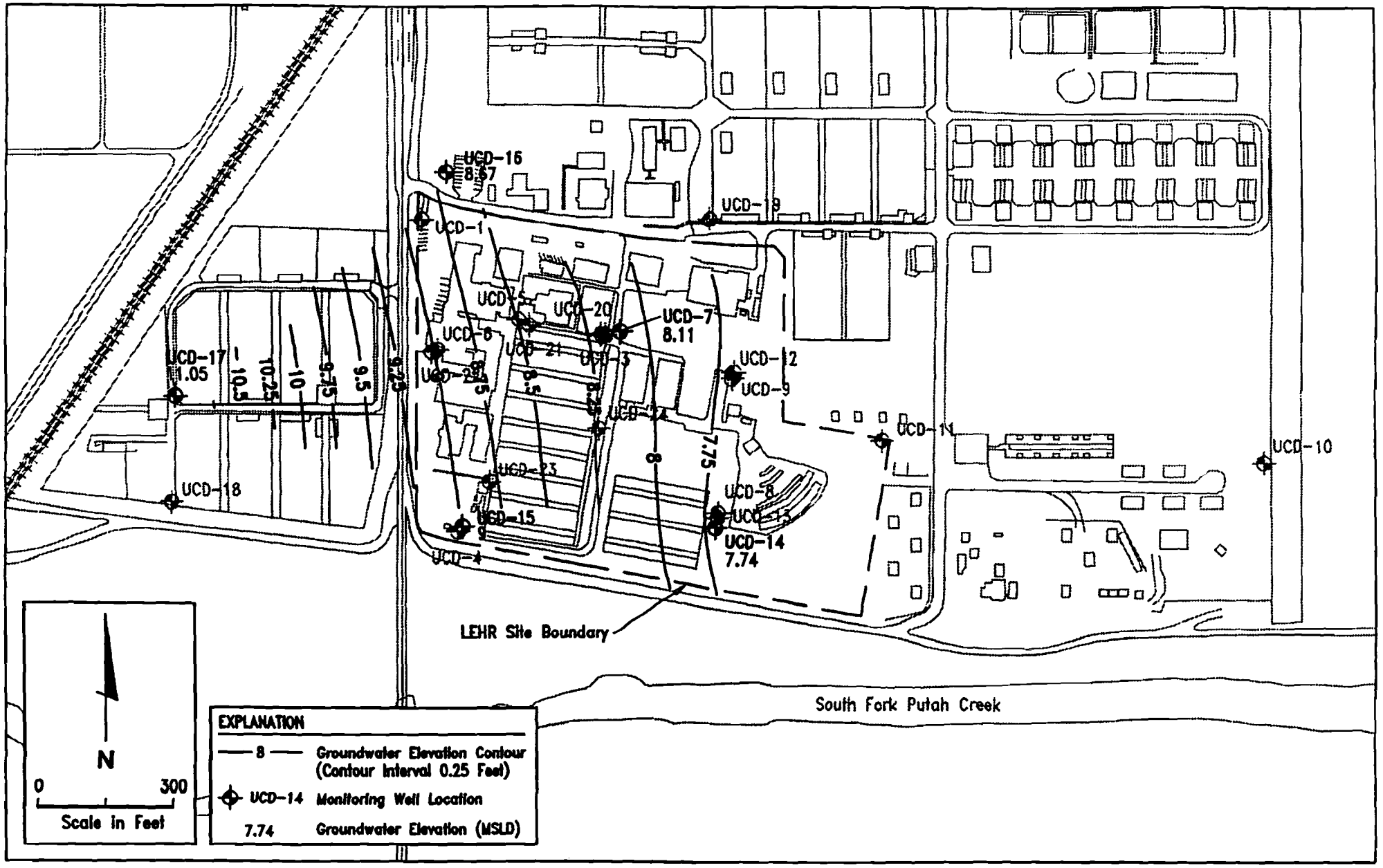
FIGURE 33



GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
FEBRUARY 26, 1993

10805-720-044 TXL 3/24/94 022693H2

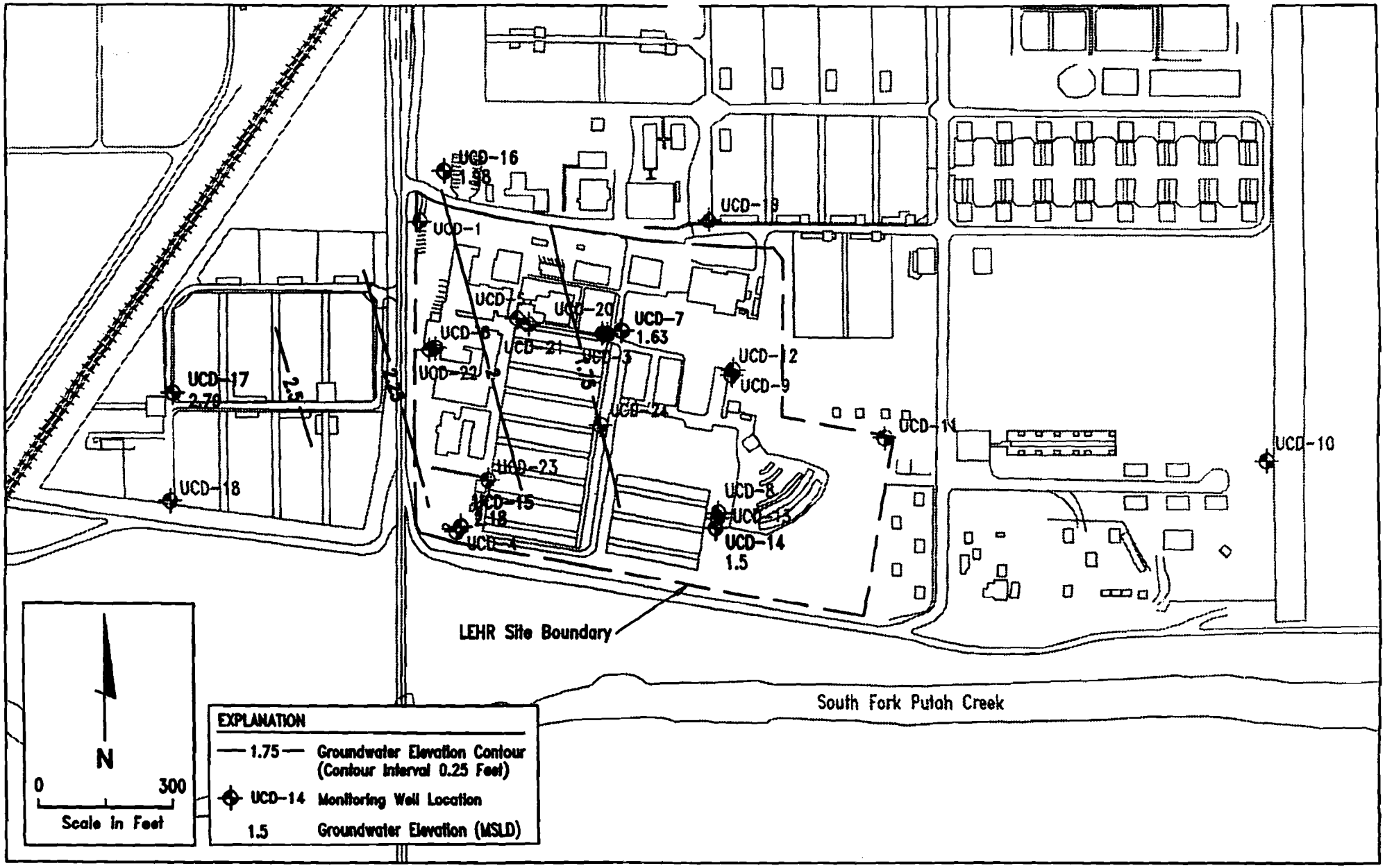
FIGURE 34



GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
M[illegible] 7, 1993

10805-720-044 TXL 3/24/94 050793H2

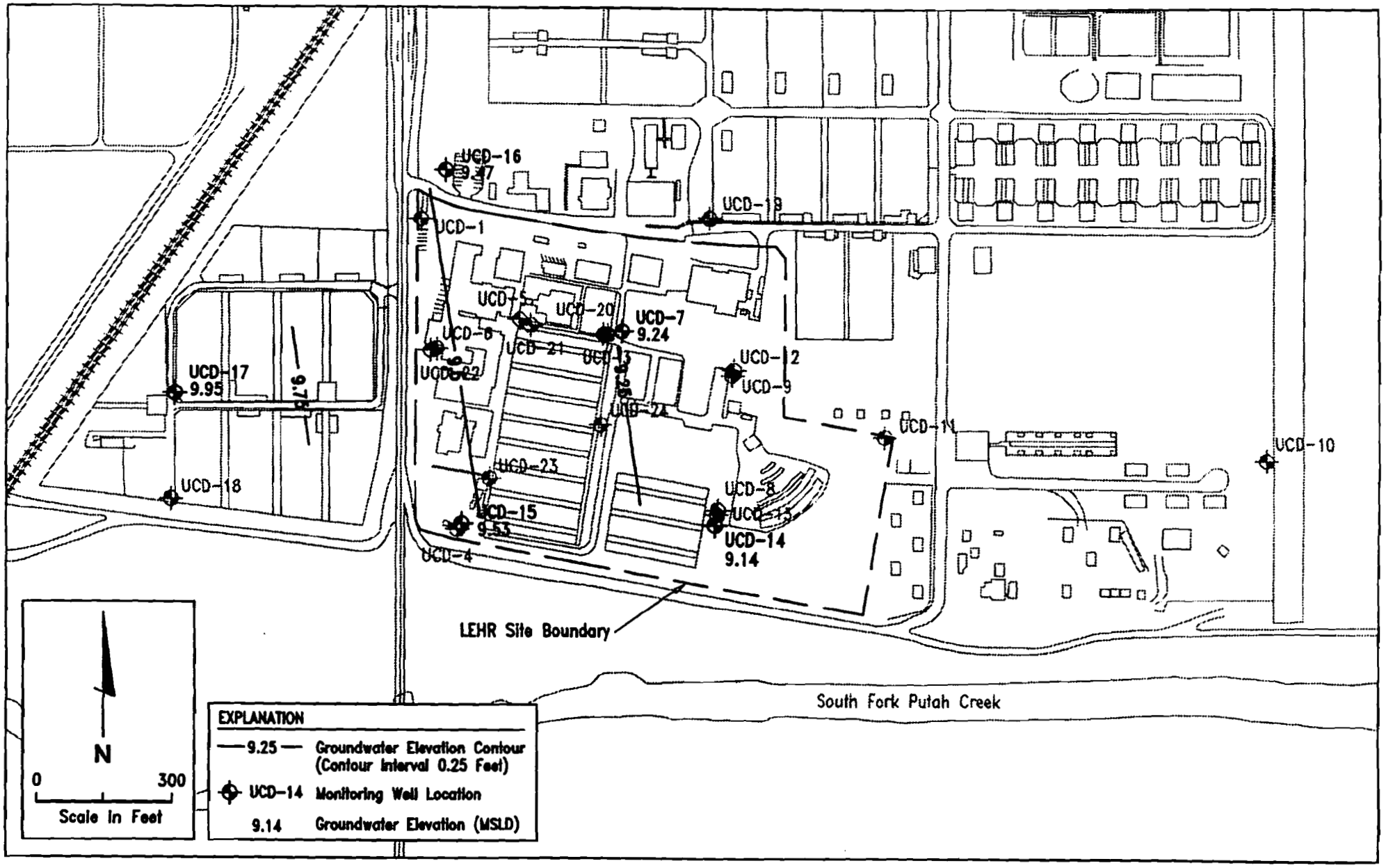
FIGURE 35



GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
AUGUST 27, 1993

10805-720-044 TXL 3/24/94 082793H2

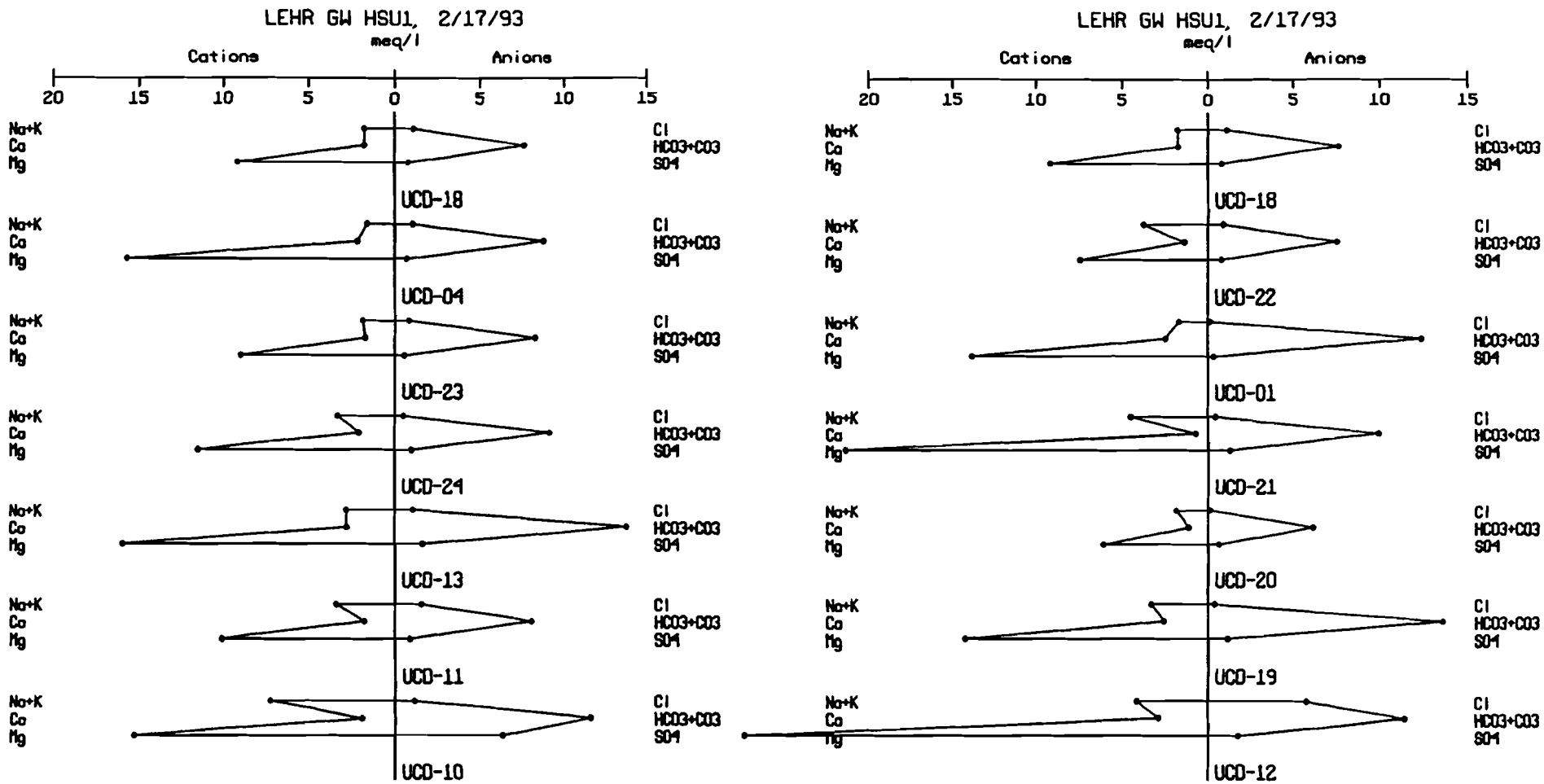
FIGURE 36



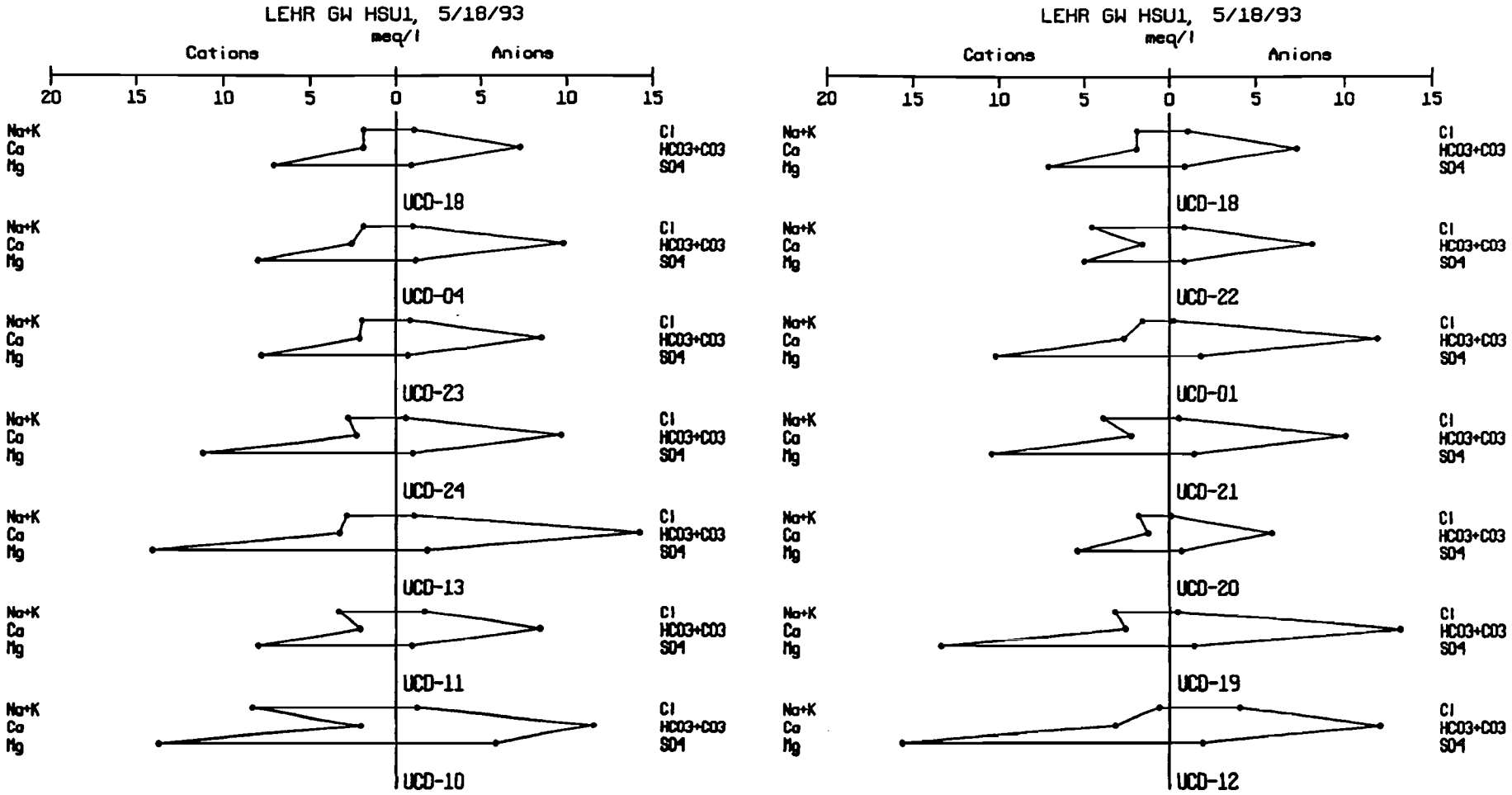
GROUNDWATER ELEVATION CONTOUR PLOT
SECOND HSU
DECEMBER 3, 1993

FIGURE 37

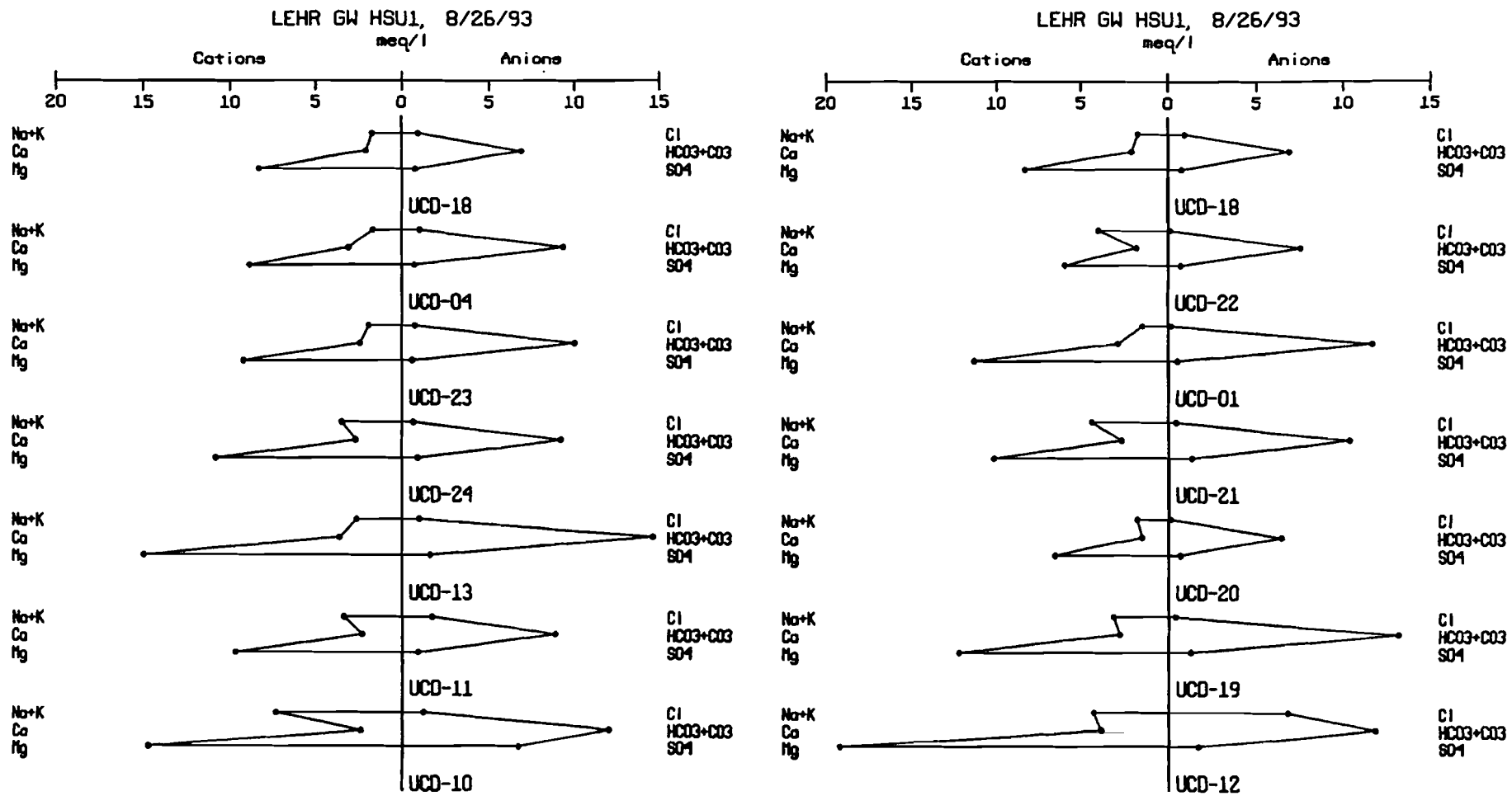
10805-720-044 TXL 3/24/94 120393H2



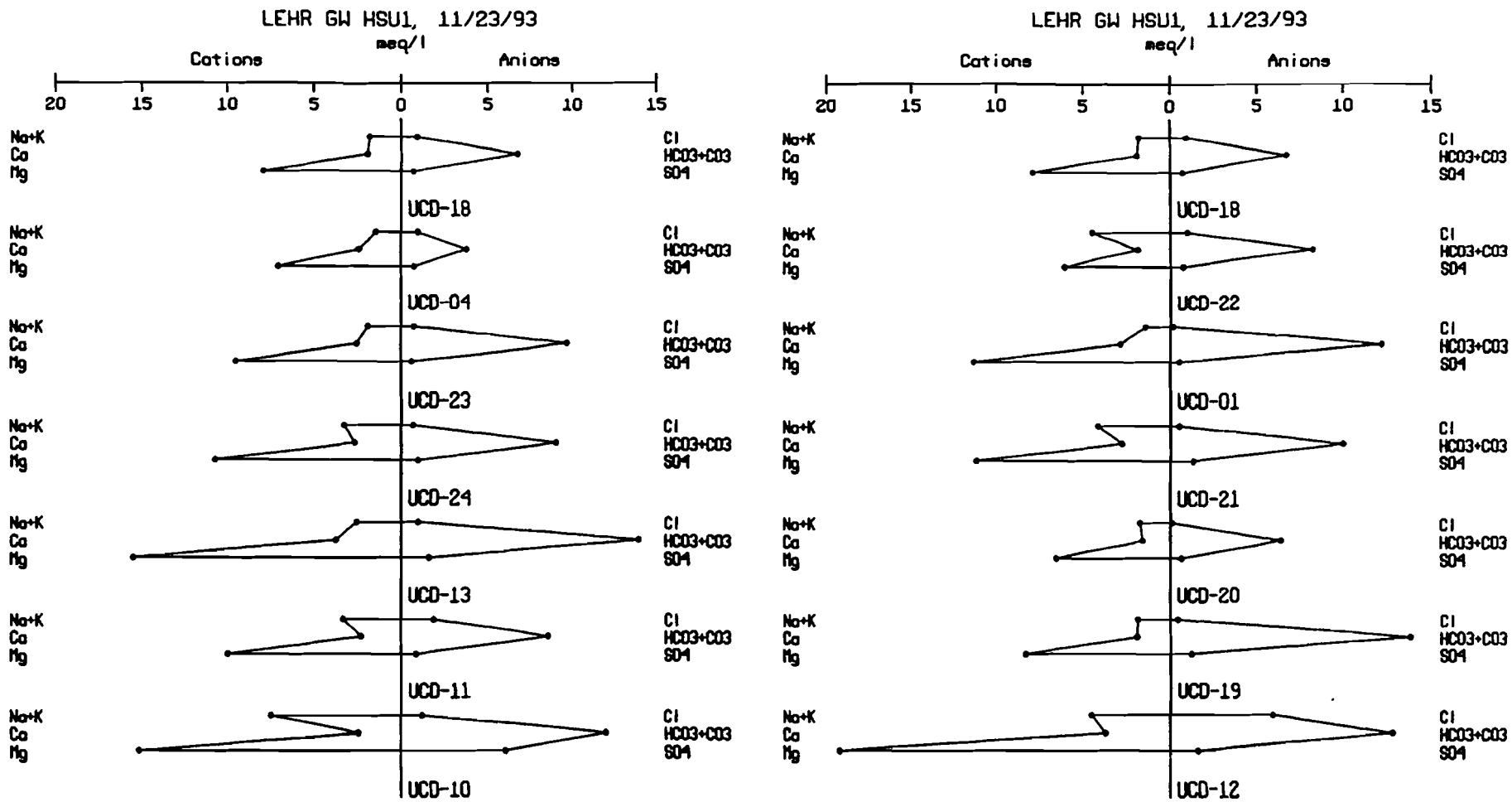
STIFF DIAGRAMS
FIRST HSU WELLS
WINTER QUARTER 1993



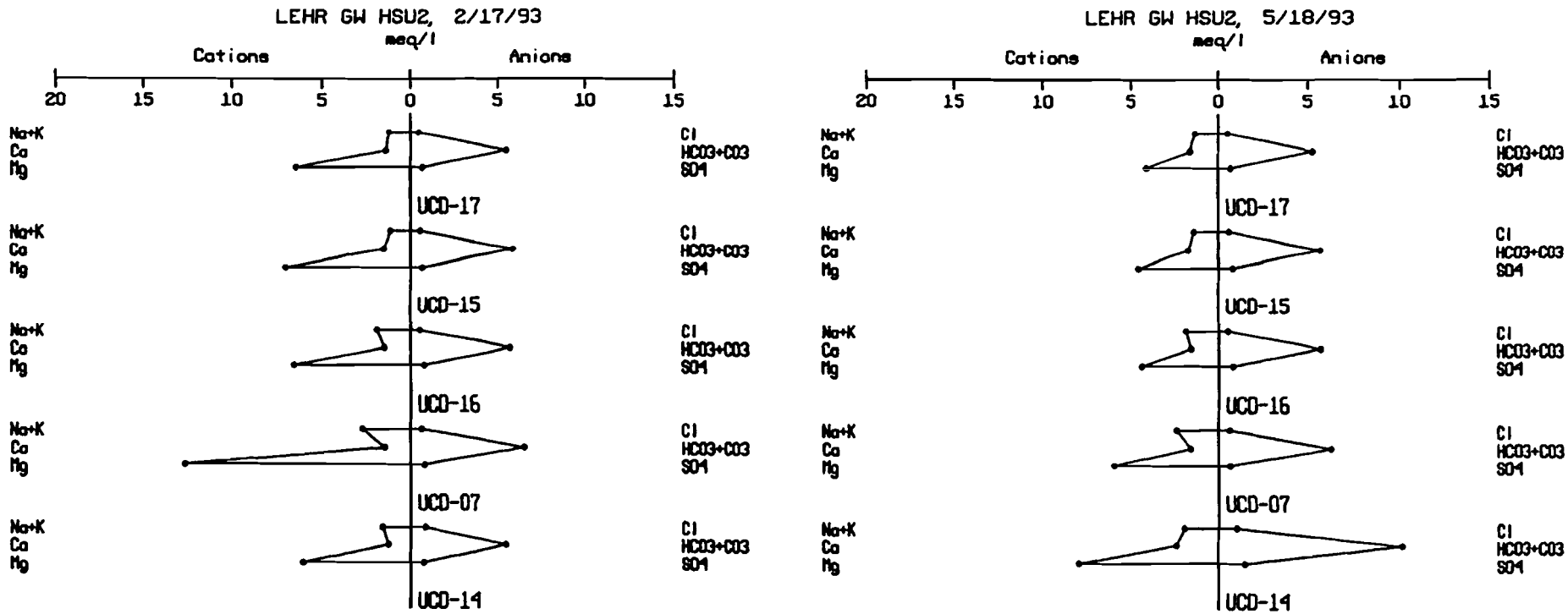
STIFF DIAGRAMS
FIRST HSU WELLS
SPRING QUARTER 1993



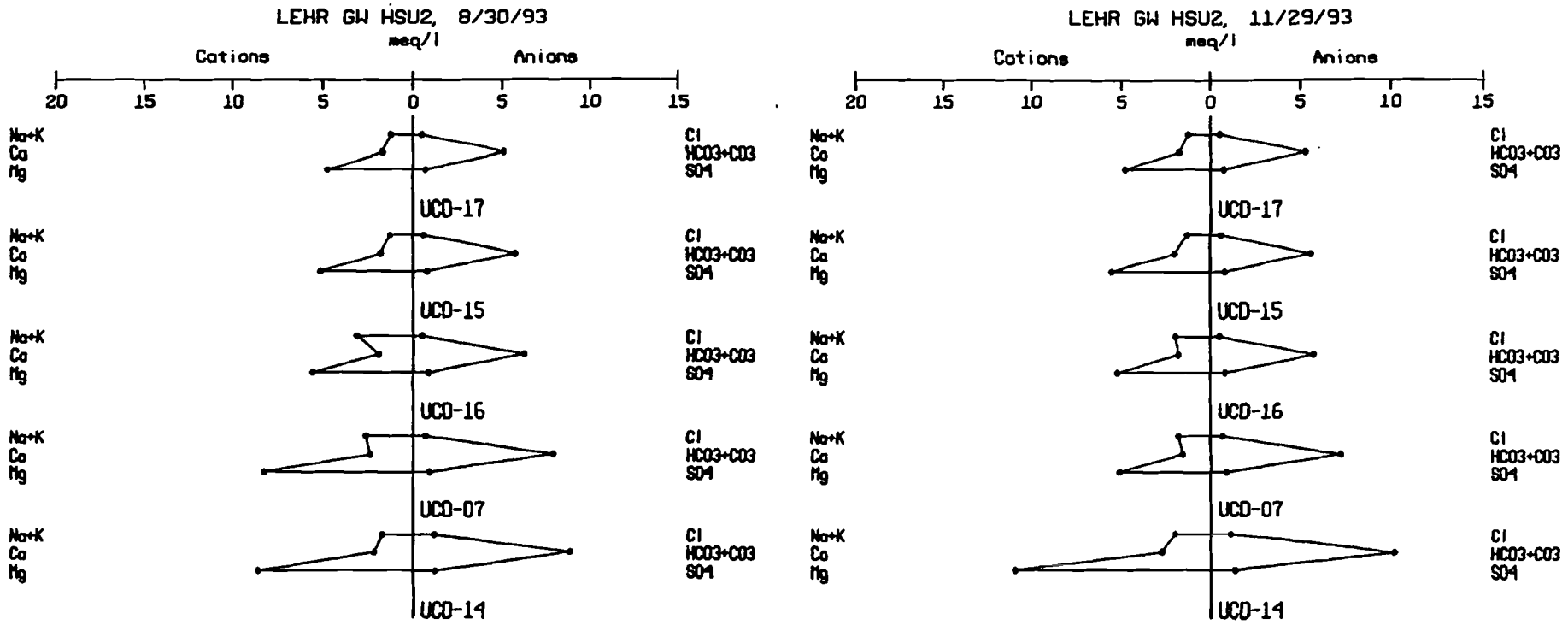
STIFF DIAGRAMS
FIRST HSU WELLS
SUMMER QUARTER 1993



