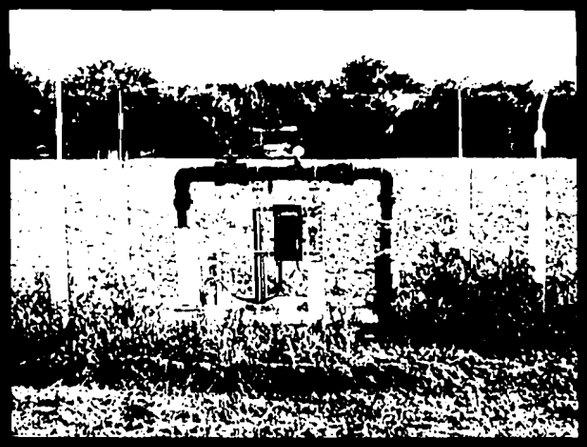
2000 Annual Groundwater Treatment System and Water Monitoring Report

for

Laboratory for Energy-related Health Research and South Campus Disposal Site



prepared by:

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Sacramento, California

for

Office of
Environmental Health & Safety
University of California
Davis, California

April 2001

URS

UNIVERSITY OF CALIFORNIA, DAVIS

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April 9, 2001

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Re: 2000 Annual Groundwater Treatment System and Water Monitoring Report

Dear Ms. Setian, Ms. Timm, Mr. Ross, and Ms. Kwok:

Enclosed please find one copy of the 2000 Annual Groundwater Treatment System and Water Monitoring Report for the LEHR/SCDS Site. This report presents treatment system influent and effluent, groundwater, storm water, and surface water monitoring data collected in 2000.

If you have any questions about the enclosed document, please call me at (530) 752-6041, or write me at the following address:

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One Shields Avenue
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Brian Oatman
LEHR/SCDS Project Manager

Attachments: 2000 Annual Groundwater Treatment System and Water Monitoring Report

cc: Susan Fields, DOE
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Notice: The undersigned is licensed by the State Board of Registration for Geologist and Geophysicists to practice geology in the State of California and has reviewed the attached report. This notice is being provided in compliance with Section 3066 of the Rules and Regulations of the State Board (Title 16 CCR, Chapter 29).

URS Corporation,

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2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT LEHR/SCDS ENVIRONMENTAL RESTORATION DAVIS, CALIFORNIA

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ACRONYMS AND ABBREVIATIONS

AOC	Administrative Order on Consent
CLP	USEPA Contract Laboratory Program
COCs	Constituents of Concern
CRDL	contract required detection limit
CVRWQCB	California Regional Water Quality Control Board, Central Valley Region
DDC	density-driven convection
DHS	California Department of Health Services
DQO	data quality objective
DTSC	California Environmental Protection Agency Department of Toxic Substances Control
EE/CA	engineering evaluation/cost analysis
EPA	United States Environmental Protection Agency (US EPA)
EW	extraction well
F	fall Quarter
FSO	full-scale operation
FSP	Final Draft Field Sampling Plan (Dames & Moore, 1998a)
GEL	General Engineering Laboratories, Inc.
HSU	hydrostratigraphic unit
IRA	Interim Remedial Action
IRIS	EPA Integrated Risk Information System
IW	injection well
LEHR	Laboratory for Energy-Related Health Research
LF-1	Landfill Unit #1 (storm water sampling location)
LF-3	Landfill Unit #3 (storm water sampling location)
LS-1	lift station (storm water sampling location)
LTPS	Land-Treatment Pilot Study
M	monthly
MCL	Federal/state maximum contaminant level (drinking water)
MDA	minimum detectable activity
μg/L	micrograms per liter
µS/cm	micro-Siemens per centimeter
mg/L	milligrams per liter
MOA	Memorandum of Agreement
MS/MSD	matrix spike/matrix spike duplicate
MSLD	mean sea level datum
MV	millivolts
NA	not analyzed
ND	not detected
NR	not required
PARCC	precision, accuracy, representativeness, completeness, and comparability
PCD	Putah Creek Downstream (surface water sampling location)

ACRONYMS AND ABBREVIATIONS (Cont'd)

PCU	Putah Creek Upstream (surface water-sampling location)
PC2	Putah Creek 2 (surface water sampling location, 2 miles downstream)
PRG	Federal/state preliminary remediation goal
RAO	Remedial action objective
pCi/L	picocuries per liter (radioactivity)
QA	quality assurance
QAPjP	quality assurance project plan
QC	quality control
RCRA	Resource Conservation and Recovery Act
RI/FS	Remedial Investigation/Feasibility Study
RPD	relative percent difference
RPM	Remedial Project Managers
SCDS	South Campus Disposal Site
Sp	spring quarter
STL	Severn-Trent Laboratories
STPO	UC Davis sewage treatment plant outfall (surface water sampling location)
Su	summer quarter
SVOC	semivolatile organic compound
TDS	total-dissolved solids
TIC	tentatively identified compound
TOC	total organic carbon
UC Davis	University of California, Davis
US DOE	United States Department of Energy
US EPA	United States Environmental Protection Agency
USGS	United States Geological Survey
VOC	volatile organic compound
W	winter Quarter
WDR	Waste Discharge Requirement

2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT LEHR/SCDS ENVIRONMENTAL RESTORATION DAVIS, CALIFORNIA

0.0 EXECUTIVE SUMMARY

This report presents the results of the 2000 annual groundwater treatment system and water monitoring programs conducted at the former Laboratory for Energy-related Health Research facility and South Campus Disposal Site (LEHR/SCDS) (Site). The Site is located at the University of California, Davis (UC Davis) campus.

The groundwater treatment system program is for an Interim Remedial Action (IRA) at the Site started in May 1998 to minimize the offsite migration of volatile organic compounds (VOCs), primarily chloroform. Monitoring for this program in the past and for the first part of 2000 followed the requirements of Waste Discharge Requirements (WDRs) Order No. 97-223 issued by the Central Valley Regional Water Quality Control Board (CVRWQCB). Based on changes to the IRA program, the CVRWQCB modified Order No. 97-223 with Order No. 5-00-140. These changes were implemented beginning with the fall sampling event. The U.S. Environmental Protection Agency (USEPA) adopted WDR Order No. 5-00-140 in its Addendum to Statement of Work for Removal Actions and Mitigation/ Repair, Administrative Order of Consent (AOC) No. 99-16. The overall water monitoring program for the Site follows the requirements issued in the EPAs AOC No. 99-16.

The combined programs include groundwater extraction, treatment, sampling and analysis, surface water sampling and analysis in Putah Creek, and on-Site storm water sampling and analysis. In calendar -year 2000 programs were expanded and improved from the 1999 program.

Changes to the Monitoring Programs in 2000

During 2000 the IRA monitoring program was modified to accommodate a Land Treatment Pilot Study which was initiated in July. This Land Treatment Pilot Study required the modification of the existing WDRs and AOC. These changes to the IRA monitoring program included the following additions:

- The IRA effluent would now be monitored for metals and general inorganic chemicals in addition to the previous analytical program; and,
- Additional monitoring wells would be sampled and analyzed for metals and general inorganic chemicals.

In 2000, the site-wide program was revised based on recommendations provided in the 1998-Annual-Water Monitoring Report, that were discussed with the regulatory-agency Remedial Project Managers (RPMs) in a September 8, 1999 meeting. The changes in the monitoring plan were largely for the purpose of focusing on the primary COCs for the Site, which are: chloroform; chromium; nitrate; total-dissolved solids (TDS); and the radionuclides tritium and carbon-14.

Groundwater IRA Treatment System Results

The Groundwater IRA treatment system operated for 82% of the time in 2000. The flow rate from extraction well EW2-1 ranged from 100 gpm in winter to 170 gpm in summer. Approximately 24.6 pounds of chloroform were removed from groundwater during 2000.

Twenty shutdowns occurred during 2000, including manual shutdowns for system maintenance and automatic shutdowns due to system problems. Just over half of the shutdowns were the result of high water levels in the injection well, due to probable scaling and attendant loss of well capacity. Rehabilitation of the injection well to remove carbonate scaling was conducted from December 27 through December 29, 2000.

Chloroform and other VOCs, other than possible laboratory contaminants, were not reported above the contract-required detection limit (CRDL) in effluent samples collected during 2000. Tritium was reported in one influent sample at 406 ± 146 pCi/L. This result is considered anomalous. Carbon-14 was reported four times in influent samples ranging from 12.7 ± 4.64 to 23.2 ± 7.15 pCi/L.

Treatment system effluent exceeded discharge limits for TDS and nitrate-N during most of 2000. It is important to note that identification of these unexpected results, and the development of appropriate responses, is part of the process of the IRA in leading toward final remedies. A Land Treatment Pilot Study has been undertaken by UC Davis to develop enhancements to the IRA system in response to the concentrations of nitrate-N and TDS observed in IRA effluent.

Water Monitoring Results

Monitoring results from HSU-1, HSU-2 and HSU-4 groundwater, storm water and surface water suggest the following:

- Concentrations of chloroform decreased slightly in UCD1-12 in 2000 compared to 1999. Much lower concentrations of chloroform in the nearest downgradient wells is indicative that there is little lateral movement of constituents within HSU-1. Although not presented in this report, the operation of the density driven convection (DDC) pilot system in December 2000, has significantly decreased the concentrations of chloroform in this well to below 1,000 µg/L in less than three months of operation. These results will be discussed in the letter report for this system due May 2001.
- A long-term downward trend of carbon-14 and tritium concentrations in UCD-13 continued in 2000.
- With the exception of nitrate-N in UCD1-12, which continued a slight upward trend in 2000, concentrations of nitrate-N, TDS and chromium in HSU-1 remain relatively unchanged from previous results (Figures 18 through 20).
- The groundwater IRA program is functioning as anticipated by containing the extent of chloroform impacts. This containment is shown laterally by the decreasing chloroform concentrations in wells UCD2-26, UCD2-31, UCD2-32 and UCD2-39 and downgradient by the decreasing concentrations in wells UCD2-30, UCD2-32, and UCD2-40.
- Concentrations of chloroform in UCD2-29, immediately upgradient from the extraction system, continue to show an overall increasing trend since initiation of the Groundwater IRA. Concentrations in this well have remained above 200 µg/L. This trend is indicative of the success of the Groundwater IRA in capturing the VOC plume. UCD2-29 is the only Site monitoring well with chloroform levels greater than the drinking-water regulatory threshold for trihalomethanes.
- Concentrations of tritium and carbon-14 remain stable in UCD2-14, while a downward trend continues for these constituents in nearby well UCD1-13.

- Concentrations of nitrate-N and chromium continue to increase within the capture zone of the IRA-treatment system. Tritium continues to show sporadic detections within this zone.
- Concentrations of chloroform have decreased downgradient of abandoned irrigation well 22N, suspected of formerly acting as a conduit for VOCs from HSU-2 to HSU-4. This decrease is most notable in UCD4-43, which is immediately downgradient of the former well, where chloroform concentrations decreased during 2000 to less than those in the HSU-4 background well (UCD4-44). Chloroform concentrations in downgradient well UCD4-47, which was installed in May 2000, closely match those of the HSU-4 background well.
- Comparison of maximum concentrations of detected constituents in surface water to risk-conservative regulatory standards indicates that only one analyte, hexavalent chromium, exceeded a threshold when compared with maximum detections over the last four years.

Recommendations

The IRA system monitoring results indicate that the VOC plume is being captured and off-Site migration minimized. Chloroform concentrations at the toe of the plume are declining, and chloroform is being removed at a rate of approximately 24 pounds per year (based on 32 months of full-scale operation data).

Increasing concentrations in TDS and nitrate-N within the capture zone indicate the need for short-term and potentially long-term IRA enhancements. Based on these needs, the IRA monitoring program should continue during 2001 at the level established by the WDR Order No. 5-00-140 and AOC #99-16, together with the groundwater monitoring program proposed for the Land Treatment Pilot Study.

A significant refocusing of the groundwater monitoring program to address COCs downgradient of source areas was fully implemented during 2000. This program was designed with the recognition that the current groundwater monitoring network meets the objectives of the RI/FS. During 2001, the monitoring program will continue as detailed in Table 11 of this report.

An assessment of the existing storm water and surface water monitoring programs suggests that modifications of these programs may be appropriate. It is recommended that an interpretive discussion of these programs to date and recommendations for future actions be presented in a meeting with the RPMs at a future time.

Site Information Sources

For more information about the Site restoration program, you may contact:

Brian Oatman – UC Davis Project Manager	(530) 752-6041
Susan Fields – DOE Project Manager	(510) 637-1608

Documents relating to the Site investigation and restoration may be found at the following locations:

UC Davis Shields Library, Reserve Desk
University of California
Davis, California
(530) 752-1203

Yolo County Public Library, Davis Branch
Reference Desk
315 14th Street
Davis, California
(530) 756-2332

Additional information is also available on the Internet at:

www.ehs.ucdavis.edu/envrprot/lehr.html

2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT LEHR/SCDS ENVIRONMENTAL RESTORATION DAVIS, CALIFORNIA

1.0 INTRODUCTION

This report presents the results of the 2000 annual groundwater treatment system and water monitoring programs conducted at the former Laboratory for Energy-related Health Research facility and South Campus Disposal Site (LEHR/SCDS) (Site). The Site is located at the University of California, Davis (UC Davis) campus (Figure 1).

The groundwater treatment system program is for an Interim Remedial Action (IRA) at the Site started in March 1998 to minimize the offsite migration of volatile organic compounds (VOCs), primarily chloroform. Monitoring for this program in the past and for the first part of 2000 followed the requirements of Waste Discharge Requirements (WDRs) Order No. 97-223 issued by the Central Valley Regional Water Quality Control Board (CVRWQCB). Based on changes to the IRA program (see Section 3.1), the CVRWQCB modified Order No. 97-223 with Order No. 5-00-140 (CVRWQCB, June 2000). These changes were implemented beginning with the fall sampling event. The U.S. Environmental Protection Agency (USEPA) adopted WDR Order No. 5-00-140 in its Addendum to Statement of Work for Removal Actions and Mitigation/ Repair, Administrative Order of Consent (AOC) No. 99-16 (USEPA, June 2000).

The overall water monitoring program for the Site follows the requirements issued in the EPAs AOC No. 99-16 (USEPA, 1999). Sampling and analytical procedures for both elements are performed in accordance with the Final Revised Field Sampling Plan (FSP) (Dames & Moore, 1998a) and the Final Revised Quality Assurance Project Plan (QAPjP) (Dames & Moore, 1998b).

1.1 PURPOSE AND OBJECTIVES

The purpose of the Groundwater IRA monitoring program is to evaluate the effectiveness and progress of the groundwater-extraction and treatment programs in minimizing off-Site migration of VOCs prior to completion of the Remedial Investigation/Feasibility Study (RI/FS) and final remedial action(s). The purpose of the overall water monitoring program is to assess the presence or absence of constituents of concern (COCs) in groundwater, surface water, and storm water, and track changes in COCs over time. The monitoring programs specified in the above documents are based on goals developed as part of the RI/FS Work Plan (U. S. Department of Energy, 1994) for the Site. These goals include the following:

- provide regular groundwater monitoring data to assess impacts to groundwater due to the presence of former waste disposal areas at the Site;
- provide seasonal storm water and surface water runoff monitoring data to evaluate if chemical releases from the Site are occurring; and
- support development and conceptual design criteria for other interim and final soil and groundwater remediation.

The objectives of this Annual Report are as follows:

- present and evaluate calendar-year-2000 monitoring data for Groundwater IRA treatment system influent and effluent, groundwater, surface water, and storm water;

- evaluate the effectiveness of the Groundwater IRA treatment system in capturing and treating COCs in Hydrostratigraphic Unit-2 (HSU-2) groundwater, and minimizing off-Site migration during calender-year-2000;
- identify data gaps and deficiencies, and propose changes to the monitoring programs, if appropriate; and
- provide data to support the development and implementation of soil- and groundwater-remediation strategies.

1.2 PROJECT OVERVIEW

The Site is located in Solano County, California, approximately 1.5 miles south of the main UC Davis campus and the City of Davis (Figure 1). The Site encompasses approximately 15 acres and is bounded by UC Davis research and agricultural facilities, private farmland, and the South Fork of Putah Creek. The Site includes active research facilities and offices. It also includes former landfills, subsurface disposal areas, and waste treatment systems, where there have been releases of hazardous substances, and which are the focus of the investigative and remediation programs.

Responsibility for investigation and remediation of the Site is divided between the US Department of Energy (US DOE) and UC Davis by investigation area (Figure 2). As documented in the Memorandum of Agreement (MOA), UC Davis has taken the lead role in groundwater investigation and remediation. UC Davis operates and monitors the Groundwater IRA-treatment system, which began full-scale operation (FSO) on May 11, 1998. UC Davis is also responsible for the quarterly-groundwater monitoring and seasonal assessment of surface water and storm water. The primary COCs for the Site include chloroform and other volatile organic compounds (VOCs); hexavalent chromium; nitrate; total-dissolved solids (TDS); and the radionuclides tritium and carbon-14.

1.3 ORGANIZATION OF REPORT

This report is organized as follows:

- Section 0.0 of this report is the Executive Summary.
- Section 1.0 is the Introduction, including descriptions of the purposes and objectives, and a project overview.
- Section 2.0 presents the hydrogeological setting of the Site.
- Section 3.0 provides a discussion of the treatment system and water monitoring programs conducted during 2000.
- Section 4.0 contains a presentation of the results of monitoring during 2000.
- Section 5.0 includes a discussion of the results and assessment of the monitoring program
- Section 6.0 provides conclusions and recommendations for monitoring during 2001.
- Section 7.0 includes references.

2.0 HYDROGEOLGY

The hydrogeology in the vicinity of the LEHR Site was last characterized in the 1997 Annual Water Monitoring Report (Dames & Moore, 1998c). Since submittal of this document, numerous activities have been completed further assessing the hydrogeology including the installation of additional wells and the performance of aquifer tests. This section summarizes the hydrogeology at the LEHR Site and presents an updated interpretation based on recently completed tasks as well as data from a 1994 geophysical survey completed at the Site that has not previously been discussed as part of this interpretation.

2.1 REGIONAL SETTING

The LEHR Site and surrounding area are located on the geomorphic unit termed "low-alluvial plains and fans" (California Department of Water Resources (DWR), 1978), specifically the Putah Plain. This surface represents distal portions of alluvial fan deposits associated with Putah Creek that are referred to as the Putah Creek Fan (Mann, 1992). Sediments that form these alluvial fan deposits consist primarily of silts and clays with coarse-grained sediments occurring locally. The Putah Creek Fan was formed by a creek that changed course many times throughout this area. The sands and gravels were deposited during high velocity flows at times of floods. Outside the ribbon-like strips of coarse channel deposits, lower velocity waters deposited silts and clays. The age of these deposits ranges from late Pleistocene to Recent. The thickness of the alluvial fan deposits is reported to be between 140 feet (Mann, 1992) and 180 feet (DWR, 1978).

Underlying the Putah Creek Fan is the Plio-Pleistocene Tehama Formation that was eroded prior to the deposition of the overlying alluvial material (Mann, 1992). The Tehama Formation consists of fine-grained sands and silts with discontinuous lenses of coarse sand and gravels. This unit is thought to be coeval with the Laguna Formation located on the east side of the Sacramento Valley.

2.2 SITE STRATIGRAPHY

The subsurface stratigraphy for the LEHR Site is described from the geologic well logs, CPT logs, and the transient electromagnetic (TEM) survey performed at the Site in 1995 (Dames & Moore, 1995). Copies of the geologic boring and CPT logs have been presented in several reports, most of which are in the Phase II Site Investigation (Dames & Moore, 1993). The maximum depth penetrated during the drilling of soil borings is 254 feet below mean sea level (299 feet below ground surface) in the soil boring drilled for monitoring well UCD4-47. The maximum depth resolved during the TEM survey was approximately 350 feet below mean sea level at several sounding points. The locations of the monitoring well borings and TEM sounding points are shown on Figure 4.

Figures 6a and 6b represent the hydrogeologic cross sections constructed using the geologic well logs and TEM sounding points. Geologic well logs produced during 2000 include UCD2-46 and UCD4-47 (see Figure 4). The cross section constructed on Figure 6a includes these two wells. As seen on the cross sections, the stratigraphic data collected during recent investigations supports the hydrogeologic model developed in previous reports. A summary of the stratigraphy is presented in the following paragraphs.

Both the Putah Creek Fan and Tehama Formations were observed within soil borings and the TEM points completed at the Site. Table 1 summarizes the thickness of these units (as well as designated hydrostratigraphic units, see Section 2.3) as observed during drilling and completion of the TEM survey. The surface unit identified at all soil boring and TEM points is the Putah Creek Fan. Thirteen soil borings and 35 TEM points fully penetrated this unit. At these locations, the Putah Creek Fan ranges in thickness from 67 feet (TEM-17) to 205 feet (TEM-29) and is composed of two units:

- an upper unit consisting of interbedded silts, clays, fine sands, and some coarse sand and gravel deposits; and,
- a lower unit consisting predominantly of coarse sands and gravels.

Where fully penetrated, the upper unit ranged in thickness from 47 feet (TEM-17) to 124 feet (TEM-29) and the lower unit ranged in thickness from 20 feet (UCD4-47, TEM-14, TEM-17) to 81 feet (TEM-29).

Directly underlying the Putah Creek Fan is the Tehama Formation. As shown on the hydrostratigraphic cross sections, the depth to the contact between these two formations varies across the site (see Table 1) consistent with the erosion of the Tehama formation from stream channels during the depositional period of the Putah Creek Fan. This "channel-like" feature to this contact is distinctively shown on Figure 6b.

The Tehama Formation was only partially penetrated by thirteen soil borings and 35 TEM points. Depth of penetration ranged from 0.5 feet (UCD2-40) to 279 feet (TEM-17). The maximum depth observed during drilling of soil borings was 196 feet for the soil boring completed at UCD4-33. Three units were recognized within the Tehama Formation:

- an upper unit consisting of clays and silts with some small lenses of sand and gravel;
- an intermediate unit consisting of sands and gravel with silt and clay; and
- a lower unit consisting of clay and silt.

Where fully penetrated, the upper unit ranges in thickness from 47 feet (TEM-21) to 236 feet (TEM-17) and the intermediate unit ranges in thickness from 27 feet (UCD4-41) to 106 feet (TEM-18). Of the five soil borings that penetrated these two units, the upper unit ranges in thickness from 119 feet (UCD4-44) to 147 feet (UCD4-41) and the intermediate unit ranges in thickness from 27 feet (UCD4-41) to greater than 52 feet (UCD4-33). The lower unit has only been partially penetrated ranging in depth from 5 feet (UCD4-47) to 49 feet (TEM-25).