STIFF DIAGRAMS
FIRST HSU WELLS
FALL QUARTER 1993



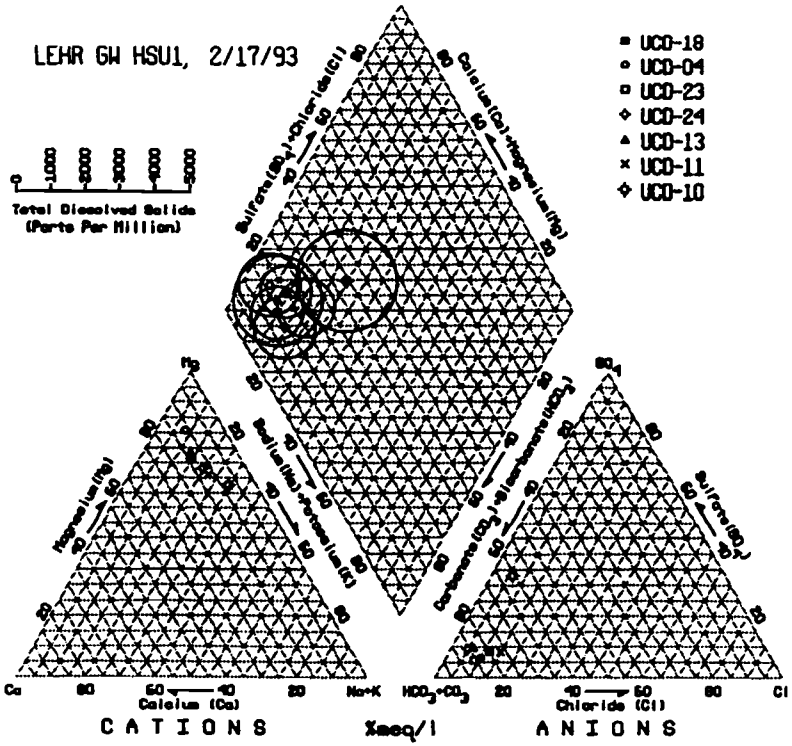
STIFF DIAGRAMS
SECOND HSU WELLS
WINTER & SPRING QUARTER 1993

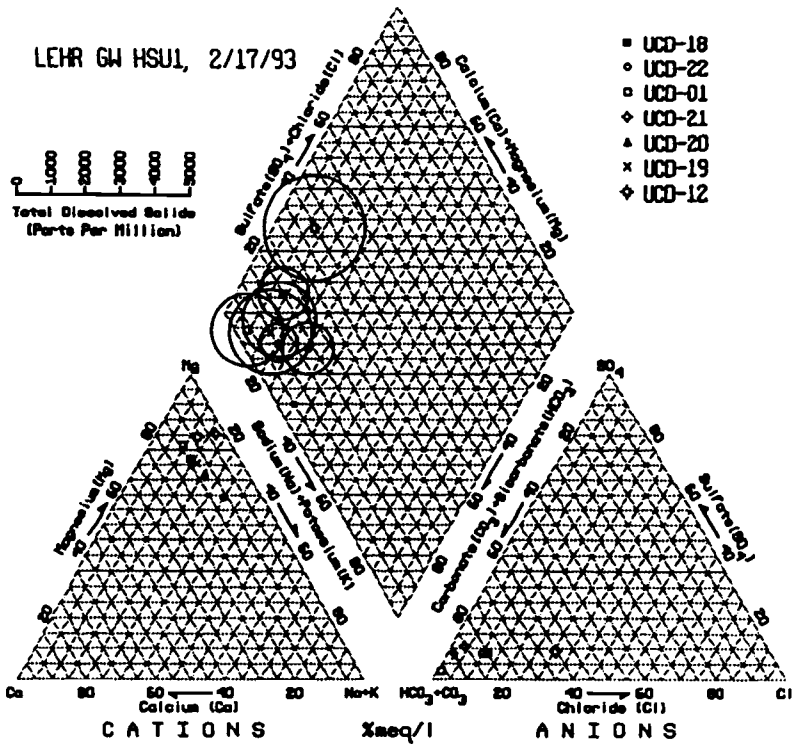


STIFF DIAGRAMS
SECOND HSU WELLS
SUMMER & FALL QU' 'TER 1993

10805-720-69( ) SJR 3/16/94 6905K

FIGURE 43

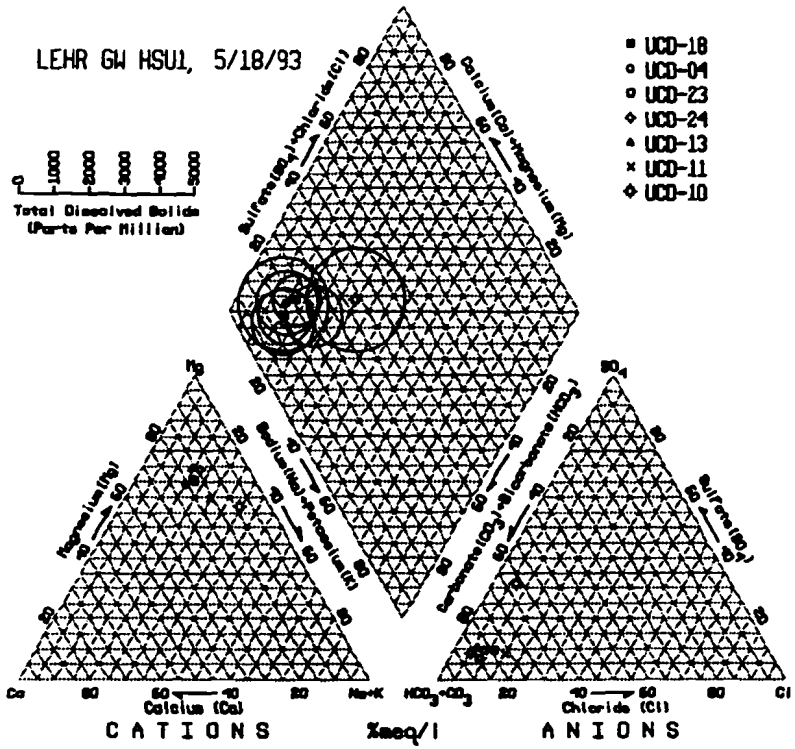


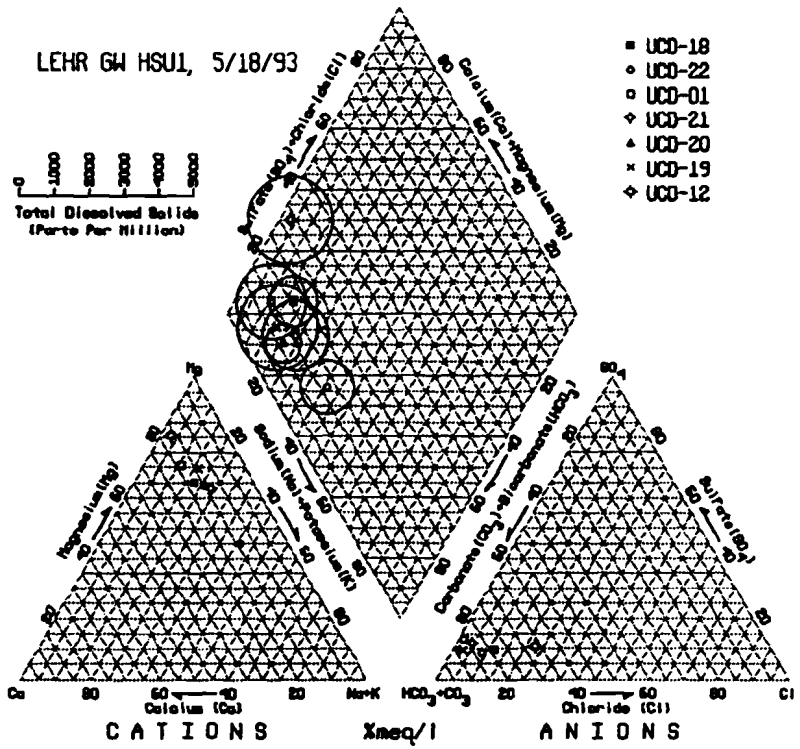


PIPER DIAGRAMS
FIRST HSU WELLS
WINTER QUARTER 1993

10805-720-6905-044 SJR 3/16/94 6905H

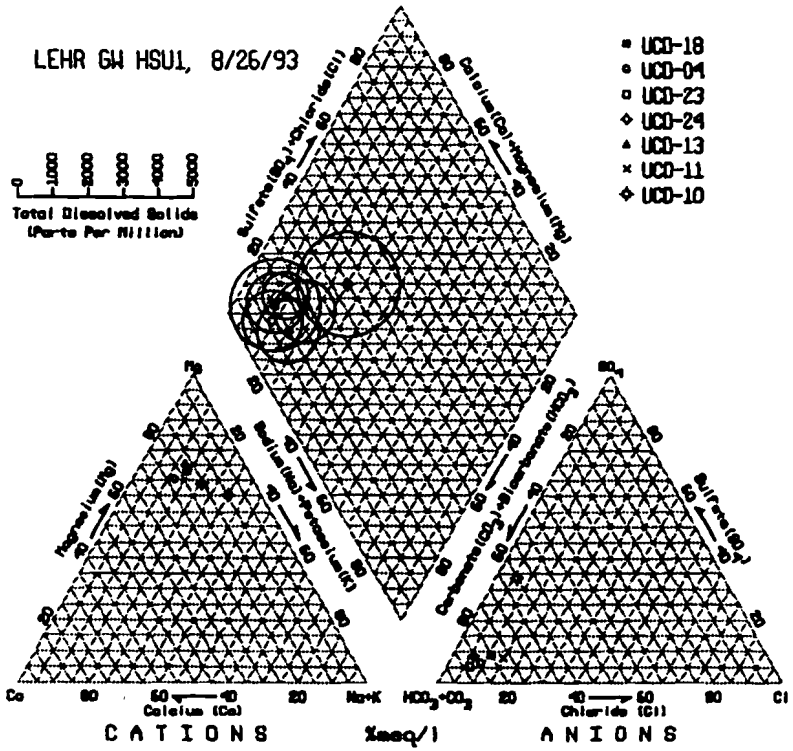
FIGURE 44

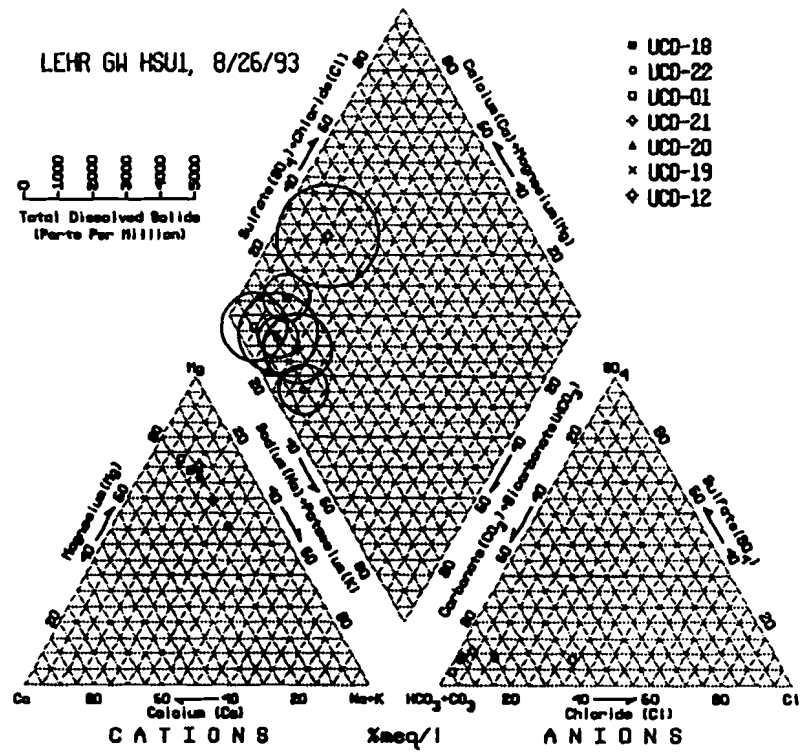




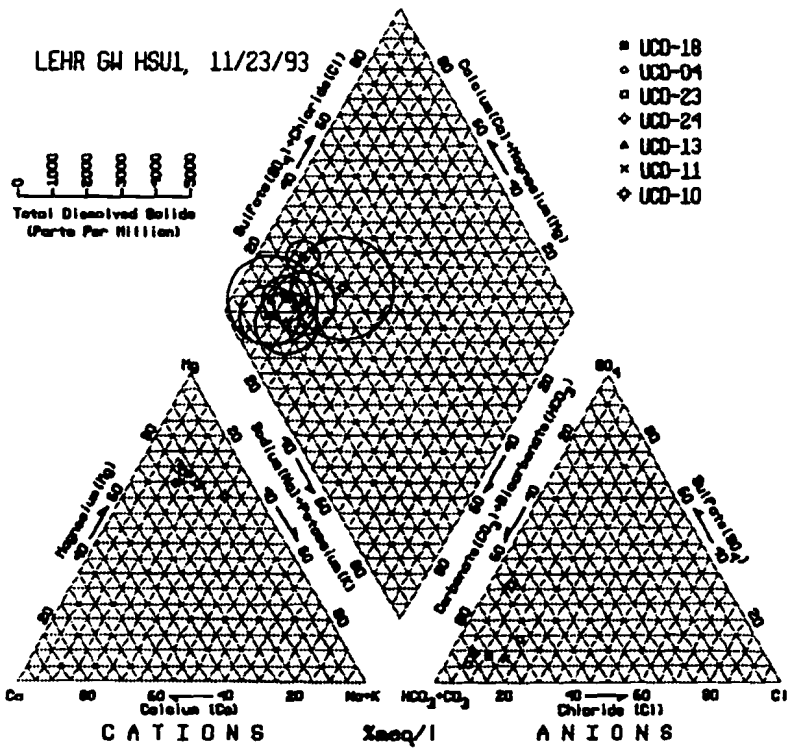
PIPER DIAGRAMS
FIRST HSU WELLS
SPRING QUARTER 1993

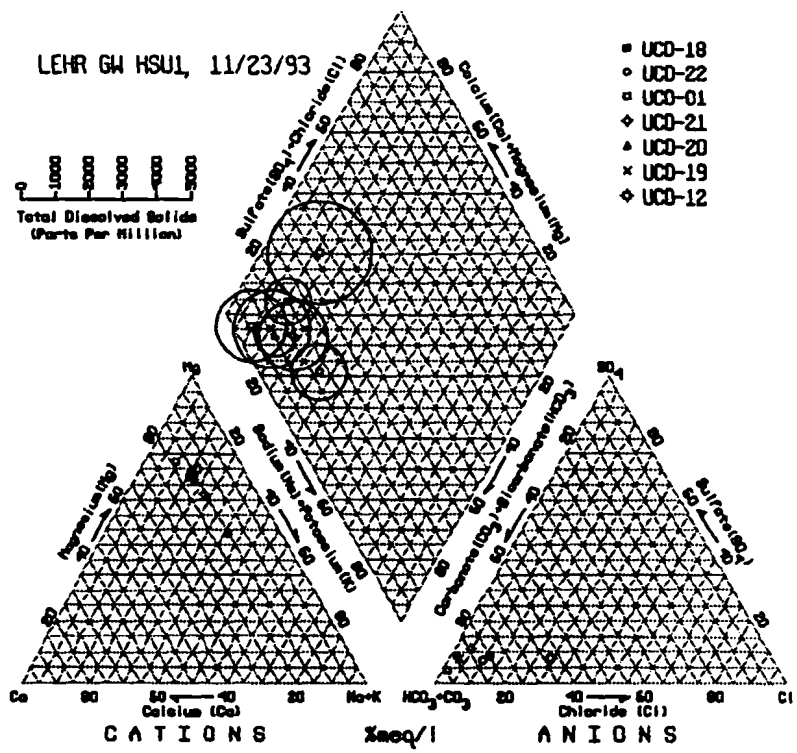
FIGURE 45





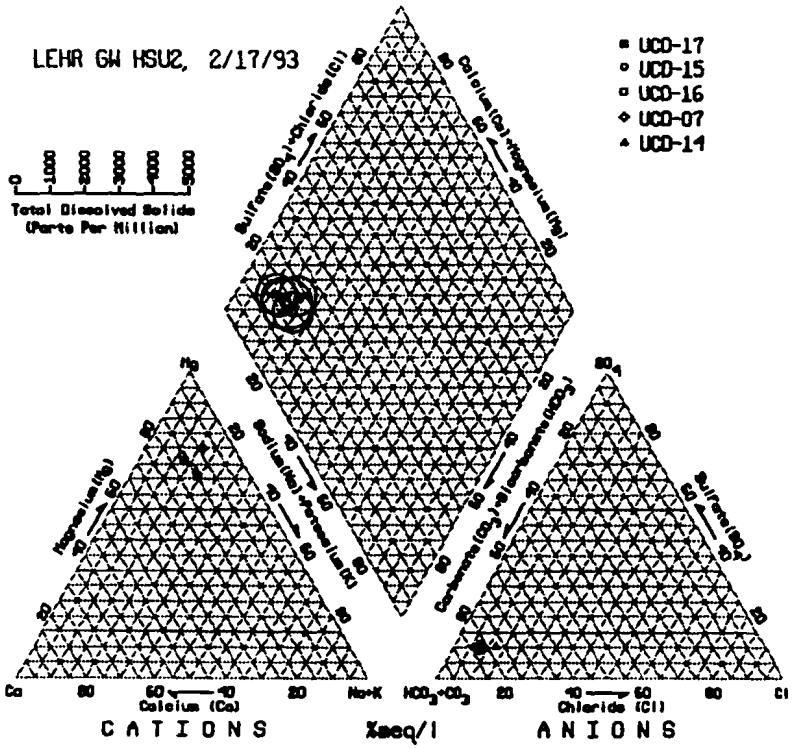
PIPER DIAGRAMS
FIRST HSU WELLS
SUMMER QUARTER 1993

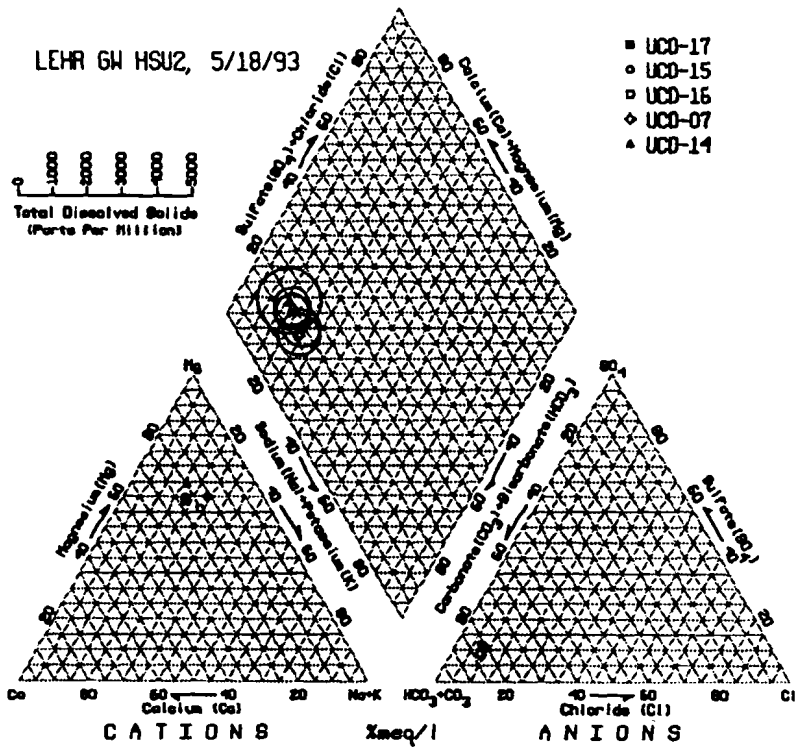




PIPER DIAGRAMS
FIRST HSU WELLS
FALL QU[illegible]TER 1993

FIGURE 47

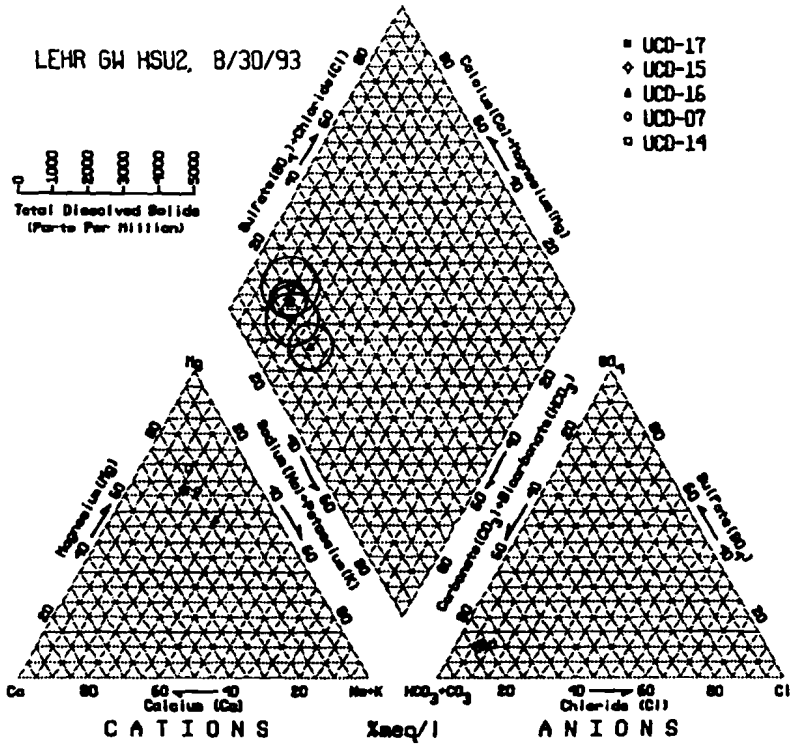


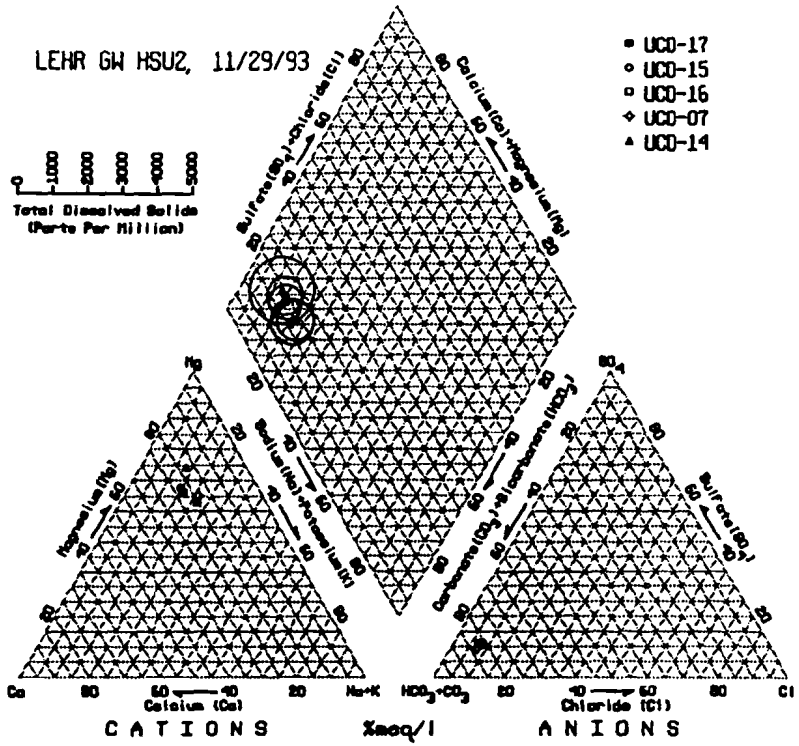


PIPER DIAGRAMS
SECOND HSU WELLS
WINTER & SPRING QUARTER 1993

10805-720-6905-044 SJR 3/16/94 6905P

FIGURE 48

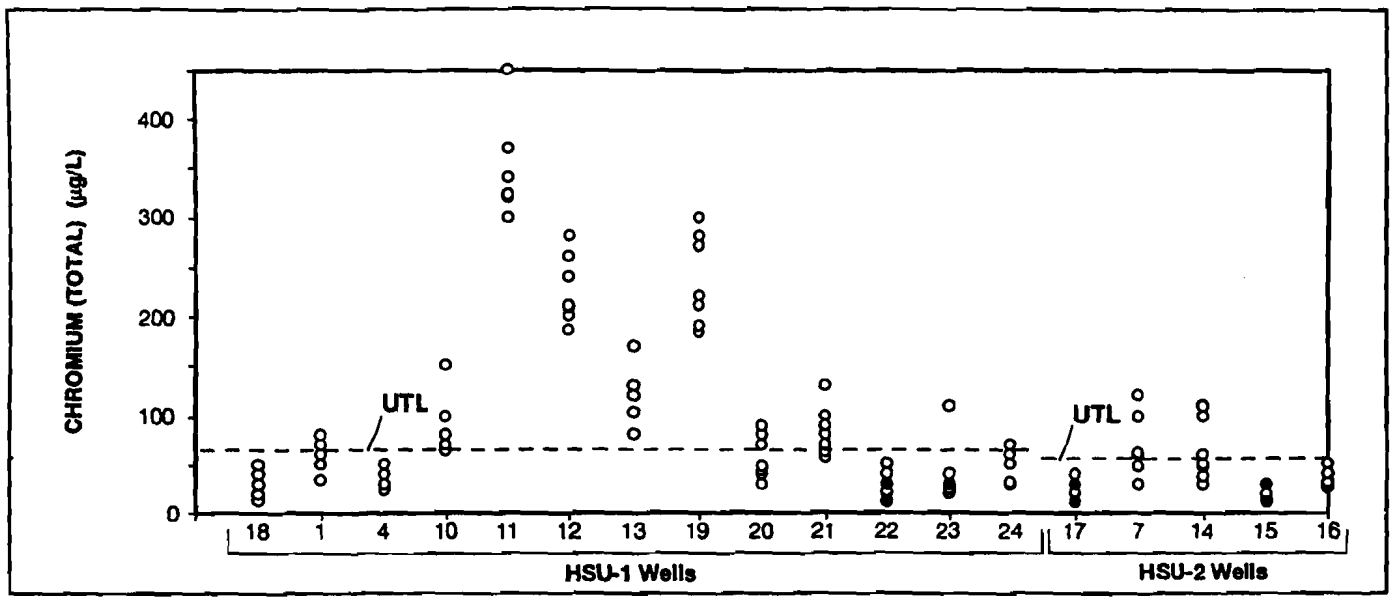


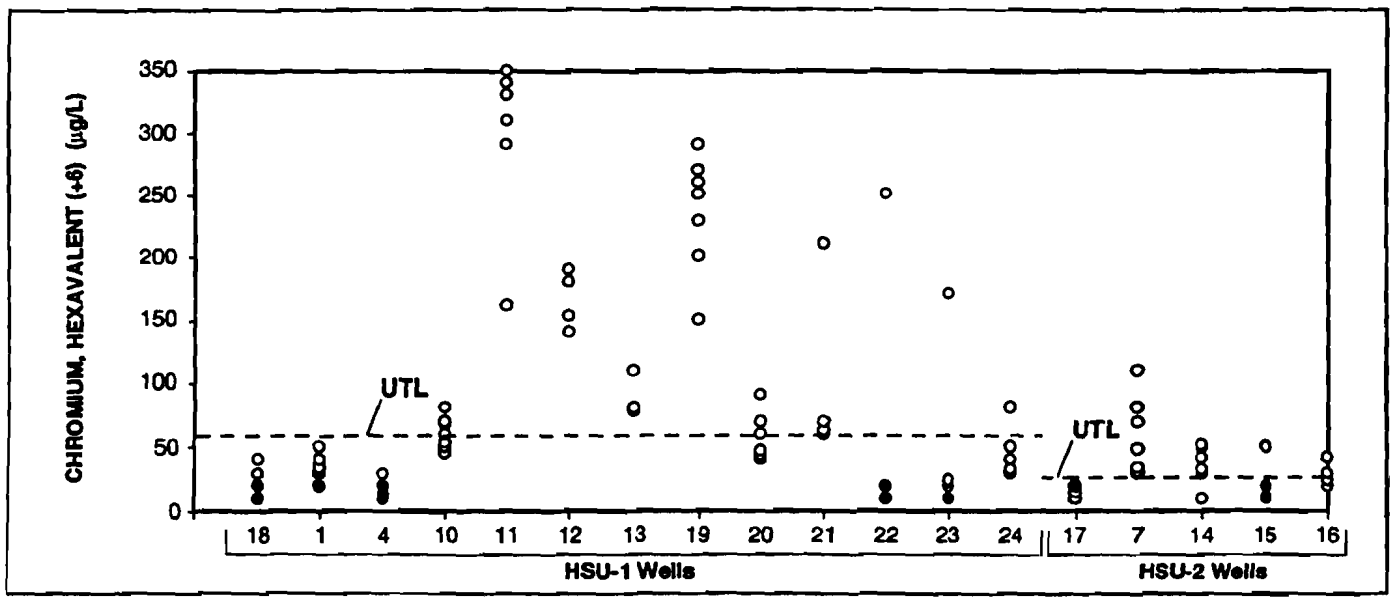


PIPER DIAGRAMS
SECOND HSU WELLS
SUMMER & FALL QU' TER 1993

10805-720-690' SJR 3/16/94 6905J

FIGURE 49

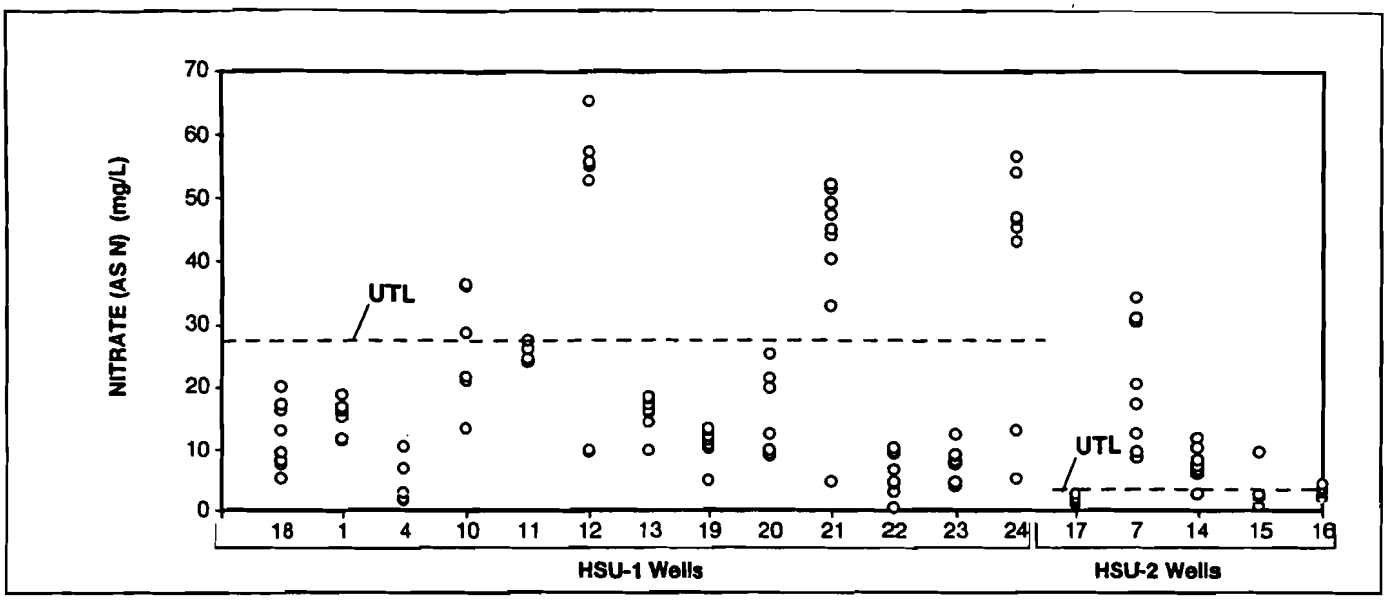


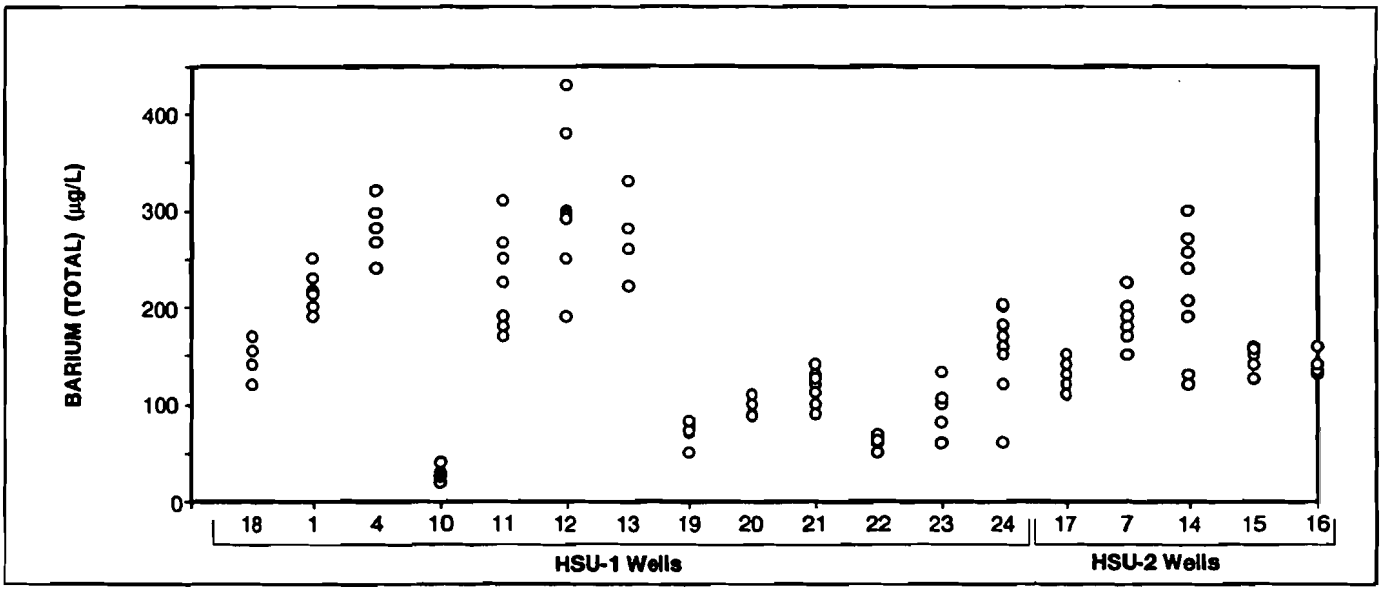


LEGEND

- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit
- **UTL** Upgradient Upper Tolerance Limit Concentration