2.3 SITE HYDROGEOLOGY

Five hydrostratigraphic units have been defined at the Site based on drilling and geophysical surveys completed since 1987. In descending order, the units are HSU-1, HSU-2, HSU-3, HSU-4, and an unnamed aquitard. For the purposes of this report, HSU-1 includes the unsaturated material (vadose zone) from the surface to first encountered groundwater.

Figures 6a and 6b represent generalized hydrostratigraphic cross sections. As seen on these figures, HSU-1 and HSU-2 form the upper and lower units, respectively, of the Putah Creek Fan and HSU-3, HSU-4, and the unnamed aquitard form the upper, intermediate, and lower units, respectively, of the Tehama Formation. Sub-units within each of these units were distinguished based on relative permeabilities. These sub-units, from lower to higher permeabilities, are as follows:

- clayey silts to silty clays;
- silt with some sand and clay;
- fine grained silty sand;
- fine to coarse grained sand; and
- coarse grained sandy gravel.

As shown on the cross sections, HSU-2 and HSU-4 are composed of the coarser gravel deposits and represent aquifers that are used as a source of water in the vicinity of the LEHR site. As reported by Mann (1992), the lower unit of the Putah Creek Fan (HSU-2) is very permeable whereby wells completed in this unit have high specific capacities. The average hydraulic conductivity (K) value calculated for this unit from the constant rate pumping test conducted prior to startup of the IRA (Dames & Moore, 1997) is 3.6×10^{-3} meters per second (m/s), consistent with a coarse sand to gravel unit. Mann (1992) also reported that wells in the area completed within the gravel unit of the Tehama Formation (HSU-4) have lower specific capacities than those completed within HSU-2.

In contrast with the HSU-2 and HSU-4 coarse material, HSU-1, HSU-3, and the unnamed aquitard are composed predominantly of fined grained silts and clays. Several wells have been completed within HSU-1, all of which indicate low permeabilities as demonstrated by low flow rates during purging. The results of a constant rate pumping test within this unit (Dames & Moore, 1999) calculated a K value between 9.9×10^{-7} m/s to 1.2×10^{-6} m/s. These K values are consistent with a silt to silty clay unit.

HSU-3 directly underlies HSU-2 and represents a thick sequence of silts and clays within the Tehama Formation separating the HSU-2 aquifer from the HSU-4 aquifer. Samples of these materials collected during the drilling of soil borings at the Site indicated that the moisture content of these materials was lower than the plastic limit. This condition supports a very low permeability of this unit and strongly suggests that HSU-2 and HSU-4 are not hydraulically connected. It is also important to emphasize that the contact between HSU-2 and HSU-3 is an erosional contact between the Putah Creek Fan and Tehama Formation. As such, the gravel unit of HSU-2 does not interfinger with units of the underlying HSU-3 material that, if present, could create potential migration pathways. Although HSU-3 does contain small zones of sand and gravel, as shown on Figures 6a and 6b, these materials are highly localized and discontinuous. The lack of hydraulic connection between HSU-2 and HSU-4 is also supported by the hydrographs for the well pair UCD2-32 and UCD4-42 (Figure 13). As seen in this figure, the response to pumping within the HSU-4 well is significantly different than the response in the HSU-2 well. A more detailed discussion of vertical gradients is presented in Section 4.3. The clays and silt of the unnamed aquitard below HSU-4 is similar in appearance to those in HSU-3.

3.0 YEAR 2000 GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING PROGRAMS

This Section describes the monthly Groundwater IRA monitoring program, and the site-wide quarterly and seasonal water monitoring program. The combined programs include groundwater extraction, treatment, sampling and analysis, surface water sampling and analysis in Putah Creek (Figures 2 - 4), and on-site storm water sampling and analysis. In calendar -year 2000 programs were expanded and improved from the 1999 program.

The IRA monitoring program was modified in 2000 to accommodate a Land Treatment Pilot Study initiated in July (Montgomery Watson, 2000). This Land Treatment Pilot Study required the modification of the existing WDRs and AOC discussed in Section 1.0.

In December 2000, a pilot test was initiated in the vicinity of UCD1-12 utilizing a density-driven convection (DDC) system for source removal of chloroform and other VOCs. Although initial indications are that the DDC system is effective, recommendations for monitoring to assess the effectiveness of the DDC system will be presented in the pilot-test evaluation report, which is scheduled for May 2001.

In 2000, the site-wide program was revised based on recommendations provided in the 1998-Annual-Water Monitoring Report (Dames & Moore, 1999), that were discussed with the regulatory-agency Remedial Project Managers (RPMs) in a September 8, 1999 meeting. The site-wide program was revised as described in a letter from UC Davis to the RPMs (UC Davis, November 22, 1999).

A general plan and maps of the groundwater treatment system are presented as Figures 3 through 5. Construction details for monitoring wells are shown in Table 4.

3.1 GROUNDWATER IRA MONITORING PROGRAM

On September 30, 1999 the CVRWQCB requested that UC Davis provide a schedule and a corrective action plan to limit re-injection of effluent that exceeded WDRs (Waste Discharge Order 97-223) for total-dissolved solids(TDS) and nitrate (NO_3-N). UC Davis responded on October 29, 1999 by providing a schedule and implementation plan, followed by a Groundwater IRA Treatment/Discharge Options Report (Dames & Moore, February 2000) and a Land Treatment Pilot Study Work Plan (Montgomery Watson, July 2000). The Land Treatment Pilot Study Work Plan proposed a pilot test using system effluent for irrigation of pastures and blending water with lower TDS and nitrate concentrations with system effluent prior to injection. The modified 2000-Groundwater IRA monitoring program requirements are summarized in Table 2.

The revised monitoring program for the IRA was similar to the existing program conducted in 1998 and 1999, with the following two additions:

1. The IRA effluent would now be monitored for metals and general inorganic chemicals in addition to the previous analytical program; and,
2. Additional monitoring wells would be sampled and analyzed for metals and general inorganic chemicals.

Analyses of IRA-effluent samples for sulfate, chloride, and the suite of metals listed in Table 1 (footnote 1) were conducted for four months during 2000 to provide baseline data prior to initiation of the Land Treatment Pilot Study. A detailed breakdown of treatment system sampling and analyses conducted during 2000 is included in Table 5.

Samples were shipped the day they were obtained for overnight delivery to General Engineering Laboratories (GEL) in Charleston, South Carolina. Immediately upon receipt of the sample shipment, the laboratory documented the condition of the sample containers on the chain-of-custody forms and acknowledged receipt by faxing a copy of the chain-of-custody form to the task manager. Weekly samples for TDS and nitrate-N analyses were hand delivered to Severn-Trent Laboratories (STL) in West Sacramento, California.

3.2 WATER MONITORING PROGRAM

This section presents a discussion of the 2000-quarterly-groundwater monitoring program and the seasonal surface and storm water monitoring programs. A detailed discussion of sampling methods and standard operating procedures (SOPs) is presented in the FSP (Dames & Moore, 1998a).

During monitoring activities, groundwater, surface water, and storm water samples for organic, inorganic, and radionuclide analyses were shipped for overnight delivery to GEL as described above. Surface and storm water samples for aquatic toxicity analyses were hand-delivered to the Aquatic Toxicology Laboratory on the UC Davis campus.

3.2.1 Groundwater Monitoring

Quarterly and annual-groundwater monitoring during 2000 was based primarily on the groundwater monitoring parameters and schedule developed in a groundwater monitoring working session held with the RPMs on September 8, 1999. The resulting revised groundwater monitoring-well network was presented in a letter prepared by UC Davis dated November 22, 1999. Portions of this plan were subsequently incorporated in revised WDR and AOC (Section 1.0). The changes in the monitoring plan were largely for the purpose of focusing on the primary COCs for the Site, which are: chloroform; chromium; nitrate; total-dissolved solids (TDS); and the radionuclides tritium and carbon-14. Table 3 summarizes these groundwater monitoring requirements for the water monitoring program.

Four monitoring wells installed during 1999 and 2000 were sampled quarterly thereafter as required for new wells by the AOC. The objectives of the new monitoring-well installations are as follows:

1. UCD4-44 was installed in April 1999 adjacent to UCD1-28 and UCD2-29 to monitor HSU-4 groundwater conditions in the vicinity of extraction well EW2-1, and upgradient of former irrigation well 22N, suspected as having been a conduit for contaminants from HSU-2 into HSU-4. Seven quarters of monitoring have been completed for this well.
2. UCD2-45 was installed in November 1999 off-site to evaluate groundwater conditions in HSU-2 downgradient of LFU #3. This well has been monitored for five quarters.
3. UCD2-46 was installed off-site in May 2000 approximately 4,000 feet downgradient of EW2-1 to evaluate groundwater conditions, particularly with respect to chloroform, adjacent to irrigation well 22K. Chloroform has been reported near the contract-required detection limit (CRDL) in irrigation well 22K, which is screened across both HSU-4 and HSU-2. Three quarters of monitoring have been completed for this well.
4. UCD4-47 was installed in May 2000 approximately 3,200 feet downgradient of source areas, and 2,000 feet downgradient of EW2-1. UCD4-47 was installed adjacent to former irrigation well 22N, which may have previously functioned as a conduit for chloroform to HSU-4, to evaluate the effectiveness of eliminating that potential conduit. This well has been monitored for three quarters.

The year-2000 groundwater monitoring program consisted of collecting 213 samples, including 18 duplicates, from 30 monitoring wells in HSU-1, HSU-2, and HSU-4. Water levels were measured monthly in 43 monitoring wells. Table 1 presents monitoring well construction details. Table 5 defines the specific analytes that were monitored at each location in 2000. Table 6 presents the analytical-sampling methods. Figure 4 presents monitoring-well locations.

3.2.2 Storm-Water Monitoring

The 2000 storm water monitoring program consisted of collecting a total of six samples (including duplicate sample) for each sampling event from four storm water-runoff locations, shown on Figure 5. Table 5 includes the specific analytes for each storm water location. In 2000, grab samples were collected during two rain events, in the winter (January 24, 2000) and fall (October 10, 2000) quarters. The fall samples represent the first-flush sample of the 2000/2001 rainy season. The winter samples represent those during the 1999/2000 rainy season.

3.2.3 Surface Water Monitoring

The 2000 surface water monitoring program consisted of collecting a total of six samples (including duplicate) for each sampling event from three surface water-sampling locations along the South Fork of Putah Creek. Putah Creek runs west to east just south of the Site. Table 5 defines the specific analytes for each surface water location in 2000. Figure 4 presents surface water-sample locations along Putah Creek upstream and downstream. In 2000, grab samples were collected during two rain events, in the winter and fall quarters, using SOPs described in the FSP (Dames & Moore, 1998a).

3.3 CHANGES TO THE MONITORING PROGRAM IN 2000

The revised Site-wide Groundwater Monitoring Program was fully implemented during 2000. This program was initiated by recommendations made in the 1998 Annual Water Monitoring Report (Dames & Moore, 1999). The program was refined during the RPM working session conducted on September 8, 1999 and presented in a letter from UC Davis on November 22, 1999 (Appendix F).

The revised program was based on an examination of a conceptual site model, constructed from ten years of monitoring data. Significant reductions were made in HSU-1 monitoring locations and frequency, based on the completion of groundwater characterization of source areas. Changes in the monitoring analyte list for both HSU-1 and HSU-2 were made, based on the long-term-monitoring history of the Site to help focus on the established COCs. The revised program is reflected in Tables 2 and 3 shown above in this section.

Additional changes implemented during calendar year 2000 were made to accommodate the Land Treatment Pilot Study (LTPS) and the pilot test for the DDC system. These changes are described in Section 3.2.1, and included monthly monitoring of wells in the vicinity of the horse pastures, where the LTPS will be conducted. Initiation of land treatment is currently planned for Spring 2001. Further assessment of the monitoring program for the DDC system will be presented in a letter report due May 2001.

4.0 RESULTS

This section presents the results of sampling and operational data collected for the 2000 groundwater treatment system and water monitoring programs. Complete tables of analytical data collected in 2000 are provided in Appendix A and Appendix B. A quality assurance and quality control summary for the data presented in Appendices A and B is provided as Appendix C. Results for the 2000 monitoring programs include operational data for the treatment system, horizontal and vertical groundwater gradients, and analytical data for treatment system influent and effluent, groundwater (HSU-1, HSU-2, and HSU-4), storm water, and surface water.

4.1 GROUNDWATER IRA SYSTEM OPERATIONS

The Groundwater Interim Removal Action Treatment System operated 7,261 hours out of 8,784 possible hours during 2000, or 82% of the time. Appendix A presents a log of system operation, including pumping rates and sampling times. Twenty shutdowns occurred during 2000, including four manual shutdowns for system maintenance, five automatic shutdowns due to system electrical problems or power outages, and eleven automatic shutdowns due to high water levels in the injection well. The high water levels were due to probable scaling and attendant loss of well capacity. Rehabilitation of the injection well to remove carbonate scaling was conducted from December 27 through December 29, 2000.

During 2000, the pumping rate from extraction well EW2-1 varied from 100 gallons per minute (gpm) in winter to 170 gpm in summer. Over 215,000,000 gallons of groundwater were extracted in 2000, removing approximately 24.6 pounds of chloroform, based on monthly influent sample results and flow rates. A graph showing cumulative chloroform mass removal is included as Figure 7.

4.2 GROUNDWATER IRA SYSTEM MONITORING RESULTS

During 2000, groundwater IRA system influent water samples were analyzed for VOCs, tritium, carbon-14, and total organic carbon (TOC). Effluent samples were analyzed for VOCs, total chromium, hexavalent chromium and nitrate (as N). Influent and effluent samples were monitored in the field for pH, EC, temperature and turbidity. Analytical results are tabulated in Appendix A. Graphs showing trends in concentration are presented as Figures 8 and 9.

Analytical results for constituents reported above the contract required detection limit (CRDL) are summarized below, with complete results in Appendix A.

- Chloroform concentrations in influent samples ranged from 21.7 to 82.2 µg/L. Chloroform was reported above the CRDL in one effluent sample, at 0.55 µg/L in May 2000. This result slightly exceeded the limit of 0.5 µg/L.
- Other VOCs detected above the CRDL in influent samples included 1,1 dichloroethane, 1,2-dichloroethane, and 1,2 dichloropropane, ranging from 2.51 to 2.95 µg/L. These results are consistent with monitoring well results, where these VOCs as well as chloroform were detected in some wells.
- Methylene chloride was reported in both the influent (value) and effluent (value) samples for May 2000. These methylene chloride results are presumed to be the result of non-traceable laboratory contamination, since methylene chloride was not reported in any subsequent treatment plant samples.

- Acetone was reported in the June 2000 effluent sample at 5.3 µg/L. Acetone has not been historically detected in treatment plant samples and this result is considered to be caused by non-traceable laboratory contamination.
- Total chromium and hexavalent chromium concentrations in effluent are similar and consistent with other HSU-2 wells, ranging from 23.8 to 31.9 µg/L. These results are all below the daily discharge limit of 50 µg/L and the monthly limit of 32 µg/L. Due to the consistency of total chromium vs. hexavalent chromium results, hexavalent chromium was eliminated from the Groundwater IRA monitoring program in August 2000. This is consistent with Site monitor well sampling, where total chromium results have proven to be essentially the same as hexavalent chromium results.
- Nitrate-N results in effluent ranged from 2.49 to 11.3 mg/L. The daily discharge limit for nitrate is 10 mg/L and the monthly average limit is 7.7 mg/L. During 2000, Nitrate-N results showed higher concentrations in the spring and summer and lower concentrations in the fall and winter.
- TDS concentrations in effluent ranged form 516 to 571 mg/L. The daily maximum discharge limit for TDS is 500 mg/L, and the monthly average limit is 485 mg/L. TDS results seem to show a seasonal variation with higher results in the spring and summer and lower concentrations in the fall and winter.
- Tritium was reported in one influent sample, at 406 ± 146 pCi/L in July 2000. This reported detection is not consistent with historical data and appears to be anomalous. The discharge limit for tritium is 300 pCi/L.
- Carbon-14 was reported four times in influent samples ranging from 12.7 ± 4.64 to 23.2 ± 7.15 pCi/L. The discharge limit for Carbon-14 is 20 pCi/L.
- As noted above, treatment system effluent exceeded discharge limits for TDS and nitrate-N during most of 2000. In response to this situation, UC Davis has continued weekly monitoring for TDS and nitrate-N, and initiated a study of enhancements to the treatment system, which are described below in Section 5.1

4.3 GROUNDWATER ELEVATION RESULTS

Groundwater elevations were measured monthly for HSU-1, HSU-2, and HSU-4 wells, and weekly for extraction well EW2-1 and injection well IW2-1. Monthly groundwater elevations for 2000 are presented in Table 8, and quarterly groundwater elevation contour maps are presented in Figures 10 through 12. Weekly water levels were presented for January 2000 through December 2000 in the respective Monthly Monitoring Reports. In general, groundwater elevations and trends were consistent with 1999 data (UC Davis, 2000c).

4.3.1 Horizontal Groundwater Gradients

Groundwater gradients during 2000 for HSU-1, HSU-2, and HSU-4 ranged from 0.0004 to 0.03 feet/foot. Gradients were generally greatest in HSU-1 and least in HSU-2. In all three HSUs, gradients were greatest during the summer and least in the fall. Groundwater flow was generally to the east-northeast in all three HSUs.

4.3.2 Vertical Groundwater Gradients

Based on well pairs, vertical groundwater gradients between HSU-1/HSU-2 and HSU-2/HSU-4 were downward during the agricultural pumping season, and relatively flat during the rainy season (Figure 13). Figure 13 also shows that water level differences during the pumping season were distinctly greater between HSU-2 and HSU-4 compared to HSU-1 and HSU-2 suggesting that HSU-2 and HSU-4 are not hydraulically connected. In June, the difference in water levels between HSU-1 and HSU-2 wells UCD1-13 and UCD2-14 was 2.86 feet, and the water level difference between HSU-2 and HSU-4 wells UCD2-32 and UCD4-42 was 38.7 feet. In both cases the gradient was downward.

4.3.3 Capture Zone Analysis

A capture zone analysis is performed on a monthly basis and presented in the monthly operations reports. The purpose of these calculations is to assess the width of the capture zone . The results of the capture zone analyses for February, May, August and November 2000 are presented in Figure 14.

The capture zone of extraction well EW2-1 was evaluated based upon the pumping rate at the time of the monthly water-level measurements, and empirical equations to estimate capture zone using existing aquifer parameters estimated for HSU-2. The capture zone boundaries were adjusted based upon the groundwater elevation contours.

The following equation was used to estimate the edge of EW2-1's capture zone for a confined aquifer (Todd, 1980; Grubb, 1993):

$$x = -y / (\tan (2\pi Tiy/Q))$$

Where

x = the direction in feet up and downgradient of the well
y = the direction in feet from the centerline of the capture zone to the edge
T = the transmissivity of the aquifer in ft2/day
i = the hydraulic gradient
Q = pumping rate in cubic feet per day
Tan () = is in radians

Using this formula, an approximate outline of the capture zone was estimated. Using this initial estimate, a flow line depicting the approximate outer edge of the capture zone was constructed based upon the groundwater contour map. A flow line is an imaginary line that follows the path that groundwater would follow as it flows through an aquifer. This illustration is used so that the upgradient portions of the initial capture zone estimate can be modified to fit current water levels and gradients.

Based upon historic water quality data, the capture zone should to be approximately 440 feet wide upgradient of EW2-1. The monthly capture zone evaluations were based upon the following parameters:

Transimissivity (T) = 43,420 ft2 / day (Dames and Moore, 1997a)
Hydraulic Gradient (i) = groundwater gradient, based on monthly water level measurements

4.4 RESULTS FOR 2000 GROUNDWATER MONITORING

Groundwater monitoring analytical results for samples collected under the programs described in Sections 3.1 and 3.2 are presented in this section. Groundwater analytical data are presented in the tables in

Appendix B. The lateral distribution of COCs in HSU-1 and HSU-2 is shown in Figures 21 through 32, and in Figure 34 for HSU-4. Time versus concentration graphs for HSU-1 and HSU-2 are presented in Figures 15 through 20, and Figure 33 includes time versus concentration graphs for HSU-4.

4.4.1 Summary of Results for Site Constituents of Concern (COCs)

During 2000, a total of 213 samples (including 18 duplicate samples) were collected from thirty Site wells and analyzed for COCs. Samples were collected from each well on a monthly, quarterly, or annual basis, as identified in Table 5. Thirty-three samples were collected from seven HSU-1 wells, 160 samples were collected from eighteen HSU-2 wells, and 20 samples were collected from five HSU-4 wells. Section 3.2 discusses the Site groundwater monitoring program and rationale for collection of samples.

During 2000, additional samples were collected for metals, nitrate, TDS, TOC and VOCs to provide additional baseline information prior to initiation of the Land Treatment Pilot Study. The special samples were collected monthly between August and November 2000. Results for these samples are provided in Appendix A and are summarized below in the context of overall Site results. Detailed analysis of the data collected for this study and how the information relates to the Land Treatment Program will be provided in a separate report for the Program.

Chloroform

Site characterization and remediation activities over the past several years have provided a great deal of information regarding the levels and extent of chloroform impacts to Site groundwater. During the third year of operation of the treatment plant, chloroform concentrations continue to increase (after an initial drop when the plant came on line) in the HSU-2 well (UCD2-29) nearest the extraction well, as groundwater from the Site source area is pulled in this direction. Seasonal spikes (up to 70 µg/L) that were previously seen in the nearest upgradient HSU-2 well (UCD2-26) have not occurred since the treatment plant began operating, and results from that well have stabilized at concentrations below 5µg/L. Concentrations have decreased significantly in all downgradient HSU-2 wells since the groundwater treatment began. In HSU-4, chloroform concentrations have also decreased in downgradient wells since the abandonment in 1998 of the agricultural well that is thought to have served as a conduit allowing VOCs to move down from HSU-2 into HSU-4.

HSU-1—Chloroform was detected in five of six HSU-1 wells monitored during the year. Results for 2000 were consistent with previous results, with UCD1-12 reporting the highest detection of chloroform at 7950 µg/L. In 2000, as in previous years, very low chloroform concentrations (below 3.5 µg/L) were reported in the four nearest downgradient HSU-1 wells to UCD1-12: UCD1-11, UCD1-13, UCD1-25 and UCD1-28. Figure 15 shows graphs of chloroform concentrations over time in selected HSU-1wells. Figure 21 shows chloroform contours in HSU-1 for 2000 and three prior years. As discussed in Section 3.0, a pilot test to remove this source of chloroform within HSU-1 is currently being conducted. The results of this pilot test will be presented in May 2001.

HSU-2—Of the eighteen HSU-2 wells monitored for chloroform, eight wells (UCD2-16, UCD2-17, UCD2-35, UCD2-36, UCD2-7, UCD2-15, UCD2-37 and UCD2-38) had no reported detections during the year, above the CRDL. As shown on Figure 14, these eight wells are all outside the identified extent of chloroform impacts. As in prior years, the highest detection of chloroform for Site wells in HSU-2 was reported in UCD2-29 (280 µg/L), which is located near the groundwater extraction well. As discussed above, chloroform levels have been generally increasing in this well over the past two years (see Figure 15), primarily due to the design of the extraction system, which pulls groundwater containing contaminants toward the extraction well. However, no corresponding increases have been noted in other nearby wells. Results from other HSU-2 wells located a short distance away from the injection well

reported much lower chloroform concentrations, ranging from a low of 2.4 µg/L in UCD2-26 to 20 µg/L in UCD2-40. Results for chloroform in HSU-2 wells further downgradient or in other parts of the Site were more sporadic with even lower concentrations, ranging from 0.3 µg/L in UCD2-46 to 4.0 in UCD2-32. UCD2-46 was installed in May, 2000 to evaluate chloroform concentrations in the vicinity of the former irrigation well, 22N. UCD2-45 was installed in May 2000 to evaluate groundwater conditions downgradient of LFU #3. Chloroform concentrations in samples collected from UCD2-45 ranged from 0.62 to 0.92 µg/L.

HSU-4—Four of the five HSU-4 wells had measurable levels of chloroform, with concentrations ranging from 0.7µg/L in UCD4-41to 10.2 µg/L in UCD4-43. As discussed above, these levels are lower than concentrations reported before the abandonment of the agricultural well that was most likely a conduit between HSU-2 and HSU-4. UCD4-44 had no positive detections of chloroform during 2000. This well was installed two years ago to help determine whether HSU-4 was impacted by Site constituents upgradient from the abandoned agricultural well. Since installation in April of 1999, all samples collected from UCD4-44 have been non-detect for chloroform. UCD4-44 was installed to monitor groundwater conditions in the vicinity of extraction well EW2-1, and upgradient of former irrigation well 22N. UCD4-47 was installed adjacent to 22N in May 2000. Chloroform concentrations in UCD4-47 ranged from 4.3 to 5.7 µg/L in 2000.

Chromium/Hexavalent Chromium

Site and regional groundwater monitoring have consistently shown over several years that chromium and hexavalent chromium concentrations in a particular sample are generally equivalent, indicating that total chromium detections from samples collected in this region are in the hexavalent form. Therefore, beginning in Summer Quarter 2000, samples were collected only for total chromium, with the assumption that concentrations of total chromium represent hexavalent chromium concentrations. Chromium detections in particular wells remain relatively constant over time. Refer to Figure 20 for graphs of chromium results over time in selected wells. Although chromium was detected in all 205 Site samples collected for chromium analysis during 2000, chromium distribution in Site groundwater is spatially anomalous. In contrast to other constituents of concern, areas of highest concentrations do not correlate with locations of waste disposal areas, and areas of high concentrations in HSU-1 do not correlate with areas of high concentrations in HSU-2.

HSU-1—Chromium concentrations are highest in HSU-1, and results for 2000 were generally consistent with previous samples. Reported concentrations ranged from 18 µg/L (UCD1-18) to 613 µg/L (UCD1-28). These reported values and Site distributions are consistent with previous results.

HSU-2—Within HSU-2, reported chromium results are both lower in concentration than HSU-1 and are less widely distributed. Results for 2000 are generally consistent with previous years, ranging from 8 µg/L (UCD2-37) to 68µg/L (UCD2-14). Figure 32 shows HSU-2 chromium isoconcentration contours for 2000 and three previous years. During 2000, chromium concentrations in new HSU-2 well UCD2-45 ranged from 22.1 to 32.7 µg/L, and in new well UCD2-46 they ranged from 58.7 to 62.0 µg/L.

HSU-4—All five wells in HSU-4 have indicated very consistent chromium concentrations since sampling began in each of the wells. Concentrations reported in HSU-4 wells during 2000 ranged from 19 µg/L(UCD4-41) to 40 µg/L (UCD4-47). Figure 33 provides a graph of all results for chromium in HSU-4. Concentrations of chromium in new HSU-4 well UCD4-44 ranged from 20.1 to 23.8 µg/L, and in new well UCD4-47 from 31.4 to 39.9 µg/L.

Nitrate

During 2000, there were 211 groundwater samples analyzed for nitrate-N from 30 Site wells, and all of these samples had detectable concentrations. Nitrate is also reported as a regional groundwater problem as a result of widespread agricultural practices. Nitrate concentrations in groundwater generally decrease with depth at which the sample is collected. Nitrate levels in most HSU-2 wells and all HSU-4 wells on Site are within the range of concentrations reported in City of Davis water supply wells (Dames & Moore, 1999). Refer to Figure 18 for graphs of nitrate as N over time in selected HSU-1 and HSU-2 wells and Figure 33 for HSU-4 wells.

HSU-1—Reported concentrations for nitrate-N in HSU-1 groundwater samples collected during 2000 are within the range of previous detections. Lowest concentrations were reported in UCD1-18 (4.6 mg/L to 9.3 mg/L), and the sample from UCD1-12 (86.8 mg/L) had the highest concentration. See Figure 24 for nitrate isoconcentration contours in HSU-1 for 2000.

HSU-2—Samples from three upgradient HSU-2 wells (UCD2-17, UCD2-37 and UCD2-38) all had the lowest reported concentrations of approximately 2 mg/L. Well UCD2-7 (19.7 mg/L) had the highest concentration detected in HSU-2. See Figure 24 for nitrate-N isoconcentration contours in HSU-2 for 2000 and the three previous years. Concentrations of nitrate in new well UCD2-45 ranged from 4.59 to 7.47, and in new well UCD2-46 from 8.78 to 10.4 mg/L.

HSU-4—The range of detections in HSU-4 was consistent with previous results ranging between 2 and 6 mg/L. See Figure 34 for nitrate-N isoconcentration contours in HSU-4. Concentrations of nitrate-N in new well UCD4-44 ranged from 1.82 to 1.93, and in UCD4-47 from 5.54 to 6.73 mg/L.

Radionuclides: Carbon 14 and Tritium

During groundwater monitoring activities conducted in 2000, 176 samples were collected from 28 Site wells and analyzed for carbon-14 and tritium. This section presents those results and compares them with historical data.

Carbon 14

Although the Site distribution of carbon-14 is similar to that of tritium (particularly in HSU-1), its impacts are significantly lower.

HSU-1—Carbon 14 was detected in two of the five HSU-1 wells sampled during 2000. These detections are consistent with previous years, and ranged from 370±12.7 pCi/L in UCD1-12 to 1220±25 pCi/L in UCD1-13. See Figure 16 for graphs of carbon-14 over time in selected HSU-1 wells, and Figure 22 for isoconcentration contours.

HSU-2— Detections of carbon-14 in UCD2-14 ranged from 185±9.1 pCi/L to 575±16.8 pCi/L, which is within the previous range of detections for this well. During 2000, four other wells in HSU-2 had relatively consistent low detections above the minimum detectable amount (MDA) and near the contract required detection limit (CRDL). Carbon 14 detections in UCD2-15 (in the southwest corner) ranged from 15.2±5.66 pCi/L to 18.4±4.89 pCi/L. Monthly sampling in IRA wells indicated three wells with relatively low reported detections. UCD2-29 had 8 detections above the MDA, ranging from 7.24±4.3 pCi/L to 26.3±7.19 pCi/L. UCD2-30 had 11 detections above the MDA, ranging from 11.6±5.14 pCi/L to 34.5±6.3 pCi/L. UCD2-39 had 12 detections above the MDA, ranging from 9.73±5.46 pCi/L to 31.8±7.38 pCi/L. See Figure 16 for graphs of carbon-14 over time in selected HSU-2 wells, and Figure 22 for isoconcentration contours.

HSU-4— In 2000, one result from UCD4-42 (44.1±6.43 pCi/L) in May??? 2000 was just above the CRDL.

TRITIUM

As in previous years, consistent detections of tritium have primarily been reported in just two wells, UCD1-13 and UCD2-14, while low sporadic results have been reported in other Site wells.

HSU-1—UCD1-13 was monitored once in 2000, during the Spring annual sampling round. The result (12,500±318 pCi/L) was within the range of typical detections for that well. See Figure 16 for graphs of carbon-14 over time in selected HSU-1 wells, and Figure 22 for isoconcentration contours.

HSU-2—The results for tritium in UCD2-14 ranged from 709±170 pCi/L to 3920±329 pCi/L. Sporadic detections above the CRDL were also reported in three other HSU-2 wells: UCD2-29 at 357±146 pCi/L, UCD2-31 at 724±162 pCi/L, and UCD2-45 at 394±136 pCi/L. See Figure 16 for graphs of tritium over time in selected HSU-2 wells, and Figure 22 for isoconcentration contours.

HSU-4—No tritium was reported above the CRDL in any of the five HSU-4 wells during 2000

Total Dissolved Solids (TDS)

Except as discussed below, results for the 2000 monitoring are similar to previous years. Figure 19 compares plots of TDS over time in selected HSU-1 and HSU-2 wells, and Figure 33 plots results for HSU-4 wells.

HSU-1—As shown in Figure 19, except for the September sample from UCD1-18, TDS results for samples collected during 2000 are consistent with previous years. Although TDS samples are normally collected quarterly in background well UCD1-18, additional samples were requested during the months of September and October in order to provide more extensive baseline information needed for the Land Treatment Study. The September result for TDS in UCD1-18 (2450 mg/L) appears to be anomalous, as it was not consistent with previous (ten years) or with subsequent results for this well, which have ranged between 400-900 mg/L. Sample results from UCD1-18 were more typical in August (515 mg/L), October (506 mg/L) and November (476 mg/L). Overall in HSU-1, reported TDS detections ranged from 472 mg/L (UCD1-18) to 1710 (UCD1-12). See Figure 25 for TDS isoconcentration contours in HSU-1 for 2000 and three previous years.

HSU-2— The range of TDS results in HSU-2 was from 428 mg/L in UCD 2-37 to 910 mg/L in UCD2-14. See Figure 25 for TDS isoconcentration contours in HSU-2 for 2000 and three previous years. TDS concentrations in new HSU2 well UCD2-45 ranged from 523 to 540 mg/L, and in UCD2-46 ranged from 691 to 717 mg/L.

HSU-4—The range of results for TDS has been consistently between 400-500 mg/L since monitoring began in HSU-4 wells. During 2000, the range was from 392 mg/L in UCD4-44 to 549 mg/L in UCD4-47. See Figure 33 for TDS isoconcentration contours in HSU-4 for 2000 and three previous years. Concentrations of TDS in new well UCD4-44 ranged from 392 to 407 mg/L, and in UCD4-47 from 516 to 549 mg/L.

4.4.2 Groundwater Monitoring Results for Non-COC Constituents

Other Volatile Organic Compounds

In addition to chloroform, eight other VOCs (1,1-dichloroethane, 1,1-dichloroethene, 1,2-dichloroethane, 1,2-dichloropropane, 1,1,2-dichloroethane, acetone, tetrachloroethene, and trans-1-2-dichloroethene) were reported above the CRDL in Site groundwater at low concentrations during 2000. A total of 213 samples were collected from 30 Site wells and analyzed for VOCs using EPA Method 8260 modified to provide low CRDLs ranging between 0.05 µg/L and 5 µg/L.

HSU-1 — Although seven wells were monitored in HSU-1, just two wells (UCD1-11 and UCD1-12) had detections of VOCs other than chloroform. UCD1-12 was sampled once during the spring annual sampling round. In addition to chloroform, four other VOCs were reported, 1,1 dichloroethane (31.7 µg/L), 1,1 dichloroethene (29.2 µg/L), 1,2 dichloroethane (12.3 µg/L) and , 1.1.2-trichloroethane (5.1 µg/L). UCD1-11 was sampled five times during 2000, with one VOC reported in addition to chloroform. Acetone was reported at 34.1 µg/L in the September sample. Although this result was not rejected, it was coded Jl during data validation, indicating a concern with the laboratory spike control sample. Acetone is a known laboratory contaminant that is sporadically reported in Site samples.

HSU-2 — Of eighteen wells monitored for VOCs in HSU-2, except as discussed below, just one well (UCD2-29, near the groundwater extraction well) reported VOCs other than chloroform. These VOCs included: 1,1-dichloroethane (0.64-1.1 µg/L), 1,1-dichloroethene (0.52-1.0 µg/L), 1,2-dichloroethane (0.58-1.6 µg/L), 1,2-dichloropropane (0.52-2.0 µg/L), 1,1,2-trichloroethane (0.2-0.25 µg/L), tetrachloroethene (0.52-0.59 µg/L), and trans-1,2-dichloroethene (0.78 µg/L). During February and March, the VOC tetrachloroethene was reported in seven Site wells (UCD2-14, UCD2-29, UCD2-30, UCD2-31, UCD2-35, UCD2-39, and UCD2-40) at the CRDL level (between 0.50 and 0.59 µg/L). All of these wells were sampled monthly for the remainder of 2000 with no other detections of this compound. Acetone was reported above the CRDL in one HSU-2 well, UCD2-35 at 13 µg/L. This sample was analyzed at the same time as the sample from UCD1-11 and was also coded Jl during data validation (see above).

HSU-4 — No VOCs other than chloroform were reported in HSU-4 wells during 2000.

Metals

A total of 46 samples were collected from 12 Site wells and analyzed for 21 Metals using EPA 6020 TAL Liquid Metals. These samples were also analyzed for cations (calcium, magnesium, potassium, and sodium) in accordance with EPA Method 3005A/6010B. With the exception of quarterly samples from new wells UCD2-45, UCD2-46, UCD4-44, and UCD4-47, all samples analyzed for metals during 2000 were collected for the special study to provide additional baseline information prior to initiation of the Land Treatment Pilot Study.

The metals results for 2000 were generally consistent with historical data. As in previous years, the metals antimony, beryllium, cadmium, cobalt, copper, lead, mercury, molybdenum, silver, thallium, and vanadium were not detected above CRDLs in any of the 2000 groundwater samples. Manganese was only reported in a single well, UCD4-44, at levels between 13.8 to 25 µg/L. Results for arsenic in Site wells were all below the concentration reported in background well, UCD1-18 (8.11 µg/L).

HSU-1 — Of the wells monitored in HSU-1 for the Land Treatment Pilot Study baseline study, background well UCD1-18 was consistently lowest, as this well is influenced by Putah Creek recharge.

In samples collected during 2000, the range for barium was 141 µg/L (UCD1-18) to 369 µg/L (UCD1-11). Boron was added to the list of metals in 2000, and results ranged from 555 µg/L (UCD1-18) to 1280 µg/L (UCD1-28). Iron was reported above the CRDL in 3 wells, UCD1-11 (110 µg/L), UCD1-25 (240 µg/L) and UCD1-28 (303 µg/L). Nickel was reported above the CRDL only in UCD1-25 (48-128 µg/L). Selenium levels ranged from 1.9 µg/L (UCD1-18) to 12.3 µg/L (UCD1-28). Zinc was reported over the CRDL in just one sample from UCD1-11 (24.2 µg/L). Reported ranges for cations were also consistent with previous years. Since just a few wells were monitored for cations in HSU-1, lowest levels were consistently reported in UCD1-18 and highest results in UCD1-28. These ranges were: calcium 30,000-50,000 µg/L, magnesium 76,000-172,000 µg/L, potassium 372-1080 µg/L, and sodium 30,000-120,000 µg/L.

HSU-2 — Results are similar to those reported in HSU-1, although the range of concentrations is slightly narrower for many metals. Barium results in HSU-2 ranged from 165 µg/L (UCD2-26) to 273 µg/L (UCD2-40). Boron ranged from 542 µg/L (UCD2-26) to 1180 µg/L (UCD2-46). Iron was reported in six wells, ranging from 130 µg/L (UCD2-45) to 277 µg/L (UCD2-29). Nickel was reported above the CRDL in one well UCD2-26 (20-33.7 µg/L). Selenium levels ranged from 1.7 µg/L (UCD2-26) to 10.3 µg/L (UCD2-46). Zinc was reported above the CRDL in two samples at 36.8 µg/L (UCD2-26) and 44.2 µg/L (UCD2-45). Ranges for cations were: Calcium: 37,900 µg/L (UCD2-26) to 58,200 µg/L (UCD2-46). Magnesium: 66,500 µg/L (UCD2-26) to 98,400 µg/L (UCD2-46). Potassium: 707 µg/L (UCD2-39) to 1170 µg/L (UCD2-45 & 46). Sodium: 38,000 µg/L (UCD2-39) to 76,000 µg/L (UCD2-46).

HSU-4 — Two wells were monitored for metals in HSU-4. Ranges were significantly lower within this HSU, with UCD4-44 reporting lowest results and UCD2-47 highest results for most metals. Barium results ranged from 121-169 µg/L. Boron ranged from 127-169 µg/L. Iron was reported above the CRDL only in UCD4-44 at 127 µg/L. Selenium was reported in only UCD4-47 at 4.2-4.4 µg/L. Nickel and zinc were not reported above the CRDL. Ranges for cations were: Calcium: 30,000-43,000 µg/L. Magnesium: 47,400-74,600 µg/L. Potassium: 935-3930 µg/L. Sodium: 42,000-62,000 µg/L.

General Chemicals

To assess the general chemical makeup of groundwater, Site wells were monitored for alkalinity and total organic carbon (TOC), with almost all results for these analytes above the CRDL. As with the extra metals samples, the alkalinity samples were collected in order to provide baseline information prior to beginning the Land Treatment Pilot Study. For this study, 45 alkalinity samples were collected from 12 Site wells between August and November. Samples for TOC were collected throughout the year, both as part of the pilot study and as defined in the WDRs for the groundwater treatment system. A total of 190 TOC samples were collected from 25 Site wells during 2000.

HSU-1 — Results for alkalinity and TOC in HSU-1 were similar to previous results for specific wells monitored. Alkalinity results in 2000 ranged from 160 mg/L (UCD1-18) to 729 mg/L (UCD1-28). TOC results varied and ranged from <1 (in several wells) to 22 mg/L (UCD1-28).

HSU-2 — Alkalinity results during 2000 are as follows: UCD2-29 (568 mg/L), UCD2-39 (566 mg/L), UCD2-40 (561 mg/L) and UCD2-46 (711 mg/L). These results are above the historical range for alkalinity, which has ranged from approximately 300 to 400 mg/L. TOC results for 2000 were variable, both site-wide and within individual wells. Site-wide, and within UCD2-30, TOC concentrations ranged from below detection to 22.8 mg/L.

HSU-4 — Alkalinity was monitored in two HSU-4 wells, with results ranging from 291 mg/L in UCD4-44 to 389 mg/L in UCD4-47. TOC was monitored in three HSU-4 wells during 2000. Results ranged to 778 mg/L (UCD1-11), which was within the range for previous years.

Pesticides, PCBs, and Semi-Volatile Organic Compounds

Four newly installed wells were monitored during 2000 for pesticides and PCBs under EPA Methods 3510C and 8081, and for semi-volatile compounds under EPA Methods 3510C and 8270C. Thirteen samples were collected for pesticides/PCBs and nine samples were collected for semi-volatile organic compounds. All results for these constituents were below CRDLs in these wells.

Radionuclides

In addition to the radiological COCs carbon-14 and tritium that were discussed in Section 4.4.1, non-COC radionuclides were monitored only in four newly installed wells, UCD2-45, UCD2-46, UCD4-44 and UCD4-47. Thirteen samples from these wells were analyzed for the full suite of 22 radionuclide analytes, with the vast majority of results below the minimum detectable activity (MDA). The following radionuclides were not reported above the contract required detection limit in any groundwater sample: actinium-228, americium241, bismith-212, cesium-137, cobalt-60, lead-210, potassium-40, sodium-22, strontium-90, thallium-208, thorium-234, uranium-235, and uranium-238. All results for radionuclides that were detected were just slightly above the CRDL.

HSU-1 — Wells in HSU-1 were monitored only for COCs carbon-14 and tritium (section 4.4.1).

HSU-2 — Gross alpha was reported at very low levels in most samples from UCD2-45 and UCD2-46, with results ranging from 2.26 ± 1.05 pCi/L to 5.83 ± 1.59 pCi/L. Gross beta was reported in one sample at 3.55 ± 1.07 pCi/L (UCD2-46). Other radionuclides reported at low levels included: bismith-214 in UCD2-46 (11.2 ± 7.21 pCi/L), lead-212 in UCD2-45 (16.0 ± 9.42), plutonium-241 in UCD2-45 (21.4 ± 5.56 pCi/L), and radium-226 in UCD2-45 (2.92 ± 1.06 pCi/L) and UCD2-46 (1.31 ± 0.63 pCi/L).

HSU-4 — Gross alpha was reported in three samples from UCD4-47 at low levels between 2.04 ± 1.05 pCi/L to 2.16 ± 1.2 pCi/L, and gross beta was also reported in this well at levels between 3.99 ± 1.27 pCi/L to 6.1 ± 1.16 pCi/L. Other radionuclides detected in HSU-4 samples included bismith-214 in UCD4-44 (10.2 ± 6.56 pCi/L) and in UCD4-47 (11.4 ± 6.32 pCi/L); lead-214 in UCD4-47 (16.6 ± 8.64 pCi/L); and radium-226 in UCD4-44 (5.82 ± 1.52 pCi/L) and in UCD4-47 (1.07 ± 0.614 pCi/L).

4.5 RESULTS FOR 2000 STORM WATER MONITORING

Storm water samples were collected from three Site storm water monitoring locations (see Figure 5) during winter and fall of 2000. The first set of storm water samples for the year was collected on January 24, 2000 and the second sample set was collected on October 10, 2000. As defined in Table 5, all storm water locations were sampled for field parameters, acute aquatic toxicity, metals, nitrate-N, oil and grease, pesticides and PCBs, radionuclides, total dissolved solids, total organic carbon, total suspended solids, and volatile organic compounds. Analytical parameters are provided in Table 6.

4.5.1 Summary of Results for Site Constituents of Concern (COCs)

AQUATIC TOXICITY

Storm water samples were analyzed for acute aquatic toxicity. No evidence of toxicity was indicated in any of the samples. 100% survival was reported for all three samples collected during the winter, as well as the fall sample from LF-1. Results for samples collected from LF-3 and from LS-1 during fall indicated 95% survival.

CHLOROFORM

Chloroform was not detected in any storm water sample during 2000.