CONCENTRATION BY LOCATION - GROUNDWATER TOTAL AND HEXAVALANT CHROMIUM





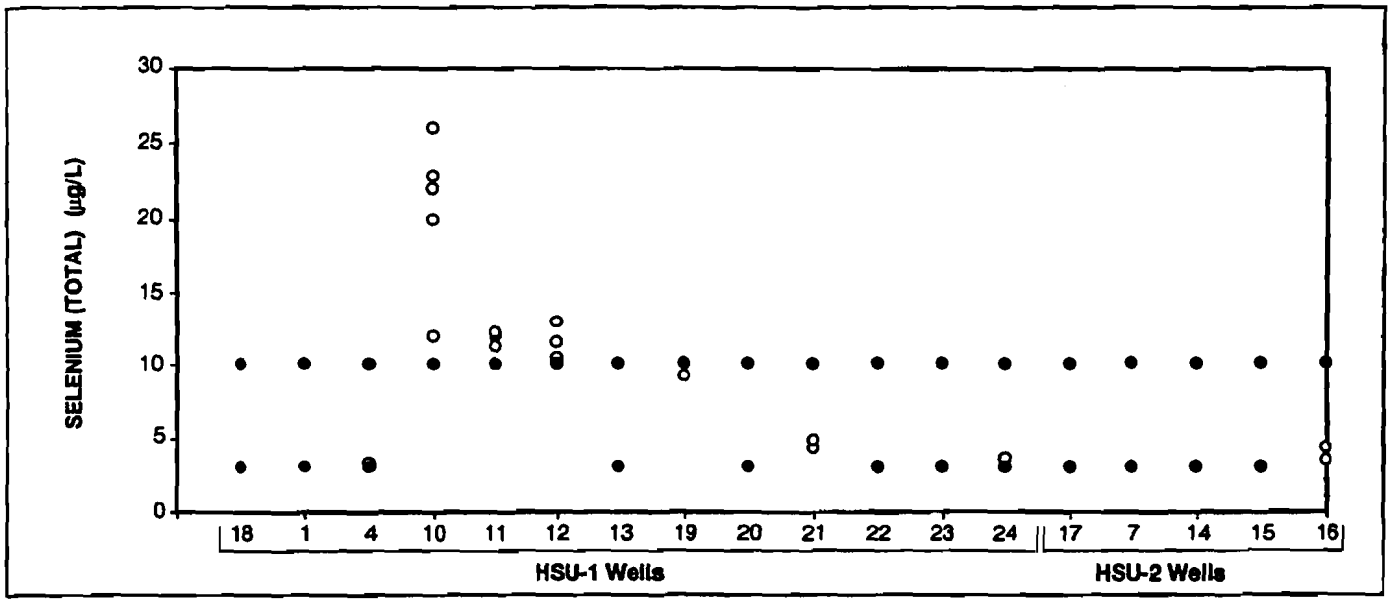
LEGEND

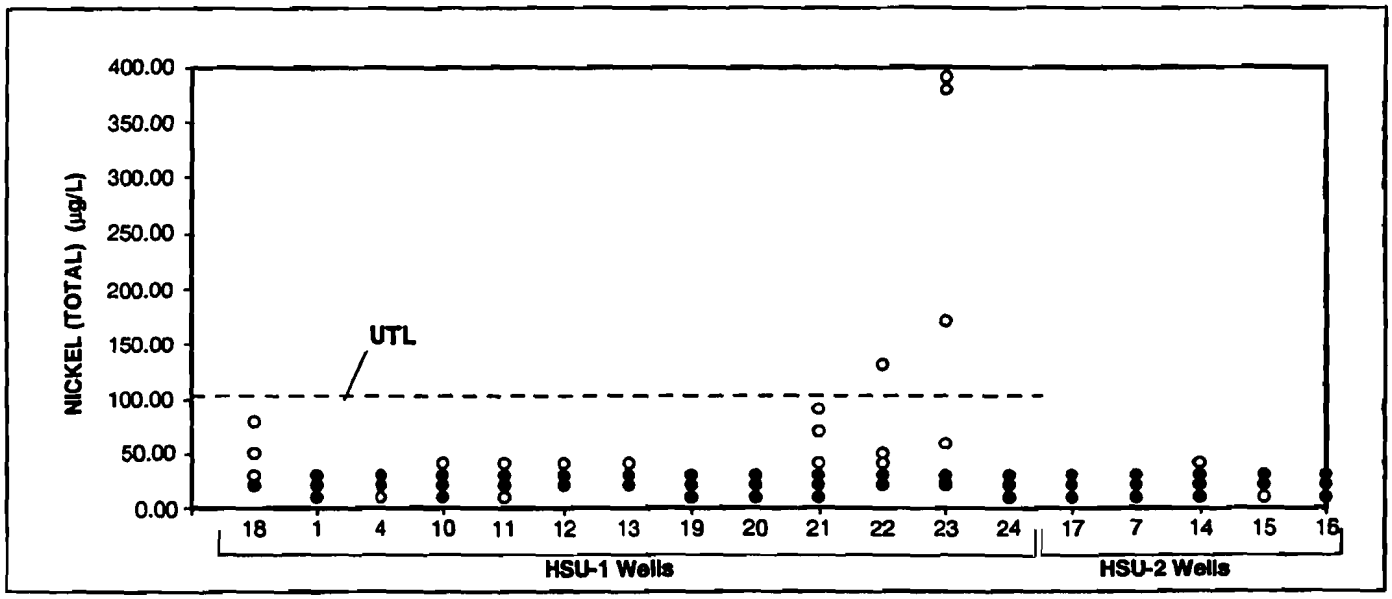
- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit
- UTL Upgradient Upper Tolerance Limit Concentration

CONCENTRATION BY LOCATION-GROUNDWATER NITRATE AND BARIUM

10805-720-044.sjr.4/11/94.5705.ba

FIGURE 51





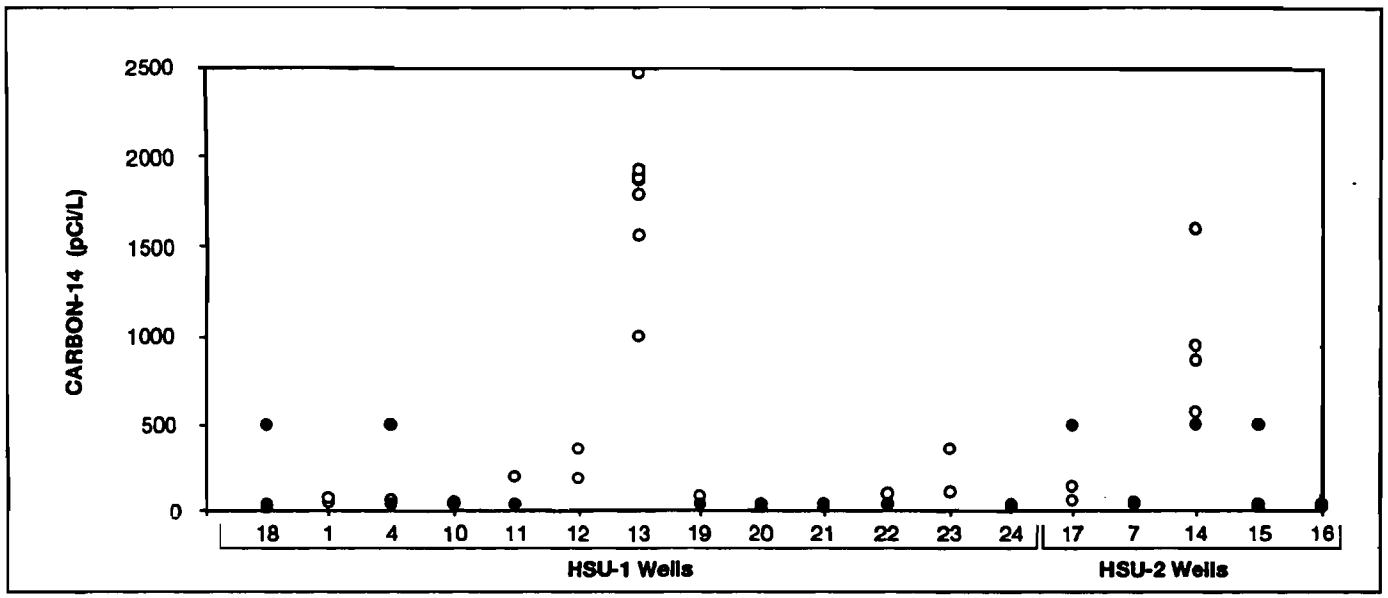
LEGEND

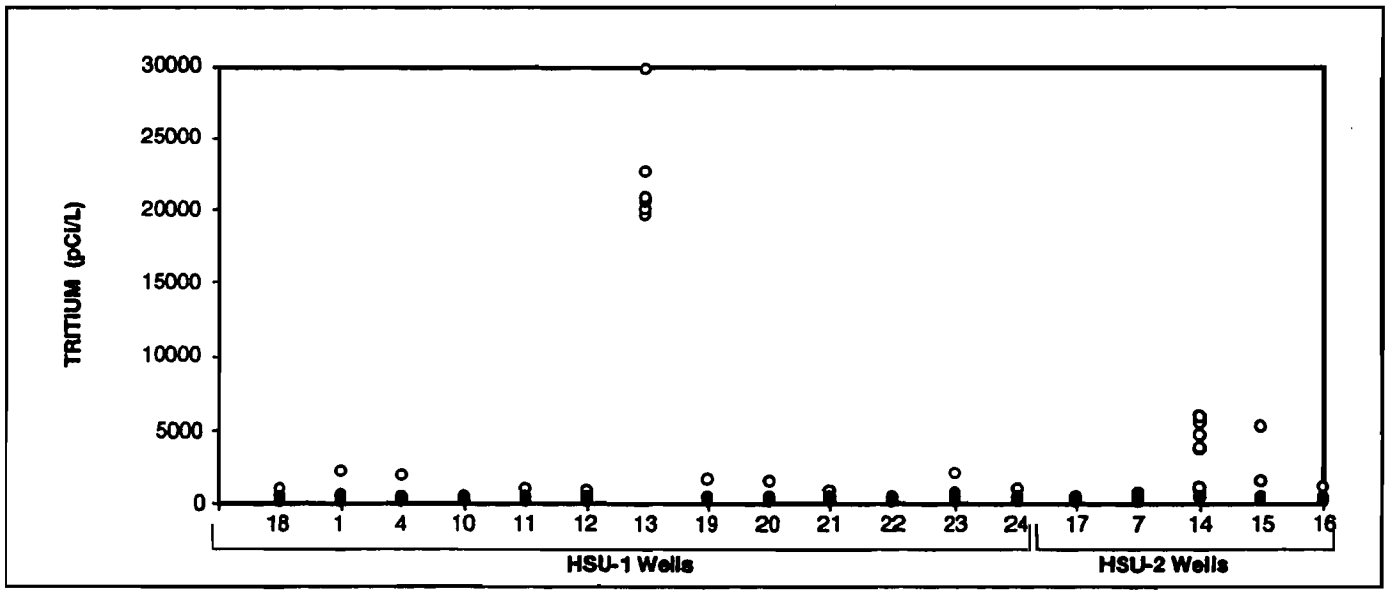
o	Reported Detections
•	Non-Detections Shown at the Reporting Limit
UTL	Upgradient Upper Tolerance Limit Concentration

CONCENTRATION BY LOCATION - GROUNDWATER SELENIUM AND NICKEL

10805-720-044.sjr.4/11/94.5705.bg

FIGURE 52





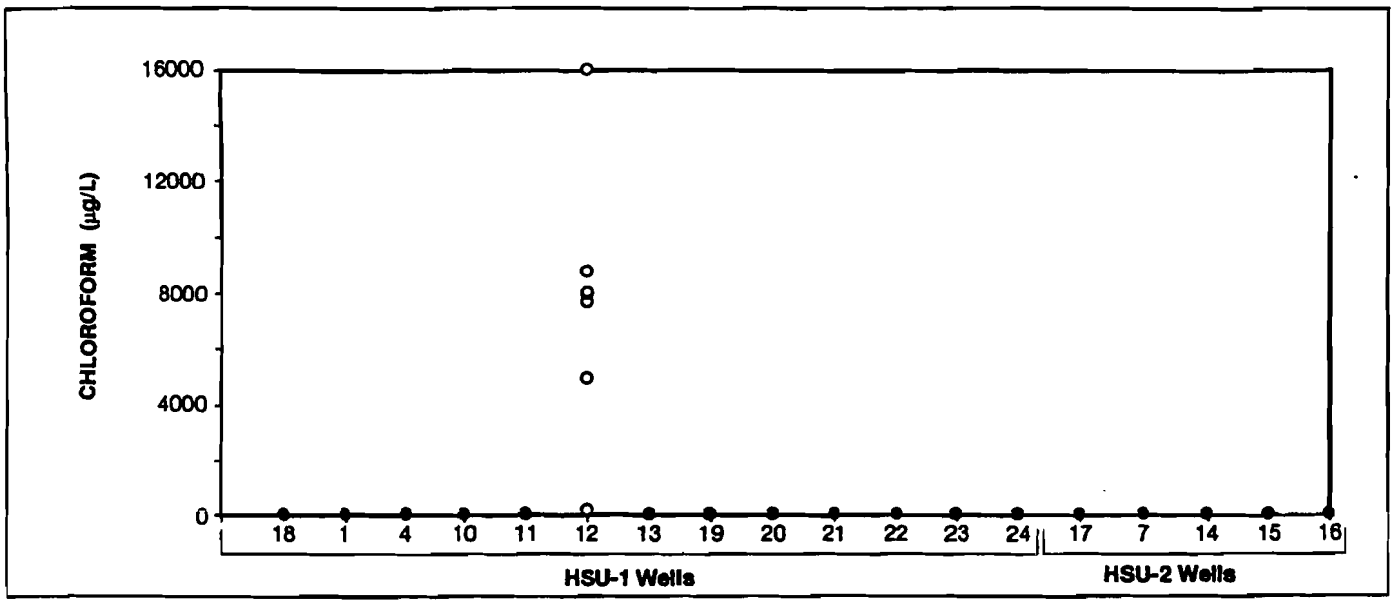
LEGEND

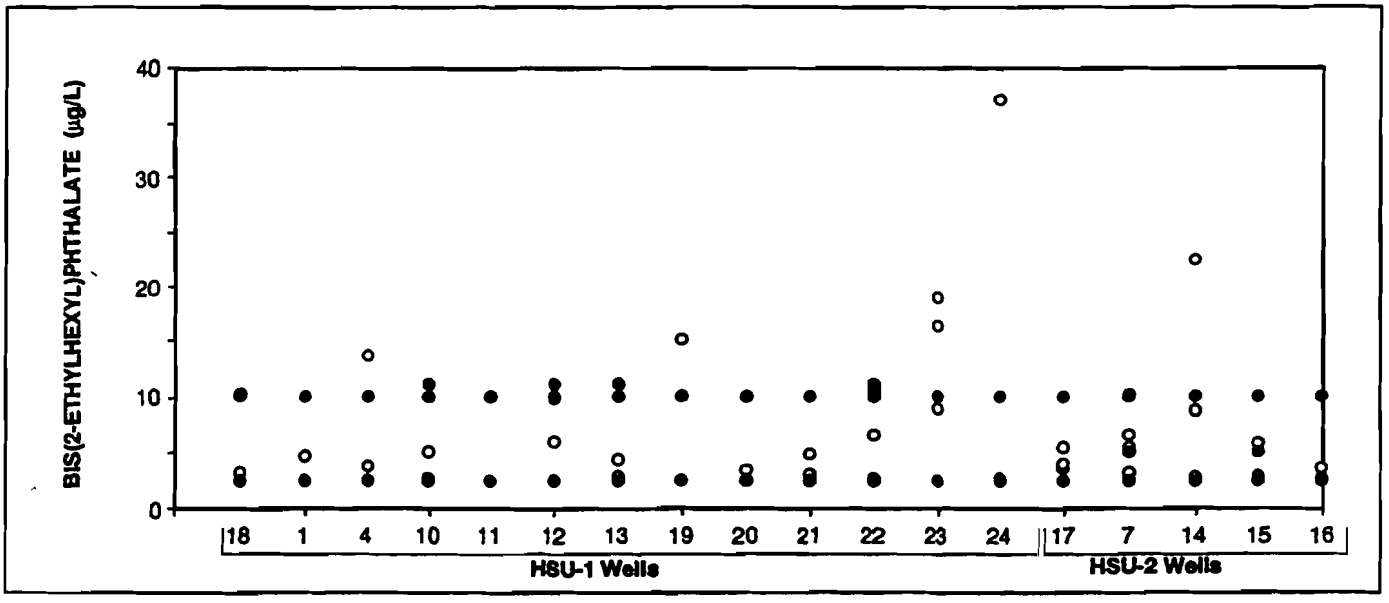
- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - GROUNDWATER CARBON 14 AND TRITIUM

10805-720-044.sjr.4/11/94.5705.bd

FIGURE 53

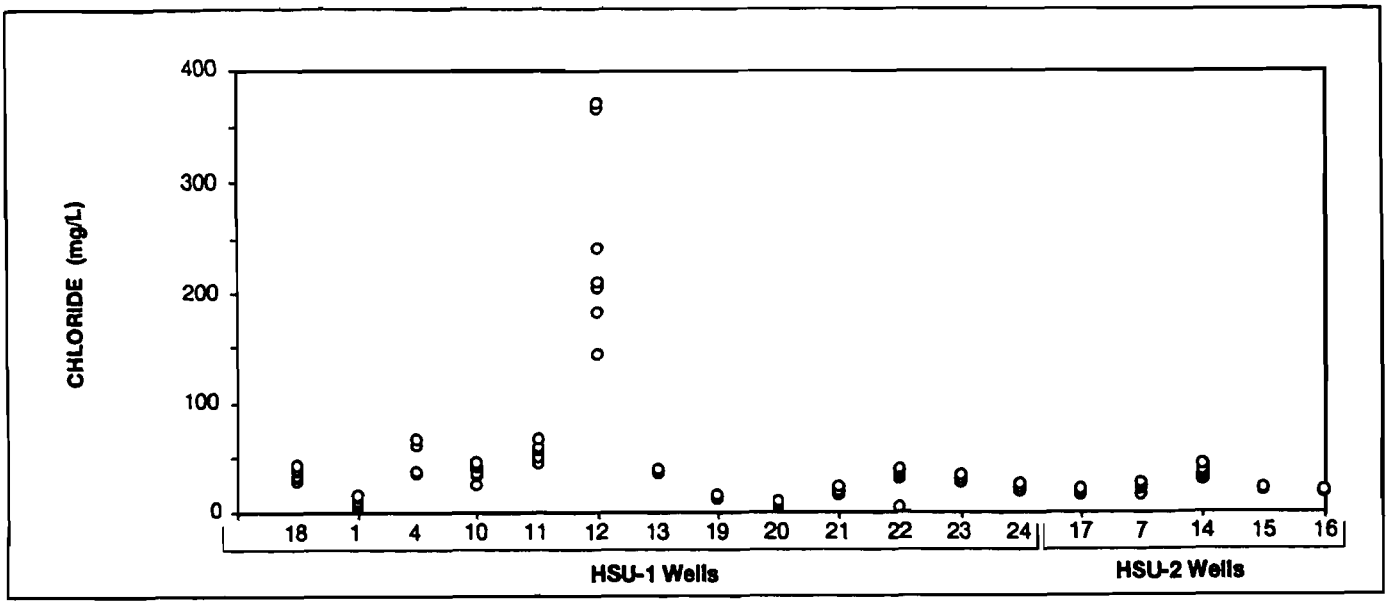


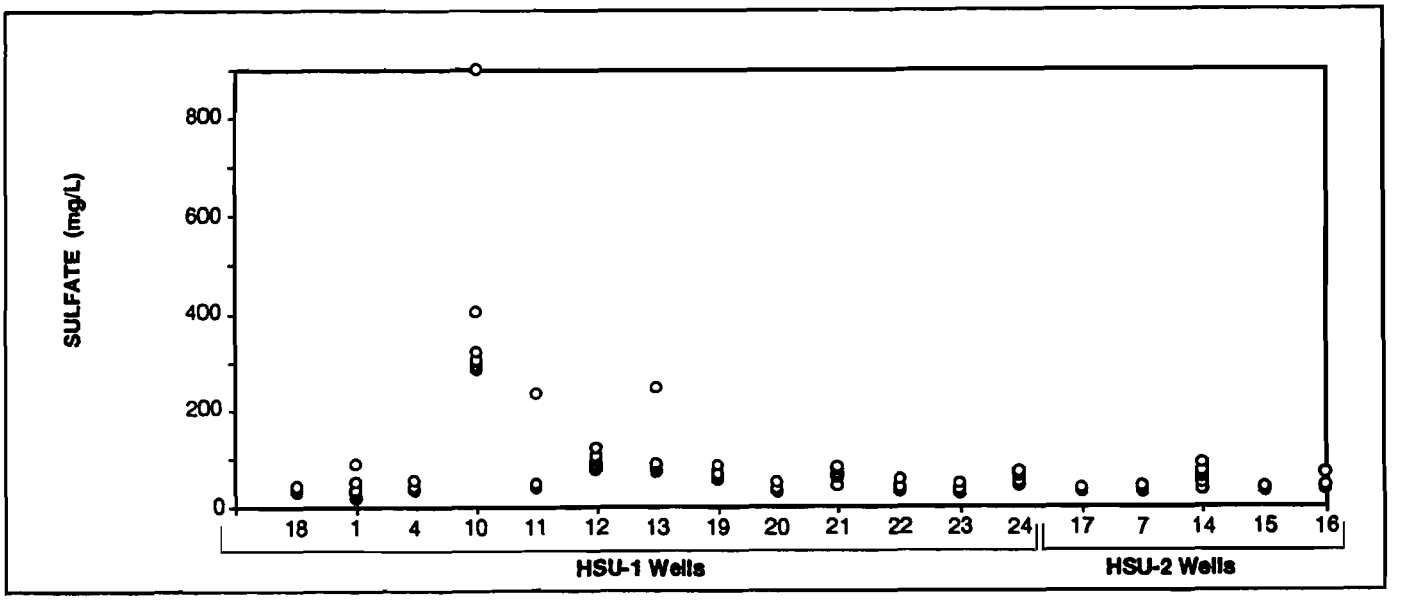


LEGEND

- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - GROUNDWATER CHLOROFORM AND BIS(2-ETHYLHEXYL)PHTHALATE

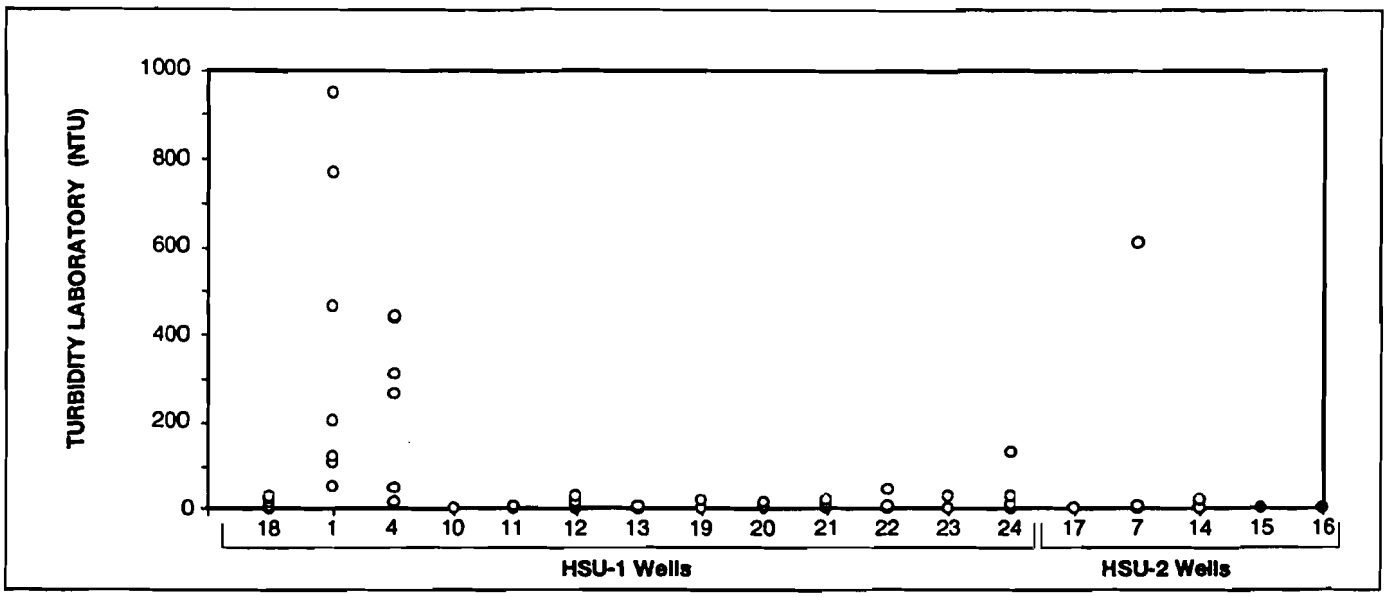


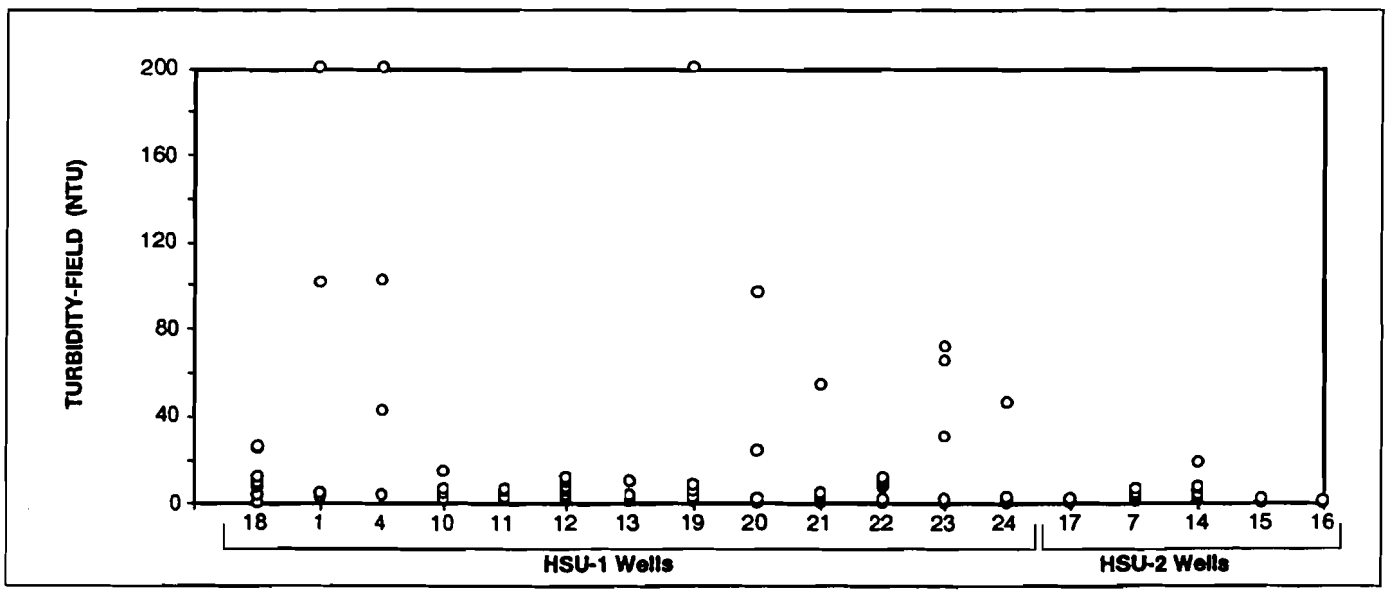


LEGEND

- o Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - GROUNDWATER CHLORIDE AND SULFATE

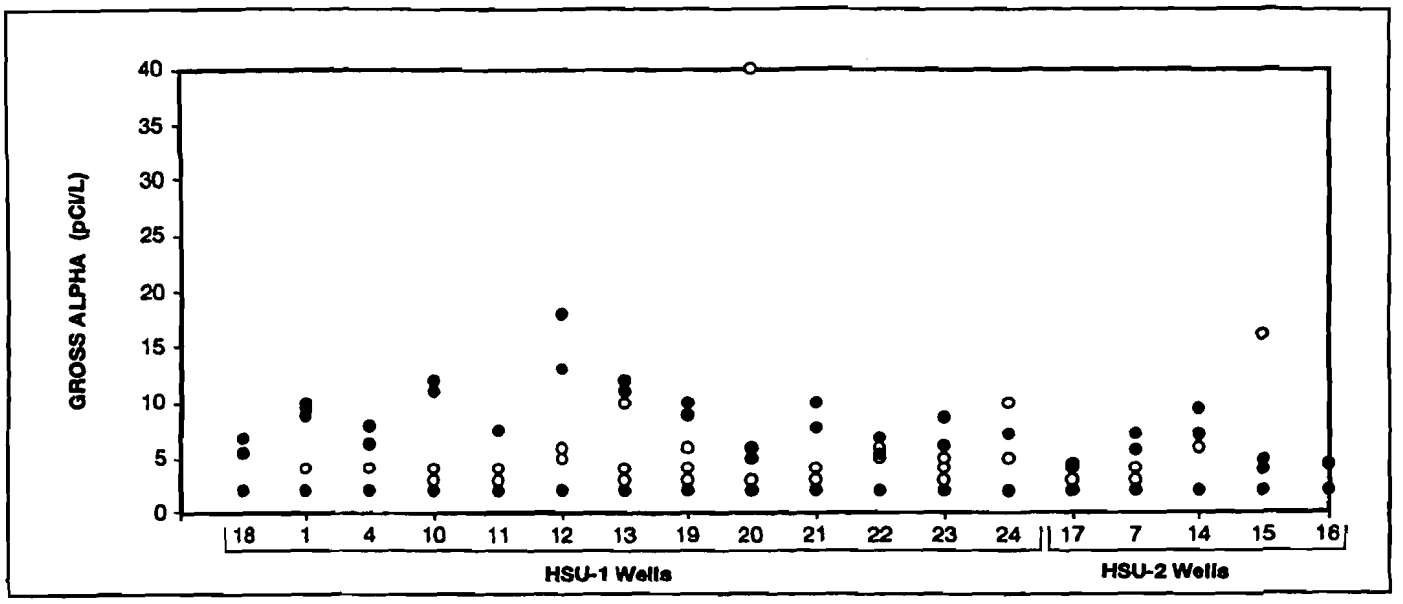


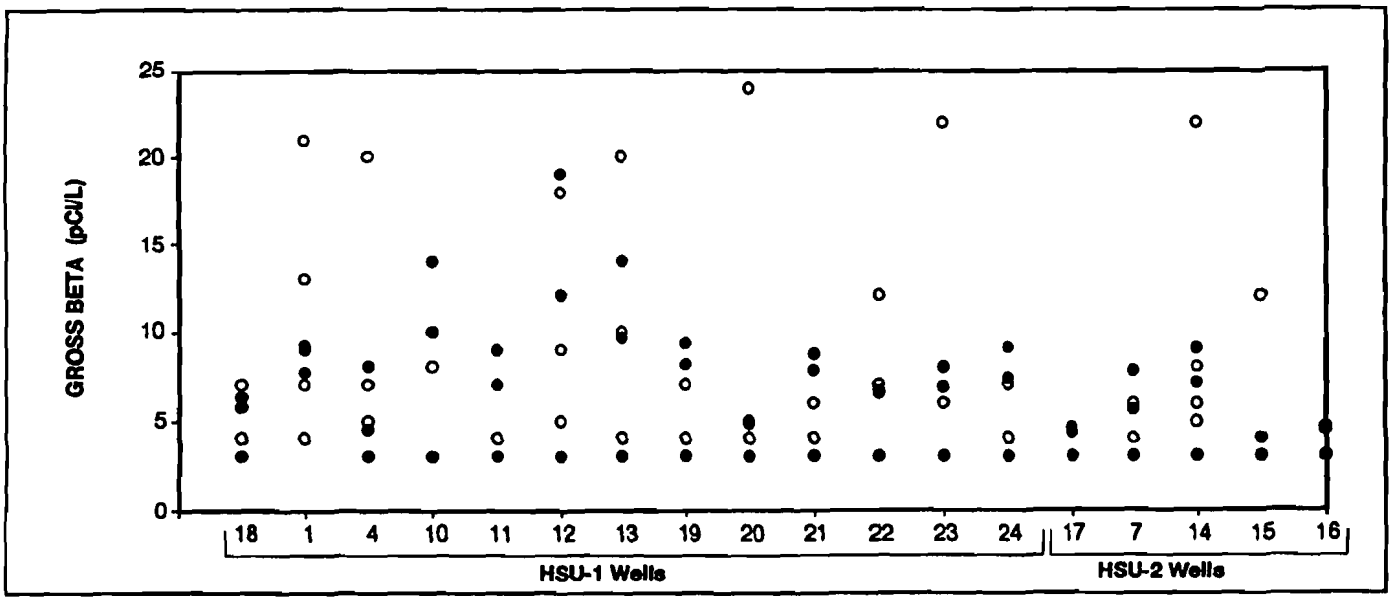


LEGEND

- o Reported Detections
- • Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION-GROUNDWATER TURBIDITY - LABORATORY AND FIELD