TOTAL CHROMIUM/HEXAVALENT CHROMIUM

Total chromium was analyzed for all samples collected from the three storm water locations in winter and fall 2000. Results in two samples were above the Site CRDL in October: LF-1 (19.2 µg/L) and LS-1 (10.2 µg/L). These results are within the range of historical variability for LF-1, which ranges from 1.3 µg/L to 64 µg/L. All previous results for chromium in LS-1 have been below 10 µg/L. Samples collected during the winter sampling round were analyzed for hexavalent chromium, with LF-1 reporting 19.0 µg/L and LS-1 reporting 23 µg/L. All other results for chromium and hexavalent chromium were below the CRDL.

NITRATE

Concentrations of nitrate-N in 2000 storm water samples were below 1.5 mg/L, which is consistent with historical data.

RADIONUCLIDES: CARBON 14 AND TRITIUM

With two exceptions, all storm water samples analyzed for carbon-14 and tritium were below the MDA. The winter result for carbon-14 from LF-1 was 26.5±9.3 pCi/L. Previous carbon-14 results for this location collected during the past three years have all been non-detect. However, carbon-14 was detected in one previous sample from this location, collected in fall 1996 (60±38 pCi/L). The other positive detection was for tritium in the January sample from LS-1 (568±319 pCi/L). Since tritium has not previously been detected above the CRDL in storm water samples, this may be an anomalous result.

Total Dissolved Solids (TDS)

TDS concentrations in storm water samples collected in 2000 ranged from 25-124 mg/L at LF-1, from 89-280mg/L at LF-3 and from 21-64 mg/L at LS-1. These results are within historical ranges, which have been variable.

4.5.2 Storm water Monitoring Results for Non-COC Constituents

Volatile Organic Compounds (VOCs)

No VOCs were reported in storm water samples from either landfill location. Three VOCs were reported from the October sample from the lift station, including 2-Butanone (1.9 µg/L), acetone (8.3 µg/L), and methylene chloride (3.1 µg/L). These VOCs were also reported in the winter sample from this location, but the results were qualified (UJ) due to analytical laboratory calibration and method blank failures.

Metals

During 2000, metals detected above the CRDL included aluminum, antimony, arsenic, barium, chromium, copper, iron, lead, manganese, nickel, vanadium, and zinc. Aluminum was included in the list this year for location LS-1 only, with results ranging between 354-3160 µg/L. With one exception, detections of other metals were within previous ranges of detections for storm water samples. The October results for barium in LF-1 (320 µg/L) and LS-1 (213 µg/L) were higher than previous results for this metal.

Arsenic was reported in winter and fall samples from LF-3 and LS-1 at levels below 5 µg/L. Barium was detected in all three locations at concentrations ranging between 38-320 µg/L. Chromium was reported in LF-1 at 19.2 µg/L and LS-1 at 10.2 µg/L, as discussed in Section 4.5.1. Copper was reported in all locations (11.6-15.9 µg/L). Iron was reported in all locations (822-5090 µg/L). Lead was detected just above the CRDL in the October samples from LF-1 (5.1 µg/L) and from LS-1 (3.1 µg/L). Manganese was reported in all storm water samples (17-207 µg/L). Nickel was reported in LF-1 and LF-3 (27.3-37.8 µg/L). Vanadium was reported at all locations (10.9-14.8 µg/L). Zinc was reported in all samples (46.2-93.1 µg/L).

GENERAL CHEMICALS

In addition to the COCs, nitrate-N and TDS that were discussed in Section 4.5.1, storm water samples were monitored for oil and grease, total organic carbon and total suspended solids. Oil and grease was reported in the lift station sample in January just above the CRDL at 2.57 mg/L. This analysis was inadvertently left off the chain of custody in the winter sampling of LF-1 and LF-3. However, oil and grease was not detected in the fall samples from any storm water location. The results for total organic carbon were variable, but all results were within the range of previous detections (4.41-51.0 mg/L). The results for total suspended solids for 2000 in LF-1 ranged from 4.2-548 mg/L. This compares to the previous high of 119 mg/L for this location. Total suspended solids results for the other two storm water locations were within the previous range of detections.

PESTICIDES & PCBS

No pesticides or PCBs were reported above CRDLs in samples from landfill storm water locations during 2000. Several pesticides were reported above the CRDLs in samples from the lift station. These included: 4,4'-DDT (0.044 µg/L), alpha chlordane (0.016 µg/L), beta-BHC (0.098), endrin (0.027 µg/L), gamma chlordane (0.043 µg/L), and heptachlor (0.08 µg/L). All of these detections are higher than previous results for these pesticides, with the exception of alpha chlordane, which was detected at this location at similar concentrations in 1995 and 1997.

RADIONUCLIDES

In addition to the radiological COCs (carbon-14 and tritium) that were discussed in Section 4.5.1, storm water samples collected from all locations were analyzed for radium-226 and strontium-90. Neither of these isotopes was reported above the MDA in storm water samples collected during 2000. The lift station was additionally monitored for gross alpha, gross beta, and gamma spectral analysis. The only detection above CRDLs for these analyses was the October result for gross beta at 6.11±1.37 pCi/L, which was within the previous range of results for this location.

4.6 RESULTS FOR 2000 SURFACE WATER MONITORING

Surface water samples were collected from four monitoring locations (Figure 5) during 2000. Samples were collected during winter and fall from Putah Creek upstream location (PCU), Putah Creek downstream location (PCD) and from the outfall of the UC Davis sewage treatment plant (STPO). The fourth sampling location, PC2, was sampled only for chronic aquatic toxicity during the winter monitoring round. The first set of surface water samples for the year was collected on January 24, 2000 (winter) and the second sample set was collected on October 11, 2000 (fall). As defined in Table 5, all surface water locations except PC2 were sampled for field parameters, chronic aquatic toxicity, metals, nitrate-N, pesticides and PCBs, radionuclides, total dissolved solids, and volatile organic compounds. Analytical parameters are provided in Table 6.

4.6.1 Summary of Results for Site Constituents of Concern (COCs)

Aquatic Toxicity

Surface water samples were collected for chronic aquatic toxicity. The laboratory reports for the samples did not indicate evidence of chronic toxicity in the site samples. However, difficulties in the testing procedure and with the laboratory control population resulted in the rejection of the aquatic toxicity data for the samples from the winter

Quarter 2000.

Validation of the aquatic toxicity data for the samples from the fall quarter 2000 has not been completed as the laboratory has not issued a final report. Project personnel have been working with the laboratory to resolve these concerns. In addition, collection of split samples is planned for comparison analysis (at both the current laboratory and another commercial laboratory) in the next surface water sampling round, fall 2001.

CHLOROFORM

Chloroform was detected in the January sample from PCD at 1.3 µg/L, and from STPO in both January (9.4 µg/L) and October (0.23 µg/L). It was not detected in samples from PCU. These results are within the range of previous detections, although the 2000 results from STPO were generally lower than in previous years.

TOTAL CHROMIUM/HEXAVALENT CHROMIUM

Total chromium was analyzed for in samples collected from all three surface water locations in winter and fall 2000. All results were below the Site CRDL. Samples collected from PCD and from STPO in the winter sampling round were also analyzed for hexavalent chromium, with all results below the CRDL.

Nitrate

Results for nitrate-N in surface water samples collected in 2000 were slightly lower than the typical range of results over the past few years. All sample results from STPO were below 7.5 mg/L. Results for PCU (1.85-2.07mg/L) did not differ significantly from those from PCD (1.64-2.35 mg/L).

RADIONUCLIDES: CARBON 14 AND TRITIUM

All surface water samples collected for carbon-14 and tritium were below the MDA, with one exception. The winter result for carbon-14 from PCD was 60.9±10.2 pCi/L. Previous carbon-14 results in samples collected at PCD during the past three years have all been non-detect. However, carbon-14 was detected in the PCU sample collected in fall 1999 (71.7±6.9 pCi/L).

Total Dissolved Solids (TDS)

Results for TDS in surface water samples for 2000 were within the historical range of concentrations. Results for PCU samples ranged between 299-304 mg/L, PCD between 266-304 mg/L, and from STPO between 463-502 mg/L.

4.6.2 Surface Water Monitoring Results for Non-COC Constituents

Volatile Organic Compounds (VOCs)

Two VOCs other than chloroform (see Section 4.6.1) were reported in the winter sample from STPO. These compounds were bromodichloromethane (9.4 µg/L) and ethyl ether (1.3 µg/L). Bromodichloromethane is one of the trihalomethanes that are related to chlorine drinking water treatment and has been reported sporadically in surface water samples. No other VOCs were reported in surface water samples during 2000.

METALS

As in previous years, a number of metals were detected above CRDLs in surface water samples. Metals detected during 2000 included barium, boron, copper, iron, manganese, vanadium, and zinc. All results for metals were within previous ranges of detections in recent years, with the exception of boron, which was added in 2000 to the list of metals.

Barium was reported in winter and fall samples from all surface water locations, with PCD and PCU reporting similar concentrations ranging between 56-116 µg/L. Barium concentrations were lower in STPO (38-43 µg/L). Boron was reported in PCD and PCU at similar concentrations (697-747µg/L); it was slightly higher in STPO (878 µg/L). Copper was reported above the CRDL in only STPO (11.6-58 µg/L). Iron was reported in all surface water locations; PCD (124-227 µg/L), PCU (88-104 µg/L) and STPO (56-179 µg/L). Manganese was reported above the CRDL in just one sample from PCD (13.8 µg/L). Vanadium was reported in the samples collected from STPO in one sample only (22.6 µg/L). Zinc was also reported in STPO (22.6-44.5 µg/L).

PESTICIDES & PCBS

No pesticides or PCBs were reported above CRDLs in samples from surface water locations during 2000.

RADIONUCLIDES

In addition to the radiological COCs (carbon-14 and tritium) that were discussed in Section 4.6.1, surface water samples were collected for analysis of radium-226 and strontium-90. There was one low detection of radium-226 in PCU (1.22±0.591 pCi/L). This detection is just above the Site CRDL of 1 pCi/L. Radium-226 has not been detected above the CRDL in Putah Creek upstream or downstream locations in the past several years of monitoring, although detections at similar low levels have been sporadically reported in Site groundwater samples. No other radionuclides were detected in surface water samples during 2000.

5.0 ASSESSMENT OF MONITORING PROGRAMS

This section provides an assessment of the IRA and Water Monitoring programs towards meeting their stated objectives as discussed in Section 1.2. This assessments includes an evaluation of monitoring data compared with historic trends and identification of data gaps and/or redundancies in the programs.

5.1 GROUNDWATER IRA PERFORMANCE

The primary objective of the Groundwater IRA is to minimize VOCs from migrating off Site prior to development of site-wide remedial-action objectives (RAOs) for final remedies. Discussions of the 2000 IRA performance and an assessment of the IRA monitoring program are presented below. Additional discussion related to chloroform in groundwater is presented in Sections 5.2 through 5.4.

The results of the 2000 Groundwater IRA program presented in Section 4.0 demonstrate that the treatment system is capturing the VOC plume as anticipated(Figure 14). Approximately 65 pounds of chloroform have been removed from HSU-2 since the system began operation in 1998 (Table 7). Based on 32 months of operation, the yearly mass removal rate is unchanged in 2000 from 1999 and remains approximately 24 pounds per year. In addition, the extraction system is recapturing 70 to 90 percent of injected water, as designed in the engineering evaluation and cost analysis (EE/CA) (Dames & Moore, 1997).

With the exception of nitrate-N and TDS, concentrations of constituents in the treated effluent remain within effluent limitations specified in the WDRs. As discussed above, the levels of nitrate-N and TDS detected in the Groundwater IRA monitoring program may reflect regional conditions. The daily and average monthly maximum allowable concentrations for TDS and nitrate-N in the WDRs are 500 and 485, and 10 and 7.7 mg/L respectively. During 2000, the daily maximum was frequently exceeded, and the average monthly maximum was consistently exceeded for both constituents. In addition to weekly sampling and analysis, short-term IRA enhancements were implemented (UC Davis, 2000a), and long-term treatment/discharge alternatives were evaluated (UC Davis, 2000b).

It is important to note that identification of these unexpected results, and the development of appropriate responses, is part of the process of the IRA in leading toward final remedies. Short and long-term enhancements to the IRA system have been developed in response to the concentrations of nitrate-N and TDS observed in IRA effluent.

Short-term-IRA enhancements implemented during 2000 included the following:

- reducing the extraction flow rate;
- evaluating HSU-2 background concentrations; and,
- mixing and reinjection.

Long-term treatment/discharge alternatives that were evaluated include the following:

- source removal using the DDC system;
- reverse osmosis; ion exchange;
- discharge to the UC Davis Waste-Water Treatment Plant;
- discharge to the North Fork of Putah Creek;

- irrigation to agricultural land;
- irrigation for riparian habitat;
- mixing and reinjection;
- constructed wetlands; and
- no action/administrative controls until development of final remedy.

As a result of this analysis, UC Davis prepared the Land Treatment Pilot Study Work Plan (Montgomery Watson, 2000). The Land Treatment Pilot Study will involve irrigation of new pastures constructed adjacent to the IRA treatment system. When Irrigation is not necessary, low-TDS water will be blended with system effluent prior to reinjection. In December 2000, final connections were completed for the water line that will introduce water from the UC Davis irrigation water system for blending. Testing of the new mixing system began as scheduled in early January, 2001. Modification of the IRA system to accommodate the Land Treatment System Pilot Study, which will deliver effluent as irrigation to agricultural land, began during January, 2001.

5.2 HSU-1-GROUNDWATER CONDITIONS

The monitoring results from HSU-1 wells suggest the following trends:

- Concentrations of chloroform decreased slightly in UCD1-12 in 2000 compared to 1999 (Figure 15) Much lower concentrations of chloroform in the nearest downgradient wells is indicative that there is little lateral movement of constituents within HSU-1. Although not presented in this report, the operation of the DDC system in December 2000, has significantly decreased the concentrations of chloroform in this well to below 1,000 µg/L in less than three months of operations. These results will be discussed in the letter report for this system due May 2001.
- A long-term downward trend of carbon-14 and tritium concentrations in UCD-13 (Figures 16 and 17) continued in 2000.
- With the exception of nitrate-N in UCD1-12, which continued a slight upward trend in 2000, concentrations of nitrate-N, TDS and chromium in HSU-1 remain relatively unchanged from previous results (Figures 18 through 20).

5.3 HSU-2-GROUNDWATER CONDITIONS

The groundwater monitoring results from HSU-2 suggest the following:

- The groundwater IRA program is functioning as anticipated by containing the extent of chloroform impacts. This containment is shown laterally by the decreasing chloroform concentrations in wells UCD2-26, UCD2-31, UCD2-32 and UCD2-39 (Figure 15) and downgradient by the decreasing concentrations in wells UCD2-30, UCD2-32, and UCD2-40.
- Concentrations of chloroform in UCD2-29, immediately upgradient from the extraction system, continues to show an overall increasing trend since initiation of the Groundwater IRA. Concentrations in this well have remained above 200 µg/L. This trend is indicative of the success of the Groundwater IRA in capturing the VOC plume. UCD2-29 is the only Site monitoring well with chloroform levels greater than the drinking-water regulatory threshold for trihalomethanes.

- Concentrations of tritium and carbon-14 remain stable in UCD2-14, while a downward trend continues for these constituents in nearby well UCD1-13.
- Concentrations of nitrate-N and chromium continue to increase within the capture zone of the IRA-treatment system (Figures 18 through 20). Tritium continues to show sporadic detections within this zone.

5.4 HSU-4-GROUNDWATER CONDITIONS

Irrigation well 22N, which is suspected of formerly acting as a conduit for VOCs from HSU-2 to HSU-4, was properly sealed and abandoned in January 1999. Subsequently, UCD4-44 was installed in April 1999 upgradient of the abandoned irrigation well, and UCD 4-47 was installed downgradient to assess the effect of this abandonment on HSU-4 water quality.

Concentrations of chloroform have decreased downgradient of the abandoned irrigation well. This decrease is most notable in UCD4-43, which is immediately downgradient of the former well, where chloroform concentrations decreased during 2000 to less than those in the HSU-4 background well (UCD4-44). Chloroform concentrations in downgradient well UCD4-47, which was installed in May 2000, closely match those of the HSU-4 background well (Figure 33).

5.5 STORM WATER MONITORING PROGRAM

Table 9 summarizes minimum, maximum, and average COC detections in 1997 through 2000. As shown in Table 9, a number of Site-COCs were detected at low concentrations in storm water.

There are no directly applicable promulgated storm water regulatory thresholds for Site-COCs. There are, however, conservative promulgated standards for certain of the COCs in surface water and these are illustrated for discussion purposes in Section 5.6. Where there are no applicable surface water standards, other promulgated risk-based standards, such as drinking-water maximum contaminant level (MCL), may be considered for evaluating the significance of impacts on non-potable waters such as Putah Creek.

The storm water and surface water testing have occurred in concert from 1997 through 2000. This is because, the significance of COCs in storm waters is primarily relative to their potential impacts on surface waters. As such, Section 5.6, contains a more detailed discussion of the subject.

5.6 SURFACE WATER MONITORING PROGRAM

As noted in Section 5.5, because storm water testing and surface water testing were on the same schedule, it would be expected that discernable impacts of storm water on surface water in Putah Creek, if any, would be reflected in the surface water-testing program.

Table 10 summarizes minimum, maximum, and simple-mean average concentrations of the 14 constituents detected in surface water from 1997 through 2000 (all VOCs are listed). Figures 35, 36 and 37 depict graphical representations of the ***maximum*** concentrations of these constituents from 1997 through 2000, shown relative to potentially applicable promulgated regulatory thresholds. As shown in those figures, only one analyte, hexavalent chromium, exceeded a threshold when compared with maximum detections over the last four years.

Where a promulgated freshwater standard was available (i.e., "Water Quality Goals," CVRWQCB, 1998), the lowest of the human-health or aquatic-life protection goal was used in comparison with the surface water maximum detections over the last four years. Where there was no such standard, the lowest

available standard for primary drinking-water maximum-contaminant level (MCL), tap-water preliminary remediation goal (PRG), or EPA Integrated Risk Information System (IRIS) was used. Note, that the latter three standards are not directly applicable to non-potable surface water. However, they provide an extraordinarily risk-conservative standard on the basis of which, potential risk may be indicated. There is no promulgated standard for carbon-14, and as such, an artificial threshold of 1/10 the tritium standard was used as surrogate. Sampling was done at an upstream point, at the UC Davis sewage treatment plant out-fall, and downstream (Figure 4). A brief discussion by detected constituent is provided below.

Chloroform

Upstream and downstream concentrations are within the same range and only a fraction of the regulatory standard. The highest reported detection of chloroform was from the waste-water treatment plant out-fall. Due to changes in operation procedures at the UC Davis sewage treatment plant that were implemented during 2000, chloroform concentrations decreased significantly during the year.

Total Chromium

Upstream, out-fall, and downstream total chromium levels are comparable, a fraction of the promulgated standard.

Hexavalent Chromium

Upgradient and downgradient hexavalent chromium levels are comparable, with concentrations at the out-fall in the same approximate range, but lower. All maximum levels exceeded the promulgated standard (4-day average, Inland Surface Waters, CVRWQCB, 1998).

Dibromochloromethane

Dibromochloromethane was detected at the sewage out-fall and in a downstream sample. The downstream sample appears to be attributable to the out-fall. The levels detected in all cases are a small fraction of the promulgated standard.

Acetone

Upstream, out-fall, and downstream acetone detections were nearly identical, about 1% of the threshold standard.

Toluene

Only very low levels of toluene were detected, with the out-fall samples having slightly greater maximum concentrations than upstream or downstream. The downstream levels appear to be attributable to the out-fall. Again, the maximum detections in all cases were a fraction of the standard.

Nitrate

Upstream and downstream nitrate levels are comparable, with the highest detection being at the sewage out-fall. As with most other constituents, levels were well below the promulgated standard.

Total-Dissolved Solids

All TDS maximum detections are within the same order of magnitude, far below the potentially applicable standard. The highest detection was at the sewage outfall.

Carbon-14

As noted above, there are no applicable standards for carbon-14. Upstream and downstream levels are comparable, although the maximum detection was greater in the upstream sample.

Tritium

Tritium shows non-detects in upstream and out-fall samples and a maximum detection of 790 pCi/L at the downstream point (5/27/97). However, tritium was not detected in 13 of the 15 samples analyzed for the downstream point in the years 1997 through 2000. The maximum detection was a fraction of the drinking-water MCL.

Bromodichloromethane

Upstream and downstream detections of bromodichloromethane were comparable. The highest concentrations detected were at the sewage outfall. Detections were a fraction of the standard.

Certain other common VOCs were detected at extremely low concentrations in storm water, but were not detected in surface water over the four-year-monitoring program (Section 5.5 and Table 9).

6.0 CONCLUSIONS AND RECOMMENDATIONS

This section provides recommendations regarding the adequacy of the IRA groundwater treatment system and water monitoring programs, based on 2000 and historical data.

6.1 GROUNDWATER IRA MONITORING

The IRA system monitoring results indicate that the VOC plume is being captured and off-Site migration minimized. Chloroform concentrations at the toe of the plume are declining, and chloroform is being removed at a rate of approximately 24 pounds per year (based on 32 months of full-scale operation data).

Increasing concentrations in TDS and nitrate-N within the capture zone indicate the need for short-term and potentially long-term IRA enhancements. Based on these needs, the IRA monitoring program should continue during 2001 at the level established by the WDR Order No. 5-00-140 and AOC #99-16, together with the groundwater monitoring program proposed for the Land Treatment Pilot Study outlined in Section 3.1 and further discussed in Section 5.1. The resulting IRA monitoring program recommended for implementation during calendar year 2001 is presented in Table 11.

6.2 WATER MONITORING PROGRAM

A significant refocusing of the groundwater monitoring program to address COCs downgradient of source areas was fully implemented during 2000. This program was designed with the recognition that the current groundwater monitoring network meets the objectives of the RI/FS. During 2001, the monitoring program will continue as outlined in Section 3.2.1, and detailed in Table 11.

Additional down gradient wells were installed to assess the downgradient extent of chloroform impacts within HSU-2 and HSU-4. These wells will continue to be monitored quarterly through four rounds subsequent to installation as required by the WDRs, and shown in Table 11. The data will then be presented and assessed in the quarterly monitoring reports, and recommendations made regarding needs for continued monitoring.

During December 2000, a pilot test was initiated in the vicinity of UCD1-12 utilizing a density-driven convection (DDC) system for source removal of chloroform and other VOCs. Although initial indications are that the DDC system is effective, recommendations for monitoring to assess the effectiveness of the DDC system will be presented in the pilot-test evaluation report, which is scheduled for May 2001.