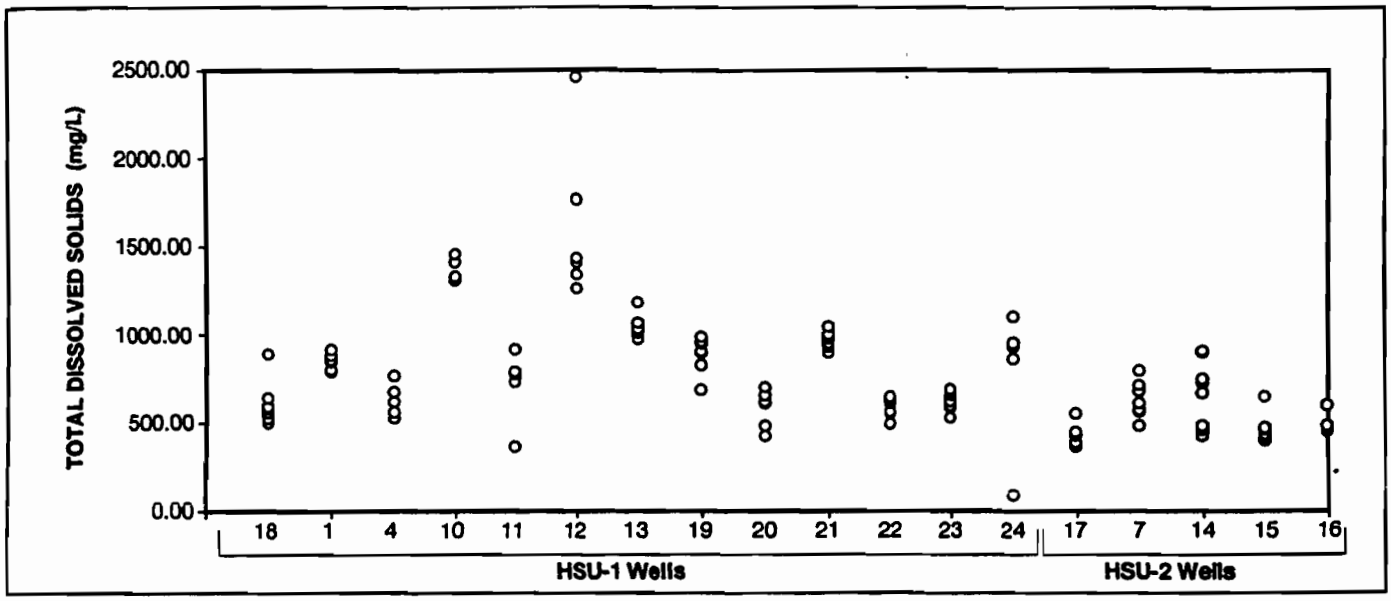




LEGEND

- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

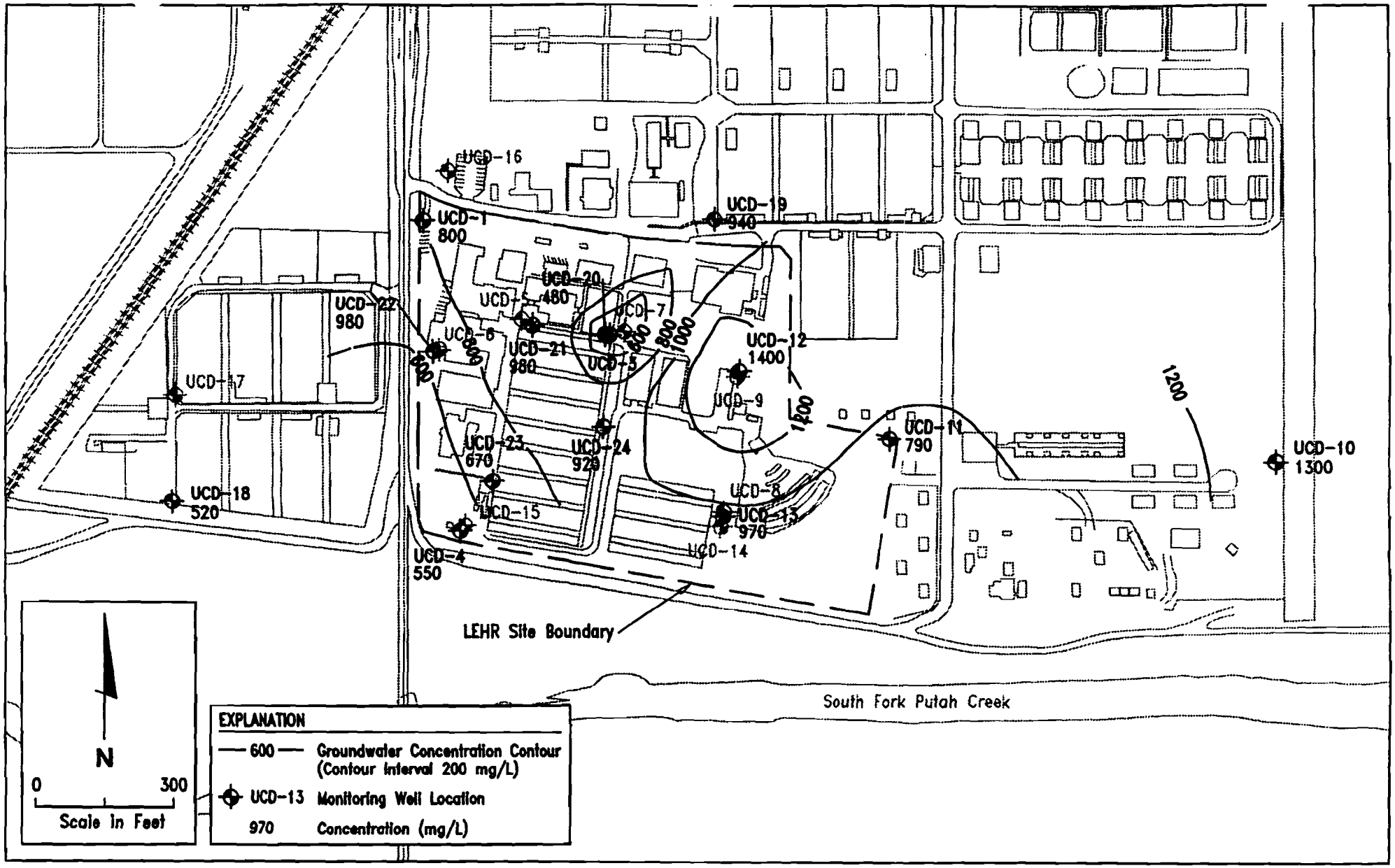
CONCENTRATION BY LOCATION - GROUNDWATER GROSS ALPHA AND GROSS BETA



LEGEND

- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

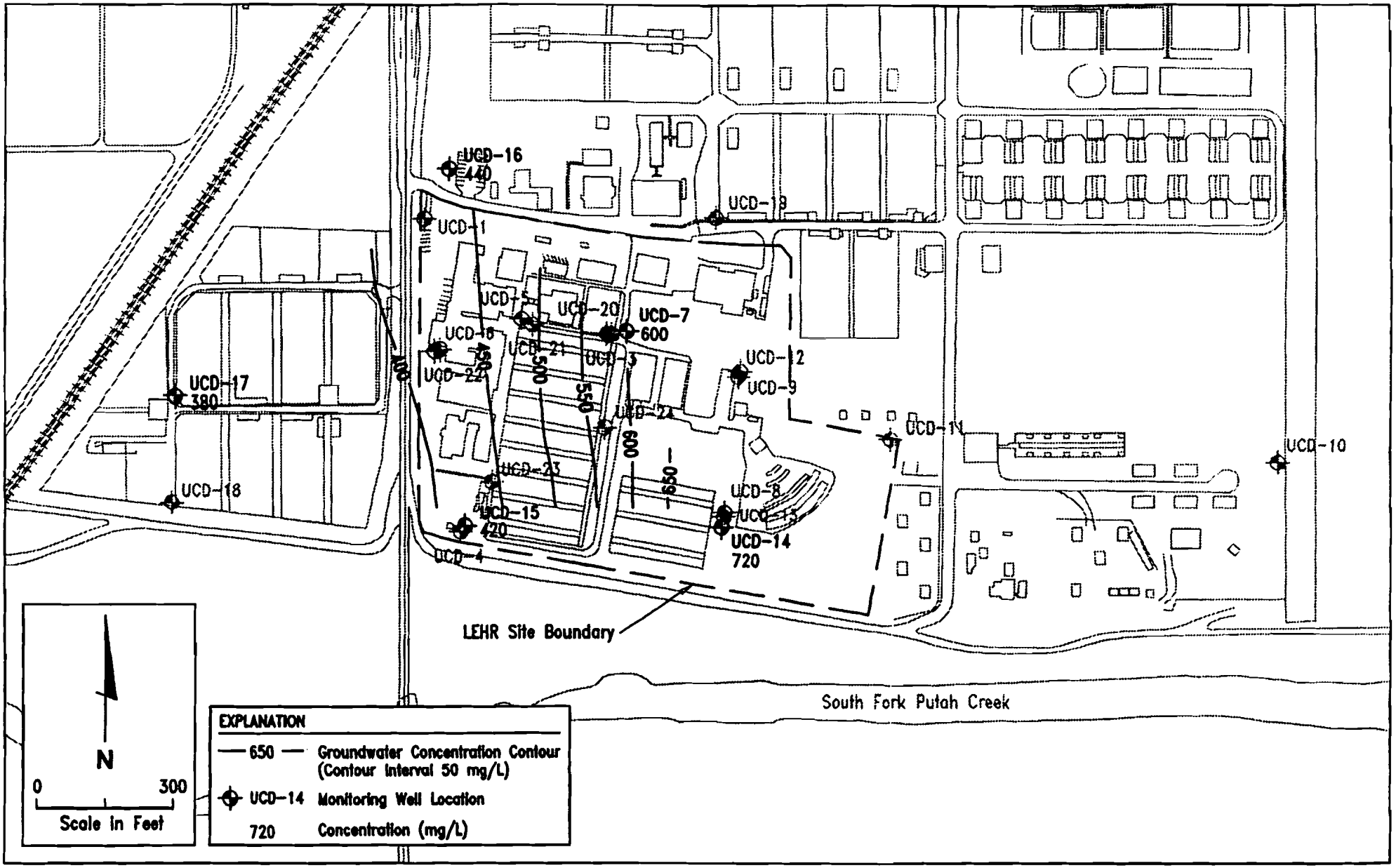
CONCENTRATION LOCATION - GROUNDWATER TOTAL DISSOLVED SOLIDS



CHEMICAL CONCENTRATION CONTOUR PLOT
TOTAL DISSOLVED SOLIDS - FIRST HSU

10805-720-044 TXL 3/24/94 TDSHSU1

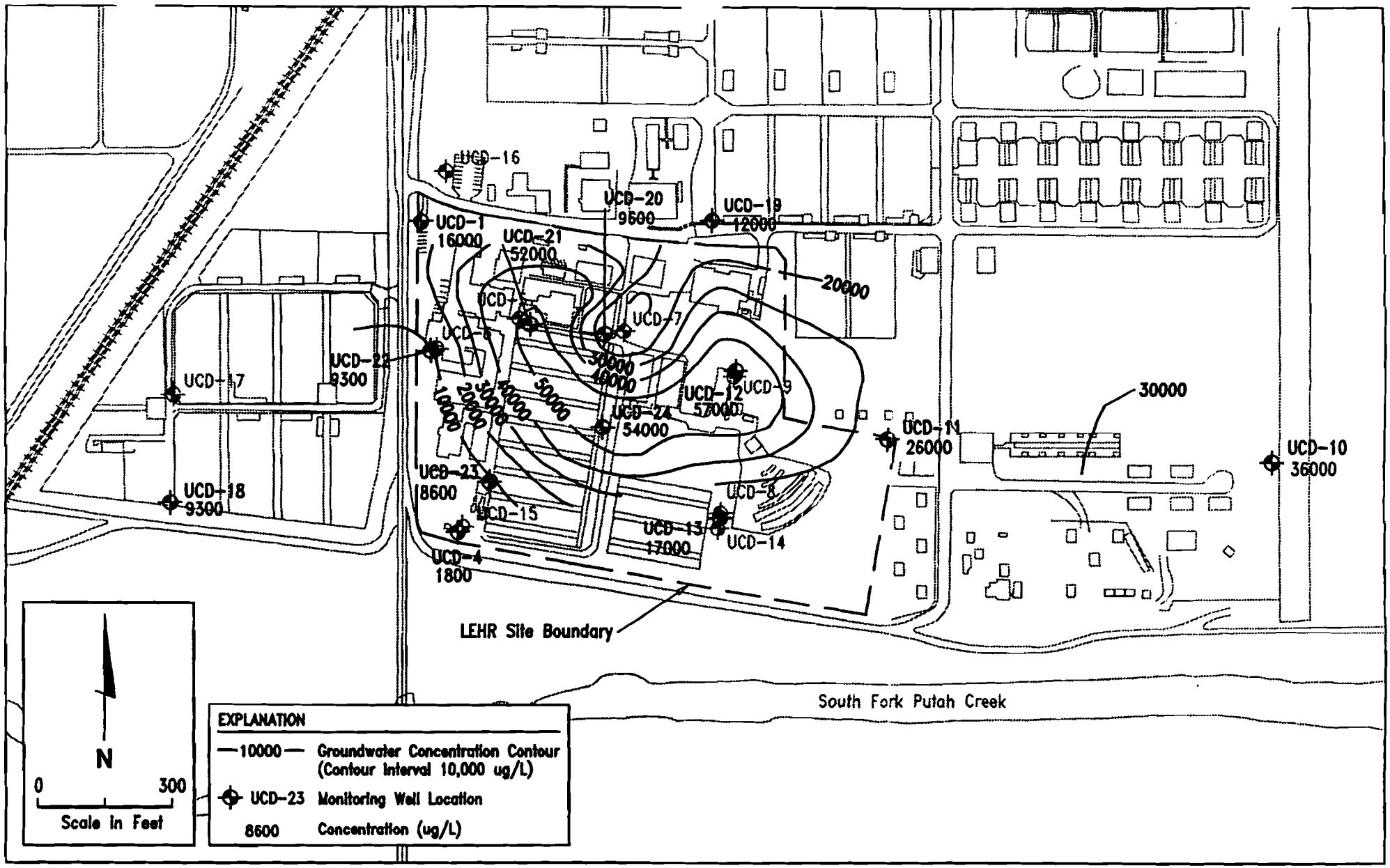
FIGURE 59



CHEMICAL CONCENTRATION CONTOUR PLOT
TOTAL DISSOLVED SOLIDS - SECOND HSU

10805-720-044 TXL 3/24/94 TDSHSU2

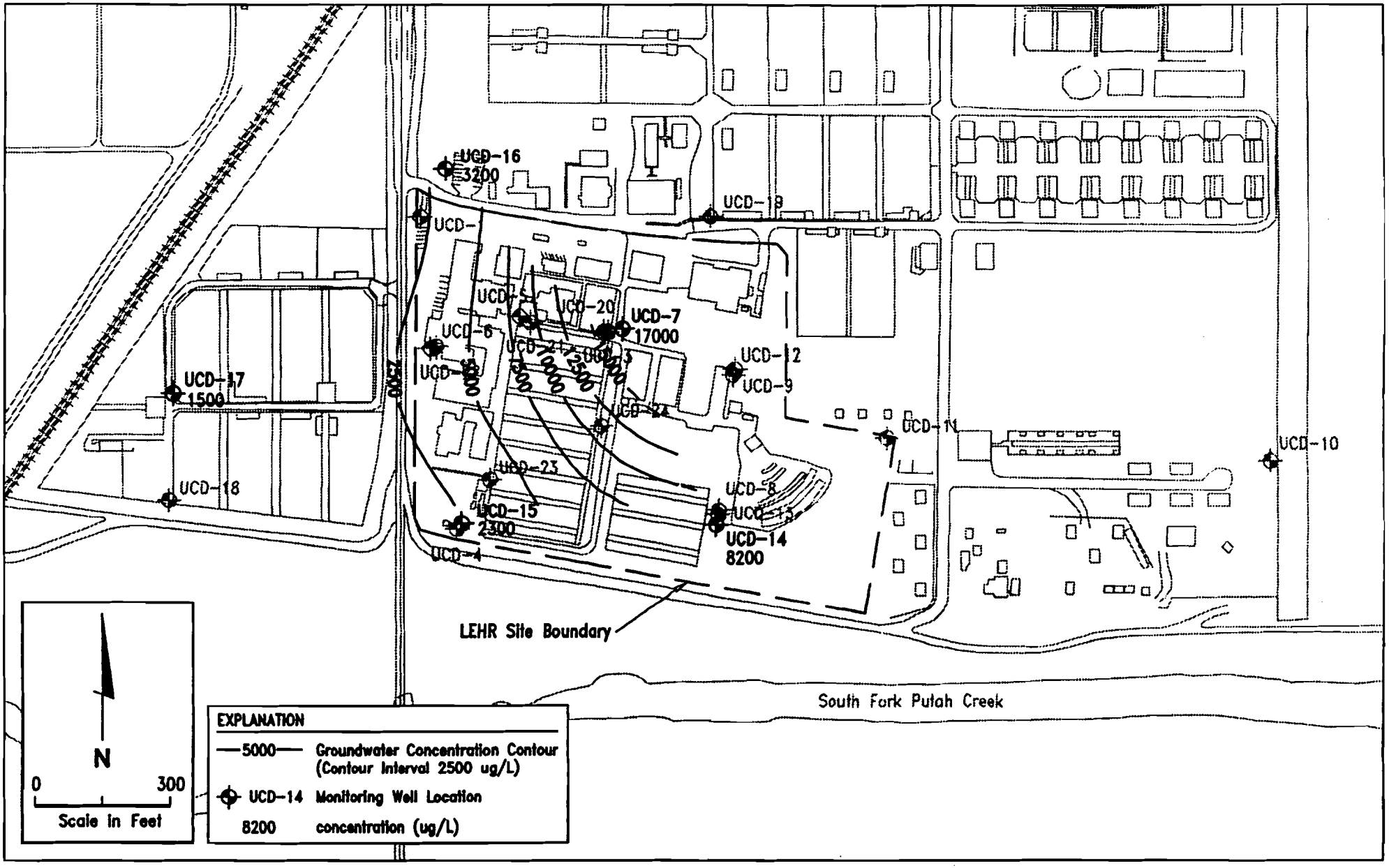
FIGURE 60



CHEMICAL CONCENTRATION CONTOUR PLOT
NITRATE AS N - FIRST HSU

10805-720-044 TXL 3/24/94 NO3HSU1

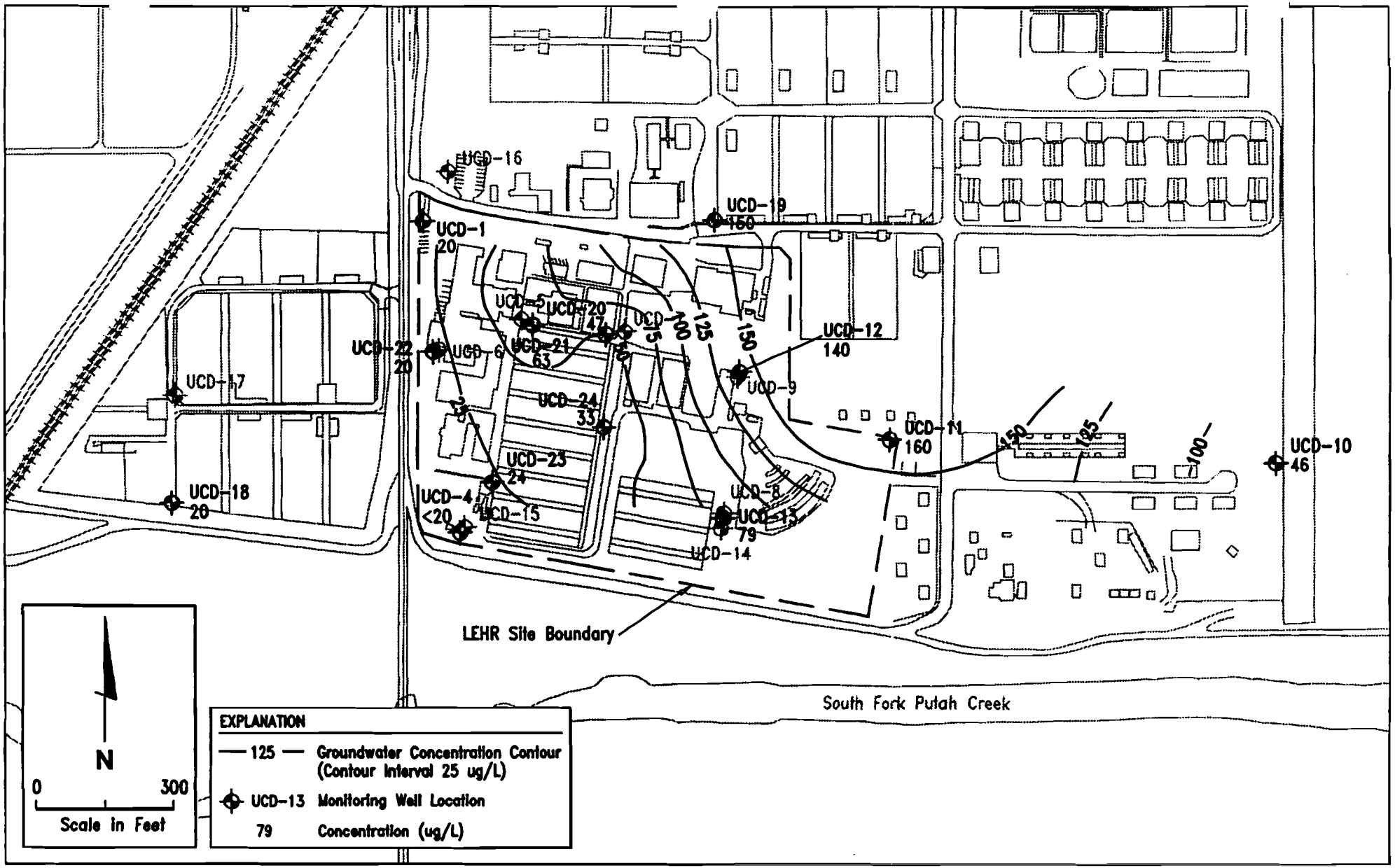
FIGURE 61



CHEMICAL CONCENTRATION CONTOUR PLOT
NITRATE AS N - SECOND HSU

10805-720-04 TXL 3/24/94 N03HSU2

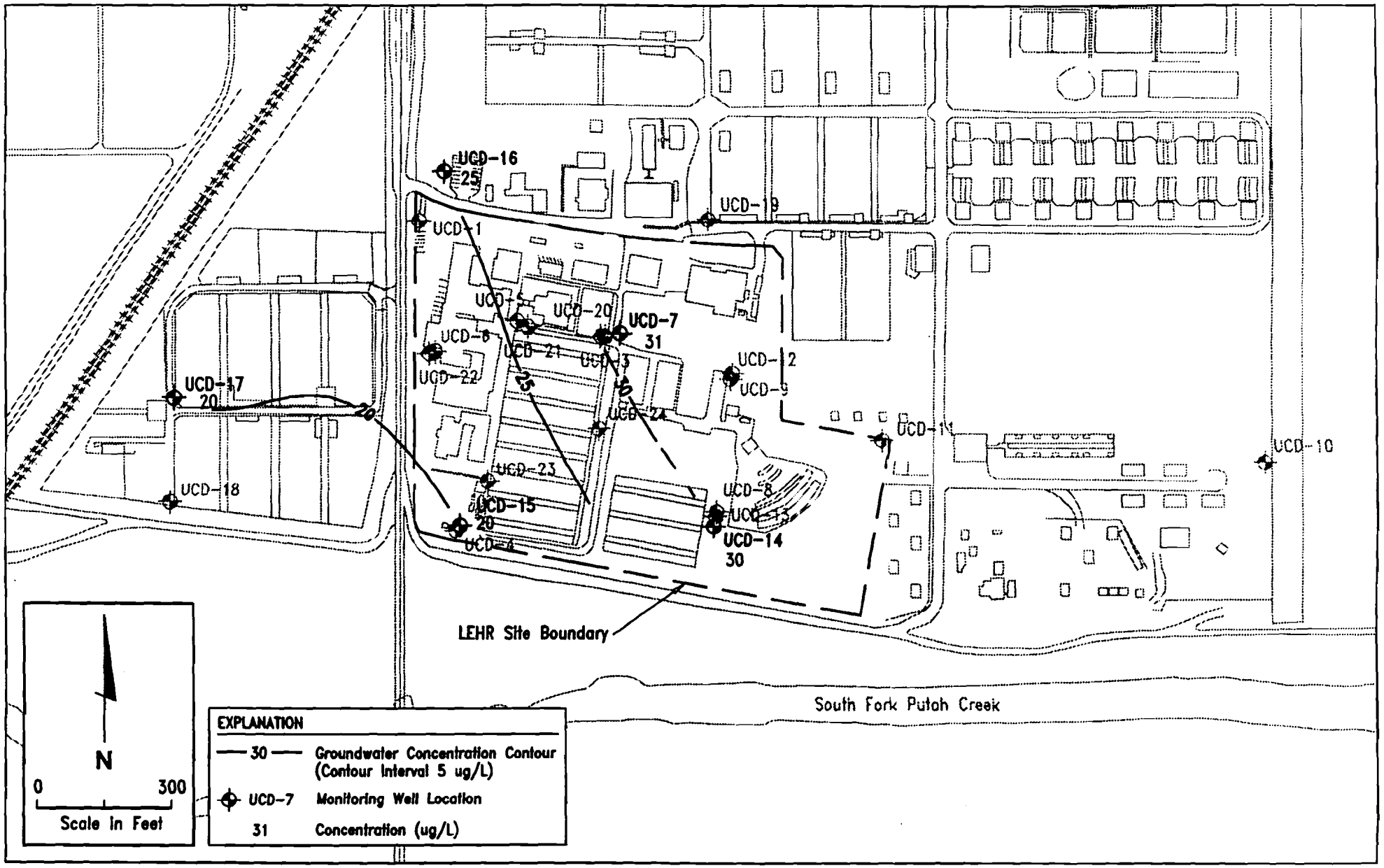
FIGURE 62



CHEMICAL CONCENTRATION CONTOUR PLOT
HEXAVALENT CHROMIUM - FIRST HSU

10805-720-044 TXL 3/24/94 CR6HSU1

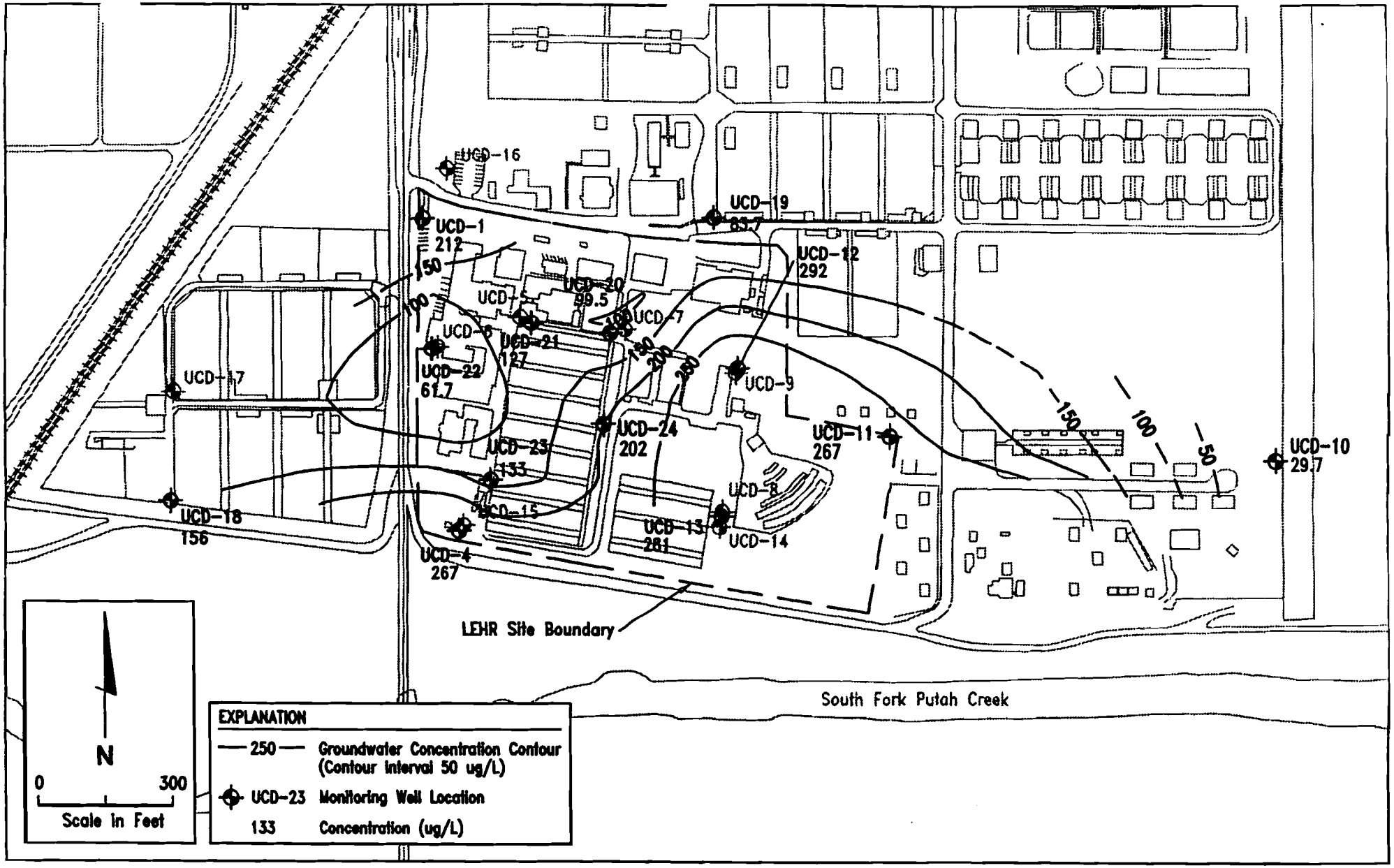
FIGURE 63



CHEMICAL CONCENTRATION CONTOUR PLOT
HEXAVALENT CHROMIUM - SE ND HSU

FIGURE 64

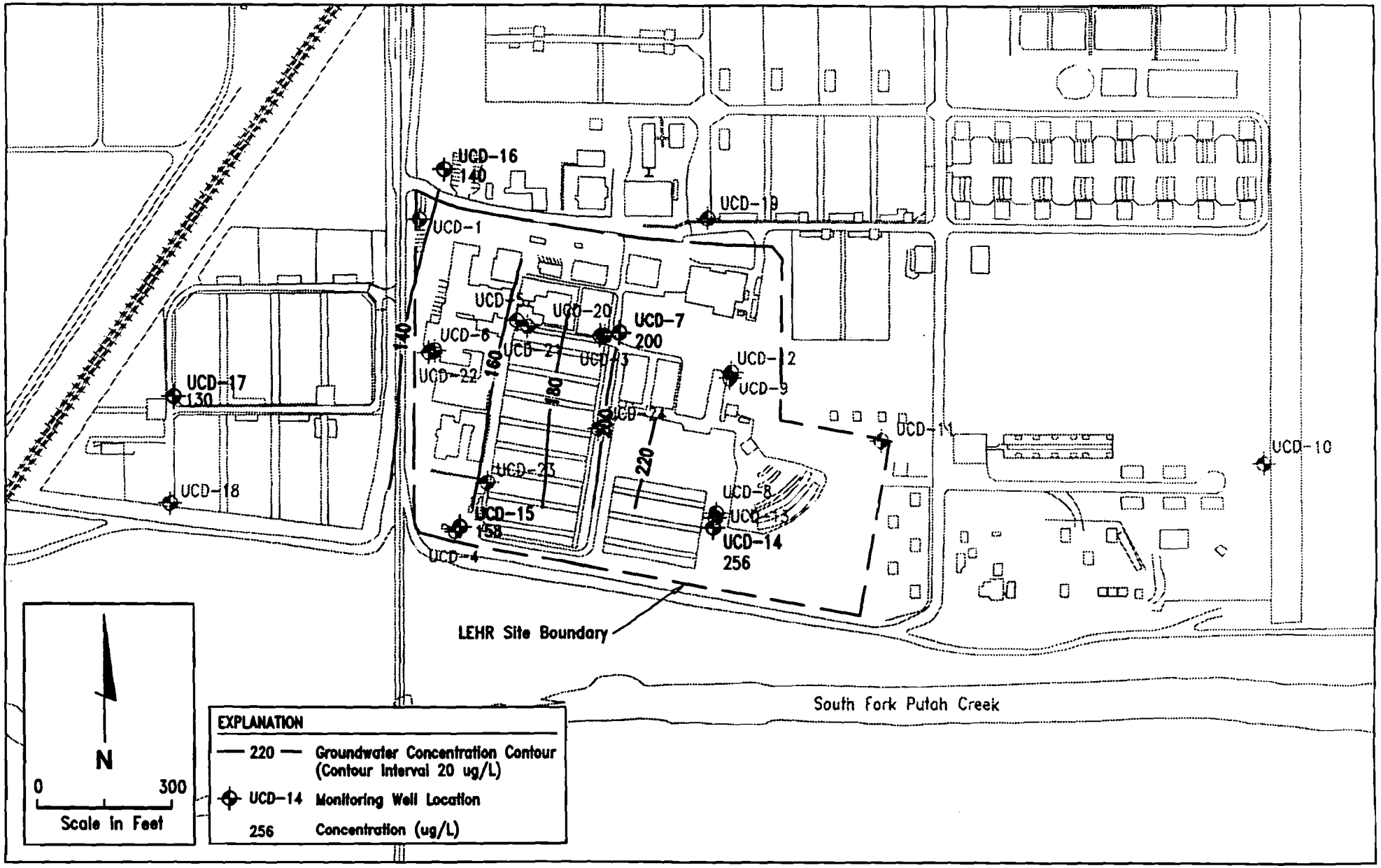
10805-720-044 TXL 3/24/94 CR6HSU2



CHEMICAL CONCENTRATION CONTOUR PLOT
BARIUM - FIRST HSU

10805-720-044 TXL 3/24/94 BAHSU1

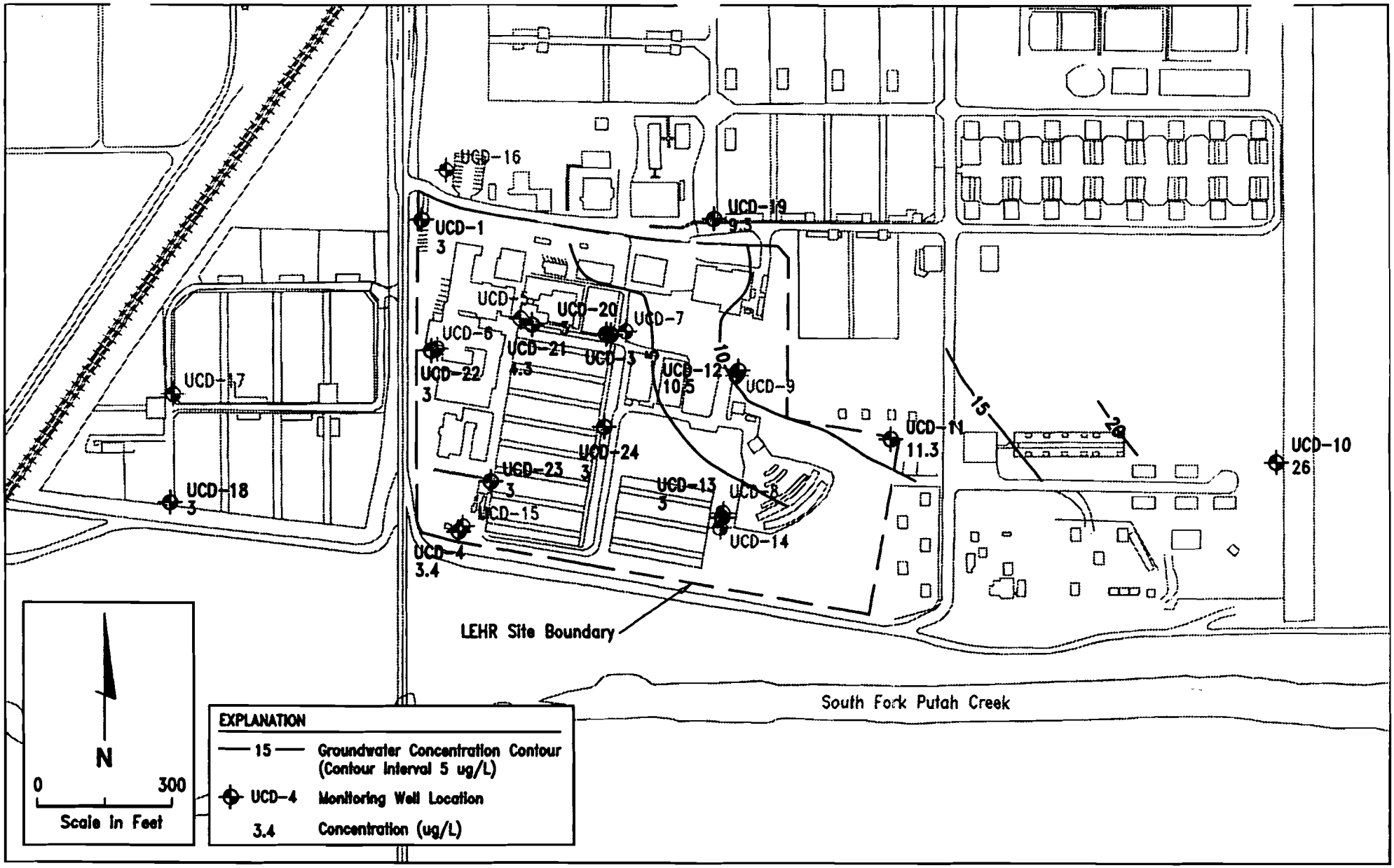
FIGURE 65



CHEMICAL CONCENTRATION CONTOUR PLOT
BARIUM - S OND HSU

FIGURE 66

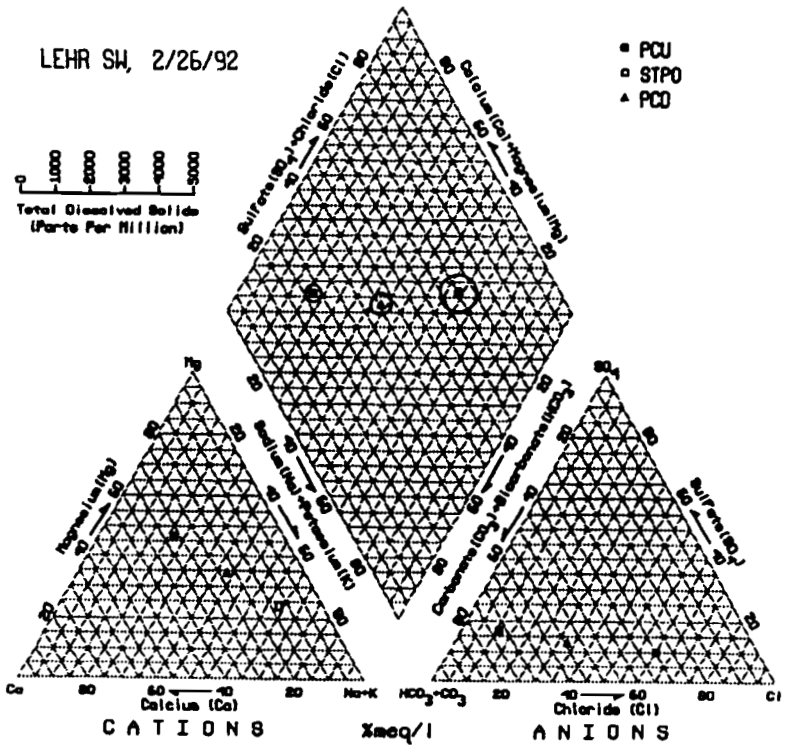
10805-720-0 TXL 3/24/94 BAHSU2

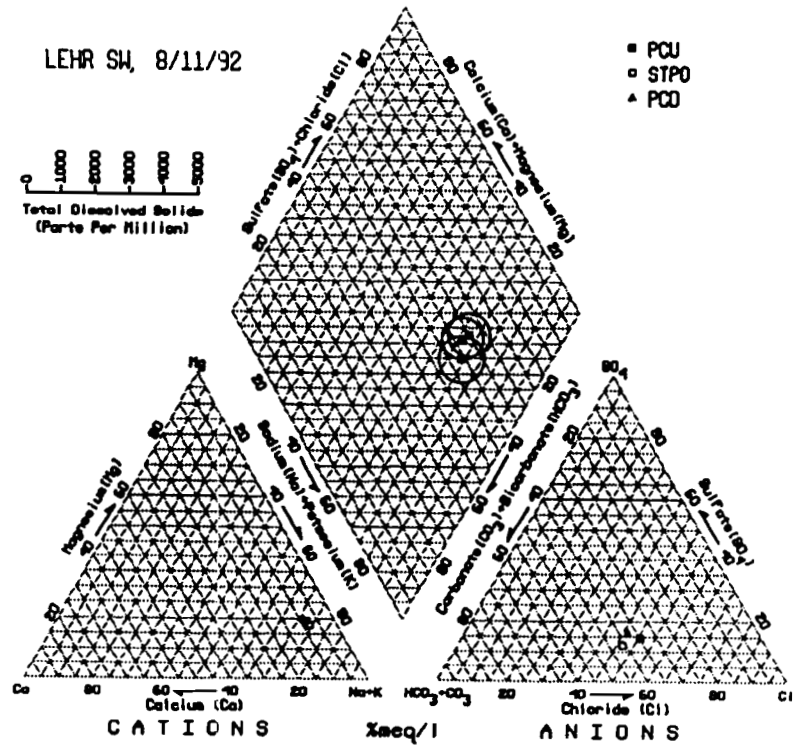


CHEMICAL CONCENTRATION CONTOUR PLOT
SELENIUM - FIRST HSU

10805-720-044 TXL 3/24/94 SEHSU1

FIGURE 67

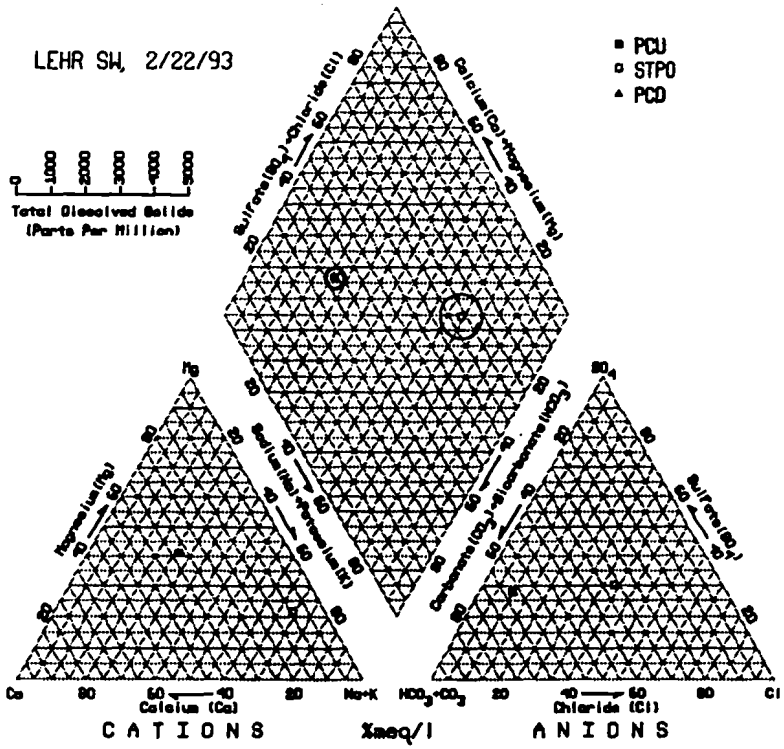


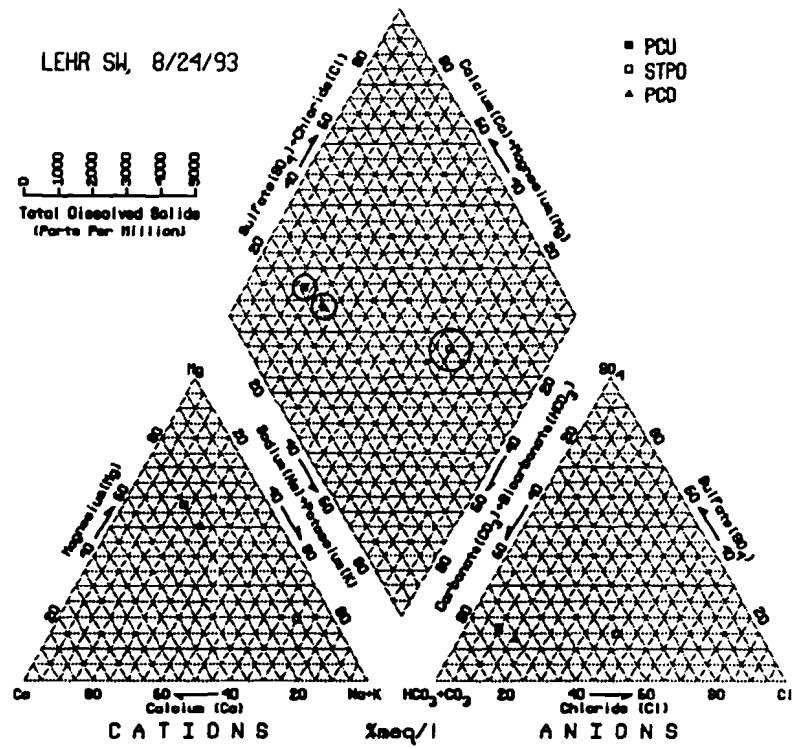


PIPER DIAGRAMS
SURFACE WATER SAMPLING LOCATIONS
WINTER AND SUMMER QUARTERS 1992

10805-720-6905-044 s|r 3/16/94 6905B

FIGURE 68

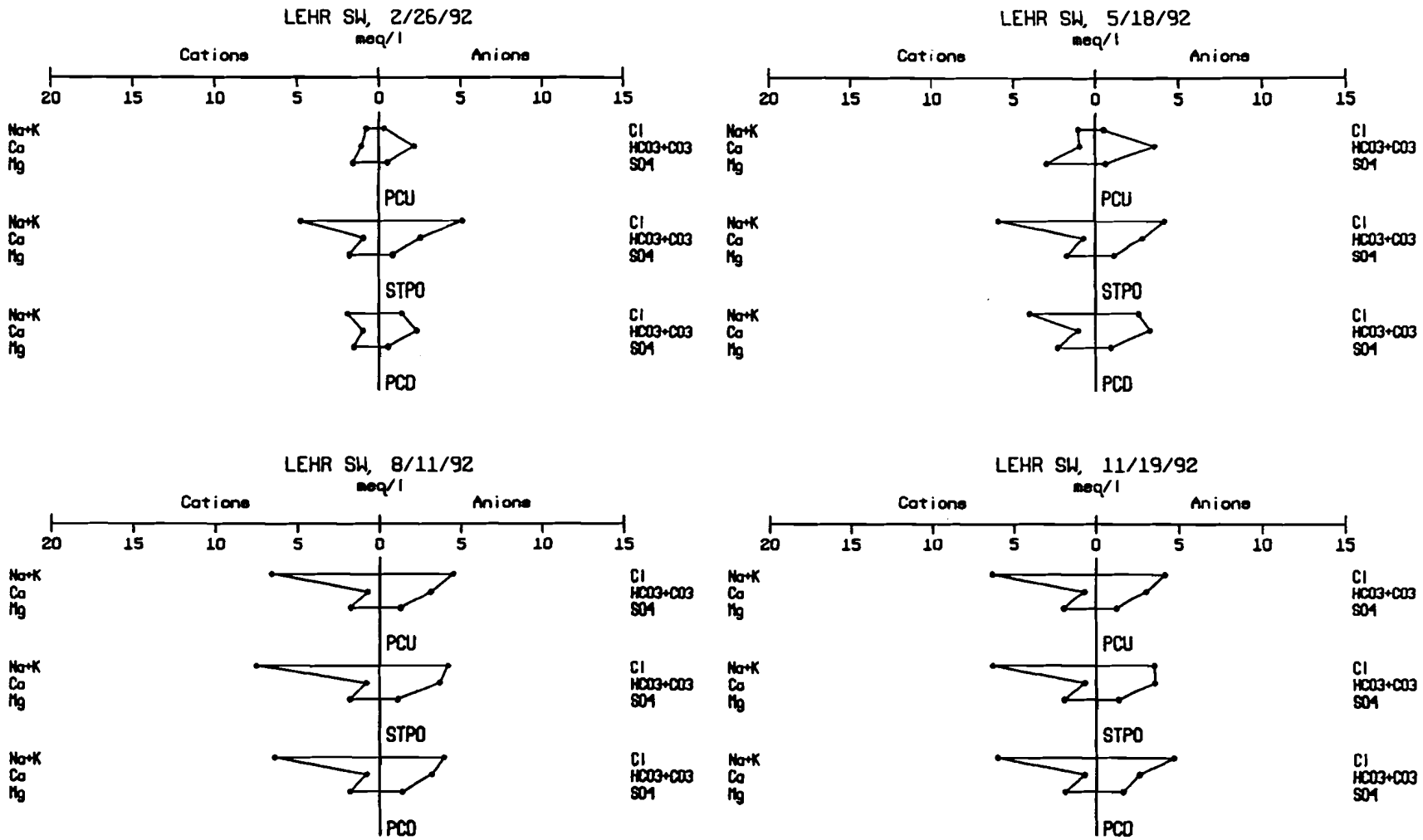




PIPER DIAGRAMS
SURFACE WATER SAMPLING LOCATIONS
WINTER AND SUMMER QUAR RS 1993

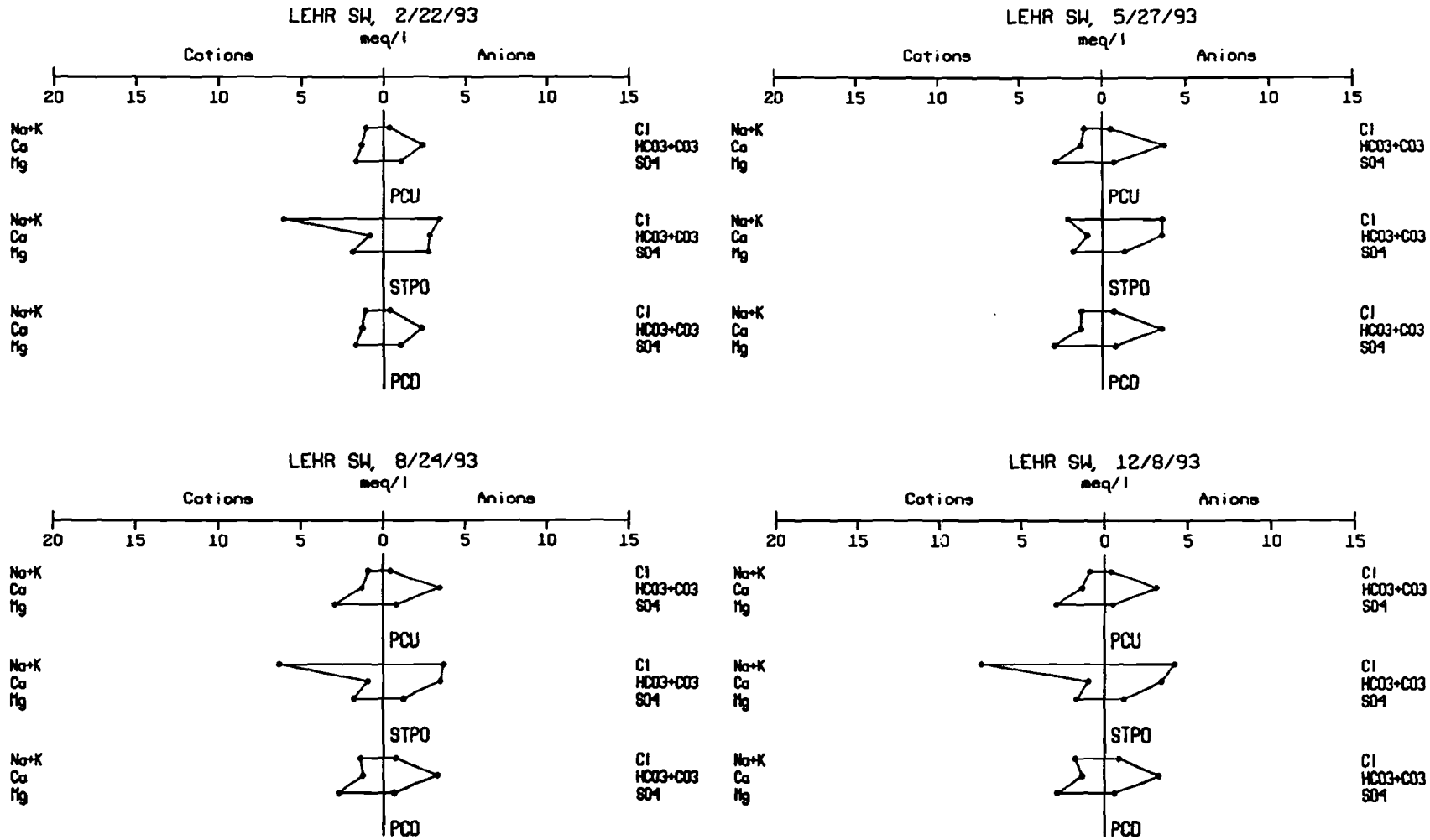
FIGURE 69

10805-720-69(sjr 3/16/94 6905A



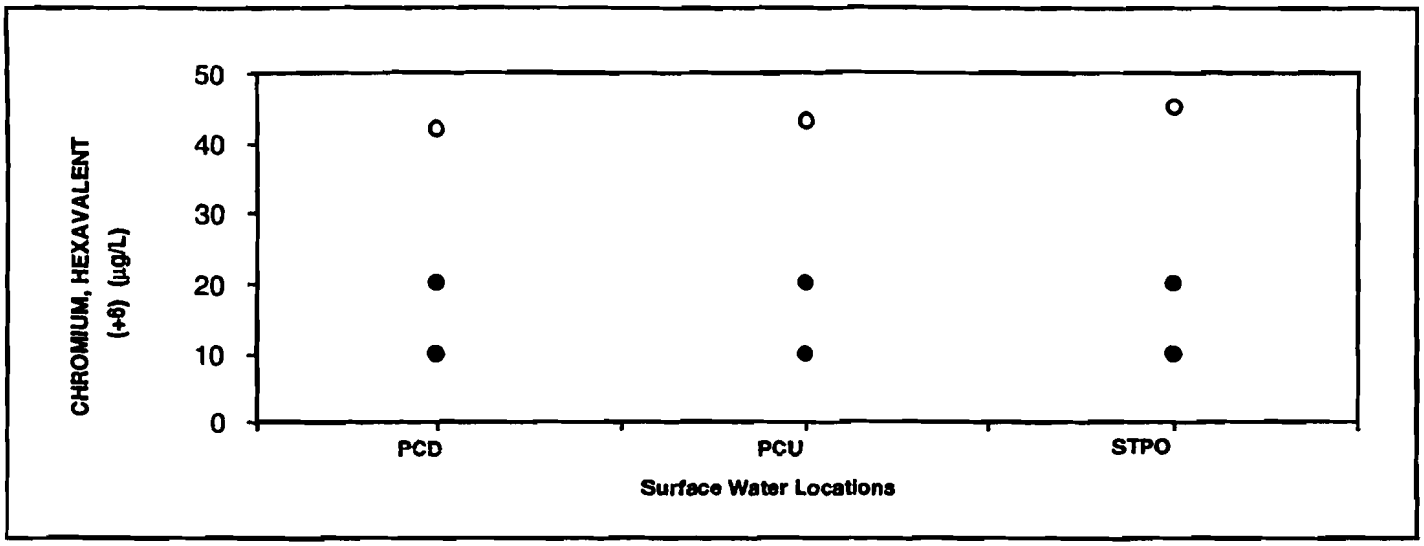
STIFF DIAGRAMS
SURFACE WATER SAMPLING LOCATIONS
WINTER AND SUMMER QUARTERS 1992

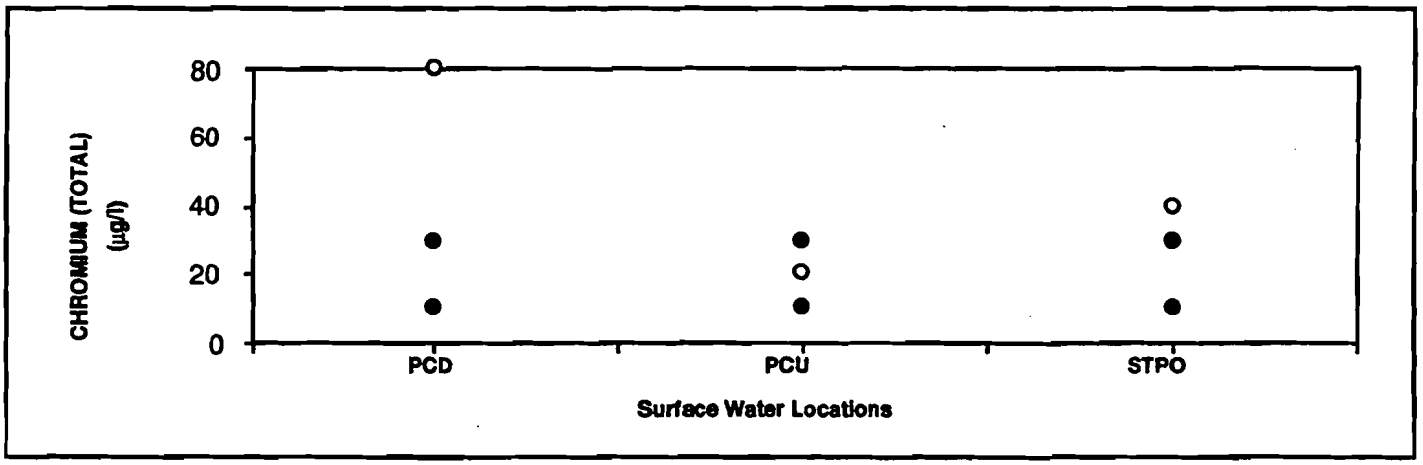
FIGURE 70



STIFF DIAGRAMS
SURFACE WATER SAMPLING LOCATIONS
WINTER AND SUMMER QUARTERS 1993

FIGURE 71





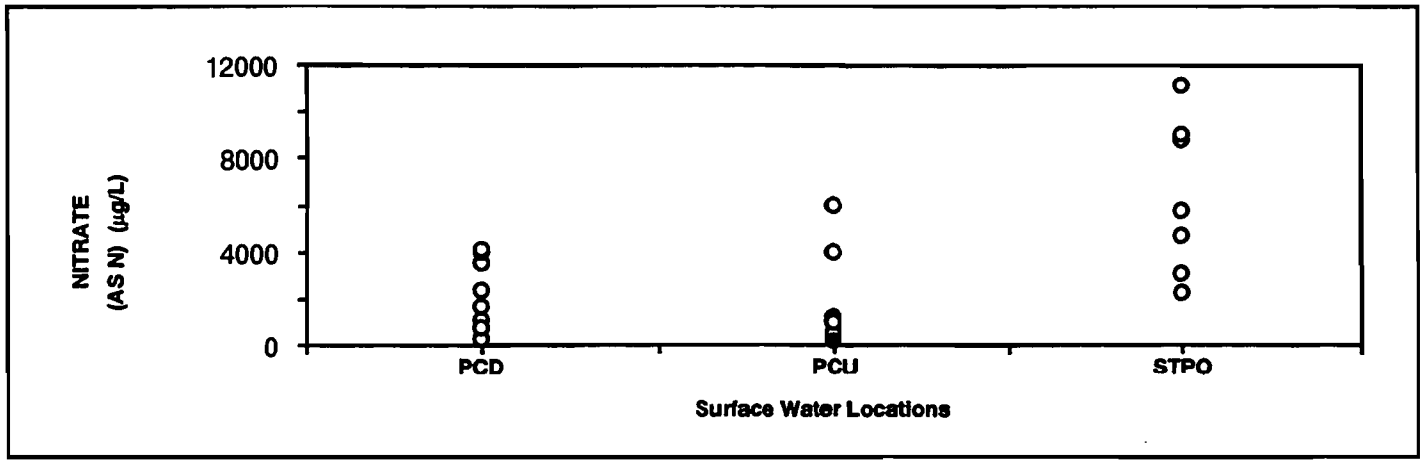
LEGEND

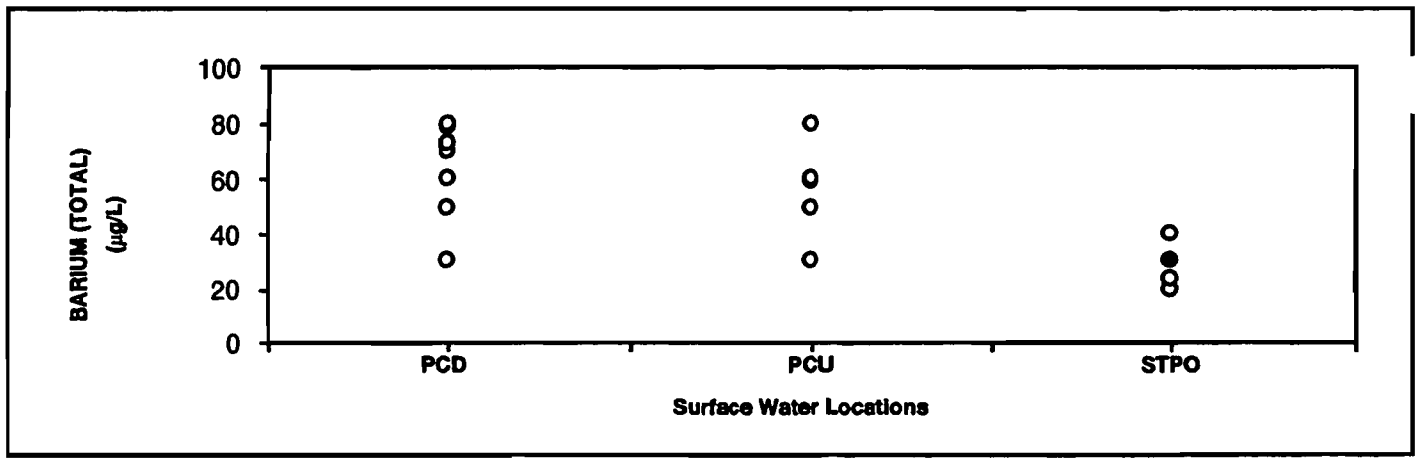
- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER TOTAL AND HEXAVALANT CHROMIUM

10805-720-044.jdg.4/11/94.5705.bl

FIGURE 72





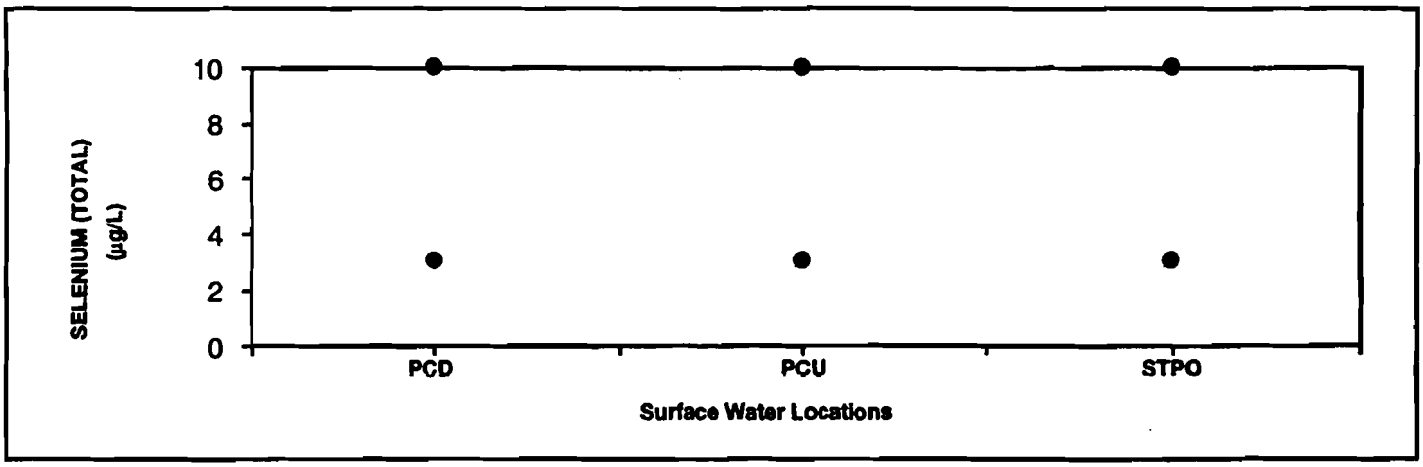
LEGEND

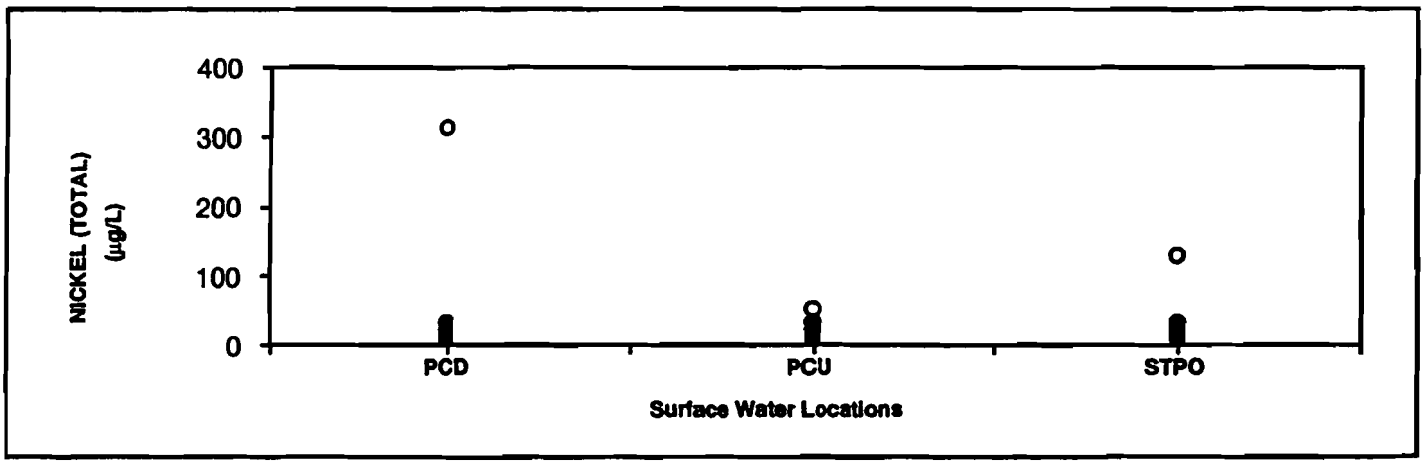
- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER NITRATE AND BARIUM