The assessment of the storm water and surface water monitoring programs presented in Sections 5.5 and 5.6 suggests that modifications of these programs may be appropriate. It is recommended that an interpretive discussion of these programs to date and recommendations for future actions be presented in a meeting with the RPMs at a future time.

7.0 REFERENCES

California Department of Water Resources (CDWR), 1978. Evaluation of Groundwater Resources, Sacramento Valley. Bulletin 118-6, 136pp.

Central Valley Regional Water Quality Control Board (CVRWQCB), 1997. Waste Discharge Requirements Order No. 97-223. November.

Central Valley Regional Water Quality Control Board (CVRWQCB), 2000. Waste Discharge Requirements Order No. 97-223 (Modified). June.

Dames & Moore, 1997. Removal Action Work Plan, Groundwater Interim Removal Action, LEHR/SCDS Environmental Restoration, Davis, California. December, 1997.

Dames & Moore, 1999. Groundwater Source Investigation, SCDS/LEHR Environmental Restoration, Davis, California.

Dames & Moore, 1999a. Annual System Evaluation Report, Groundwater Interim Removal Action, LEHR/SCDS Environmental Restoration. August.

Dames & Moore, 1998a. Final Revised Field Sampling Plan, LEHR/SCDS Environmental Restoration. August.

Dames & Moore, 1998b. Revised Quality Assurance Project Plan, LEHR/SCDS Environmental Restoration.

Dames & Moore, 1998c. 1997 Annual Water Monitoring Report for Energy-related Health Research and South Campus Disposal Site. April 1998.

Dames & Moore, 1997. Revised Engineering Evaluation/Cost analysis, Groundwater Interim Removal Action, LEHR Environmental Restoration.

Mann, Dr. John F. Jr., 1992. Hydrogeology of Lower Putah Creek – Preliminary Discussion. For Solano County Water Agency. January 1992.

Montgomery Watson, 2000. Land Treatment Pilot Study Work Plan, SCDS/LEHR Environmental Restoration. July.

UC Davis, 1999a. Revised Groundwater Monitoring Well Network, letter to Ms. Susan Timm (Regional Water Quality Control Board), Mr. Duncan Austin (Department of Toxic Substances Control), Mr. Pete Patel (Department of Health Services), and Kathy Setian (U.S. Environmental Protection Agency). November 22.

UC Davis, 1999b. 1998 Annual Water Monitoring Report for Laboratory for Energy-related Health Research and South Campus Disposal Site. April 27.

UC Davis, 2000a. Short-term Modifications to the Groundwater IRA Treatment System. January 22.

UC Davis, 2000b. Long-term IRA Treatment/Discharge Options Memorandum. February 25.

UC Davis, 2000c. 1999 Annual Groundwater Treatment System and Water Monitoring Report for Laboratory for Energy-related Health Research and South Campus Disposal Site. March 9.

United States Environmental Protection Agency (US EPA), Amendment to the Statement of Work for Removal Actions and Mitigation/Repair, Administrative Order on Consent #99-16 (ASOW). June.

URS, 2000. Draft Work Plan, Pilot Test Density-Driven Convection Wells, LEHR/SCDS, University of California, Davis. August.

TABLE 1
FORMATION THICKNESS, SOIL BORINGS AND TEM POINTS
2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

Boring/TEM I.D.	Total Depth (feet bmsl)	Formation Thickness (feet)				
		Putah Creek Fan		Tehama Formation		
		HSU-1	HSU-2	HSU-3	HSU-4	Unnamed Aquitard
UCD1-1	56.5	56.5+	-	-	-	-
UCD1-2	60.0	60.0+	-	-	-	-
UCD1-3	61.5	61.5+	-	-	-	-
UCD1-4	56.5	56.5+	-	-	-	-
UCD1-5	48.5	48.5+	-	-	-	-
UCD1-6	52.5	52.5+	-	-	-	-
UCD2-7	90.0	78.0	12.0+	-	-	-
UCD1-8	56.0	56.0+	-	-	-	-
UCD1-9	51.5	51.5+	-	-	-	-
UCD1-10	70.0	70.0+	-	-	-	-
UCD1-11	66.5	66.5+	-	-	-	-
UCD1-12	66.5	66.5+	-	-	-	-
UCD1-13	66.5	66.5+	-	-	-	-
UCD2-14	86.0	80.0	6.0+	-	-	-
UCD2-15	120.5	85.0	33.0	2.5+	-	-
UCD2-16	122.0	88.0	31.0	3.0+	-	-
UCD2-17	143.0	84.5	53.0	5.5+	-	-
UCD1-18	70.0	70.0+	-	-	-	-
UCD1-19	74.5	74.5+	-	-	-	-
UCD1-20	71.5	71.5+	-	-	-	-
UCD1-21	73.5	73.5+	-	-	-	-
UCD1-22	71.5	71.5+	-	-	-	-
UCD1-23	76.5	76.5+	-	-	-	-
UCD1-24	71.5	71.5+	-	-	-	-
UCD1-25	75.0	75.0+	-	-	-	-
UCD2-26	102.0	88.0	14.0+	-	-	-
UCD2-27	136.0	81.5	44.5	10.0+	-	-
UCD1-28	70.0	70.0+	-	-	-	-
UCD2-29	96.0	75.0	21.0+	-	-	-
UCD2-30	110.0	75.0	35.0+	-	-	-
UCD2-31	110.0	75.0	35.0+	-	-	-
UCD2-32	105.0	81.5	23.5+	-	-	-
UCD4-33	310.0	86.5	27.5	144	52.0+	-
UCD1-34	80.0	76.0	4.0+	-	-	-
UCD2-35	130.0	76.0	54.0+	-	-	-
UCD2-36	105.0	80.0	25.0+	-	-	-
UCD2-37	123.5	85.5	33.0	5.0+	-	-
UCD2-38	119.0	89.5	29.5+	-	-	-
UCD2-39	112.0	86.0	26.0+	-	-	-

TABLE 1 (Cont.)
FORMATION THICKNESS, SOIL BORINGS AND TEM POINTS
2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

Boring/TEM I.D.	Total Depth (feet bmsl)	Formation Thickness (feet)				
		Putah Creek Fan		Tehama Formation		
		HSU-1	HSU-2	HSU-3	HSU-4	Unnamed Aquitard
UCD2-40	108.5	81.5	26.5	0.5+	-	-
UCD4-41	295.0	81.5	26.5	147.0	27.0	13.0+
UCD4-43	295.0	81.0	44.0	125.0	30.0	15.0+
UCD4-44	295.0	80.0	51.0	119.0	30.0	15.0+
UCD2-45	116.0	94.0	25.0+	-	-	-
UCD2-46	105.0	85.0	20.0+	-	-	-
UCD4-47	295.0	95.0	20.0	139.0	36.0	5.0+
EW2-1	125.5	77.0	37.0	11.5+	-	-
IW2-1	126.5	87.5	32.5	6.5+	-	-
TEM-1	339	64	40	204	31+	-
TEM-2	299	74	66	126	33+	-
TEM-3	314	74	50	144	46+	
TEM-4	325	72	39	166	48+	-
TEM-5	325	67	37	174	47+	-
TEM-6	330	64	38	185	43+	-
TEM-7	330	69	37	187	37+	-
TEM-8	329	69	34	189	37+	-
TEM-9	324	69	41	180	34+	-
TEM-10	325	69	55	157	44+	-
TEM-11	340	61	45	188	46+	-
TEM-12	327	70	25	197	35+	-
TEM-13	329	65	17	207	40+	-
TEM-14	335	57	20	220	38+	-
TEM-15	347	57	25	227	38+	-
TEM-16	349	55	23	229	42+	-
TEM-17	346	47	20	236	43+	-
TEM-18	345	84	25	91	106	39+
TEM-19	340	76	43	100	88	33+
TEM-20	320	75	42	73	92	38+
TEM-21	297	77	58	47	73	42+
TEM-22	286	73	55	54	63	41+
TEM-23	297	76	50	56	79	36+
TEM-24	296	76	53	53	77	37+
TEM-25	321	83	53	50	86	49+
TEM-26	311	79	50	53	83	46+
TEM-27	297	74	43	53	79	48+
TEM-28	256	69	52	61	53	21+
TEM-29	350	124	81	73	72+	-
TEM-30	231	110	78	43+	-	-

TABLE 1 (Cont.)
FORMATION THICKNESS, SOIL BORINGS AND TEM POINTS
2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

Boring/TEM I.D.	Total Depth (feet bmsl)	Formation Thickness (feet)				
		Putah Creek Fan		Tehama Formation		
		HSU-1	HSU-2	HSU-3	HSU-4	Unnamed Aquitard
TEM-31	287	115	74	98+	-	-
TEM-33	143	99	44+	-	-	-
TEM-34	208	107	61	40+	-	-
TEM-35	208	93	69	46+	-	-
TEM-36	208	94	67	47+	-	-
TEM-37	148	112	36+	-	-	-
TEM-38	273	96	43	99	35+	-

TABLE 2
2000 GROUNDWATER-IRA MONITORING REQUIREMENTS
2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

Location	Frequency	Analyte	Requirement Source
IRA Influent	Monthly	Field parameters, VOCs, tritium, carbon-14 and TOC	WDR Order No. 5-00-140. AOC # 99-16 and To operate the groundwater treatment system in the most optimal manner and to comply with the effluent limitation in the SOW. Weekly effluent sampling approved by RPMs on September 29, 1998.
IRA Effluent	Monthly	Field parameters, Metals[1], VOCs, COCs[2], sulfate and chloride.	
	Weekly	Nitrate-N and TDS	
UCD2-7, UCD2-14, UCD2-15, UCD2-16, UCD2-17, UCD2-26 and UCD2-32	Quarterly	Field parameters, VOCs, chromium, nitrate-N, TDS, TOC, tritium, carbon-14, water level	
UCD1-28, UCD2-29, UCD2-30, UCD2-31, UCD2-35, UCD2-36, UCD2-37, UCD2-38, UCD2-39 and UCD2-40	Monthly		
UCD1-11, UCD1-18, UCD1-25, UCD1-28, UCD2-26, UCD2-29, UCD2-39 and UCD2-40	Quarterly	COCs, metals and general chemicals[3]	Proposed Groundwater Monitoring Program, Land Treatment Pilot Study Work Plan (Montgomery Watson, July 2000)

1. *Metals include: arsenic, barium, boron, cadmium, chromium, lead, manganese, mercury, nickel and zinc. Chromium may be analyzed as total chromium, and the result is assumed to be entirely attributable to hexavalent chromium (per Administrative Order on Consent # 99-16). During 2000, IRA effluent was analyzed for both total and hexavalent chromium monthly from January through May and once again in July.*
2. *COCs include: chloroform, nitrate-N, hexavalent chromium, tritium, carbon-14 and TDS.*
3. *In anticipation of the Land Treatment Pilot Study, these wells were sampled and analyzed for metals, COCs and general chemicals monthly during August through November 2000.*

TABLE 3
2000 GROUNDWATER MONITORING REQUIREMENTS (ADDITIONAL TO IRA)
2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

Locations	Frequency	Analyte	Requirement Source
UCD1-18, UCD1-11, UCD1-12, UCD1-13,	Annually	COCs	RPM Meeting of September 8, 1999 and subsequent letter of November 22, 1999
UCD1-10,		VOCs, Nitrate-N and TDS	
UCD1-25		VOCs	
UCD2-45, UCD2-46, UCD 4-41, UCD4-42, UCD4-43, UCD4-44	Quarterly	Radiologic parameters, SVOCs, Pesticides and PCBs, Metals, General Chemicals, and COCs for four quarters, followed by COCs only thereafter. 2	

TABLE 4
SUMMARY OF WELL CONSTRUCTION DETAILS
2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

Well Number	Date Installed	Total Boring Depth (ft bgs)	PVC Well Diameter (inches)	Screen Interval (ft bgs)	Filter Pack (ft bgs)	Bentonite (ft bgs)	Cement (ft bgs)	Elevation Top of Well Cover (ft msl)	Elevation Ground Surface (ft msl)
UCD1-1	10/09/87	56.5	2	46.5-56.5	41-56.5	38-41	0-38	50.05	47.9
UCD1-2	Abandoned								
UCD1-3	10/23/87	51.5	2	39-49	34-51.5	(a)	0-34	50.05	48.2
UCD1-4	10/14/87	56.5	2	45-55	40-56.5	(a) 37-40	0-37	51.69	49.4
UCD1-5	10/22/87	48.5	2	38-48	33-48	(a)	0-33	48.44	48.4
UCD1-6	10/21/87	52.5	2	40-50	35-50	(a)	0-35	50.94	49.0
UCD2-7	11/05/87	90	2	80-90	75-90	(a)	0-75	51.65	49.3
UCD1-8	11/03/87	56	2	43.5-53.5	39-53.5	(a)	0-39	51.51	49.2
UCD1-9	11/04/87	51.5	2	40-50	35-50	(a)	0-35	51.38	49.0
UCD1-10	10/11/89	70	4	54-69	52-70	49-52	0-49	49.87	47.4
UCD1-11	10/17/89	66.5	4	50-65	47-66.5	44-47	0-44	50.67	47.6
UCD1-12	10/19/89	65	4	49.5-64.5	47-65	44-47	0-44	51.76	48.8
UCD1-13	10/26/89	65	4	50-65	47-65	44.5-47	0-44.5	52.19	49.2
UCD2-14	11/15/89	86	4	75-85	69-86	64-69	0-64	51.72	49.0
UCD2-15	03/28/90	120.5	4*	91-116	86-120.5	65-86	0-65	51.63	49.8
UCD2-16	04/04/90	122	4*	92-117	86-122	71-86	0-71	49.95	48.2
UCD2-17	04/10/90	143	4*	88-113	81-113	78-81	0-78	51.83	49.6
UCD1-18	10/04/90	70	4*	54-69	51-70	48-51	0-48	48.56	46.7
UCD1-19	10/01/90	74.5	4*	56.5-71.5	53.5-72.5	50.5- 53.5	0-50.5	51.33	49.3
UCD1-20	10/09/90	73.5	4*	57-72	54-73.5	51-54	0-51	49.78	48.0
UCD1-21	10/11/90	73.5	4*	57-72	54-73.5	51-54	0-51	48.77	48.7
UCD1-22	10/25/90	73	4*	57-72	54-73	51-54	0-51	49.07	49.0
UCD1-23	10/17/90	76.5	4*	56.5-71.5	53.5-73	50.5- 53.5	0-50.5	49.39	49.2
UCD1-24	10/22/90	73	4*	57-72	54-73	51-54	0-51	48.91	48.8
UCD1-25	10/06/95	75	4**	60-75	56.9-75	52-56.9	0.52	48.80	-
UCD2-26	10/06/95	102	4**	87-102	84-102	79-84	0-79	48.79	-
UCD1-27Z1	10/06/95	136	5**	53-55	51.5-57.5	49-51.5	0-49	47.79	-
UCD1-27Z2	10/06/95	136	5**	63-65	61.5-66.5	57.5-61.5	0-49	47.79	-
UCD1-27Z3	10/06/95	136	5**	73-75	71.5-76.5	66.5-71.5	0-49	47.79	-
UCD2-27Z4	10/06/95	136	5**	86-88	84.9-90	76.5-84.9	0-49	47.79	-
UCD2-27Z5	10/06/95	136	5**	96-98	94.5-100	90-94.5	0-49	47.79	-
UCD2-27Z6	10/06/95	136	5**	106-108	104.5-109.5	100-104.5	0-49	47.79	-
UCD2-27Z7	10/06/95	136	5**	116-118	114.5-119	109.5-114.5	0-49	47.79	-
UCD1-28	09/05/96	70	2*	53-68	51-70	47-51	0-47	50.34	48.1
UCD2-29	09/04/96	97	2*	80-95	76.7-97	72-76.7	0-72	50.32	48.1

TABLE 4 (CONTINUED)
SUMMARY OF WELL CONSTRUCTION DETAILS
2000 Annual Groundwater Treatment System and Water Monitoring Report
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Well Number	Date Installed	Total Boring Depth (ft bgs)	PVC Well Diameter (inches)	Screen Interval (ft bgs)	Filter Pack (ft bgs)	Bentonite (ft bgs)	Cement (ft bgs)	Elevation Top of Well Cover (ft msl)	Elevation Ground Surface (ft msl)
UCD2-30	09/10/96	110	2*	95-110	91-110	89.5-91	0-89.5	49.83	47.6
UCD2-31	09/11/96	110	2*	94-109	91-110	87-91	0-87	49.86	47.5
UCD2-32	04/03/97	105	2*	83-103	81 -105	77-81	0-77	45.41	45.08
UCD4-33	Abandoned in May 1997 and replaced by UCD4-42								
UCD1-34	10/06/95	80	4**	61-76	57-76	50-57	0-50	55.70	-
UCD2-35	10/06/95	130	4**	107-122	103-122	98-103	0-98	55.71	-
UCD2-36	11/06/97	105	2*	82-102	79-105	73-79	0-73	48.31	-
UCD2-37	10/20/97	118.5	2*	94-114	91-118.5	85-91	0.85	49.63	-
UCD2-38	10/23/97	119	2*	95-115	89-95	83-89	0-83	57.20	-
UCD2-39	10/30/97	112	2*	87-107	84-112	80.5-84	0-81.5	49.63	47.4
UCD2-40	11/07/97	108.5	2*	86-106	83-108.5	78-83	0-78	48.98	46.5
UCD4-41	10/10/97	295	4*	257-277	253-280	248.5-253	0-248.5	49.37	47.0
UCD4-42	11/03/97	272	4*	248.5-268.5	245-269	240-245	0-246	47.22	47.0
UCD4-43	10/02/97	295	4*	248-268	242.5-274	233-242.5	0-237	45.06	44.52
UCD4-44	04/07/99	295	4*	246.5-266.5	242-273	237-242	0-237	50.58	-
UCD2-45	11/30/99	116	2*	93-113	89.5-113.5	84.5-89.5	0-84.5	46.58	46.58
UCD2-46	05/05/00	106	2*	84.5-104.5	81.75-106	79-81.75	0-79	44.73	42.6
UCD4-47	05/20/00	299	4*	266-286	263.5-288.9	257-263	0-257	47.38	45.1
EW2-1	09/20/96	125.65	8*	79.4-119.4	74.4-125.65	68.4- 74.4	0-68.4	49.17	47.3
IW2-1	10/17/97	126.5	10*	84.5-119.5	80-126.5	75-80	0-75	49.39	-

Note: ft bgs feet below ground surface.
ft msl feet mean sea level datum.
* stainless steel, wire wrap screen.
** stainless steel, blank casing and wire wrap screen.
(a) Well constructed with #60 sand seal and no bentonite.

Table 5
2000 MONITORING PROGRAM
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		Radiological Analytes									Chemical Analytes															Bioassay	
	Wells	Tritium	C-14	Gamma Spec	Gross Alpha	Gross Beta	Sr-90	Ra-226	Pu-241	Am-241	VOC	SVOC	Pesticides & PCBs	Metals	TOC	Nitrates (as N)	Hexavalent Chromium (Cr+6)	Total Chromium	TDS	Alkalinity	TSS	Oil and Grease	Hardness	Anions	Cations	Acute Aquatic Toxicity	Chronic Aquatic Toxicity
HSU-1	UCD1-1																										
	UCD1-4																										
	UCD1-10										Sp					Sp			Sp								
	UCD1-11	SpSuF	SpSuF								SpSuF			SuF	SuF	SpSuF		Sp	SpSuF	SuF					SuF		
	UCD1-12	Sp	Sp								Sp					Sp		Sp	Sp								
	UCD1-13	Sp	Sp								Sp					Sp		Sp	Sp								
	UCD1-18	SpSuF	SpSuF								SpSuF			SuF	SuF	SpSuF	Sp	Sp	SpSuF	SuF					SuF		
	UCD1-19																										
	UCD1-20																										
	UCD1-21																										
	UCD1-22																										
	UCD1-23																										
	UCD1-24																										
	UCD1-25	SuF	SuF								SpSuF			SuF	SuF	SuF			SuF	SuF					SuF		
	UCD1-27Z3																			Su							
	UCD1-28	M	M								M			SuF	M	M	M	M	M	SpSuF				Sp	SpF		
	UCD1-34																										
HSU-2	UCD2-7	WSpSuF	WSpSuF								WSpSuF			Su	WSpF	WSpSuF	Sp	SpSuF	WSpSuF						Su		
	UCD2-14	WSpSuF	WSpSuF								WSpSuF			Su	WspSuF	WSpSuF	WSp	WSpSuF	WSpSuF								
	UCD2-15	WSpSuF	WSpSuF								WSpSuF			Su	WspSuF	WSpSuF	WSp	WSpSuF	WSpSuF								
	UCD2-16	WSpSuF	WSpSuF								WSpSuF			Su	WspSuF	WSpSuF	WSp	WSpSuF	WSpF								
	UCD2-17	WSpSuF	WSpSuF								WSpSuF			Su	WspSuF	WSpSuF	WSp	WSpSuF	WSpSuF								
	UCD2-26	WSpSuF	WSpSuF								WSpSuF			F	WspSuF	WSpSuF	WSp	WspSu	WSpSuF	SuF					SuF		
	UCD2-27Z5																										
	UCD2-29	M	M								M			SuF	M	M	M	M	M	SuF					F		
	UCD2-30	M	M								M			Su	M	M	M	M	M								
	UCD2-31	M	M								M			Su	M	M	M	M	M								
	UCD2-32	WSpSuF	WSpSuF								WSpSuF			Su	WSpSuF	WSpSuF	WSp	WSpSuF	WSpSuF								
	UCD2-35	M	M								M			Su	M	M		M	M								
	UCD2-36	M	M								M			Su	M	M		M	M								
	UCD2-37	M	M								M			Su	M	M		M	M								
	UCD2-38	M	M								M			Su	M	M		M	M								
	UCD2-39	M	M								M			SuF	M	M		M	M	SuF					F		
	UCD2-40	M	M								M			SuF	M	M	M	M	M	SuF					F		
	UCD2-45	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSpSuF	WSp		WSpSuF	WSpSuF			Sp	WSpSuF	WSpSuF		
	UCD2-46	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF			SuF	SuF				SuF	SuF		
HSU-4	UCD4-41	WSpSuF	F								WSpSuF			Su	W	WSpSuF		WSpSuF	WSpSuF								
	UCD4-42	WSpSuF									WSpSuF			Su		WSuF		WSpSuF	WSpSuF								
	UCD4-43	WSpSuF									WSpSuF			Su		WSpSuF		WSpSuF	WSpSuF								
	UCD4-44	WSpSuF	WSpSuF	WSpSu	WSpSu	WSpSu	WSpSu	WSpSu	WSpSu	WSpSu	WSpSuF	WspSu	W	WspSu	WspSu	WSpSuF	WspSu	SpSuF	WSpSuF	WSpSu			Sp	WSpSu	WSpSu		
	UCD-47	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF	SuF		Su	SuF	SuF				SuF	SuF		
Storm Water	LF-01	WF	WF				WF	WF			WF		WF	WF	WF	WF	W	WF	WF		WF	WF				WF	
	LF-03	WF	WF				WF	WF			WF		WF	WF	WF	WF	W	WF	WF		WF	WF				WF	
	LS-01	WF	WF	WF	WF	WF	WF	WF	W	W	WF		WF	WF		WF		WF		F		WF		F	WF	WF	
Surface Water	STPO	WF	WF				WF	WF			WF		WF	WF		WF	WF	WF	WF								WF
	PCU	WF	WF				WF	WF			WF		WF	WF		WF	W	WF	WF								WF
	PCD	WF	WF				WF	WF			WF		WF	WF		WF	W	WF	WF								WF
	PC2																										WF
Treatment System	Influent	M	M								M				M												
	Effluent										M			M		M	M		M	M				M	M		