10805-720-044.jdg.4/11/94.5705.bm

FIGURE 73

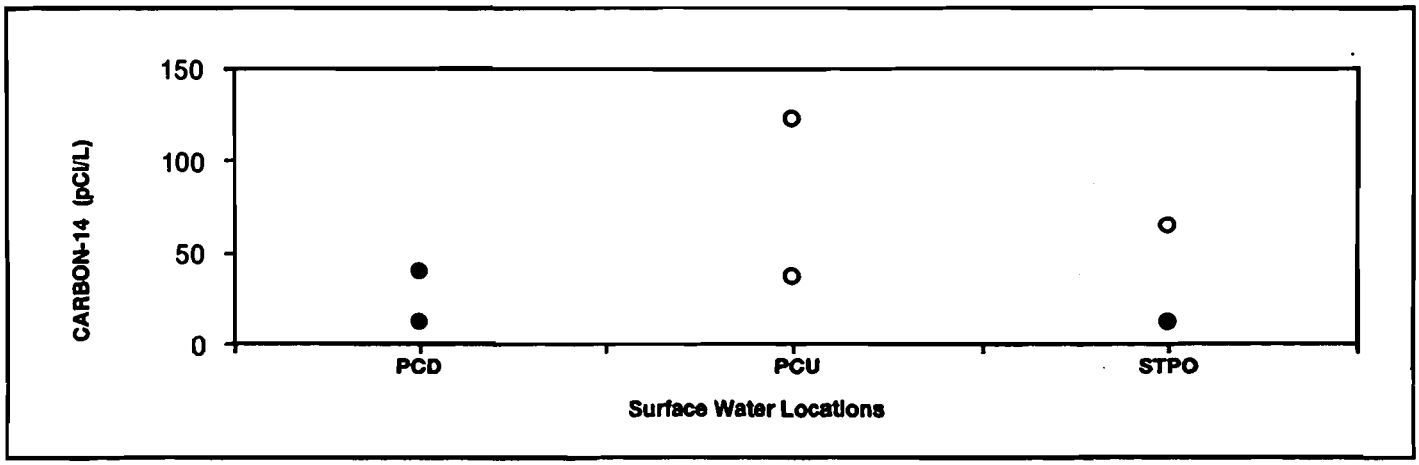


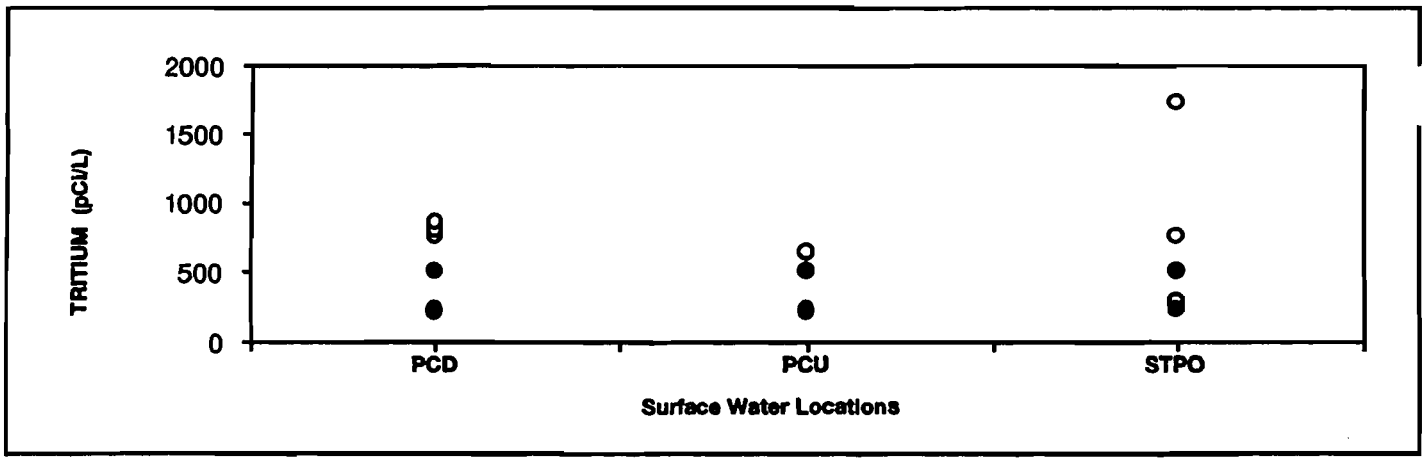


LEGEND

- o Reported Detections
- • Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER SELENIUM AND NICKEL





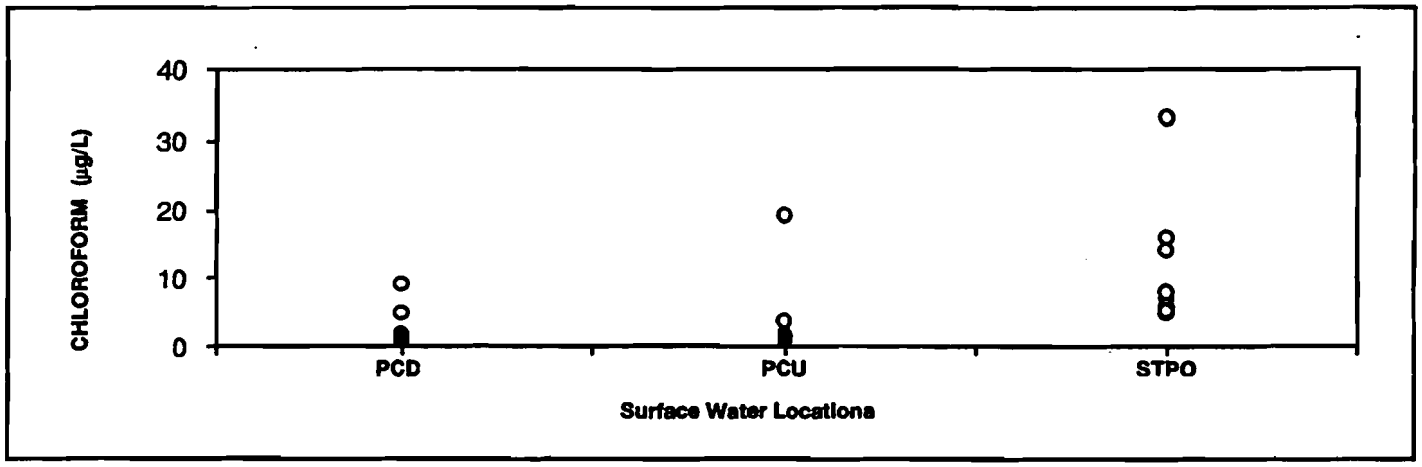
LEGEND

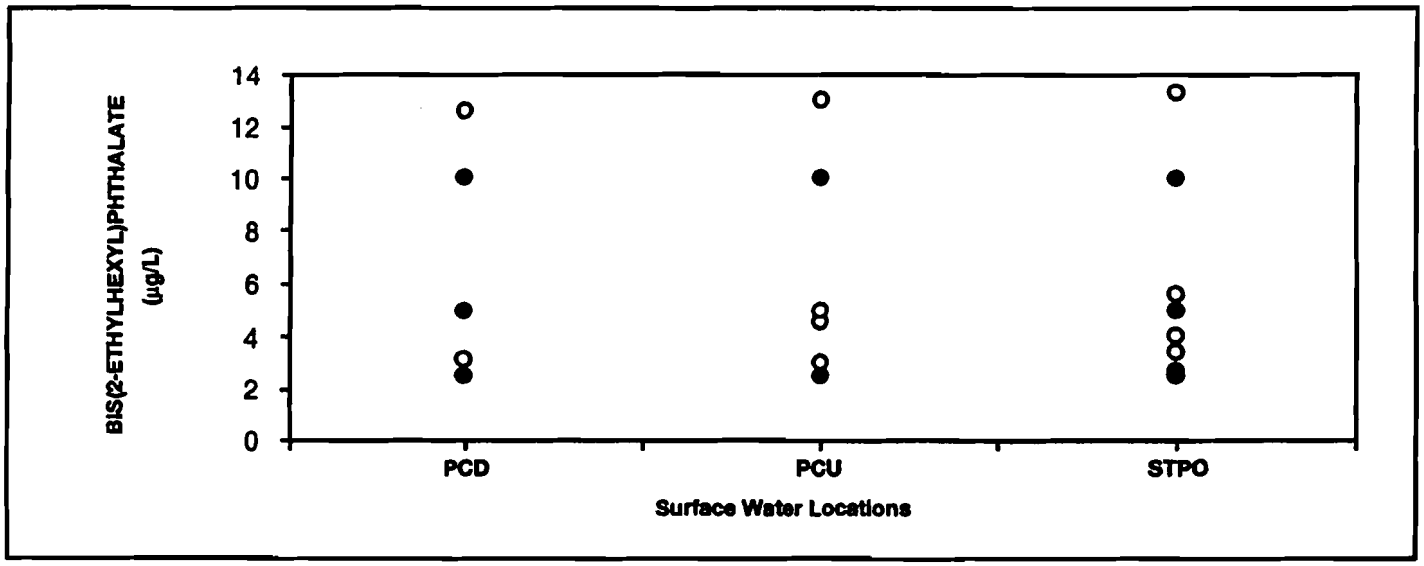
- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER CARBON-14 AND TRITIUM

10805-720-044.jdg.4/11/94.5705.bo

FIGURE 75





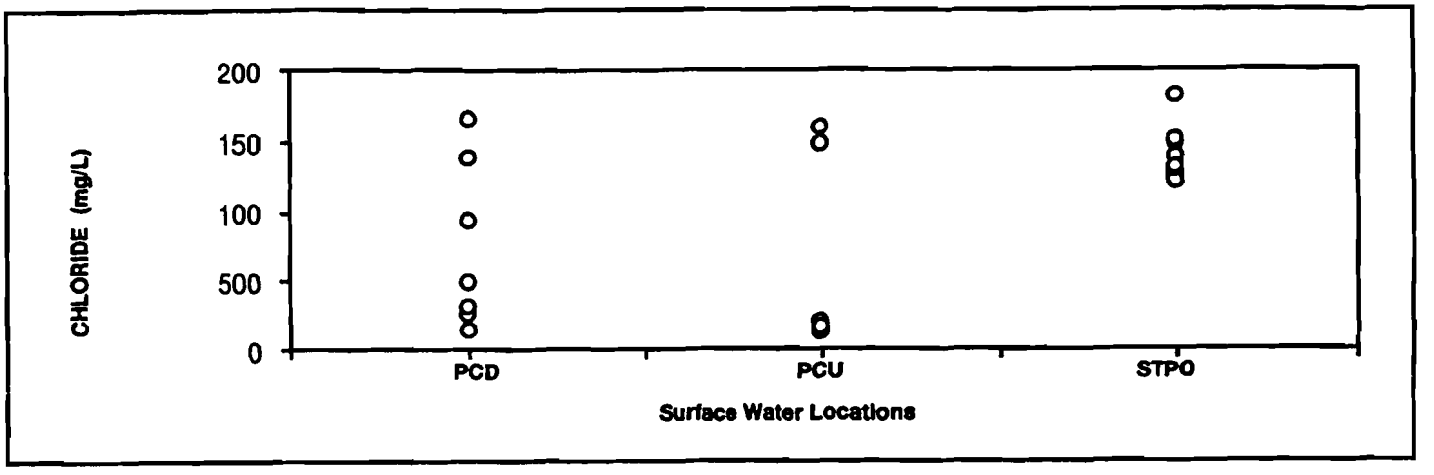
LEGEND

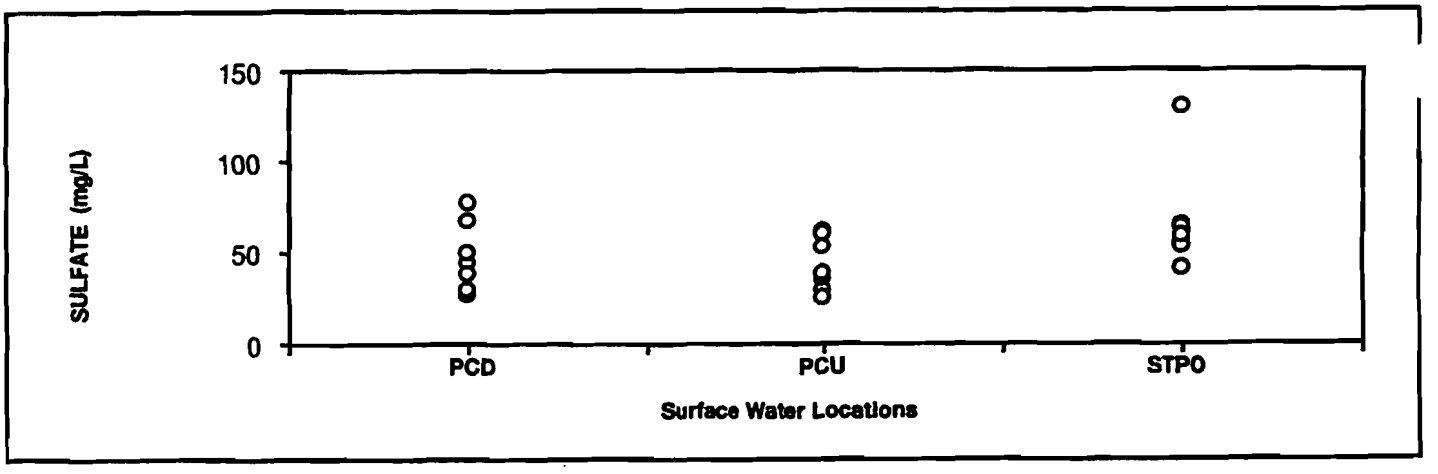
- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER CHLOROFORM AND BIS(2-ETHYLHEXYL)PHTHALATE

10805-720-044.jdg.4/11/94.5705.bp

FIGURE 76

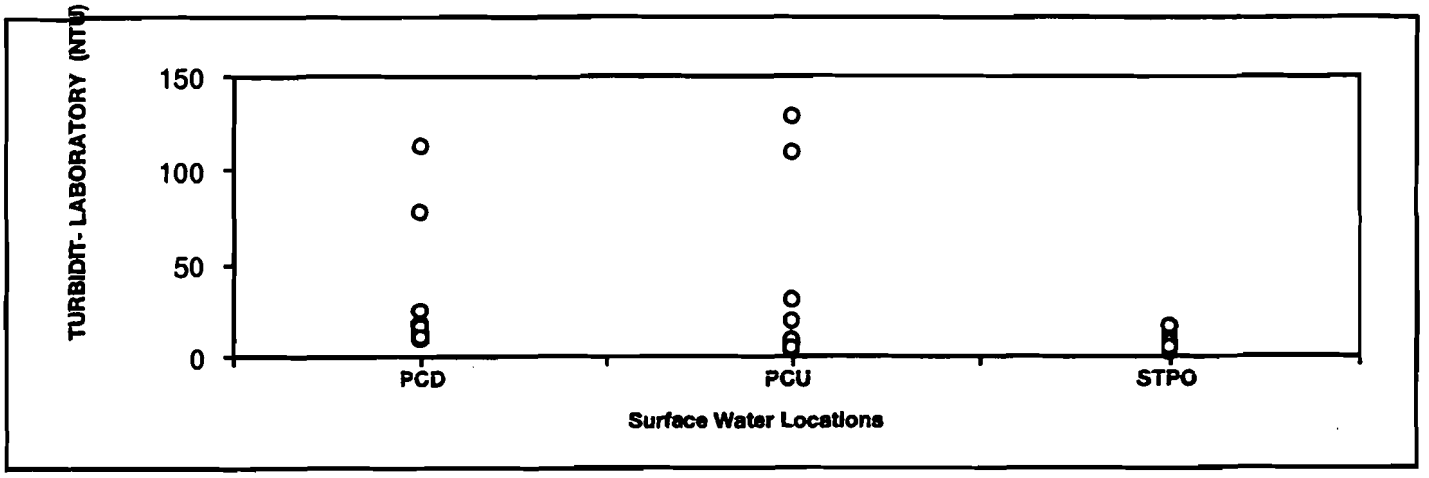


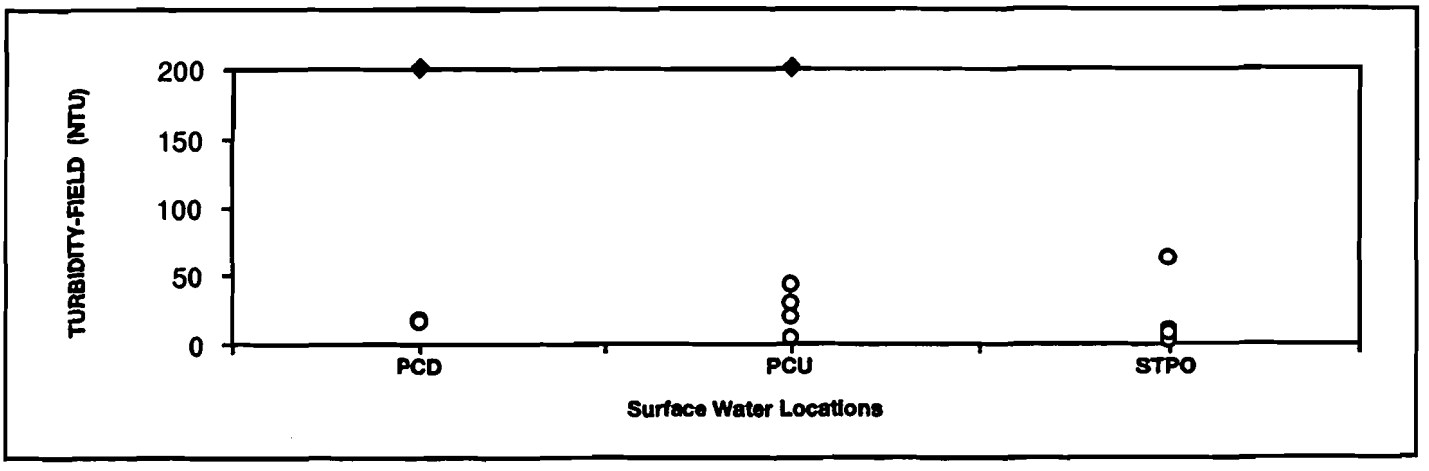


LEGEND

- o Reported Detections
- • Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER CHLORIDE AND SULFATE

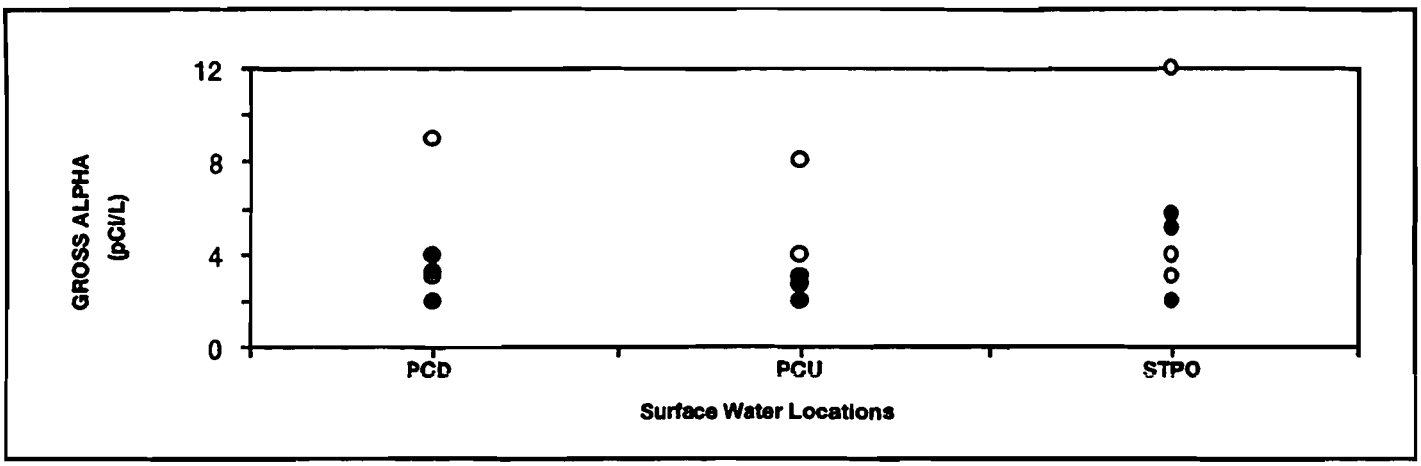


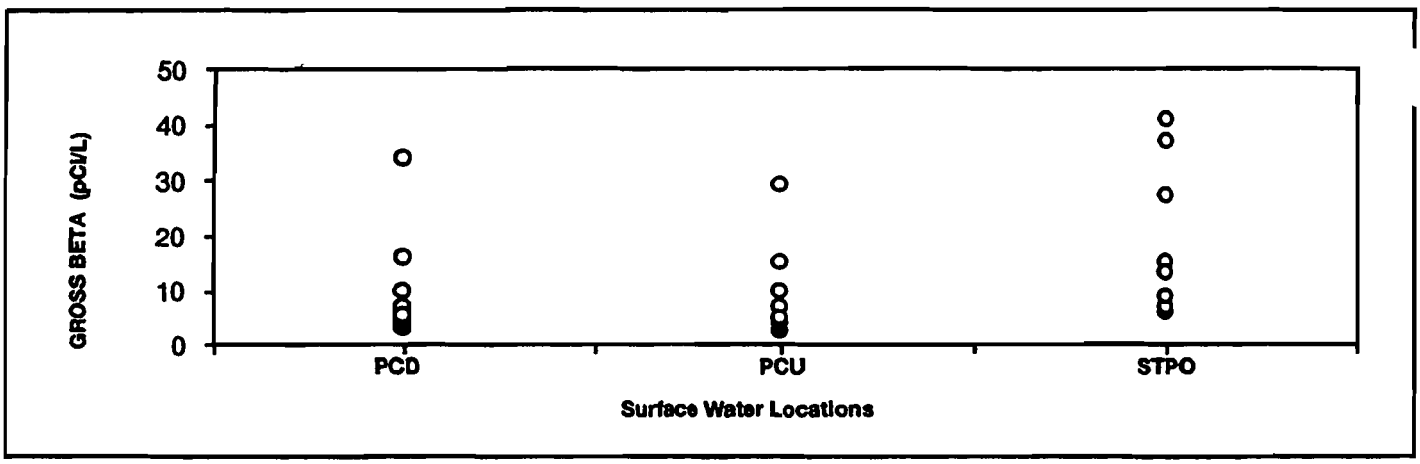


LEGEND

- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER TURBIDITY LABORATORY AND FIELD





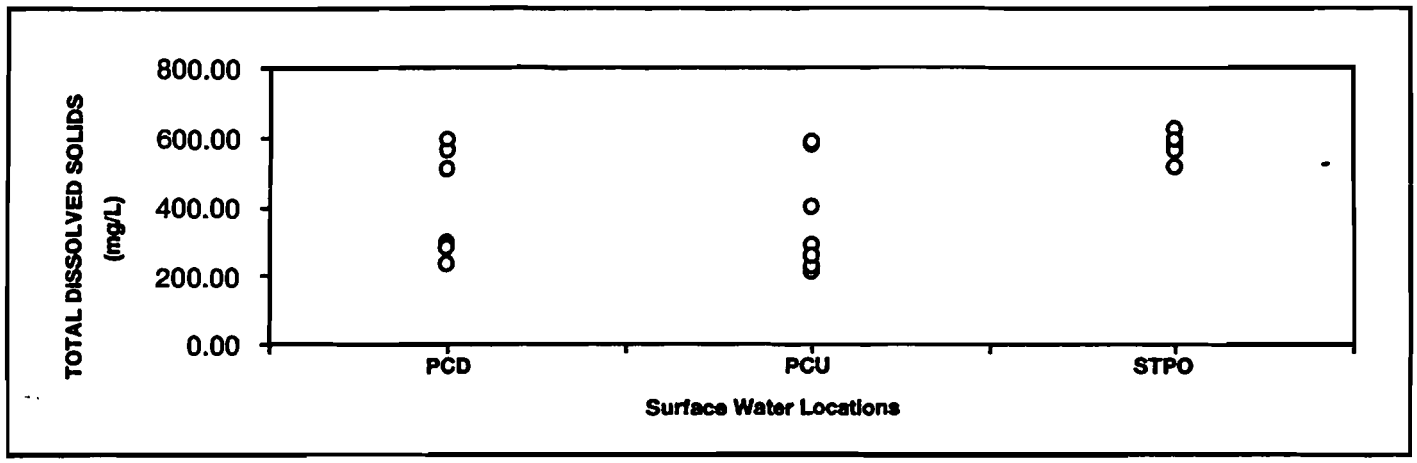
LEGEND

- ○ Reported Detections
- ● Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER GROSS ALPHA AND GROSS BETA

10805-720-044.jdg.4/11/94.5705.bs

FIGURE 79



LEGEND

- o Reported Detections
- • Non-Detections Shown at the Reporting Limit

CONCENTRATION BY LOCATION - SURFACE WATER
TOTAL DISSOLVED SOLIDS

10805-720-044.jdg.4/11/94.5705.bt

FIGURE 80

APPENDIX A

GROUNDWATER AND TRIP BLANK ANALYTICAL RESULTS

HOW TO READ APPENDIX A DATA QUALIFIERS

KEY →	A	B	C	D
Example Data →	<	5.200	U	UJ

KEY

A < Signifies that analyte level is less than indicated value.
B Indicated value in units as noted in table footnote.
C Data qualifier(s)* assigned by Consultant's data review team.
D Data qualifier(s)* assigned by reporting laboratory.

* See following list of data validation qualifiers.

DATA VALIDATION QUALIFIERS

The following definitions provide brief explanations of the qualifiers assigned in the data review process. Validation reason codes for GC/MS Organics, GC Organics, and Metals are recorded by the data reviewers and retained in review support documentation for the data review process.

FLAG	DATA QUALIFIER DEFINITION
U -	The analyte was analyzed for, but was not detected above the reported sample quantitation limit.
J -	The analyte was positively identified; the associated numerical value is the approximate concentration of the analyte in the sample.
N -	The analysis indicates the presence of an analyte for which there is presumptive evidence to make a "tentative identification."
NJ -	The analysis indicates the presence of an analyte that has been "tentatively identified" and the associated numerical value represents its approximate concentration.
UJ -	The analyte was not detected above the reported sample quantitation limit. However, the reported quantitation limit is approximate and may or may not represent the actual limit of quantitation necessary to accurately and precisely measure the analyte in the sample.
R -	The sample results are rejected due to serious deficiencies in the ability to analyze the sample and meet quality control criteria. The presence or absence of the analyte cannot be verified.
c	Calibration failure; poor or unstable response.
d	Matrix spike/matrix spike duplicate imprecision or matrix duplicate imprecision.
F1/F3	High statistics due to large amount of solids.
F2	Results verified by reanalysis.
h (H)	Holding time violation.
l	Laboratory control sample failure
m (M)	Matrix spike/matrix spike duplicate recovery failure.
n	Interference check sample recovery failure.
p	Preparation blank contamination (metals/inorganics only).
Q	Result outside of calibration range.
s	Surrogate spike recovery failure (GC organics and GC/MS organics only).
z	Method blank contamination.

Lockheed Analytical Services
DATA QUALIFIERS FOR INORGANIC ANALYSES
[Revised 08/28/92]

For Use on the Analytical Data Reporting Forms	
B	***For CLP Analyses Only*** – Reported value is less than the contract required detection limit (CRDL) but greater than or equal to the instrument detection limit (IDL).
C	***For Routine, Non-CLP Analyses Only*** – Any constituent that was also detected in the associated blank whose concentration was greater than the reporting detection limit (RDL).
D	Presence of high levels of interfering constituents required dilution of sample which increased the RDL by the dilution factor.
E	Estimated value due to presence of interference.
H	Sample analysis performed outside of method-or client-specified maximum holding time requirement.
M	***For CLP Analyses Only*** – Duplicate injection precision criterion was not met.
N	Matrix spike recovery exceeded acceptance limits.
S	Reported value was determined from the method of standard addition.
U	***For CLP Reporting Only*** – Constituent was analyzed for but not detected (sample quantitation must be corrected for dilution and percent moisture).
W	***For AAS Only*** – Post-digestion spike for Furnace AAS did not meet acceptance criteria and sample absorbance is less than 50% of spike absorbance.
X, Y, or Z	Analyst-defined qualifier.
*	Relative percent difference (RPD) for duplicate analysis exceeded acceptance limits.
+	Correlation coefficient (r) for the MSA is less than 0.995.
For Use on the QC Data Reporting Forms	
a[1]	The spike recovery and/or RPD for matrix spike and matrix spike duplicates cannot be evaluated due to insufficient spiking level compared to the elevated sample analyte concentration.
b[1]	The RPD cannot be computed because the sample and/or duplicate concentration was below the RDL.

[1] Used as footnote designations on the QC summary form.

Lockheed Analytical Services
DATA QUALIFIERS FOR ORGANIC ANALYSES

[Revised 01/19/1994]

For Use On The Analytical Data Reporting Forms	
A	***For CLP analyses Only*** -- The TIC is a suspected aldol-condensation product.
B	Any constituent that was also detected in the associated blank whose concentration was greater than the practical or reporting detection limit (PQL or RDL).
C	Constituent confirmed by GC/MS analysis. *[pesticide/PCB analyses only]*
D	Constituent detected in the diluted sample. It also indicates that an accurate quantitation is not possible due to surrogates being diluted out of the samples during the course of the analysis.
E	Constituent concentration exceeded the calibration range.
G	The quantitation is not gasoline or diesel but believed to be some other combination of hydrocarbons.
H	Sample analysis performed outside of method- or client-specified maximum holding time requirement.
J	*Estimated value* -- (1) constituent detected at a level less than the RDL or PQL and greater than or equal to the MDL; (2) estimated concentration for TICs ***(For CLP Reporting Only)***.
N	***For CLP Reporting Only*** -- Tentatively identified constituents (TICs) identified based on mass spectral library search.
P	***For CLP Reporting Only*** -- The percent difference between the concentrations detected on both GC columns was greater than 25 percent *[pesticide/PCB analyses only]*.
U	***For CLP Reporting Only*** -- Constituent was analyzed for but not detected (sample quantitation must be corrected for dilution and percent moisture).
X, Y, or Z	Analyst-defined qualifier.
N/A (% Moisture)	N/A in the % moisture cell indicates that data are reported on an "*as received*" basis. A value in the % moisture cell indicates that data are reported based on a "*dry weight*" basis. ***For non-CLP work***, RDLs are not adjusted for % moisture even when data are reported on a "*dry weight*" basis.
For Use On The QC Data Reporting Forms	
*****	QC data (i.e., percent recovery data for matrix spike, matrix spike duplicate, laboratory control standard, or surrogates; and RPD for matrix spike duplicate or unspiked duplicate) exceeded acceptance limits.
a[1]	The spike recovery and/or RPD for matrix spike and matrix spike duplicates cannot be evaluated due to insufficient spiking level compared to the elevated sample analyte concentration.
b[1]	The RPD cannot be computed because the sample and/or duplicate concentration was below the RDL.

[1] Used as footnote designations on the QC Summary Form.