W = Sampled Winter Quarter Sp = Sampled Spring Quarter Su = Sampled Summer Quarter F = Sampled Fall Quarter M = Sampled Monthly *TOC = Total Organic Carbon TDS = Total Dissolved Solids TSS – Total Suspended Solids

TABLE 6
ANALYTICAL PARAMETERS AND METHODS
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SAMPLE PARAMETERS		
Constituent	**Units**	**Method**
Field		
pH	pH units	Field, SOP
EC	µmhos/cm	Field, SOP
Eh	mvolts	Field, SOP
Temperature	°C	Field, SOP
Turbidity	ntu	Field, SOP
Organic		
Volatile Organic Compounds	µg/L	EPA SW8260B
Semivolatile Organic Compounds	µg/L	EPA SW8270B
Organochlorine Pesticides/PCBs	µg/L	EPA SW8081A/8082
Radiologic Analyses		
Gross Alpha	pCi/L	EPA 9310
Gross Beta	pCi/L	EPA 9310
Tritium	pCi/L	EPA 906.0 (M)
Carbon-14	pCi/L	EPA-R4-73-014
Strontium-90	pCi/L	EPA 905.0 (M)
Radium-226	pCi/L	EPA 903.1 (M)
Americium-241	pCi/L	EPA 907.0 (M)
Plutonium-241	pCi/L	EPA 907.0 (M)
Gamma Spectral Analysis		
Th-234	pCi/L	EPA 901.1 (M)
Pb-214	pCi/L	EPA 901.1 (M)
Bi-214	pCi/L	EPA 901.1 (M)
Pb-210	pCi/L	EPA 901.1 (M)
U-235	pCi/L	EPA 901.1 (M)
U-238	pCi/L	EPA 901.1 (M)
Na-22	pCi/L	EPA 901.1 (M)
Ac-228	pCi/L	EPA 901.1 (M)
Pb-212	pCi/L	EPA 901.1 (M)
Bi-212	pCi/L	EPA 901.1 (M)
Tl-208	pCi/L	EPA 901.1 (M)
K-40	pCi/L	EPA 901.1 (M)
Co-60	pCi/L	EPA 901.1 (M)
Cs-137	pCi/L	EPA 901.1 (M)

TABLE 6 (continued)
ANALYTICAL PARAMETERS AND METHODS
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SAMPLE PARAMETERS		
Constituent	**Units**	**Method**
Metals		
Hexavalent Chromium	µg/L	EPA SW7196
Total Chromium	µg/L	EPA SW6010A/6020
Antimony	µg/L	EPA SW6020
Arsenic	µg/L	EPA SW6020
Barium	µg/L	EPA SW6020
Beryllium	µg/L	EPA SW6020
Cadmium	µg/L	EPA SW6020
Cobalt	µg/L	EPA SW6020
Copper	µg/L	EPA SW6020
Iron	µg/L	EPA SW6020
Lead	µg/L	EPA SW6020
Mercury	µg/L	EPA SW7470A
Molybdenum	µg/L	EPA SW6020
Nickel	µg/L	EPA SW6020
Selenium	µg/L	EPA SW6020
Silver	µg/L	EPA SW6020
Thallium	µg/L	EPA SW6020
Vanadium	µg/L	EPA SW6020
Zinc	µg/L	EPA SW6020
General Chemicals		
Alkalinity	mg/L	EPA 310.1
Sodium	mg/L	EPA 6010A
Potassium	mg/L	EPA 6010A
Calcium	mg/L	EPA 6010A
Magnesium	mg/L	EPA 6010A
Chloride	mg/L	EPA 300.0
Sulfate	mg/L	EPA 300.0
Phosphorous, dissolved	mg/L	EPA 365A
Nitrate (as Nitrogen)	mg/L	EPA 300.0
Total Dissolved Solids	mg/L	EPA 160.1
Total Suspended Solids	mg/L	EPA 415.2
Total Organic Carbon	mg/L	EPA 9060M
Hardness	mg/L	EPA 130.2
Oil & Grease	mg/L	EPA 9070
Acute Aquatic Toxicity	%	EPA/600/4-90-027F
Chronic Aquatic Toxicity	%	EPA 600/4-91/002

TABLE 7
MASS REMOVAL TOTALS
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Month	AVERAGE CHLOROFORM CONCENTRATION (µg/L)	AVERAGE CHLOROFORM CONCENTRATION (kg/L)	VOLUME OF EXTRACTED GROUNDWATER (gallons)	VOLUME OF EXTRACTED GROUNDWATER (Liters)	MASS OF CHLOROFORM REMOVED* (kg)	MASS OF CHLOROFORM REMOVED* (pounds)
April-98	29.9	2.99E-08	375,250	1,420,321	0.04	0.09
May-98	35.2	3.52E-08	1,531,590	5,797,068	0.20	0.45
June-98	37.3	3.73E-08	3,865,155	14,629,612	0.55	1.20
July-98	68	6.80E-08	5,968,366	22,590,265	1.54	3.39
August-98	80	8.00E-08	7,564,438	28,631,398	2.29	5.05
Sep-98	52	5.20E-08	8,221,465	31,118,245	1.62	3.57
Oct-98	58	5.80E-08	4,261,762	16,130,769	0.94	2.06
Nov-98	34	3.40E-08	4,786,293	18,116,119	0.62	1.36
Dec-98	25.3	2.53E-08	5,397,711	20,430,336	0.52	1.14
		1998 TOTAL	41,972,030	158,864,134	8.31	18.31
Jan-99	23.1	2.31E-08	4,942,820	18,708,574	0.43	0.95
Feb-99	19.7	1.97E-08	4,838,400	18,313,344	0.36	0.80
Mar-99	14.5	1.45E-08	4,645,800	17,584,353	0.25	0.56
Apr-99	15.1	1.51E-08	5,010,000	18,962,850	0.29	0.63
May-99	23.6	2.36E-08	5,683,950	21,513,751	0.51	1.12
Jun-99	59.5	5.95E-08	6,480,000	24,526,800	1.46	3.22
Jul-99	106	1.06E-07	7,073,410	26,772,857	2.84	6.26
Aug-99	61.7	6.17E-08	7,588,800	28,723,608	1.77	3.91
Sep-99	44.1	4.41E-08	4,976,641	18,836,586	0.83	1.83
Oct-99	35.6	3.56E-08	6,453,540	24,426,649	0.87	1.92
Nov-99	2.8	2.80E-09	7,252,200	27,449,577	0.08	0.17
Dec-99	20.1	2.01E-08	5,730,825	21,691,173	0.44	0.96
		1999 TOTAL	70,676,386	267,510,121	10.12	22.32
Jan-00	23.4	2.34E-08	5,200,800	19,685,028	0.46	1.02
Feb-00	23.8	2.38E-08	4,176,000	15,806,160	0.38	0.83
Mar-00	23.2	2.32E-08	2,394,000	9,061,290	0.21	0.46
Apr-00	29.2	2.92E-08	4,314,000	16,328,490	0.48	1.05
May-00	47.4	4.74E-08	4,741,200	17,945,442	0.85	1.88
Jun-00	67.5	6.75E-08	6,448,200	24,406,437	1.65	3.63
Jul-00	82.2	8.22E-08	7,197,300	27,241,781	2.24	4.94
Aug-00	70.9	7.09E-08	7,029,000	26,604,765	1.89	4.16
Sep-00	54.1	5.41E-08	5,406,000	20,461,710	1.11	2.44
Oct-00	53.7	5.37E-08	6,095,010	23,069,613	1.24	2.73
Nov-00	52.4	5.24E-08	2,226,850	8,428,627	0.44	0.97
Dec-00	38.4	3.84E-08	1,602,900	6,066,977	0.23	0.51
		2000 TOTAL	56,831,260	215,106,319	11.17	24.62
		GRAND TOTAL	169479676.00	641480573.66	29.60	65.25

* Mass Removed = Average Concentration x Volume of Extracted Groundwater

TABLE 8
GROUNDWATER ELEVATIONS
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Wells	Well	18-Jan-00	4-Feb-00	3-Mar-00	7-Apr-00	5-May-00	2-Jun-00	7-Jul-00	5-Aug-00	6-Sep-00	12-Oct-00	16-Nov-00	15-Dec-00
HSU-1	UCD1-01	11.93	13.05	15.78	16.55	13.27	8	0.61	-2.52	0.35	4.19	7.8	9.65
	UCD1-03	11.83	13.01	16.56	17.6	14.04	8.3	0.5	NM	NM	3.3	7.42	9.26
	UCD1-04	12.48	13.52	17.14	18.98	15.29	9.87	2.45	0.12	-0.09	3.33	8.11	10.28
	UCD1-05	11.88	12.98	16.39	17.56	14.11	7.62	0.84	NM	NM	3.53	7.56	9.49
	UCD1-06	12.04	13.11	16.46	17.7	14.48	8.43	NM	NM	NM	NM	7.81	9.72
	UCD1-08	11.99	13.05	16.36	18.38	13.9	9.07	3.63	NM	-0.12	3.14	7.46	9.33
	UCD1-09	11.58	12.67	16.1	17.59	13.73	7.87	NM	NM	NM	NM	7.15	8.98
	UCD1-10	29.65	11.71	15.11	17.06	11.62	5.77	-2.46	-5.29	-0.59	3.05	6.95	8.68
	UCD1-11	10.97	12.13	15.5	16.56	12.54	6.37	-1.69	-4.75	-1.12	3.1	6.81	8.86
	UCD1-12	11.53	12.58	16.1	17.58	13.62	7.7	-0.38	-3.22	-0.62	3.08	7.16	9
	UCD1-13	11.96	13.09	16.42	18.4	13.94	9.10	0.72	-1.67	-0.09	3.17	7.49	9.37
	UCD1-18	12.8	13.75	17.36	19.08	15.85	10.80	3.1	0.41	0.99	4.97	8.61	10.49
	UCD1-19	11.32	12.41	15.69	16.73	12.94	6.97	-0.62	-3.85	-0.92	3.09	7.13	9.03
	UCD1-20	11.84	13.01	16.53	17.58	14.07	8.29	0.5	-2	-0.61	3.34	7.42	9.32
	UCD1-21	11.87	12.98	16.39	17.5	14.09	8.21	0.72	-1.79	-0.76	3.48	7.53	9.44
	UCD1-22	12.09	13.19	16.51	17.75	14.48	8.45	9.11	-1.75	-0.19	3.92	7.84	9.75
	UCD1-23	12.53	13.57	17.09	18.82	15.19	9.67	2.29	0.03	0.01	3.4	8.07	9.95
	UCD1-24	12.4	13.51	16.88	18.38	NM	9.23	1.11	-1.22	0.49	3.58	7.6	9.49
	UCD1-25	10.7	11.84	15.25	15.89	11.74	5.68	-2.94	-5.4	-1.17	2.7	6.73	8.61
	UCD1-28	10.46	11.72	15.07	15.43	11.19	4.99	-3.09	-5.83	-1.33	2.56	6.56	8.52
	UCD1-34	12.47	13.54	17.24	19.02	11.85	9.66	2.09	-0.36	0.13	3.56	8.21	10.1
HSU-2	UCD2-07	11.4	12.67	15.84	16.3	12.01	6.41	-1.31	-4.12	0.39	4.04	7.52	9.4
	UCD2-14	11.27	12.49	15.68	16.14	12.37	6.24	-1.68	-4.54	0.13	3.8	7.39	9.25
	UCD2-15	11.85	13.05	16.12	16.48	13.26	7.17	-0.66	-3.41	0.99	4.57	7.84	9.71
	UCD2-16	11.64	12.83	16.03	16.51	12.94	6.79	-1.55	-3.78	0.77	4.42	7.76	9.59
	UCD2-17	12.25	13.3	16.26	17.03	13.88	7.58	-0.15	-3.89	1.62	5.11	8.28	10.02
	UCD2-26	10.7	8.94	15.29	15.53	11.25	5.16	-3.26	-5.82	-0.69	3.21	6.88	8.77
	UCD2-29	10.42	11.72	15.05	15.3	10.86	4.78	-3.88	-6.46	-1.09	2.82	6.64	8.52
	UCD2-30	10.3	11.66	14.98	15.18	10.67	4.59	-4.13	-6.65	-1.23	2.72	6.52	8.45
	UCD2-31	10.41	11.75	15.08	15.28	10.85	4.77	-3.87	-6.35	-1.07	2.89	6.65	8.58
	UCD2-32	10.22	11.57	15.04	14.93	10.2	4.11	-4.93	-7.25	-1.38	2.07	6.46	8.37
	UCD2-35	11.41	12.55	15.68	16.4	12.56	16.60	-1.62	-4.66	0.4	4.08	7.5	9.35
	UCD2-36	11.48	12.64	15.83	16.36	12.6	5.83	-1.23	-4.05	0.38	4.07	7.56	9.41
	UCD2-37	12.13	13.11	16.2	16.94	13.51	7.38	-0.52	-3.59	1.31	4.89	8.05	9.89
	UCD2-38	12.02	13.01	16.06	16.91	16.59	7.37	-0.63	-3.78	1.23	4.8	8.04	9.87
	UCD2-39	10.88	12.14	15.38	15.76	11.6	5.55	-2.85	-5.62	-0.4	3.43	7.04	1.93
	UCD2-40	10.24	11.68	15.09	15.17	10.54	4.47	-4.38	-6.85	-1.17	2.81	6.58	8.5
	UCD2-45	NM	11.18	14.73	14.42	9.17	9.17	NM	NM	-1.94	1.21	6.04	8.05
	UCD2-46	–	–	–	–	–	–	-10.91	-10.66	-6.64	-2.02	2.2	4.32
HSU-4	UCD4-41	8.93	10.85	13.96	8.58	-0.04	-14.05	-21.71	-21.76	-4.96	1.06	5.58	8.1
	UCD4-42	8.76	10.76	13.86	8.27	0.61	-34.6	-12.41	-22.24	-5.31	0.86	5.45	7.59
	UCD4-43	8.55	10.62	13.82	7.56	-1.53	-35.21	-23.5	-23.6	-6.63	0.08	5.33	7.29
	UCD4-44	9.15	11.43	14.07	9.27	0.77	-13.57	-21	-20.9	-4.49	1.3	5.73	7.81
	UCD4-47	–	–	–	–	–	–	-28.74	-27.9	-7.54	-0.58	4.44	6.7
Treatment System	EW2-1	16.09	11.31	14.6	14.79	10.37	4.22	-4.69	-7.19	-1.9	2.02	6.22	8.07
	IW2-1	10.01	23.99	33.79	21.79	20.49	30.53	26.52	23.29	31.11	38.87	18.36	30.08
	UCD2-40	10.24	11.68	15.09	15.17	10.54	4.47	-4.38	-6.85	-1.17	2.81	6.58	8.5
	UCD2-37	12.13	13.11	16.2	16.94	13.51	7.38	-0.52	-3.59	1.31	4.89	8.05	9.89

NM Not measured - well was inaccessible

– UCD2-46 and UCD4-47 were completed on May 14 and 18, 2000, respectively

TABLE 9
STORM-WATER STATISTICS SHOWING COC DETECTIONS
1997 THROUGH 2000
LEHR/SCDS Environmental Restoration
Davis, California

Analyte	Sample Location	Units	No. of Samples Analyzed	No. of Samples Detected	Average	Minimum	Maximum
Volatile Organic Compounds							
1,1-DICHLOROETHENE	LF-01	ug/L	8	1	0.04	0	0.34
1,3-DICHLOROBENZENE	LF-01	ug/L	8	2	0.08	0	0.4
1,4-DICHLOROBENZENE	LF-01	ug/L	8	1	0.05	0	0.37
2-BUTANONE	LF-01	ug/L	8	2	0.20	0	1
	LF-03	ug/L	9	5	0.81	0	3.3
	LS-01	ug/L	4	2	1.02	0	2.16
2-HEXANONE	LF-01	ug/L	8	1	0.14	0	1.1
	LS-01	ug/L	4	1	2.70	0	10
4-METHYL-2-PENTANONE	LF-01	ug/L	8	1	0.16	0	1.3
	LS-01	ug/L	4	1	2.73	0	10
ACETONE	LF-01	ug/L	8	4	1.03	0	5.5
	LF-03	ug/L	9	2	1.28	0	8.9
	LS-01	ug/L	4	3	8.33	0	16.9
BENZENE	LF-01	ug/L	8	1	0.04	0	0.35
CHLOROBENZENE	LF-01	ug/L	8	1	0.13	0	1
METHYLENE CHLORIDE	LS-01	ug/L	4	2	0.97	0	3.1
TETRACHLOROETHENE	LF-01	ug/L	8	1	0.07	0	0.59
TOLUENE	LF-01	ug/L	8	1	0.09	0	0.7
	LS-01	ug/L	4	2	3.57	0	10
TRICHLOROETHENE	LF-01	ug/L	8	1	0.09	0	0.7
Pesticide Compounds							
4,4'-DDD	LF-01	ug/L	7	1	0.002	0	0.014
	LF-03	ug/L	7	1	0.0012	0	0.0087
4,4'-DDT	LS-01	ug/L	4	1	0.011	0	0.044
ALPHA-CHLORDANE	LS-01	ug/L	4	1	0.004	0	0.016
BETA-BHC	LS-01	ug/L	4	1	0.037	0	0.098
DIELDRIN	LF-01	ug/L	7	2	0.004	0	0.016
	LF-03	ug/L	7	2	0.003	0	0.016
ENDOSULFAN SULFATE	LF-03	ug/L	7	1	0.002	0	0.011
ENDRIN	LS-01	ug/L	4	1	0.01	0	0.027
GAMMA-CHLORDANE	LS-01	ug/L	4	1	0.011	0	0.043
HEPTACHLOR	LS-01	ug/L	4	1	0.02	0	0.08
Metals							
ALUMINUM	LS-01	ug/L	4	4	1325.93	29.7	3160
ANTIMONY	LF-01	ug/L	8	2	0.56	0	4.2
	LF-03	ug/L	9	2	0.19	0	1.1
	LS-01	ug/L	4	4	14.88	10.7	22.6
ARSENIC	LF-01	ug/L	8	4	0.73	0	2.84
	LF-03	ug/L	9	7	3.81	0	9.7
	LS-01	ug/L	4	2	2.18	0	4.42
BARIUM	LF-01	ug/L	8	8	55.66	9.7	320
	LF-03	ug/L	9	9	60.09	9.9	246
	LS-01	ug/L	4	4	72.00	5.2	213
BERYLIUM	LS-01	ug/L	4	1	0.08	0	0.17
	LF-01	ug/L	8	2	0.014	0	0.099
	LF-03	ug/L	9	1	0.01	0	0.05
BORON	LF-01	ug/L	1	1	128.00	128	128
	LF-03	ug/L	1	1	76.00	76	76

TABLE 9
STORM-WATER STATISTICS SHOWING COC DETECTIONS
1997 THROUGH 2000
LEHR/SCDS Environmental Restoration
Davis, California

Analyte	Sample Location	Units	No. of Samples Analyzed	No. of Samples Detected	Average	Minimum	Maximum
CADMIUM	LF-01	ug/L	8	2	0.040	0	0.251
	LS-01	ug/L	4	1	0.18	0	0.49
CALCIUM	LF-01	ug/L	3	3	5103.33	2750	6560
	LF-03	ug/L	4	4	10630.00	5660	20000
	LS-01	ug/L	4	4	2335.00	1440	3450
CHROMIUM	LF-01	ug/L	10	8	5.97	0	19.2
	LF-03	ug/L	11	9	6.89	0	20.8
	LS-01	ug/L	4	3	5.20	0	10.2
CHROMIUM, HEXAVALENT	LF-01	ug/L	5	1	3.80	0	19
	LF-03	ug/L	3	1	2333.33	0	7000
	LS-01	ug/L	4	1	5.75	0	23
COBALT	LF-01	ug/L	8	7	2.20	0	5.66
	LF-03	ug/L	9	7	2.62	0	7.1
	LS-01	ug/L	4	3	1.11	0	2.16
COPPER	LF-01	ug/L	8	7	6.09	0	15.9
	LF-03	ug/L	9	9	10.55	3.6	22.2
	LS-01	ug/L	4	3	3.78	0	11.6
IRON	LF-01	ug/L	8	6	1010.63	0	5090
	LF-03	ug/L	9	7	774.11	0	2490
	LS-01	ug/L	4	3	1665.50	0	3630
LEAD	LF-01	ug/L	8	7	1.59	0	5.1
	LF-03	ug/L	9	4	0.25	0	1.2
	LS-01	ug/L	4	3	2.15	0	3.5
MAGNESIUM	LF-01	ug/L	3	3	3040.00	2000	3640
	LF-03	ug/L	4	4	11817.50	4630	26100
	LS-01	ug/L	3	3	22046.67	1060	61900
MANGANESE	LF-01	ug/L	8	7	45.35	0	207
	LF-03	ug/L	9	7	29.87	0	69.7
	LS-01	ug/L	3	3	740034.50	17	2220000
MOLYBDENUM	LF-01	ug/L	8	4	0.32	0	0.97
	LF-03	ug/L	9	6	2.51	0	7
	LS-01	ug/L	3	1	0.25	0	0.75
NICKEL	LF-01	ug/L	8	5	9.25	0	37.8
	LF-03	ug/L	9	9	19.53	5.2	34.3
	LS-01	ug/L	4	3	9.38	0	17.7
POTASSIUM	LF-01	ug/L	3	3	6923.33	2780	9160
	LF-03	ug/L	4	4	21825.00	13200	27500
	LS-01	ug/L	2	2	1329.00	728	1930
SELENIUM	LF-01	ug/L	8	1	0.30	0	2.4
	LF-03	ug/L	9	4	0.86	0	4.4
SODIUM	LF-01	ug/L	3	3	1660.00	1450	1980
	LF-03	ug/L	4	4	8130.00	3900	10900
	LS-01	ug/L	3	3	2562910.00	1100	7680000
THALLIUM	LF-01	ug/L	8	2	0.038	0	0.173
	LF-03	ug/L	9	1	0.067	0	0.602
	LS-01	ug/L	4	2	2.30	0	5.5
VANADIUM	LF-01	ug/L	8	5	3.68	0	14.8
	LF-03	ug/L	9	6	10.16	0	37.3
	LS-01	ug/L	4	4	6.73	1.9	13.3
ZINC	LF-01	ug/L	8	6	17.25	0	44.1
	LF-03	ug/L	9	6	17.84	0	60.1
	LS-01	ug/L	4	3	47.28	0	93.1

TABLE 9
STORM-WATER STATISTICS SHOWING COC DETECTIONS
1997 THROUGH 2000
LEHR/SCDS Environmental Restoration
Davis, California

Analyte	Sample Location	Units	No. of Samples Analyzed	No. of Samples Detected	Average	Minimum	Maximum
General Chemistry							
ALKALINITY, TOTAL (AS CAC03)	LS-01	mg/L	2	2	15.55	11.1	20
	LF-01	mg/L	3	3	31.30	9.8	42.3
	LF-03	mg/L	4	4	82.15	42.8	155
CHLORIDES	LF-01	mg/L	3	3	2.36	1.12	3.23
	LF-03	mg/L	4	4	12.19	6.8	16.4
	LS-01	mg/L	2	2	1.11	0.376	2.29
HARDNESS	LF-01	mg/L	2	2	26.85	25.9	27.8
	LF-03	mg/L	4	4	74.45	29.6	158
	LS-01	mg/L	1	1	8.50	8.5	8.5
NITROGEN, NITRATE	LF-01	mg/L	7	7	1.13	0.234	2.15
	LF-03	mg/L	6	6	1.48	0.317	5.09
	LS-01	mg/L	4	4	0.48	0.104	0.89
OIL & GREASE	LF-01	mg/L	7	3	0.96	0	2.45
	LF-03	mg/L	6	3	1.23	0	3.79
	LS-01	mg/L	4	2	1.19	0	2.57
PHOSPHATE, TOTAL (AS P)	LS-01	mg/L	1	1	0.19	0.19	0.19
	LF-01	mg/L	2	2	1.62	1.53	1.7
	LF-03	mg/L	1	1	1.98	1.98	1.98
SULFATE AS SO4	LF-01	mg/L	3	3	1.52	0.898	2.18
	LF-03	mg/L	4	4	9.42	2.82	18.5
	LS-01	MG/L	1	1	7.48	7.48	7.48
TOTAL DISSOLVED SOLIDS	LF-01	mg/L	8	8	60.63	25	124
	LF-03	mg/L	9	9	177.67	87	302
	LS-01	mg/L	3	3	43.67	21	64
TOTAL ORGANIC CARBON	LF-01	mg/L	8	8	13.83	3.93	51
	LF-03	mg/L	9	9	23.38	6.12	76.6
	LS-01	mg/L	1	1	18.50	18.5	18.5
TOTAL SUSPENDED SOLIDS	LF-01	mg/L	5	4	142.60	0	548
	LF-03	mg/L	5	4	35.70	0	80.7
	LS-01	mg/L	1	1	52.00	52	52
Radiochemistry							
ACTINIUM-228	LF-01	pCi/L	3	1	-1.00	-3	0
	LF-03	pCi/L	4	2	2.25	0	6
BISMUTH-212	LF-01	pCi/L	3	1	-4.33	-13	0
	LF-03	pCi/L	4	2	1.00	0	4
BISMUTH-214	LF-01	pCi/L	3	1	1.63	0	4.9
	LF-03	pCi/L	4	2	3.08	0	11
	LS-01	pCi/L	4	1	3.12	0	6.58
CARBON-14	LF-01	pCi/L	8	2	3.56	0	26.5
	LF-03	pCi/L	9	3	-1.56	-21	11
CESIUM-137	LF-01	pCi/L	3	1	-1.17	-3.5	0
	LF-03	pCi/L	4	2	0.98	-1.1	5
COBALT-60	LF-01	pCi/L	3	1	-0.90	-2.7	0
	LF-03	pCi/L	4	2	-0.35	-1.9	0.5
GROSS ALPHA	LF-01	pCi/L	3	1	0.17	0	0.51
	LF-03	pCi/L	4	2	-0.02	-0.26	0.2
GROSS BETA	LF-01	pCi/L	3	3	7.20	4	9.25
	LF-03	pCi/L	4	4	22.48	12.2	27.2
	LS-01	pCi/L	4	4	3.30	1.06	6.11
LEAD-210	LF-01	pCi/L	3	1	-5.67	-17	0
	LF-03	pCi/L	4	2	-14.50	-48	0
LEAD-212	LF-01	pCi/L	3	1	0.30	0	0.9
	LF-03	pCi/L	4	2	1.45	0	5.1

TABLE 9
STORM-WATER STATISTICS SHOWING COC DETECTIONS
1997 THROUGH 2000
LEHR/SCDS Environmental Restoration
Davis, California

Analyte	Sample Location	Units	No. of Samples Analyzed	No. of Samples Detected	Average	Minimum	Maximum
LEAD-214	LF-01	pCi/L	3	1	-0.77	-2.3	0
	LF-03	pCi/L	4	2	-1.10	-7.5	3.1
	LS-01	pCi/L	4	2	6.01	0	11
POTASSIUM-40	LF-01	pCi/L	3	1	10.67	0	32
	LF-03	pCi/L	4	2	11.50	0	29
RADIUM-226	LF-01	pCi/L	9	4	1.07	0	9
	LF-03	pCi/L	12	7	8.49	0	70
STRONTIUM-90	LF-01	pCi/L	8	1	0.01	0	0.05
	LF-03	pCi/L	9	2	0.03	0	0.16
THALLIUM-208	LF-01	pCi/L	3	1	0.00	0	0
	LF-03	pCi/L	4	2	0.10	-1.7	2.1
THORIUM-234	LF-01	pCi/L	3	1	1.33	0	4
	LF-03	pCi/L	4	2	-1.00	-58	54
TRITIUM	LF-01	pCi/L	8	2	42.75	0	282
	LF-03	pCi/L	9	2	2.22	-30	50
	LS-01	pCi/L	4	1	142.00	0	568
URANIUM-235	LF-01	pCi/L	3	1	-5.67	-17	0
	LF-03	pCi/L	4	2	1.25	-1	6
URANIUM-238	LF-01	pCi/L	2	1	117.00	0	234

TABLE 10
SURFACE-WATER STATISTICS SHOWING COC DETECTIONS
1997 THROUGH 2000
LEHR/SCDS Environmental Restoration
Davis, California

Analyte	Sample Location	Units	No. of Samples Analyzed	No. of Samples Detected	Average	Minimum	Maximum	Standard[1]
Volatile Organic Compounds								
Acetone	PCU	ug/L	15	4	1.14	0	6.7	610(3)
	STPO	ug/L	14	5	1.21	0	6.9	
	PCD	ug/L	17	2	0.56	0	6.3	
Bromodichloromethane	PCU	ug/L	14	0			0	100(2)
	STPO	ug/L	14	13	6.35	0	19	
	PCD	ug/L	17	4	0.18	0	0.9	
Bromoform	PCU	ug/L	14	0	0.00	0	0	4.3
	STPO	ug/L	14	6	0.51	0	2.9	
	PCD	ug/L	14	0	0.00	0	0	
Chloroform	PCU	ug/L	14	0	0.00	0	0	100(1)
	STPO	ug/L	14	14	8.32	0.23	21.4	
	PCD	ug/L	17	8	0.47	0	1.8	
Dibromochloromethane	PCU	ug/L	14	0	0.00	0	0	11,000(1)
	STPO	ug/L	14	10	4.02	0	18	
	PCD	ug/L	17	4	0.14	0	0.8	
Ethyl ether	PCU	ug/L			0.00	0	0	1400(4)
	STPO	ug/L	1	1	1.30	1.3	1.3	
	PCD	ug/L			0.00	0	0	
Methylene chloride	PCU	ug/L			0.00	0	0	4.7(1)
	STPO	ug/L	14	2	0.11	0	1	
	PCD	ug/L			0.00	0	0	
Toluene	PCU	ug/L	15	1	0.01	0	0.12	150
	STPO	ug/L	14	3	0.11	0	0.63	
	PCD	ug/L	17	1	0.01	0	0.16	
Metals								
Chromium (Total)	PCU	ug/L	16	11	3.66	0	7.9	190(1)
	STPO	ug/L	15	11	3.31	0	6.9	
	PCD	ug/L	18	10	3.16	0	7.6	
	STD	ug/L					190	
Chromium, hexavalent	PCU	ug/L	11	4	3.55	0	32	11(1)
	STPO	ug/L	12	2	1.00	0	12	
	PCD	ug/L	15	3	4.50	0	33	
General Chemistry								
Nitrate-N	PCU	mg/L	13	13	1.94	0.078	3.53	10(5)
	STPO	mg/L	13	13	7.89	4.96	10.4	
	PCD	mg/L	16	16	1.96	0.119	3.28	
TDS	PCU	mg/L	15	15	266.79	146	341	250(6)
	STPO	mg/L	14	14	561.07	248	700	
	PCD	mg/L	17	17	293.19	170	615	
Radiochemistry								
Carbon-14	PCU	pCi/L	7	2	13.65	0	71.7	NA
	STPO	pCi/L	8	1	2.10	0	16.8	
	PCD	pCi/L	17	2	4.30	0	60.9	
Tritium	PCU	pCi/L	14	0	0.00	0	0	20,000(2)
	STPO	pCi/L	14	0	0.00	0	0	
	PCD	pCi/L	17	2	93.75	0	790	

Notes

(1) Lowest of CVRWQCB freshwater human-health or aquatic-life-protection goal

(2) Lowest of state/federal primary drinking-water MCL

(3) Tap water PRG

(4) EPA IRIS drinking water

(5) USEPA National Ambient Water Quality Criteria for Sources of Drinking Water

(6) USEPA National Ambient Water Quality Criteria, taste and odor threshold

TABLE 11
PROPOSED 2001 MONITORING PROGRAM
LEHR/SCDS Environmental Restoration
Davis, California

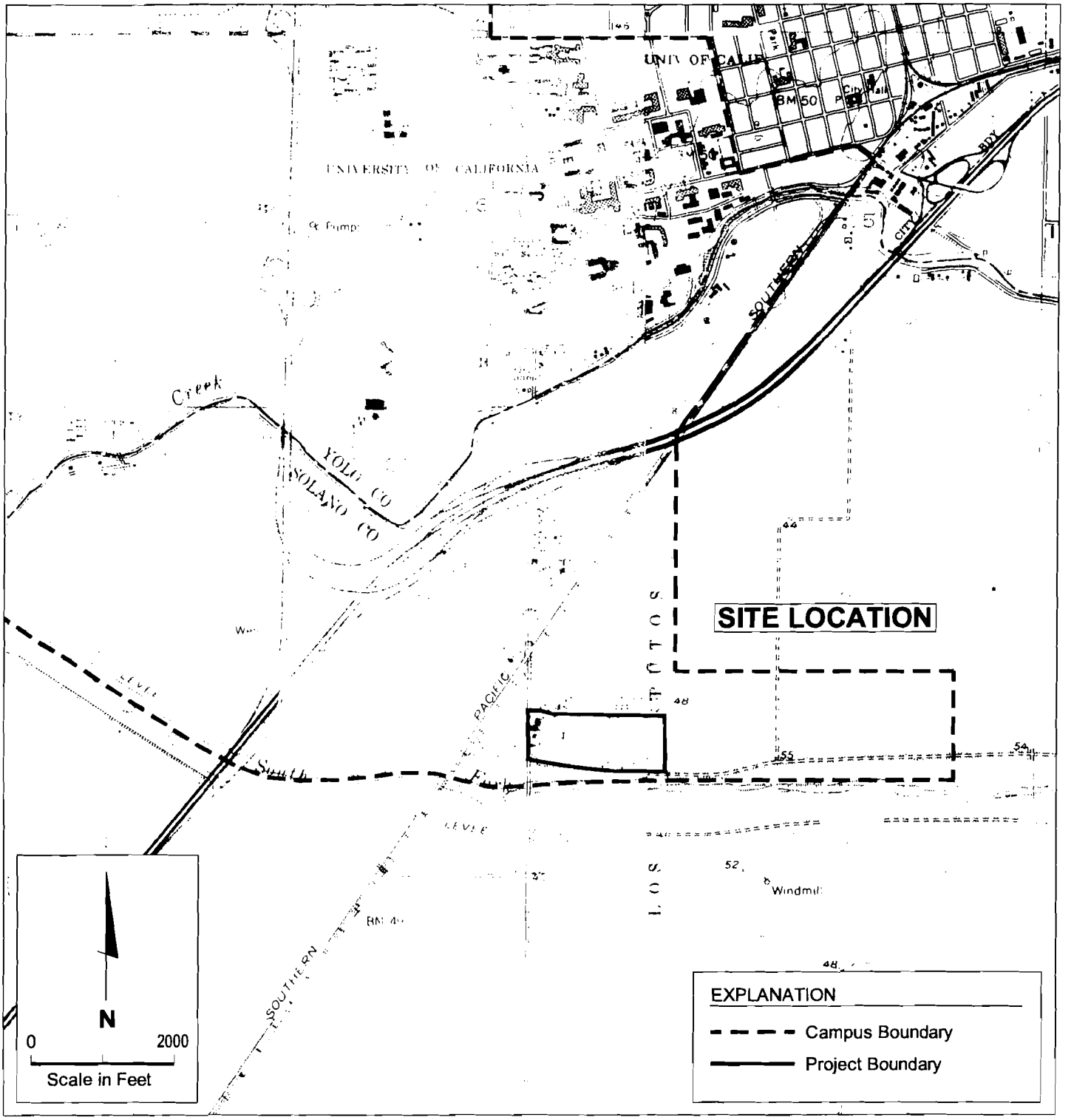
Media	Monitoring Points	Constituents of Potential Concern (COPC)								LTPS Constituents		Baseline Constituents			Surface/Storm Water Parameters		
		Groundwater Level	Tritium	C-14	Chloroform & VOCs	Nitrate (as N)	TDS	Total Chromium	Hexavalent Chromium	Metals	Anions, Cations, Alkalinity, &TOC	Other Radiologic Parameters	SVOCs	Pesticide & PCBs	Oil and Grease	Acute Aquatic Toxicity	Chronic Aquatic Toxicity
HSU-1	UCD1-1	M						A									
	UCD1-4	M						A									
	UCD1-10	M						A									
	UCD1-11	M	Q	Q	Q	Q	Q	Q		Q	Q						
	UCD1-12	M	Q	Q	Q	Q	Q	Q									
	UCD1-13	M	Q	Q	Q	Q	Q	Q									
	UCD1-18	M	Q	Q	Q	Q	Q	Q									
	UCD1-19	M						A									
	UCD1-20	M						A									
	UCD1-21	M						A									
	UCD1-22	M						A									
	UCD1-23	M						A									
	UCD1-24	M						A									
	UCD1-25	M	Q	Q	Q	Q	Q	Q		Q	Q						
	UCD1-27Z3	M															
	UCD1-28	M	Q	Q	Q	Q	Q	Q		Q	Q						
	UCD1-34	M						A									
HSU-2	UCD2-7	M	Q	Q	Q	Q	Q	Q									
	UCD2-14	M	Q	Q	Q	Q	Q	Q									
	UCD2-15	M	Q	Q	Q	Q	Q	Q									
	UCD2-16	M	Q	Q	Q	Q	Q	Q									
	UCD2-17	M	Q	Q	Q	Q	Q	Q									
	UCD2-26	M	Q	Q	Q	Q	Q	Q		Q	Q						
	UCD2-27Z5	M															
	UCD2-29	M	M*	M*	M*	M*	M*	M*		Q	Q						
	UCD2-30	M	M*	M*	M*	M*	M*	M*									
	UCD2-31	M	M*	M*	M*	M*	M*	M*									
	UCD2-32	M	Q	Q	Q	Q	Q	Q									
	UCD2-35	M	M*	M*	M*	M*	M*	M*									
	UCD2-36	M	M*	M*	M*	M*	M*	M*									
	UCD2-37	M	M*	M*	M*	M*	M*	M*									
	UCD2-38	M	M*	M*	M*	M*	M*	M*									
	UCD2-39	M	M*	M*	M*	M*	M*	M*		Q	Q						
	UCD2-40	M	M*	M*	M*	M*	M*	M*		Q	Q						
	UCD2-45	M	Q	Q	Q	Q	Q	Q				Wint/Spr	Wint/Spr	Wint/Spr			
	UCD2-46	M	Q	Q	Q	Q	Q	Q				Wint/Spr	Wint/Spr	Wint/Spr			
HSU-4	UCD4-41	M	Q	Q	Q	Q	Q	Q									
	UCD4-42	M	Q	Q	Q	Q	Q	Q									
	UCD4-43	M	Q	Q	Q	Q	Q	Q									
	UCD4-44	M	Q	Q	Q	Q	Q	Q									
	UCD4-47	M	Q	Q	Q	Q	Q	Q				Wint/Spr	Wint/Spr	Wint/Spr			
Storm Water	LF-01		SA	SA	SA	SA	SA	SA						SA	SA	SA	
	LF-03		SA	SA	SA	SA	SA	SA						SA	SA	SA	
	LS-01		SA	SA	SA	SA	SA	SA				SA		SA	SA	SA	
Surface Water	STPO		SA	SA	SA	SA	SA	SA						SA			SA
	PCU		SA	SA	SA	SA	SA	SA						SA			SA
	PCD		SA	SA	SA	SA	SA	SA						SA			SA
	PC2		SA	SA	SA	SA	SA	SA									SA
Groundwater IRA	Influent				W												
	Effluent		M	M	M	M	M	M		W	W						

Notes:

W - Weekly
M - Monthly
M* - Monthly until compliance with effluent discharge limits achieved for four consecutive months, quarterly thereafter

Q - Quarterly
A - Annual sampling conducted in the Spring quarter
A* - Annual sampling conducted in the Fall quarter
SA - Semi-Annual sampling conducted in Fall and Winter

(1) - Including Gross Alpha, Gross Beta, Gamma Spec, Sr-90, Ra-226, Pu-241, Am-241
(2) - Including arsenic, barium, boron, cadmium, lead, manganese, mercury, nickel, zinc
(3) - Anions include chloride, sulfate, phoshate
(4) - Cations include calcium, magnesium, potassium, sodium
TOC - Total organic carbon
SVOC - Semi-volatile organic compounds
VOCs - Volatile organic compounds



REFERENCE: USGS 7.5 Quadrangle; Merritt, CA, 1952, photorevised 1981; and Davis, CA, 1952, photorevised 1981.

SITE VICINITY MAP

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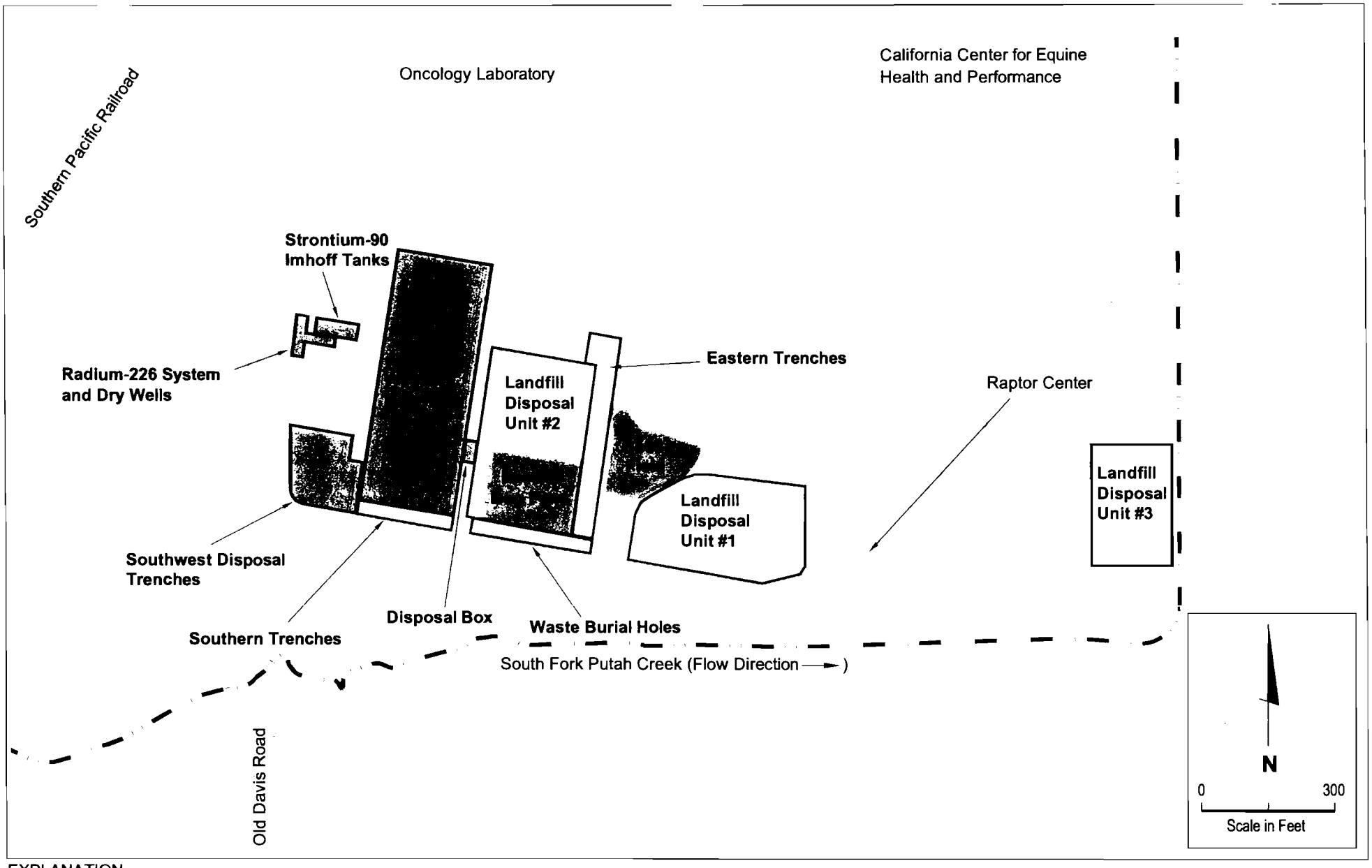
FIGURE 1