TABLE A-1
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE		UCD-01	UCD-01	UCD-01	UCD-01	UCD-01	UCD-01	UCD-01
DATE		02/24/92	05/19/92	11/23/92	02/23/93	05/26/93	09/01/93	12/02/93
QA	MCL							
ALKALINITY TOTAL(AS CACO3)	-	760.00	703.00	H| 513.00	H| 758.00	723.00	710.00	740.00
CHEMICAL OXYGEN DEMAND	-	9570.00	55000.00	< 1000.00	3980.00	10400.00	-	-
EC-F	-	1366.00	1351.00	1339.00	486.00	1210.00	1490.00	1131.00
EH-F	-	-	-	-	-	-	-	93.00
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	0.28	0.26	M| < 1.00	2.20
TEMPERATURE	-	17.90	18.40	16.10	17.00	20.80	21.10	19.80
TOTAL DISSOLVED SOLIDS	-	848.00	906.00	878.00	785.00	855.00	840.00	800.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	2.90	1.40
TURBIDITY	-	108.70	949.00	467.00	52.20	205.00	770.00	120.00
TURBIDITY-F	-	101.80	> 200.00	> 200.00	5.00	> 200.00	> 200.00	3.46
pH-F	-	7.27	7.21	7.03	7.62	7.67	7.25	6.88

All units reported as per analyte

QA = Samples taken as part of the quality assurance program.
< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.
- = Parameter not analyzed.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE		UCD-04	UCD-04	UCD-04	UCD-04	UCD-04	UCD-04	UCD-07
DATE		02/24/92	05/19/92	02/23/93	05/26/93	09/01/93	12/02/93	02/24/92
QA	MCL							
ALKALINITY TOTAL(AS CACO3)	-	366.00	529.00	H| 535.00	598.00	570.00	230.00	400.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00	65000.00	27900.00	< 1000.00	-	-	< 1000.00
EC-F	-	889.00	1122.00	498.00	689.00	1410.00	656.00	883.00
EH-F	-	-	-	-	-	-	65.00	-
FORMALDEHYDE	-	< 500.00	< 500.00	0.90	< 0.25	M| < 1.00	< 0.05	< 500.00
TEMPERATURE	-	17.80	18.90	17.20	20.20	19.40	19.00	17.80
TOTAL DISSOLVED SOLIDS	-	525.00	763.00	608.00	766.00	670.00	550.00	572.00
TOTAL ORGANIC CARBON	-	-	-	-	-	1.80	1.30	-
TURBIDITY	-	437.00	441.00	16.40	264.00	310.00	48.00	610.00
TURBIDITY-F	-	> 200.00	> 200.00	4.26	> 200.00	102.00	42.80	1.26
pH-F	-	7.64	7.47	7.20	7.72	7.29	7.08	7.88

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-07 05/13/92	UCD-07 08/04/92	UCD-07 11/24/92	UCD-07 02/25/93	UCD-07 05/24/93	UCD-07 08/30/93	UCD-07 12/02/93
ALKALINITY TOTAL(AS CACO3)	-	406.00	384.00	357.00	H| 396.00	381.00	480.00	440.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00	1910.00	< 1000.00	< 1000.00	< 1000.00	-	-
EC-F	-	1088.00	770.00	732.00	362.00	1047.00	1400.00	718.00
EH-F	-	-	-	-	-	-	-	63.00
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	0.33	0.47	< 1.00	< 0.05
TEMPERATURE	-	17.70	19.70	15.60	16.10	19.80	20.50	19.10
TOTAL DISSOLVED SOLIDS	-	786.00	564.00	475.00	673.00	557.00	700.00	600.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	1.40	< 1.00
TURBIDITY	-	1.67	0.29	0.74	1.57	1.55	3.90	0.12
TURBIDITY-F	-	2.90	1.38	4.25	1.06	3.99	6.60	4.62
pH-F	-	7.65	7.72	7.64	7.14	7.47	7.65	7.44

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-10 02/25/92	UCD-10 05/12/92	UCD-10 11/23/92	UCD-10 02/16/93	UCD-10 05/24/93	UCD-10 05/24/93 DUPLICATE SAMPLE	UCD-10 08/31/93
ALKALINITY TOTAL(AS CACO3)	-	673.00	655.00	635.00	H| 707.00	703.00	703.00	730.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00	< 1000.00	6220.00	7960.00	36300.00	15600.00	-
EC-F	-	1856.00	1907.00	1780.00	1340.00	1902.00	-	2400.00
EH-F	-	-	-	-	-	-	-	-
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	< 0.25	< 0.25	< 0.25	< 1.00
TEMPERATURE	-	17.50	18.60	16.50	15.20	18.30	-	21.10
TOTAL DISSOLVED SOLIDS	-	1320.00	1450.00	1300.00	1320.00	1298.00	1329.00	1400.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	-	2.70
TURBIDITY	-	2.40	3.26	3.57	0.90	1.55	3.64	0.70
TURBIDITY-F	-	6.63	15.30	2.25	0.92	4.83	-	1.60
pH-F	-	7.98	7.66	7.50	7.46	7.47	-	7.41

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-10 12/07/93	UCD-11 02/25/92	UCD-11 05/14/92	UCD-11 11/18/92	UCD-11 02/24/93	UCD-11 05/20/93	UCD-11 08/31/93
ALKALINITY TOTAL(AS CACO3)	-	730.00	499.00	500.00	H| 515.00	490.00	515.00	540.00
CHEMICAL OXYGEN DEMAND	-	-	< 1000.00	< 1000.00	< 1000.00	< 1000.00	41500.00	-
EC-F	-	1499.00	1203.00	1153.00	1180.00	359.00	1327.00	1550.00
EH-F	-	18.00	-	-	-	-	-	-
FORMALDEHYDE	-	< 0.05	< 500.00	< 500.00	< 500.00	0.65	< 0.25	< 1.00
TEMPERATURE	-	18.50	17.30	18.00	17.60	16.30	18.80	19.70
TOTAL DISSOLVED SOLIDS	-	1300.00	727.00	915.00	781.00	726.00	357.00	770.00
TOTAL ORGANIC CARBON	-	5.80	-	-	-	-	-	1.10
TURBIDITY	-	0.66	2.02	1.74	1.20	4.53	2.57	0.65
TURBIDITY-F	-	1.32	6.77	7.04	2.93	1.99	6.02	1.20
pH-F	-	7.40	7.85	7.53	7.42	7.41	7.48	7.65

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C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE		UCD-11	UCD-12	UCD-12	UCD-12	UCD-12	UCD-12	UCD-12
DATE		12/06/93	02/27/92	05/13/92	11/23/92	02/25/93	05/24/93	09/01/93
QA	MCL							
ALKALINITY TOTAL(AS CACO3)	-	520.00	735.00	777.00	629.00	H| 697.00	733.00	720.00
CHEMICAL OXYGEN DEMAND	-	-	7020.00	15000.00	4660.00	< 1000.00	31200.00	-
EC-F	-	924.00	2740.00	3080.00	2270.00	465.00	2187.00	4640.00
EH-F	-	77.00	-	-	-	-	-	-
FORMALDEHYDE	-	< 0.05	< 500.00	< 500.00	< 500.00	< 0.25	< 0.25	< 1.00
TEMPERATURE	-	18.60	17.90	18.70	17.30	16.20	19.40	21.20
TOTAL DISSOLVED SOLIDS	-	790.00	1340.00	2451.00	1760.00	1430.00	1259.00	1400.00
TOTAL ORGANIC CARBON	-	1.60	-	-	-	-	-	3.60
TURBIDITY	-	0.30	3.30	H| 27.70	15.20	5.39	3.77	2.20
TURBIDITY-F	-	1.71	7.37	12.36	4.25	2.01	10.06	3.50
pH-F	-	7.50	7.85	7.94	7.26	7.02	7.47	7.38

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-12 12/07/93	UCD-12 12/07/93 DUPLICATE SAMPLE	UCD-13 02/25/92	UCD-13 05/12/92	UCD-13 11/24/92	UCD-13 02/25/93	UCD-13 05/20/93
ALKALINITY TOTAL(AS CACO3)	-	780.00	790.00	861.00	783.00	480.00	H| 838.00	868.00
CHEMICAL OXYGEN DEMAND	-	-	-	< 1000.00	30000.00	< 1000.00	33600.00	26000.00
EC-F	-	1615.00	-	1641.00	1633.00	1402.00	255.00	1745.00
EH-F	-	62.00	-	-	-	-	-	-
FORMALDEHYDE	-	< 0.05	< 0.05	< 500.00	< 500.00	< 500.00	1.13	< 0.25
TEMPERATURE	-	19.20	-	18.10	17.80	15.60	17.00	19.30
TOTAL DISSOLVED SOLIDS	-	1400.00	1400.00	1020.00	1180.00	1020.00	1030.00	1060.00
TOTAL ORGANIC CARBON	-	1.90	1.80	-	-	-	-	-
TURBIDITY	-	6.40	5.50	0.87	2.54	7.55	1.13	1.73
TURBIDITY-F	-	6.01	-	3.48	10.19	3.21	1.90	4.23
pH-F	-	7.31	-	7.83	7.65	7.18	7.64	7.07

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-13 08/31/93	UCD-13 12/06/93	UCD-13 12/06/93 DUPLICATE SAMPLE	UCD-14 02/20/92	UCD-14 02/20/92 DUPLICATE SAMPLE	UCD-14 05/12/92	UCD-14 08/04/92
ALKALINITY TOTAL(AS CACO3)	-	890.00	850.00	860.00	357.00	348.00	526.00	719.00
CHEMICAL OXYGEN DEMAND	-	-	-	-	< 1000.00	< 1000.00	< 1000.00	3810.00
EC-F	-	2090.00	1155.00	-	746.00	746.00	1113.00	1342.00
EH-F	-	-	87.00	-	-	-	-	-
FORMALDEHYDE	-	< 1.00	< 0.05	< 0.05	< 500.00	< 500.00	< 500.00	< 500.00
TEMPERATURE	-	20.60	19.10	-	17.40	17.40	17.40	18.90
TOTAL DISSOLVED SOLIDS	-	1000.00	970.00	1000.00	456.00	459.00	890.00	896.00
TOTAL ORGANIC CARBON	-	1.70	4.80	1.50	-	-	-	-
TURBIDITY	-	0.33	0.28	0.31	1.78	1.53	2.04	0.63
TURBIDITY-F	-	0.80	1.74	-	18.40	18.40	2.12	4.02
pH-F	-	7.36	7.11	-	7.93	7.93	7.64	7.42

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE		UCD-14		UCD-14	UCD-14	UCD-14	UCD-14	UCD-15	UCD-15
DATE		11/24/92		02/25/93	05/20/93	08/31/93	12/06/93	02/18/92	05/13/92
QA	MCL								
ALKALINITY TOTAL(AS CACO3)	-	383.00	H|	333.00	619.00	540.00	620.00	359.00	336.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00		< 1000.00	15600.00	-	-	< 1000.00	< 1000.00
EC-F	-	838.00		260.00	1317.00	1420.00	842.00	910.00	571.00
EH-F	-	-		-	-	-	67.00	-	-
FORMALDEHYDE	-	< 500.00		1.03	< 0.25	< 1.00	< 0.05	< 500.00	< 500.00
TEMPERATURE	-	15.60		16.80	18.30	20.30	18.80	17.20	18.70
TOTAL DISSOLVED SOLIDS	-	474.00		418.00	742.00	660.00	720.00	452.00	631.00
TOTAL ORGANIC CARBON	-	-		-	-	1.30	1.30	-	-
TURBIDITY	-	0.40		18.27	2.39	1.30	0.29	0.82	1.26
TURBIDITY-F	-	6.98		7.90	3.92	2.00	0.91	0.24	0.77
pH-F	-	7.58		7.59	7.23	7.48	7.29	8.26	7.80

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-15 05/13/92 DUPLICATE SAMPLE	UCD-15 08/05/92	UCD-15 11/23/92	UCD-15 02/18/93	UCD-15 05/26/93	UCD-15 08/26/93	UCD-15 11/23/93
ALKALINITY TOTAL(AS CACO3)	-	339.00	350.00	322.00	H| 359.00	346.00	350.00	340.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00	5450.00	< 1000.00	39800.00	10400.00	-	-
EC-F	-	571.00	440.00	671.00	596.00	667.00	867.00	630.00
EH-F	-	-	-	-	-	-	-	127.00
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	0.65	< 0.25	M| < 1.00	< 0.05 UJm|
TEMPERATURE	-	18.70	19.10	17.20	19.30	18.30	18.80	17.90
TOTAL DISSOLVED SOLIDS	-	595.00	420.00	426.00	392.00	466.00	410.00	420.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	< 1.00	1.00
TURBIDITY	-	0.22	< 0.10	0.27	0.76	0.33	0.82	0.30
TURBIDITY-F	-	0.77	0.17	1.89	0.65	0.92	0.40	-
pH-F	-	7.80	7.73	7.67	7.58	7.92	7.86	7.72

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-16 02/19/92	UCD-16 05/11/92	UCD-16 08/05/92	UCD-16 08/05/92 DUPLICATE SAMPLE	UCD-16 11/16/92	UCD-16 02/16/93	UCD-16 05/17/93
ALKALINITY TOTAL(AS CACO3)	-	364.00	357.00	360.00	360.00	353.00	H| 348.00	346.50 H|
CHEMICAL OXYGEN DEMAND	-	< 1000.00	35000.00	1200.00	< 1000.00	< 1000.00	< 1000.00	< 1000.00
EC-F	-	886.00	716.00	552.00	552.00	734.00	594.00	750.00
EH-F	-	-	-	-	-	-	-	-
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	< 500.00	< 500.00	0.55	1.44
TEMPERATURE	-	17.50	18.90	18.70	18.70	18.20	16.90	19.50
TOTAL DISSOLVED SOLIDS	-	467.00	592.00	459.00	469.00	460.00	452.00	447.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	-	-
TURBIDITY	-	0.12	0.37	< 0.10	< 0.10	0.09	1.11	0.14
TURBIDITY-F	-	0.42	0.58	0.17	0.17	0.50	0.11	0.60
pH-F	-	7.31	7.80	7.81	7.81	7.64	7.89	7.67

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-16 08/23/93	UCD-16 11/23/93	UCD-17 02/18/92	UCD-17 05/11/92	UCD-17 08/06/92	UCD-17 08/06/92 DUPLICATE SAMPLE	UCD-17 11/16/92	
ALKALINITY TOTAL(AS CACO3)	-	380.00	350.00	349.00	449.00	335.00	336.00	331.00	H|
CHEMICAL OXYGEN DEMAND	-	-	-	< 1000.00	20000.00	< 1000.00	< 1000.00	< 1000.00	
EC-F	-	943.00	572.00	870.00	675.00	440.00	440.00	678.00	
EH-F	-	-	105.00	-	-	-	-	-	
FORMALDEHYDE	-	< 1.00	< 0.05 UJm|	< 500.00	< 500.00	< 500.00	< 500.00	< 500.00	
TEMPERATURE	-	19.10	18.50	17.60	18.30	18.80	18.80	17.90	
TOTAL DISSOLVED SOLIDS	-	470.00	440.00	444.00	548.00	424.00	424.00	430.00	
TOTAL ORGANIC CARBON	-	3.90	< 1.00	-	-	-	-	-	
TURBIDITY	-	0.30	0.17 Up|	0.70	0.21	0.15	7.82	0.08	
TURBIDITY-F	-	1.57	-	0.65	0.66	0.23	0.23	1.90	
pH-F	-	8.08	7.70	8.06	7.85	7.81	7.81	7.64	

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-17 02/17/93	UCD-17 05/18/93	UCD-17 08/30/93	UCD-17 08/30/93 DUPLICATE SAMPLE	UCD-17 11/29/93	UCD-18 02/18/92	UCD-18 05/11/92
ALKALINITY TOTAL(AS CACO3)	-	333.00	319.80	310.00	330.00	320.00	411.00	338.00
CHEMICAL OXYGEN DEMAND	-	31900.00	5190.00	-	-	-	< 1000.00	25000.00
EC-F	-	543.00	717.00	790.00	790.00	466.00	1102.00	1036.00
EH-F	-	-	-	-	-	99.00	-	-
FORMALDEHYDE	-	0.45	0.36	< 1.00	< 1.00	< 0.05	< 500.00	< 500.00
TEMPERATURE	-	16.10	19.60	18.30	18.30	18.30	17.80	18.90
TOTAL DISSOLVED SOLIDS	-	365.00	412.00	380.00	380.00	380.00	560.00	887.00
TOTAL ORGANIC CARBON	-	-	-	1.30	1.20	< 1.00	-	-
TURBIDITY	-	0.36	0.22	0.27	0.53	0.04 Up|	28.50	25.70
TURBIDITY-F	-	0.18	0.91	0.18	0.18	0.26	24.80	26.30
pH-F	-	7.55	7.78	7.71	7.71	7.64	7.60	7.51

All units reported as per analyte

QA = Samples taken as part of the quality assurance program.
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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-18 08/03/92	UCD-18 11/16/92	UCD-18 02/17/93	UCD-18 05/18/93	UCD-18 08/26/93	UCD-18 11/23/93	UCD-19 02/20/92
ALKALINITY TOTAL(AS CACO3)	-	435.00	397.00	H| 465.00	445.50	420.00	410.00	864.00
CHEMICAL OXYGEN DEMAND	-	12400.00	< 1000.00	4200.00	51900.00	-	-	< 1000.00
EC-F	-	679.00	860.00	785.00	1087.00	1205.00	804.00	1250.00
EH-F	-	-	-	-	-	-	118.00	-
FORMALDEHYDE	-	< 500.00	< 500.00	< 0.25	1.07	< 1.00	< 0.05	< 500.00
TEMPERATURE	-	19.20	18.10	16.40	19.50	19.30	18.50	18.90
TOTAL DISSOLVED SOLIDS	-	579.00	497.00	580.00	639.00	590.00	520.00	941.00
TOTAL ORGANIC CARBON	-	-	-	-	-	1.10	< 1.00	-
TURBIDITY	-	14.70	4.20	1.00	2.39	5.20	2.00	0.79
TURBIDITY-F	-	12.33	9.32	0.39	3.73	7.50	-	8.47
pH-F	-	7.67	7.55	7.89	7.46	7.60	7.60	7.70

All units reported as per analyte

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-19 05/12/92	UCD-19 08/05/92	UCD-19 11/17/92	UCD-19 02/24/93	UCD-19 05/19/93	UCD-19 08/25/93	UCD-19 11/30/93
ALKALINITY TOTAL(AS CACO3)	-	719.00	533.00	757.00	828.00	802.00	800.00	840.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00	< 1000.00	< 1000.00	< 1000.00	< 1000.00	-	-
EC-F	-	1343.00	870.00	1112.00	475.00	1337.00	1465.00	1212.00
EH-F	-	-	-	-	-	-	-	95.00
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	1.55	1.20	< 1.00	< 0.05
TEMPERATURE	-	19.70	23.60	18.20	16.90	20.10	18.90	19.70
TOTAL DISSOLVED SOLIDS	-	983.00	683.00	823.00	892.00	952.00	900.00	940.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	1.30	1.40
TURBIDITY	-	0.87	20.60	0.67	0.85	0.63	2.80	0.20
TURBIDITY-F	-	5.95	> 200.00	2.51	1.41	1.07	2.82	2.13
pH-F	-	7.68	7.60	7.54	7.11	7.47	7.63	7.29

All units reported as per analyte

QA = Samples taken as part of the quality assurance program.
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- = Parameter not analyzed.
MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.
C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-20 02/19/92	UCD-20 05/19/92	UCD-20 05/19/92 DUPLICATE SAMPLE	UCD-20 08/05/92	UCD-20 11/17/92	UCD-20 02/24/93	UCD-20 05/19/93
ALKALINITY TOTAL(AS CACO3)	-	465.00	439.00	H| 439.00	H| 468.00	478.00	374.00	361.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00	20000.00	35000.00	10800.00	< 1000.00	< 1000.00	5200.00
EC-F	-	1202.00	914.00	914.00	925.00	961.00	375.00	768.00
EH-F	-	-	-	-	-	-	-	-
FORMALDEHYDE	-	< 500.00	< 500.00	< 500.00	< 500.00	< 500.00	1.63	1.84
TEMPERATURE	-	18.70	19.00	19.00	21.20	19.00	17.30	20.20
TOTAL DISSOLVED SOLIDS	-	690.00	602.00	630.00	647.00	617.00	422.00	480.00
TOTAL ORGANIC CARBON	-	-	-	-	-	-	-	-
TURBIDITY	-	5.78	14.15	11.12	7.30	1.34	1.99	0.26
TURBIDITY-F	-	1.89	23.80	23.80	97.00	1.80	1.91	0.91
pH-F	-	7.55	7.68	7.68	7.62	7.60	7.44	7.57

All units reported as per analyte

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-20 08/25/93	UCD-20 11/30/93	UCD-21 02/19/92	UCD-21 05/13/92	UCD-21 08/10/92	UCD-21 11/17/92	UCD-21 02/24/93
ALKALINITY TOTAL(AS CACO3)	-	390.00	390.00	648.00	582.00	628.00	622.00	606.00
CHEMICAL OXYGEN DEMAND	-	-	-	< 1000.00	5000.00	3540.00	< 1000.00	< 1000.00
EC-F	-	953.00	638.00	1766.00	1549.00	1262.00	1533.00	421.00
EH-F	-	-	95.00	-	-	-	-	-
FORMALDEHYDE	-	< 1.00	< 0.05	< 500.00	< 500.00	< 500.00	< 500.00	< 0.25
TEMPERATURE	-	19.20	19.50	19.80	20.20	22.10	19.70	18.80
TOTAL DISSOLVED SOLIDS	-	480.00	480.00	993.00	1040.00	973.00	925.00	888.00
TOTAL ORGANIC CARBON	-	< 1.00	1.20	-	-	-	-	-
TURBIDITY	-	0.60	0.29	7.90	9.14	22.00	1.40	19.20
TURBIDITY-F	-	1.67	0.51	4.84	54.20	3.99	1.09	1.51
pH-F	-	7.91	7.58	7.52	7.51	7.40	7.38	7.16

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-21 03/04/93	UCD-21 03/04/93 DUPLICATE SAMPLE	UCD-21 05/27/93	UCD-21 05/27/93 DUPLICATE SAMPLE	UCD-21 08/25/93	UCD-21 11/30/93	UCD-22 02/27/92	
ALKALINITY TOTAL(AS CACO3)	-	591.00	601.00	614.00	610.00	630.00	610.00	378.00	
CHEMICAL OXYGEN DEMAND	-	15900.00	3980.00	10400.00	20800.00	-	-	2350.00	
EC-F	-	395.00	-	1286.00	-	1850.00	1059.00	889.00	
EH-F	-	-	-	-	-	-	110.00	-	
FORMALDEHYDE	-	< 0.25	< 0.25	< 0.25	< 0.25	< 1.00	< 0.05	< 500.00	
TEMPERATURE	-	18.20	-	19.50	-	19.70	20.10	19.50	
TOTAL DISSOLVED SOLIDS	-	964.00	927.00	1032.00	989.00	940.00	980.00	487.00	
TOTAL ORGANIC CARBON	-	-	-	-	-	1.20	2.20	-	
TURBIDITY	-	1.17	0.45	0.40	0.47	2.60	0.37	6.50	H|
TURBIDITY-F	-	0.18	-	2.64	-	2.28	0.91	12.00	
pH-F	-	7.26	-	7.52	-	7.67	7.31	7.81	

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-22 05/14/92		UCD-22 08/10/92	UCD-22 11/18/92	UCD-22 11/18/92 DUPLICATE SAMPLE	UCD-22 02/18/93	UCD-22 05/25/93		UCD-22 08/30/93
ALKALINITY TOTAL(AS CACO3)	-	382.00	H|	430.00	415.00	415.00	460.00	497.00		460.00
CHEMICAL OXYGEN DEMAND	-	< 1000.00		2390.00	3110.00	1040.00	19900.00	< 1000.00		-
EC-F	-	885.00		702.00	957.00	-	968.00	971.00		1230.00
EH-F	-	-		-	-	-	-	-		-
FORMALDEHYDE	-	< 500.00		< 500.00	< 500.00	< 500.00	0.90	0.91	M|	< 1.00
TEMPERATURE	-	19.80		20.70	18.90	-	17.20	20.30		20.20
TOTAL DISSOLVED SOLIDS	-	611.00		542.00	543.00	534.00	552.00	628.00		600.00
TOTAL ORGANIC CARBON	-	-		-	-	-	-	-		1.20
TURBIDITY	-	5.33		41.50	1.13	1.30	4.25	0.45		0.57
TURBIDITY-F	-	9.19		11.10	2.52	-	8.06	0.98		0.65
pH-F	-	7.64		7.60	7.50	-	7.74	7.87		7.60

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-22 11/30/93	UCD-23 02/18/92	UCD-23 05/14/92	UCD-23 08/10/92	UCD-23 11/18/92	UCD-23 11/18/92 DUPLICATE SAMPLE	UCD-23 02/24/93
ALKALINITY TOTAL(AS CACO3)	-	500.00	408.00	473.00	H| 346.00	472.00	471.00	505.00
CHEMICAL OXYGEN DEMAND	-	-	< 1000.00	< 1000.00	< 1000.00	< 1000.00	2070.00	< 1000.00
EC-F	-	916.00	1053.00	989.00	772.00	986.00	-	364.00
EH-F	-	78.00	-	-	-	-	-	-
FORMALDEHYDE	-	< 0.05	< 500.00	< 500.00	< 500.00	< 500.00	< 500.00	1.65
TEMPERATURE	-	19.50	19.80	21.20	24.90	18.30	-	16.70
TOTAL DISSOLVED SOLIDS	-	630.00	519.00	651.00	582.00	590.00	595.00	687.00
TOTAL ORGANIC CARBON	-	1.20	-	-	-	-	-	-
TURBIDITY	-	1.20	28.70	28.60	29.50	0.88	0.95	1.29
TURBIDITY-F	-	0.26	30.30	65.50	72.20	1.71	-	2.01
pH-F	-	7.52	7.75	7.63	7.61	7.60	-	7.47

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-23 05/25/93	UCD-23 08/25/93	UCD-23 11/30/93	UCD-24 02/20/92	UCD-24 05/14/92	UCD-24 08/06/92	UCD-24 11/17/92
ALKALINITY TOTAL(AS CACO3)	-	522.00	610.00	590.00	495.00	512.00	H| 500.00	497.00
CHEMICAL OXYGEN DEMAND	-	5190.00	-	-	< 1000.00	< 1000.00	3220.00	< 1000.00
EC-F	-	957.00	1429.00	788.00	1325.00	1336.00	1326.00	1390.00
EH-F	-	-	-	81.00	-	-	-	-
FORMALDEHYDE	-	0.62	M| < 1.00	< 0.05	< 500.00	< 500.00	< 500.00	< 500.00
TEMPERATURE	-	19.80	19.40	19.10	19.30	19.90	20.80	19.20
TOTAL DISSOLVED SOLIDS	-	611.00	660.00	670.00	852.00	1090.00	943.00	850.00
TOTAL ORGANIC CARBON	-	-	1.30	< 1.00	-	-	-	-
TURBIDITY	-	0.43	0.16	0.27	Up| 0.76	6.59	27.00	8.45
TURBIDITY-F	-	1.51	1.05	0.49	0.55	3.09	46.00	2.52
pH-F	-	7.86	7.65	7.51	7.54	7.50	7.44	7.29

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TABLE A-1 (cont.)
ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT
FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES
GENERAL CHEMICAL PARAMETERS

SAMPLE DATE QA	MCL	UCD-24 02/17/93	UCD-24 03/04/93	UCD-24 03/04/93 DUPLICATE SAMPLE	UCD-24 05/19/93	UCD-24 08/25/93	UCD-24 08/25/93 DUPLICATE SAMPLE	UCD-24 11/30/93
ALKALINITY TOTAL(AS CACO3)	-	556.00	548.00	545.00	590.00	560.00	590.00	550.00
CHEMICAL OXYGEN DEMAND	-	19900.00	< 1000.00	15900.00	5200.00	-	-	-
EC-F	-	1028.00	351.00	-	1531.00	1729.00	1729.00	1071.00
EH-F	-	-	-	-	-	-	-	109.00
FORMALDEHYDE	-	< 0.25	< 0.25	< 0.25	< 0.25	< 1.00	< 1.00	< 0.05
TEMPERATURE	-	16.10	17.10	-	19.40	19.20	19.20	20.00
TOTAL DISSOLVED SOLIDS	-	82.00	858.00	932.00	949.00	930.00	940.00	920.00
TOTAL ORGANIC CARBON	-	-	-	-	-	< 1.00	1.10	< 1.00
TURBIDITY	-	0.54	0.82	0.80	130.00	1.00	0.73	0.27
TURBIDITY-F	-	0.48	0.26	-	1.02	1.17	1.17	0.98
pH-F	-	7.52	7.58	-	7.22	7.55	7.55	7.30

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TABLE A-2

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE		UCD-01	UCD-01	UCD-01	UCD-01	UCD-01	UCD-01	UCD-01
DATE		02/24/92	05/19/92	11/23/92	02/23/93	05/26/93	09/01/93	12/02/93
QA	MCL ug/L							
ANTIMONY (TOTAL)	6	10.00	< 10.00	10.00	< 10.00	< 10.00	< 5.00 |B	< 5.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	2.60
BARIUM (TOTAL)	1000	250.00	190.00	200.00	230.00	230.00	216.00	212.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 1.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00
CHROMIUM (TOTAL)	50	80.00	60.00	70.00	50.00	60.00	50.50	34.10
CHROMIUM, HEXAVALENT (+6)	-	30.00	34.00	50.00 F2|	40.00 H|	20.00	32.00	< 20.00
COBALT (TOTAL)	-	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	-	-
COPPER (TOTAL)	1300 #	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B
LEAD (TOTAL)	50	< 3.00	4.00	< 3.00	< 3.00	< 3.00	3.90 Up|	2.50
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	< 0.20
MOLYBDENUM (TOTAL)	-	< 30.00	< 10.00	< 10.00	20.00	10.00	< 10.00	< 10.00 |B
NICKEL (TOTAL)	100	< 30.00	< 10.00	< 10.00	< 10.00	20.00	< 20.00 |B	< 20.00 |B
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 3.00	< 3.00
SILVER (TOTAL)	50	< 30.00	< 10.00	10.00	< 10.00	< 10.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2	20.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00	< 10.00
VANADIUM (TOTAL)	-	< 30.00	20.00	10.00	30.00	20.00	< 10.00 |B	< 10.00 |B
ZINC (TOTAL)	-	< 30.00	20.00	10.00	30.00	20.00	< 10.00 |B	< 20.00 Up|B

All units reported as ug/liter

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- = Parameter not analyzed.

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE		UCD-04	UCD-04	UCD-04	UCD-04	UCD-04	UCD-04	UCD-07
DATE		02/24/92	05/19/92	02/23/93	05/26/93	09/01/93	12/02/93	02/24/92
QA	MCL ug/L							
ANTIMONY (TOTAL)	6	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00 |B	< 5.00 |B	< 10.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	2.90	< 10.00
BARIUM (TOTAL)	1000	240.00	280.00	280.00	320.00	297.00	267.00	180.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 1.00	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00
CHROMIUM (TOTAL)	50	30.00	40.00	40.00	50.00	50.60	22.30	60.00
CHROMIUM, HEXAVALENT (+6)	-	< 10.00	13.00	30.00	30.00	29.00	< 20.00	30.00
COBALT (TOTAL)	-	< 30.00	< 10.00	< 10.00	< 10.00	-	-	< 30.00
COPPER (TOTAL)	1300 #	< 30.00	< 10.00	20.00	< 10.00	< 10.00 |B	< 10.00 |B	< 30.00
LEAD (TOTAL)	50	< 3.00	18.00	< 3.00	< 3.00	3.60 Up|	< 2.00	< 3.00
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	< 0.20	< 0.40
MOLYBDENUM (TOTAL)	-	< 30.00	< 10.00	20.00	< 10.00	< 10.00	< 10.00 |B	< 30.00
NICKEL (TOTAL)	100	< 30.00	10.00	20.00	10.00	< 20.00 |B	< 20.00 |B	< 30.00
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 10.00	< 10.00	< 3.00	3.40	< 10.00
SILVER (TOTAL)	50	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 30.00
THALLIUM (TOTAL)	2	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	30.00
VANADIUM (TOTAL)	-	< 30.00	10.00	40.00	20.00	< 10.00 |B	< 10.00 |B	< 30.00
ZINC (TOTAL)	-	< 30.00	20.00	30.00	20.00	< 10.00 |B	< 20.00 Up|B	< 30.00

All units reported as ug/liter

QA = Samples taken as part of the quality assurance program.

< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.

- = Parameter not analyzed.

MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.

C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE		UCD-07	UCD-07	UCD-07	UCD-07	UCD-07	UCD-07	UCD-07
DATE		05/13/92	08/04/92	11/24/92	02/25/93	05/24/93	08/30/93	12/02/93
QA	MCL ug/L							
ANTIMONY (TOTAL)	6	< 10.00	< 10.00	10.00	< 10.00	< 10.00	< 5.00	< 5.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	3.50
BARIUM (TOTAL)	1000	200.00	170.00	150.00	190.00	200.00	225.00	200.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00
CHROMIUM (TOTAL)	50	120.00	60.00	30.00	100.00	120.00	62.40	48.90
CHROMIUM, HEXAVALENT (+6)	-	80.00	34.00	30.00	110.00	70.00	49.00	31.00
COBALT (TOTAL)	-	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	-	-
COPPER (TOTAL)	1300 #	< 10.00	< 30.00	< 10.00	< 10.00	10.00	< 10.00 |B	< 10.00 |B
LEAD (TOTAL)	50	63.00	< 3.00	< 3.00	< 3.00	< 3.00	< 2.00 Up|	2.60
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	< 0.20
MOLYBDENUM (TOTAL)	-	20.00	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B
NICKEL (TOTAL)	100	30.00	< 30.00	< 10.00	< 10.00	30.00	< 20.00 |B	< 20.00 |B
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 3.00 |B	< 3.00
SILVER (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	20.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2	< 10.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00 |B	< 10.00
VANADIUM (TOTAL)	-	10.00	< 30.00	< 10.00	< 10.00	10.00	< 10.00 |B	< 10.00 |B
ZINC (TOTAL)	-	20.00	< 30.00	10.00	10.00	40.00	< 10.00 |B	< 20.00 Up|B

All units reported as ug/liter

QA = Samples taken as part of the quality assurance program.

< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.

- = Parameter not analyzed.

MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.

C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-10 02/25/92	UCD-10 05/12/92	UCD-10 11/23/92	UCD-10 02/16/93	UCD-10 05/24/93	UCD-10 05/24/93 DUPLICATE SAMPLE	UCD-10 08/31/93	
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00	
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	
BARIUM (TOTAL)	1000		< 30.00	< 30.00	20.00	20.00	40.00	30.00	26.30	
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	
CADMIUM (TOTAL)	10		< 1.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	
CHROMIUM (TOTAL)	50		100.00	70.00	80.00	100.00	150.00	140.00	80.50	
CHROMIUM, HEXAVALENT (+6)	-		50.00	53.00	60.00	70.00	80.00	80.00	67.00	
COBALT (TOTAL)	-		< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	-	
COPPER (TOTAL)	1300	#	< 30.00	< 10.00	< 10.00	< 10.00	10.00	10.00	< 10.00	|B
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	6.20	Up|
MERCURY (TOTAL)	2		< 0.40	1.10	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	
MOLYBDENUM (TOTAL)	-		< 30.00	20.00	< 10.00	< 10.00	10.00	< 10.00	< 10.00	
NICKEL (TOTAL)	100		< 30.00	20.00	< 10.00	20.00	40.00	40.00	< 20.00	|B
SELENIUM (TOTAL)	10		12.00	< 10.00	< 10.00	22.00	20.00	20.00	22.90	
SILVER (TOTAL)	50		< 30.00	< 10.00	< 10.00	< 10.00	30.00	30.00	< 10.00	
THALLIUM (TOTAL)	2		30.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00	< 10.00	|B
VANADIUM (TOTAL)	-		< 30.00	20.00	10.00	30.00	20.00	30.00	< 10.00	|B
ZINC (TOTAL)	-		< 30.00	20.00	20.00	20.00	40.00	20.00	< 10.00	|B

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE		UCD-10	UCD-11	UCD-11	UCD-11	UCD-11	UCD-11	UCD-11	
DATE		12/07/93	02/25/92	05/14/92	11/18/92	02/24/93	05/20/93	08/31/93	
QA	MCL								
	ug/L								
ANTIMONY (TOTAL)	6	< 5.00	< 10.00	< 10.00	10.00	< 10.00	< 10.00	< 5.00	|B
ARSENIC (TOTAL)	50	3.40	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	
BARIUM (TOTAL)	1000	29.70	190.00	180.00	170.00	250.00	310.00	226.00	
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	
CADMIUM (TOTAL)	10	< 1.00	< 1.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	
CHROMIUM (TOTAL)	50	65.10	370.00	320.00	340.00	300.00	450.00	322.00	
CHROMIUM, HEXAVALENT (+6)	-	46.00	330.00	290.00	310.00	350.00	340.00	330.00	
COBALT (TOTAL)	-	-	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	-	
COPPER (TOTAL)	1300 #	< 10.00 |B	< 30.00	< 10.00	< 10.00	< 10.00	10.00	< 10.00	|B
LEAD (TOTAL)	50	< 2.00	< 3.00	4.00	< 3.00	< 3.00	< 3.00	7.40	
MERCURY (TOTAL)	2	< 0.20	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	
MOLYBDENUM (TOTAL)	-	< 10.00 |B	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	|B
NICKEL (TOTAL)	100	< 20.00 |B	< 30.00	20.00	10.00	20.00	40.00	< 20.00	|B
SELENIUM (TOTAL)	10	26.00	12.00	< 10.00	10.00	< 10.00	10.00	12.30	
SILVER (TOTAL)	50	< 10.00 UJm|	< 30.00	< 10.00	< 10.00	< 10.00	30.00	< 10.00	
THALLIUM (TOTAL)	2	< 10.00	130.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00	
VANADIUM (TOTAL)	-	12.00	< 30.00	< 10.00	10.00	10.00	20.00	< 10.00	|B
ZINC (TOTAL)	-	< 20.00 Up|B	< 30.00	30.00	10.00	20.00	20.00	< 10.00	|B

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE		UCD-11		UCD-12	UCD-12	UCD-12	UCD-12	UCD-12	UCD-12	
DATE		12/06/93		02/27/92	05/13/92	11/23/92	02/25/93	05/24/93	09/01/93	
QA	MCL ug/L									
ANTIMONY (TOTAL)	6	< 5.00	Jn|B	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00	
ARSENIC (TOTAL)	50	3.50	Jn|	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	
BARIUM (TOTAL)	1000	267.00		190.00	430.00	380.00	250.00	300.00	296.00	
BERYLLIUM (TOTAL)	4	< 1.00		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	
CADMIUM (TOTAL)	10	< 1.00		< 1.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	
CHROMIUM (TOTAL)	50	319.00		210.00	260.00	240.00	200.00	280.00	208.00	
CHROMIUM, HEXAVALENT (+6)	-	160.00		153.00	180.00	190.00	180.00	190.00	180.00	
COBALT (TOTAL)	-	-		< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	-	
COPPER (TOTAL)	1300 #	< 10.00	Jn|B	< 30.00	< 10.00	< 10.00	< 10.00	10.00	< 10.00	|B
LEAD (TOTAL)	50	< 2.00		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	8.40	Up|
MERCURY (TOTAL)	2	0.44		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	
MOLYBDENUM (TOTAL)	-	< 10.00	|B	< 30.00	10.00	< 10.00	< 10.00	10.00	< 10.00	
NICKEL (TOTAL)	100	< 20.00	Jn|B	< 30.00	30.00	30.00	30.00	40.00	< 20.00	|B
SELENIUM (TOTAL)	10	11.30	Jn|	13.00	< 10.00	< 10.00	10.00	10.00	11.60	
SILVER (TOTAL)	50	< 10.00	UJm|	< 30.00	< 10.00	10.00	< 10.00	30.00	< 10.00	
THALLIUM (TOTAL)	2	< 10.00		130.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00	
VANADIUM (TOTAL)	-	< 10.00	|B	< 30.00	30.00	20.00	20.00	30.00	< 10.00	|B
ZINC (TOTAL)	-	< 20.00	Up|B	< 30.00	20.00	20.00	20.00	20.00	< 10.00	|B

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-12 12/07/93		UCD-12 12/07/93 DUPLICATE SAMPLE		UCD-13 02/25/92	UCD-13 05/12/92	UCD-13 11/24/92	UCD-13 02/25/93	UCD-13 05/20/93
ANTIMONY (TOTAL)	6		< 5.00		< 5.00		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50		3.00	Jn|	4.10		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000		292.00		285.00		330.00	260.00	220.00	280.00	330.00
BERYLLIUM (TOTAL)	4		< 1.00		< 1.00		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10		< 1.00		< 1.00		< 1.00	< 2.00	< 2.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50		187.00		189.00		130.00	120.00	120.00	120.00	170.00
CHROMIUM, HEXAVALENT (+6)	-		140.00		140.00		80.00	79.00	110.00	80.00	80.00
COBALT (TOTAL)	-		-		-		< 30.00	< 10.00	< 10.00	< 10.00	< 10.00
COPPER (TOTAL)	1300	#	< 10.00	Jn|B	< 10.00	|B	< 30.00	< 10.00	< 10.00	< 10.00	10.00
LEAD (TOTAL)	50		< 2.00		< 2.00	|B	< 3.00	< 3.00	< 3.00	33.00	< 3.00
MERCURY (TOTAL)	2		< 0.20		< 0.20		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-		< 10.00	|B	< 10.00	|B	< 30.00	20.00	< 10.00	10.00	10.00
NICKEL (TOTAL)	100		< 20.00	Jn|B	< 20.00	|B	< 30.00	20.00	20.00	30.00	40.00
SELENIUM (TOTAL)	10		10.50	Jn|	14.10		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50		< 10.00	UJm|	< 10.00	UJm|	< 30.00	< 10.00	< 10.00	< 10.00	30.00
THALLIUM (TOTAL)	2		< 10.00		< 10.00		100.00	< 10.00	< 5.00	< 10.00	< 10.00
VANADIUM (TOTAL)	-		< 10.00	|B	10.50		< 30.00	20.00	10.00	20.00	30.00
ZINC (TOTAL)	-		< 20.00	Up|B	< 20.00	Up|B	< 30.00	20.00	10.00	30.00	30.00

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L	UCD-13 08/31/93	UCD-13 12/06/93	UCD-13 12/06/93 DUPLICATE SAMPLE	UCD-14 02/20/92	UCD-14 02/20/92 DUPLICATE SAMPLE	UCD-14 05/12/92	UCD-14 08/04/92
ANTIMONY (TOTAL)	6	< 5.00	< 5.00	< 5.00 |B	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50	< 2.00	2.30	2.20	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000	281.00	281.00	301.00	130.00	140.00	240.00	300.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50	104.00	81.80	85.30	30.00	30.00	60.00	100.00
CHROMIUM, HEXAVALENT (+6)	-	77.00	79.00	79.00	10.00	10.00	42.00	51.00
COBALT (TOTAL)	-	-	-	-	< 30.00	< 30.00	< 10.00	< 30.00
COPPER (TOTAL)	1300 #	< 10.00 |B	< 10.00	< 10.00 |B	< 30.00	< 30.00	< 10.00	< 30.00
LEAD (TOTAL)	50	4.60 Up|	< 2.00	< 2.00	< 3.00	< 3.00	< 3.00	< 3.00
MERCURY (TOTAL)	2	< 0.20	0.39	0.75	< 0.40	< 0.40	1.00	< 0.40
MOLYBDENUM (TOTAL)	-	< 10.00	< 10.00	< 10.00	< 30.00	< 30.00	20.00	< 30.00
NICKEL (TOTAL)	100	< 20.00 |B	< 20.00 |B	< 20.00 |B	< 30.00	< 30.00	< 10.00	40.00
SELENIUM (TOTAL)	10	< 3.00	< 3.00	< 3.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50	< 10.00	< 10.00 UJm|	< 10.00 UJm|	< 30.00	< 30.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
VANADIUM (TOTAL)	-	< 10.00 |B	10.80	10.30	< 30.00	< 30.00	10.00	< 30.00
ZINC (TOTAL)	-	< 10.00 |B	< 20.00 Up|B	< 20.00 Up|B	< 30.00	< 30.00	20.00	< 30.00

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L	UCD-14 11/24/92	UCD-14 02/25/93	UCD-14 05/20/93	UCD-14 08/31/93	UCD-14 12/06/93	UCD-15 02/18/92	UCD-15 05/13/92
ANTIMONY (TOTAL)	6	10.00	< 10.00	< 10.00	< 5.00	< 5.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 2.00	2.60	< 10.00	< 10.00
BARIUM (TOTAL)	1000	190.00	120.00	270.00	207.00	256.00	160.00	140.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00	< 2.00
CHROMIUM (TOTAL)	50	50.00	30.00	110.00	47.00	36.90	< 30.00	< 10.00
CHROMIUM, HEXAVALENT (+6)	-	30.00	10.00	50.00	32.00	30.00	11.00	10.00
COBALT (TOTAL)	-	< 10.00	< 10.00	< 10.00	-	-	< 30.00	< 10.00
COPPER (TOTAL)	1300 #	< 10.00	< 10.00	10.00	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00
LEAD (TOTAL)	50	< 3.00	< 3.00	< 3.00	4.20	< 2.00	< 3.00	< 3.00
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.40	< 0.20	0.28	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 30.00	10.00
NICKEL (TOTAL)	100	< 10.00	20.00	40.00	< 20.00 |B	< 20.00 |B	< 30.00	10.00
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 10.00	< 3.00	< 3.00	< 10.00	< 10.00
SILVER (TOTAL)	50	< 10.00	< 10.00	30.00	< 10.00	< 10.00 UJm|	< 30.00	< 10.00
THALLIUM (TOTAL)	2	< 5.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
VANADIUM (TOTAL)	-	< 10.00	< 10.00	20.00	< 10.00 |B	< 10.00 |B	< 30.00	10.00
ZINC (TOTAL)	-	10.00	10.00	20.00	< 10.00 |B	< 20.00 Up|B	< 30.00	20.00

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-15 05/13/92 DUPLICATE SAMPLE	UCD-15 08/05/92	UCD-15 11/23/92	UCD-15 02/18/93	UCD-15 05/26/93	UCD-15 08/26/93		UCD-15 11/23/93	
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00		< 5.00	
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00		2.20	
BARIUM (TOTAL)	1000		140.00	150.00	140.00	140.00	150.00	126.00		158.00	
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00		< 1.00	
CADMIUM (TOTAL)	10		< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00		< 1.00	
CHROMIUM (TOTAL)	50		30.00	30.00	20.00	30.00	30.00	11.10		12.80	
CHROMIUM, HEXAVALENT (+6)	-		10.00	< 10.00	10.00	50.00	10.00	< 20.00		< 20.00	
COBALT (TOTAL)	-		< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	-		-	
COPPER (TOTAL)	1300	#	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	|B	< 10.00	|B
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 2.00		< 2.00	|B
MERCURY (TOTAL)	2		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20		< 0.20	
MOLYBDENUM (TOTAL)	-		< 10.00	< 30.00	< 10.00	10.00	< 10.00	< 10.00	|B	< 10.00	|B
NICKEL (TOTAL)	100		10.00	< 30.00	10.00	20.00	10.00	< 20.00	|B	< 20.00	|B
SELENIUM (TOTAL)	10		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 3.00	|B	< 3.00	
SILVER (TOTAL)	50		< 10.00	< 10.00	10.00	< 10.00	< 10.00	< 10.00	UJm|	< 10.00	
THALLIUM (TOTAL)	2		< 10.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00	|B	< 10.00	
VANADIUM (TOTAL)	-		< 10.00	< 30.00	< 10.00	20.00	10.00	< 10.00	|B	< 10.00	|B
ZINC (TOTAL)	-		20.00	< 30.00	10.00	30.00	20.00	< 10.00	|B	< 20.00	Up|B

All units reported as ug/liter

QA = Samples taken as part of the quality assurance program.

< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.

- = Parameter not analyzed.

MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.

C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-16 02/19/92	UCD-16 05/11/92	UCD-16 08/05/92	UCD-16 08/05/92 DUPLICATE SAMPLE	UCD-16 11/16/92	UCD-16 02/16/93	UCD-16 05/17/93	
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	
BARIUM (TOTAL)	1000		140.00	140.00	140.00	140.00	160.00	130.00	140.00	
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	
CADMIUM (TOTAL)	10		< 1.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	
CHROMIUM (TOTAL)	50		50.00	40.00	50.00	40.00	40.00	40.00	30.00	
CHROMIUM, HEXAVALENT (+6)	-		20.00	30.00	30.00	30.00	30.00	30.00	42.00	HM|
COBALT (TOTAL)	-		< 30.00	< 10.00	< 30.00	< 30.00	< 10.00	< 10.00	< 10.00	
COPPER (TOTAL)	1300	#	< 30.00	< 10.00	< 30.00	< 30.00	20.00	< 10.00	< 10.00	
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	
MERCURY (TOTAL)	2		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	
MOLYBDENUM (TOTAL)	-		< 30.00	10.00	< 30.00	< 30.00	10.00	10.00	< 10.00	
NICKEL (TOTAL)	100		< 30.00	< 10.00	< 30.00	< 30.00	20.00	30.00	< 10.00	
SELENIUM (TOTAL)	10		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	
SILVER (TOTAL)	50		< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	
THALLIUM (TOTAL)	2		20.00	< 10.00	< 10.00	< 10.00	< 5.00	< 10.00	< 10.00	
VANADIUM (TOTAL)	-		< 30.00	< 10.00	< 30.00	< 30.00	20.00	20.00	10.00	
ZINC (TOTAL)	-		< 30.00	20.00	< 30.00	< 30.00	20.00	30.00	20.00	

All units reported as ug/liter

QA = Samples taken as part of the quality assurance program.

< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.

- = Parameter not analyzed.

MCL = Maximum Contaminant Level (primary), Title 22, Division 4, Chapter 15.

C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L	UCD-16 08/23/93	UCD-16 11/23/93	UCD-17 02/18/92	UCD-17 05/11/92	UCD-17 08/06/92	UCD-17 08/06/92 DUPLICATE SAMPLE	UCD-17 11/16/92
ANTIMONY (TOTAL)	6	< 5.00	< 5.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50	< 2.00	2.50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000	135.00	140.00	140.00	150.00	110.00	140.00	130.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 1.00	< 1.00	< 1.00	< 2.00	< 2.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50	30.80	25.20	< 30.00	30.00	40.00	40.00	20.00
CHROMIUM, HEXAVALENT (+6)	-	25.00	25.00	15.00	10.00	10.00	10.00	20.00
COBALT (TOTAL)	-	-	-	< 30.00	< 10.00	< 30.00	< 30.00	< 10.00
COPPER (TOTAL)	1300 #	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00	< 30.00	< 30.00	< 10.00
LEAD (TOTAL)	50	8.20 Up|	< 2.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MERCURY (TOTAL)	2	< 0.20	< 0.20	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00	< 30.00	< 30.00	10.00
NICKEL (TOTAL)	100	< 20.00 |B	< 20.00 |B	< 30.00	< 10.00	< 30.00	< 30.00	20.00
SELENIUM (TOTAL)	10	4.30	3.50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50	< 10.00 UJm|	< 10.00	< 30.00	< 10.00	10.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2	< 10.00 |B	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00
VANADIUM (TOTAL)	-	< 10.00 |B	< 10.00 |B	< 30.00	10.00	< 30.00	< 30.00	10.00
ZINC (TOTAL)	-	< 10.00	< 20.00 Up|B	< 30.00	20.00	< 30.00	< 30.00	10.00

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L	UCD-17 02/17/93	UCD-17 05/18/93	UCD-17 08/30/93	UCD-17 08/30/93 DUPLICATE SAMPLE	UCD-17 11/29/93	UCD-18 02/18/92	UCD-18 05/11/92
ANTIMONY (TOTAL)	6	< 10.00	< 10.00	< 5.00	< 5.00	< 5.00 |B	< 10.00	< 10.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 2.00	< 2.00	2.80	< 10.00	< 10.00
BARIUM (TOTAL)	1000	130.00	130.00	121.00	108.00	130.00	120.00	170.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00	< 1.00	< 2.00
CHROMIUM (TOTAL)	50	20.00	20.00	21.40	14.30	< 10.00 |B	30.00	40.00
CHROMIUM, HEXAVALENT (+6)	-	10.00	15.00 M|	< 20.00	< 20.00	< 20.00	< 10.00	20.00
COBALT (TOTAL)	-	< 10.00	< 10.00	-	-	-	< 30.00	< 10.00
COPPER (TOTAL)	1300 #	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00
LEAD (TOTAL)	50	< 3.00	4.00	< 2.00 Up|	8.80 Up|	< 2.00 |B	< 3.00	< 3.00
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.20	< 0.20	< 0.20	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 10.00 |B	< 30.00	20.00
NICKEL (TOTAL)	100	20.00	< 10.00	< 20.00 |B	< 20.00 |B	< 20.00 |B	30.00	30.00
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 3.00	< 3.00	< 3.00	< 10.00	< 10.00
SILVER (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 30.00	< 10.00
THALLIUM (TOTAL)	2	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 10.00	< 10.00	< 10.00
VANADIUM (TOTAL)	-	20.00	20.00	< 10.00 |B	< 10.00 |B	< 10.00 |B	< 30.00	10.00
ZINC (TOTAL)	-	20.00	10.00	< 10.00 |B	< 10.00 |B	< 20.00 Up|B	< 30.00	30.00

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-18 08/03/92	UCD-18 11/16/92	UCD-18 02/17/93	UCD-18 05/18/93	UCD-18 08/26/93	UCD-18 11/23/93	UCD-19 02/20/92
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 5.00	< 5.00 |B	< 10.00
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 2.00 |B	2.80	< 10.00
BARIUM (TOTAL)	1000		120.00	120.00	170.00	170.00	140.00	156.00	70.00
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	1.50	< 1.00
CADMIUM (TOTAL)	10		< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00
CHROMIUM (TOTAL)	50		50.00	30.00	30.00	40.00	18.60	13.20	300.00
CHROMIUM, HEXAVALENT (+6)	-		40.00	20.00	20.00	29.00 M|	< 20.00	< 20.00	270.00
COBALT (TOTAL)	-		< 30.00	< 10.00	< 10.00	10.00	-	-	< 30.00
COPPER (TOTAL)	1300	#	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 30.00
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	< 2.00	< 2.00	< 3.00
MERCURY (TOTAL)	2		< 0.40	< 0.40	< 0.40	< 0.40	0.38	< 0.20	< 0.40
MOLYBDENUM (TOTAL)	-		< 30.00	10.00	10.00	10.00	< 10.00 |B	< 10.00 |B	< 30.00
NICKEL (TOTAL)	100		80.00	50.00	30.00	20.00	< 20.00 |B	< 20.00 |B	< 30.00
SELENIUM (TOTAL)	10		< 10.00	< 10.00	< 10.00	< 10.00	< 3.00 |B	< 3.00	< 10.00
SILVER (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 UJm|	< 10.00	< 30.00
THALLIUM (TOTAL)	2		< 10.00	< 5.00	< 10.00	< 10.00	< 10.00 |B	< 10.00	40.00
VANADIUM (TOTAL)	-		< 30.00	20.00	20.00	20.00	10.00 |B	10.50	< 30.00
ZINC (TOTAL)	-		< 30.00	10.00	30.00	10.00	18.30 |B	< 20.00 Up|B	< 30.00

All units reported as ug/liter

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE			UCD-19	UCD-19	UCD-19	UCD-19	UCD-19	UCD-19		UCD-19	
DATE			05/12/92	08/05/92	11/17/92	02/24/93	05/19/93	08/25/93		11/30/93	
QA	MCL ug/L										
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00	Jn|B	< 5.00	
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00		3.40	
BARIUM (TOTAL)	1000		70.00	50.00	80.00	70.00	80.00	71.90		83.70	
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00		< 1.00	
CADMIUM (TOTAL)	10		< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00		< 1.00	
CHROMIUM (TOTAL)	50		270.00	270.00	280.00	210.00	220.00	184.00		191.00	
CHROMIUM, HEXAVALENT (+6)	-		260.00	230.00	290.00	250.00	200.00	200.00		150.00	
COBALT (TOTAL)	-		< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	-		-	
COPPER (TOTAL)	1300	#	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	Jn|B	< 10.00	|B
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	4.60	Up|	< 2.00	|B
MERCURY (TOTAL)	2		1.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20		< 0.20	
MOLYBDENUM (TOTAL)	-		10.00	< 30.00	10.00	< 10.00	< 10.00	< 10.00	|B	< 10.00	|B
NICKEL (TOTAL)	100		20.00	< 30.00	10.00	10.00	< 10.00	< 20.00	Jn|B	< 20.00	|B
SELENIUM (TOTAL)	10		10.00	< 10.00	< 10.00	< 10.00	10.00	9.20		9.30	
SILVER (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	UJm|	< 10.00	
THALLIUM (TOTAL)	2		< 10.00	< 10.00	< 5.00	< 10.00	< 10.00	< 10.00	|B	< 10.00	
VANADIUM (TOTAL)	-		20.00	< 30.00	20.00	20.00	20.00	< 10.00	|B	11.40	
ZINC (TOTAL)	-		20.00	< 30.00	30.00	20.00	20.00	< 10.00	|B	< 20.00	Up|B

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L	UCD-20 02/19/92	UCD-20 05/19/92	UCD-20 05/19/92 DUPLICATE SAMPLE	UCD-20 08/05/92	UCD-20 11/17/92	UCD-20 02/24/93	UCD-20 05/19/93
ANTIMONY (TOTAL)	6	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000	110.00	90.00	80.00	110.00	100.00	90.00	90.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 1.00	2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50	80.00	30.00	50.00	90.00	70.00	40.00	40.00
CHROMIUM, HEXAVALENT (+6)	-	70.00	44.00	46.00	90.00	60.00	40.00	40.00
COBALT (TOTAL)	-	< 30.00	< 10.00	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00
COPPER (TOTAL)	1300 #	< 30.00	< 10.00	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00
LEAD (TOTAL)	50	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-	< 30.00	< 10.00	< 10.00	< 30.00	10.00	< 10.00	< 10.00
NICKEL (TOTAL)	100	< 30.00	< 10.00	< 10.00	< 30.00	10.00	10.00	< 10.00
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2	20.00	< 10.00	< 10.00	< 10.00	< 5.00	< 10.00	< 10.00
VANADIUM (TOTAL)	-	< 30.00	10.00	10.00	< 30.00	20.00	20.00	20.00
ZINC (TOTAL)	-	< 30.00	20.00	20.00	< 30.00	20.00	20.00	20.00

All units reported as ug/liter

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< = Constituent below detection limit. Detection limits may vary depending on interference by other sample constituents.

- = Parameter not analyzed.

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE		UCD-20	UCD-20	UCD-21	UCD-21	UCD-21	UCD-21	UCD-21
DATE		08/25/93	11/30/93	02/19/92	05/13/92	08/10/92	11/17/92	02/24/93
QA	MCL ug/L							
ANTIMONY (TOTAL)	6	< 5.00	< 5.00	10.00	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50	< 2.00	3.20	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000	86.50	99.50	130.00	100.00	120.00	140.00	130.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	2.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 1.00	< 1.00	< 1.00	< 2.00	< 2.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50	43.00	47.70	90.00	70.00	130.00	80.00	90.00
CHROMIUM, HEXAVALENT (+6)	-	42.00	47.00	60.00	60.00	210.00	60.00	60.00
COBALT (TOTAL)	-	-	-	< 30.00	< 10.00	< 30.00	< 10.00	< 10.00
COPPER (TOTAL)	1300 #	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00	< 30.00	< 10.00	< 10.00
LEAD (TOTAL)	50	4.60 Up|	< 2.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MERCURY (TOTAL)	2	< 0.20	< 0.20	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-	< 10.00	< 10.00 |B	< 30.00	10.00	< 30.00	< 10.00	10.00
NICKEL (TOTAL)	100	< 20.00 |B	< 20.00 |B	< 30.00	10.00	90.00	10.00	40.00
SELENIUM (TOTAL)	10	3.00	< 3.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50	< 10.00 UJm|	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2	< 10.00 |B	< 10.00	110.00	< 10.00	< 10.00	< 5.00	< 10.00
VANADIUM (TOTAL)	-	11.70 |B	11.40	< 30.00	10.00	< 30.00	20.00	20.00
ZINC (TOTAL)	-	< 10.00 |B	< 20.00 Up|B	< 30.00	20.00	< 30.00	20.00	20.00

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C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L	UCD-21 03/04/93	UCD-21 03/04/93 DUPLICATE SAMPLE	UCD-21 05/27/93	UCD-21 05/27/93 DUPLICATE SAMPLE	UCD-21 08/25/93	UCD-21 11/30/93	UCD-22 02/27/92
ANTIMONY (TOTAL)	6	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00 |B	< 5.00 |B	< 10.00
ARSENIC (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	2.90	< 10.00
BARIUM (TOTAL)	1000	90.00	120.00	120.00	140.00	112.00	127.00	60.00
BERYLLIUM (TOTAL)	4	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00
CHROMIUM (TOTAL)	50	70.00	90.00	100.00	90.00	55.50	62.20	< 30.00
CHROMIUM, HEXAVALENT (+6)	-	70.00	60.00	60.00	60.00	59.00	63.00	< 10.00
COBALT (TOTAL)	-	< 10.00	< 10.00	< 10.00	< 10.00	-	-	< 30.00
COPPER (TOTAL)	1300 #	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 30.00
LEAD (TOTAL)	50	< 3.00	< 3.00	< 3.00	< 3.00	4.60 Up|	< 2.00	< 3.00
MERCURY (TOTAL)	2	< 0.40	< 0.40	< 0.40	< 0.40	2.20	< 0.20	< 0.40
MOLYBDENUM (TOTAL)	-	< 10.00	< 10.00	20.00	< 10.00	< 10.00 |B	< 10.00 |B	< 30.00
NICKEL (TOTAL)	100	< 10.00	< 10.00	70.00	10.00	< 20.00 |B	< 20.00 |B	< 30.00
SELENIUM (TOTAL)	10	< 10.00	< 10.00	< 10.00	< 10.00	4.90 |B	4.30	< 10.00
SILVER (TOTAL)	50	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 UJm|	< 10.00	< 30.00
THALLIUM (TOTAL)	2	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00	< 10.00
VANADIUM (TOTAL)	-	< 10.00	10.00	10.00	20.00	< 10.00 |B	10.40	< 30.00
ZINC (TOTAL)	-	< 10.00	10.00	10.00	10.00	< 10.00 |B	< 20.00 Up|B	< 30.00

All units reported as ug/liter

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C = California State Action Level, Department of Health Services. * = Proposed MCL. - = no MCL. # = US EPA MCL.

TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-22 05/14/92	UCD-22 08/10/92	UCD-22 11/18/92	UCD-22 11/18/92 DUPLICATE SAMPLE	UCD-22 02/18/93	UCD-22 05/25/93	UCD-22 08/30/93	
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 5.00	
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	
BARIUM (TOTAL)	1000		50.00	50.00	50.00	50.00	60.00	60.00	69.20	
BERYLLIUM (TOTAL)	4		< 1.00	3.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	
CADMIUM (TOTAL)	10		< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	
CHROMIUM (TOTAL)	50		40.00	40.00	20.00	20.00	30.00	50.00	21.20	
CHROMIUM, HEXAVALENT (+6)	-		< 10.00	250.00	10.00	< 10.00	20.00	20.00	< 20.00	
COBALT (TOTAL)	-		10.00	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	-	
COPPER (TOTAL)	1300	#	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00	10.00	< 10.00	|B
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	10.50	
MERCURY (TOTAL)	2		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	
MOLYBDENUM (TOTAL)	-		10.00	< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	|B
NICKEL (TOTAL)	100		50.00	130.00	50.00	40.00	40.00	50.00	< 20.00	|B
SELENIUM (TOTAL)	10		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 3.00	
SILVER (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	20.00	< 10.00	
THALLIUM (TOTAL)	2		< 10.00	< 10.00	< 5.00	< 5.00	< 10.00	< 10.00	< 10.00	|B
VANADIUM (TOTAL)	-		< 10.00	< 30.00	10.00	< 10.00	20.00	10.00	< 10.00	|B
ZINC (TOTAL)	-		30.00	< 30.00	10.00	10.00	30.00	20.00	< 10.00	|B

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-22 11/30/93		UCD-23 02/18/92	UCD-23 05/14/92	UCD-23 08/10/92	UCD-23 11/18/92	UCD-23 11/18/92 DUPLICATE SAMPLE	UCD-23 02/24/93
ANTIMONY (TOTAL)	6		< 5.00	|B	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50		3.00		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000		61.70		60.00	60.00	80.00	80.00	70.00	80.00
BERYLLIUM (TOTAL)	4		< 1.00		< 1.00	< 1.00	2.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10		< 1.00		< 1.00	< 2.00	< 2.00	< 2.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50		< 10.00	|B	< 30.00	40.00	20.00	110.00	30.00	20.00
CHROMIUM, HEXAVALENT (+6)	-		< 20.00		< 10.00	< 10.00	170.00	20.00	20.00	10.00
COBALT (TOTAL)	-		-		< 30.00	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00
COPPER (TOTAL)	1300	#	< 10.00	|B	< 30.00	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00
LEAD (TOTAL)	50		< 2.00		< 3.00	< 3.00	< 3.00	< 3.00	< 3.00	< 3.00
MERCURY (TOTAL)	2		< 0.20		< 0.40	< 0.40	< 0.40	< 0.40	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-		< 10.00	|B	< 30.00	< 10.00	< 30.00	70.00	< 10.00	< 10.00
NICKEL (TOTAL)	100		< 20.00	|B	< 30.00	170.00	380.00	390.00	120.00	60.00
SELENIUM (TOTAL)	10		< 3.00		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50		< 10.00		< 30.00	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2		< 10.00		< 10.00	< 10.00	< 10.00	< 5.00	< 5.00	< 10.00
VANADIUM (TOTAL)	-		< 10.00	|B	< 30.00	< 10.00	< 30.00	20.00	20.00	20.00
ZINC (TOTAL)	-		< 20.00	Up|B	< 30.00	20.00	< 30.00	20.00	10.00	20.00

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-23 05/25/93	UCD-23 08/25/93	UCD-23 11/30/93	UCD-24 02/20/92	UCD-24 05/14/92	UCD-24 08/06/92	UCD-24 11/17/92
ANTIMONY (TOTAL)	6		< 10.00	< 5.00	< 5.00 |B	< 10.00	< 10.00	< 10.00	< 10.00
ARSENIC (TOTAL)	50		< 10.00	< 2.00	3.20	< 10.00	< 10.00	< 10.00	< 10.00
BARIUM (TOTAL)	1000		100.00	105.00	133.00	120.00	160.00	150.00	170.00
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10		< 2.00	< 1.00	< 1.00	< 1.00	< 2.00	< 2.00	< 2.00
CHROMIUM (TOTAL)	50		40.00	23.70	24.50	60.00	70.00	70.00	60.00
CHROMIUM, HEXAVALENT (+6)	-		20.00	23.00	24.00	30.00	30.00	80.00	50.00
COBALT (TOTAL)	-		< 10.00	-	-	< 30.00	10.00	< 30.00	< 10.00
COPPER (TOTAL)	1300	#	< 10.00	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00	< 30.00	< 10.00
LEAD (TOTAL)	50		3.00	< 2.00	< 2.00	< 3.00	< 3.00	< 3.00	< 3.00
MERCURY (TOTAL)	2		< 0.40	< 0.20	< 0.20	< 0.40	< 0.40	< 0.40	< 0.40
MOLYBDENUM (TOTAL)	-		10.00	< 10.00 |B	< 10.00 |B	< 30.00	< 10.00	< 30.00	< 10.00
NICKEL (TOTAL)	100		30.00	21.70	< 20.00 |B	< 30.00	10.00	< 30.00	10.00
SELENIUM (TOTAL)	10		< 10.00	< 3.00 |B	< 3.00	< 10.00	< 10.00	< 10.00	< 10.00
SILVER (TOTAL)	50		< 10.00	< 10.00 UJm|	< 10.00	< 30.00	< 10.00	< 10.00	< 10.00
THALLIUM (TOTAL)	2		< 10.00	< 10.00 |B	< 10.00	10.00	< 10.00	< 10.00	< 5.00
VANADIUM (TOTAL)	-		20.00	10.00	11.70	< 30.00	10.00	< 30.00	20.00
ZINC (TOTAL)	-		20.00	< 10.00 |B	< 20.00 Up|B	< 30.00	30.00	< 30.00	20.00

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TABLE A-2 (cont.)

ANNUAL WATER MONITORING REPORT - LEHR ER PROJECT

FEBRUARY 1992 TO DECEMBER 1993 - CHEMICAL ANALYSES OF GROUNDWATER SAMPLES

METALS

SAMPLE DATE QA	MCL ug/L		UCD-24 02/17/93	UCD-24 03/04/93	UCD-24 03/04/93 DUPLICATE SAMPLE	UCD-24 05/19/93	UCD-24 08/25/93	UCD-24 08/25/93 DUPLICATE SAMPLE	UCD-24 11/30/93
ANTIMONY (TOTAL)	6		< 10.00	< 10.00	< 10.00	< 10.00	< 5.00	< 5.00	< 5.00
ARSENIC (TOTAL)	50		< 10.00	< 10.00	< 10.00	< 10.00	< 2.00	< 2.00	3.10
BARIUM (TOTAL)	1000		180.00	60.00	90.00	200.00	181.00	180.00	202.00
BERYLLIUM (TOTAL)	4		< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00	< 1.00
CADMIUM (TOTAL)	10		< 2.00	< 2.00	< 2.00	< 2.00	< 1.00	< 1.00	< 1.00
CHROMIUM (TOTAL)	50		60.00	30.00	40.00	50.00	30.80	29.30	31.80
CHROMIUM, HEXAVALENT (+6)	-		40.00	40.00	40.00	30.00	31.00	33.00	33.00
COBALT (TOTAL)	-		< 10.00	< 10.00	< 10.00	< 10.00	-	-	-
COPPER (TOTAL)	1300	#	< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 10.00 |B
LEAD (TOTAL)	50		< 3.00	< 3.00	< 3.00	< 3.00	3.90 Up|	7.10 Up|	< 2.00
MERCURY (TOTAL)	2		< 0.40	< 0.40	< 0.40	< 0.40	< 0.20	< 0.20	< 0.20
MOLYBDENUM (TOTAL)	-		10.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 10.00 |B
NICKEL (TOTAL)	100		20.00	< 10.00	20.00	< 10.00	< 20.00 |B	< 20.00 |B	< 20.00 |B
SELENIUM (TOTAL)	10		< 10.00	< 10.00	< 10.00	< 10.00	3.60 |B	3.10 |B	< 3.00
SILVER (TOTAL)	50		< 10.00	10.00	10.00	< 10.00	< 10.00 UJm|	< 10.00 UJm|	< 10.00
THALLIUM (TOTAL)	2		< 10.00	< 10.00	< 10.00	< 10.00	< 10.00 |B	< 10.00 |B	< 10.00
VANADIUM (TOTAL)	-		30.00	< 10.00	< 10.00	20.00	11.60 |B	10.70 |B	12.00
ZINC (TOTAL)	-		60.00	10.00	20.00	20.00	< 10.00 |B	11.30 |B	< 20.00 Up|B

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