EXPLANATION

- Campus Boundary
- DOE Responsibility (within LEHR Site)
- UC Davis Responsibility Areas (SCDS)

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WASTE DISPOSAL UNITS

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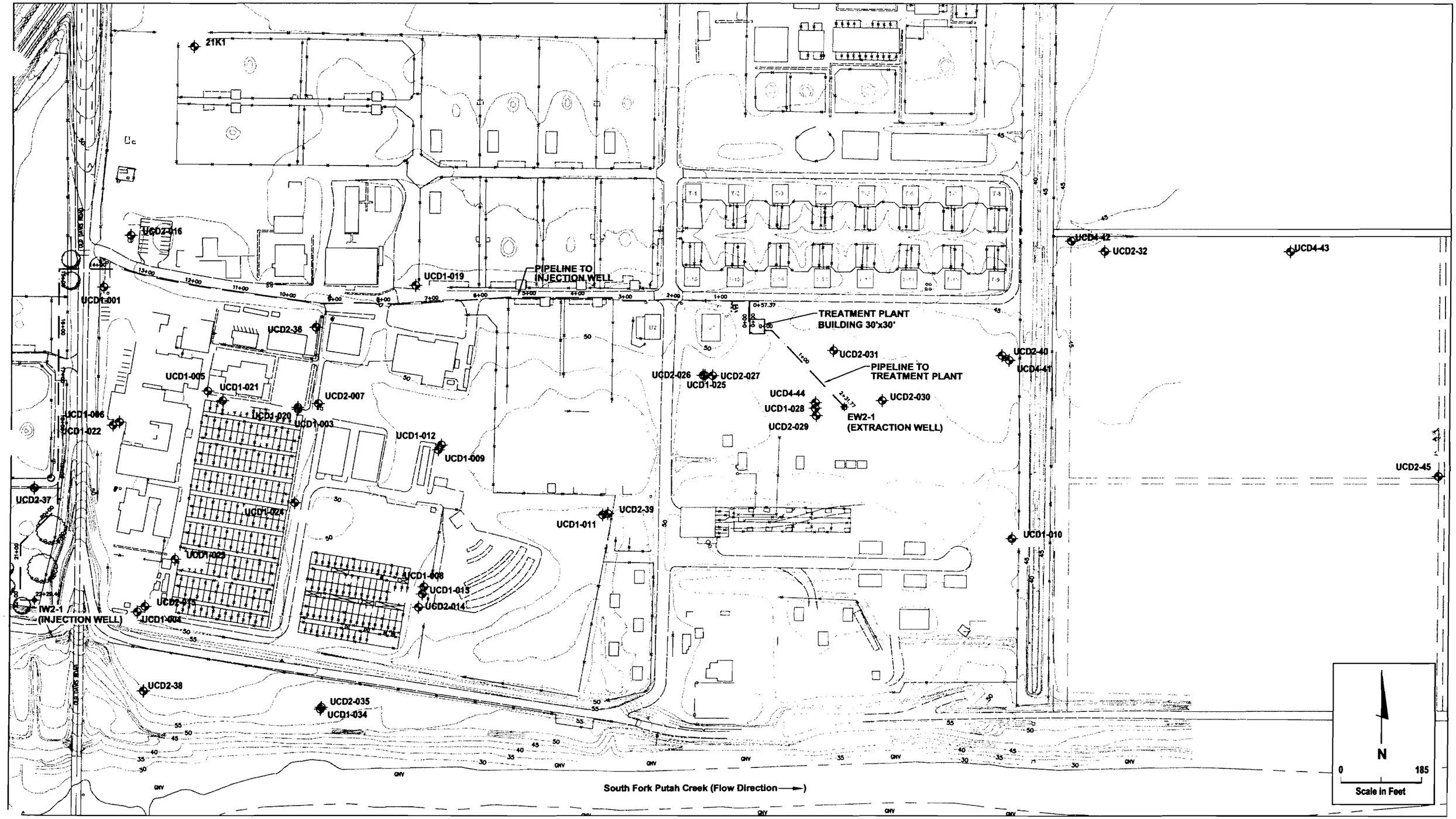
FIGURE 2



GROUNDWATER IRA SYSTEM GENERAL SITE PLAN

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FIGURE 3

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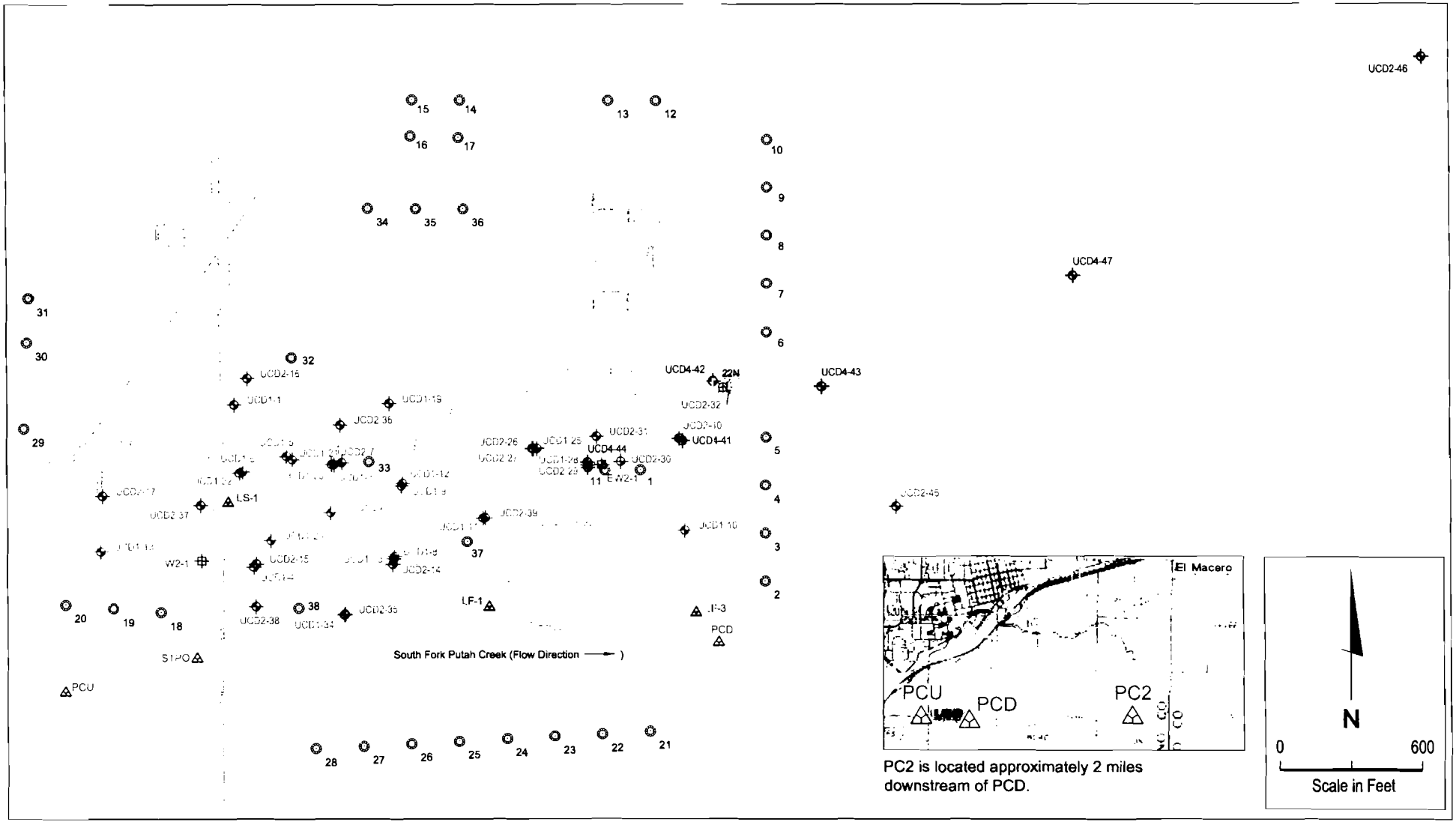

PC2 is located approximately 2 miles downstream of PCD.

EXPLANATION

UCD1-17	HSU-1 Monitoring Well	STPO	Surface Water Sample Location
UCD2-17	HSU-2 Monitoring Well	LF-1	Storm Water Sample Location
EW2-1	HSU-2 Extraction Well	22N	Former Irrigation Well
W2-1	HSU-2 Injection Well	1	TEM Sounding Location
UCD4-33	HSU-4 Monitoring Well		

SITE AND WELL LOCATION MAP

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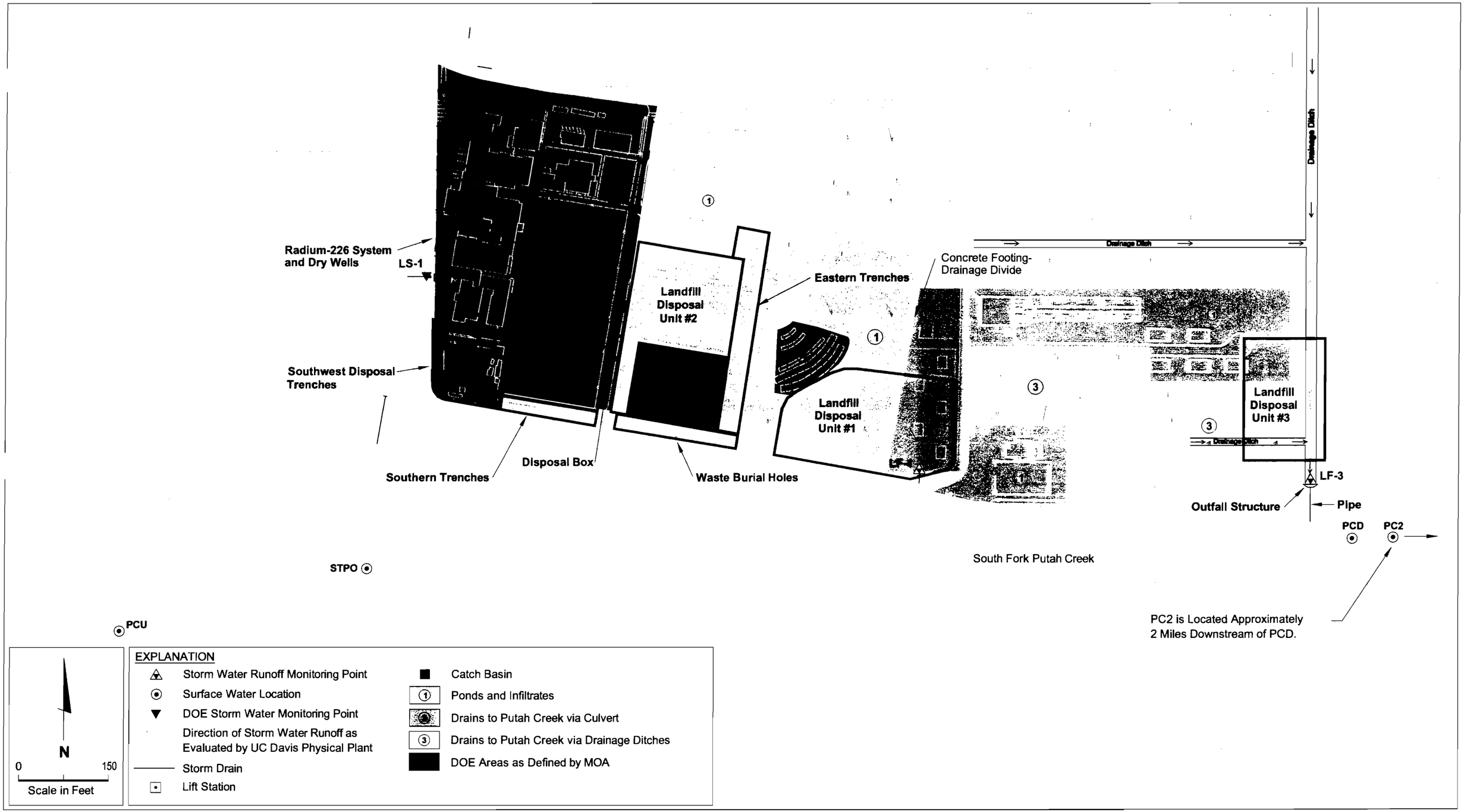
FIGURE 4



LOCATION MAP
STORM WATER RUNOFF MONITORING POINTS
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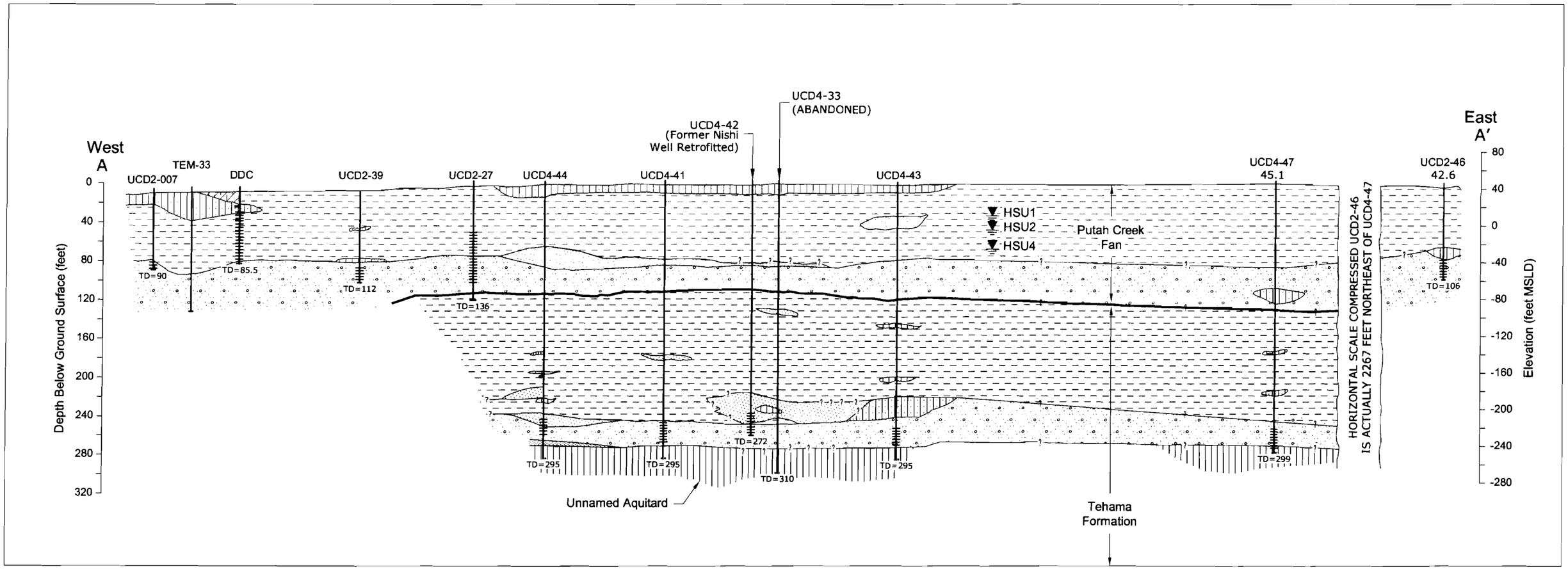
FIGURE 5



EXPLANATION

UCD4-43 HSU4 Monitoring Well

Screened Interval

TD=295

Contact Between Putah Creek Fan and Tehama Formation

Geologic Contact

Geologic Contact Uncertain

HSU1 Average August 2000 Water Level in Wells within the Indicated HSU

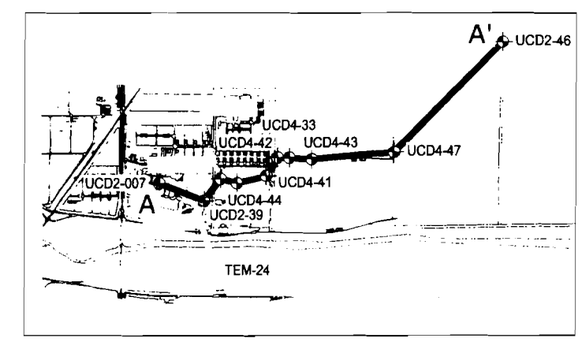
HSU-1	HSU-2	HSU-3	HSU-4
Fine Grained Silty Sand (SM)	Fine Grained Silty Sand (SM)	Fine Grained Silty Sand (SM)	Fine Grained Silty Sand (SM)
Interbedded Clayey Silt (ML) to Silty Clay (CL)	Interbedded Clayey Silt (ML) to Silty Clay (CL)	Interbedded Clayey Silt (ML) to Silty Clay (CL)	Interbedded Clayey Silt (ML) to Silty Clay (CL)
Fine to Coarse Grained Sand (SP)	Fine to Coarse Grained Sand (SP)	Fine to Coarse Grained Sand (SP)	Fine to Coarse Grained Sand (SP)
Coarse Grained Sandy Gravel (GP)	Coarse Grained Sandy Gravel (GP)	Coarse Grained Sandy Gravel (GP)	Coarse Grained Sandy Gravel (GP)
Silt (ML) With Some Sand and Clay	Silt (ML) With Some Sand and Clay	Silt (ML) With Some Sand and Clay	Silt (ML) With Some Sand and Clay

90

300

Scale in Feet

Vertical Exaggeration: 3x



GENERALIZED HYDROSTRATIGRAPHIC CROSS-SECTION A-A'

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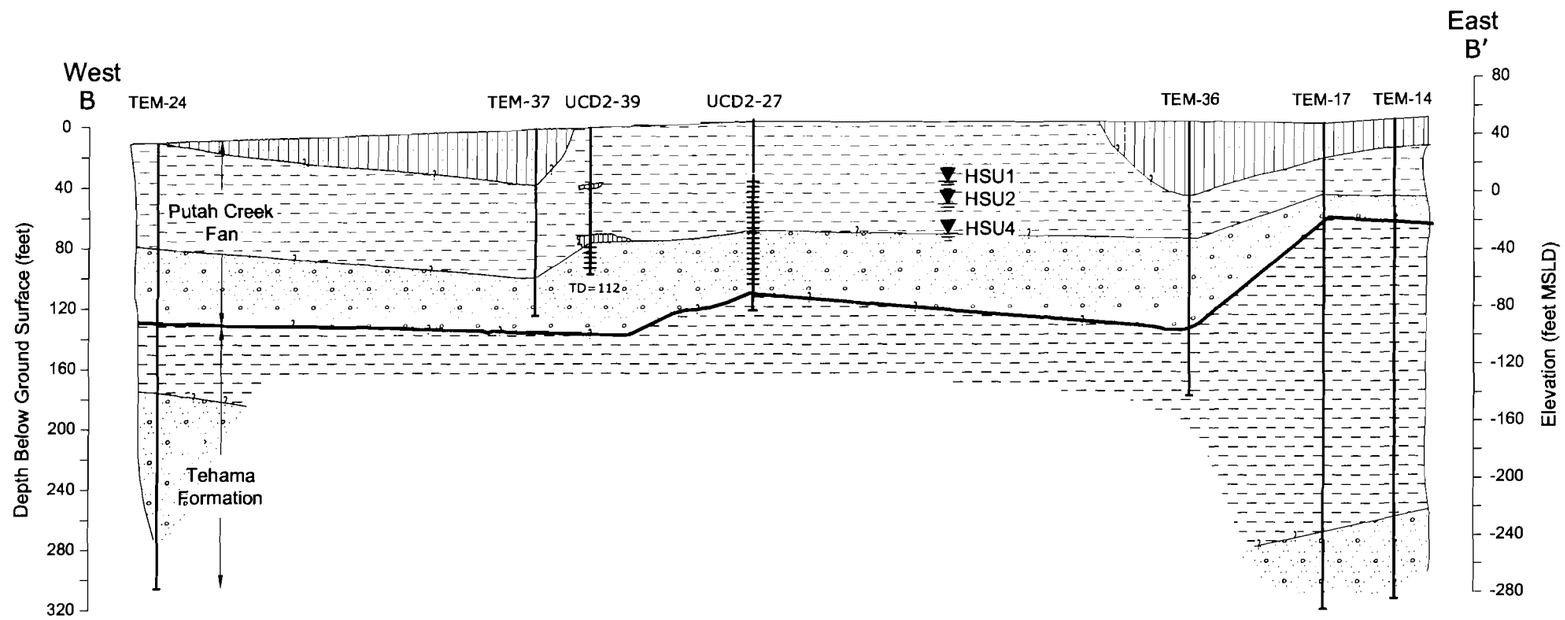
FIGURE 6A



EXPLANATION

UCD4-43 HSU4 Monitoring Well

TD=295 Screened Interval

Contact Between Putah Creek Fan and Tehama Formation

Geologic Contact

Geologic Contact Uncertain

HSU1 Average August 2000 Water Level in Wells within the Indicated HSU

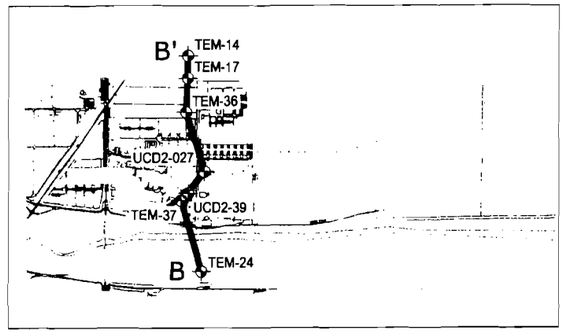
TEM-24 Transient Electromagnetic Sounding Location

HSU-1	HSU-2	HSU-3	HSU-4
Fine Grained Silty Sand (SM)	Fine Grained Silty Sand (SM)	Fine Grained Silty Sand (SM)	Fine Grained Silty Sand (SM)
Interbedded Clayey Silt (ML) to Silty Clay (CL)	Interbedded Clayey Silt (ML) to Silty Clay (CL)	Interbedded Clayey Silt (ML) to Silty Clay (CL)	Interbedded Clayey Silt (ML) to Silty Clay (CL)
Fine to Coarse Grained Sand (SP)	Fine to Coarse Grained Sand (SP)	Fine to Coarse Grained Sand (SP)	Fine to Coarse Grained Sand (SP)
Coarse Grained Sandy Gravel (GP)	Coarse Grained Sandy Gravel (GP)	Coarse Grained Sandy Gravel (GP)	Coarse Grained Sandy Gravel (GP)
Silt (ML) With Some Sand and Clay	Silt (ML) With Some Sand and Clay	Silt (ML) With Some Sand and Clay	Silt (ML) With Some Sand and Clay

90 300

Scale in Feet

Vertical Exaggeration: 3x



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GENERALIZED HYDROSTRATIGRAPHIC CROSS-SECTION B-B'

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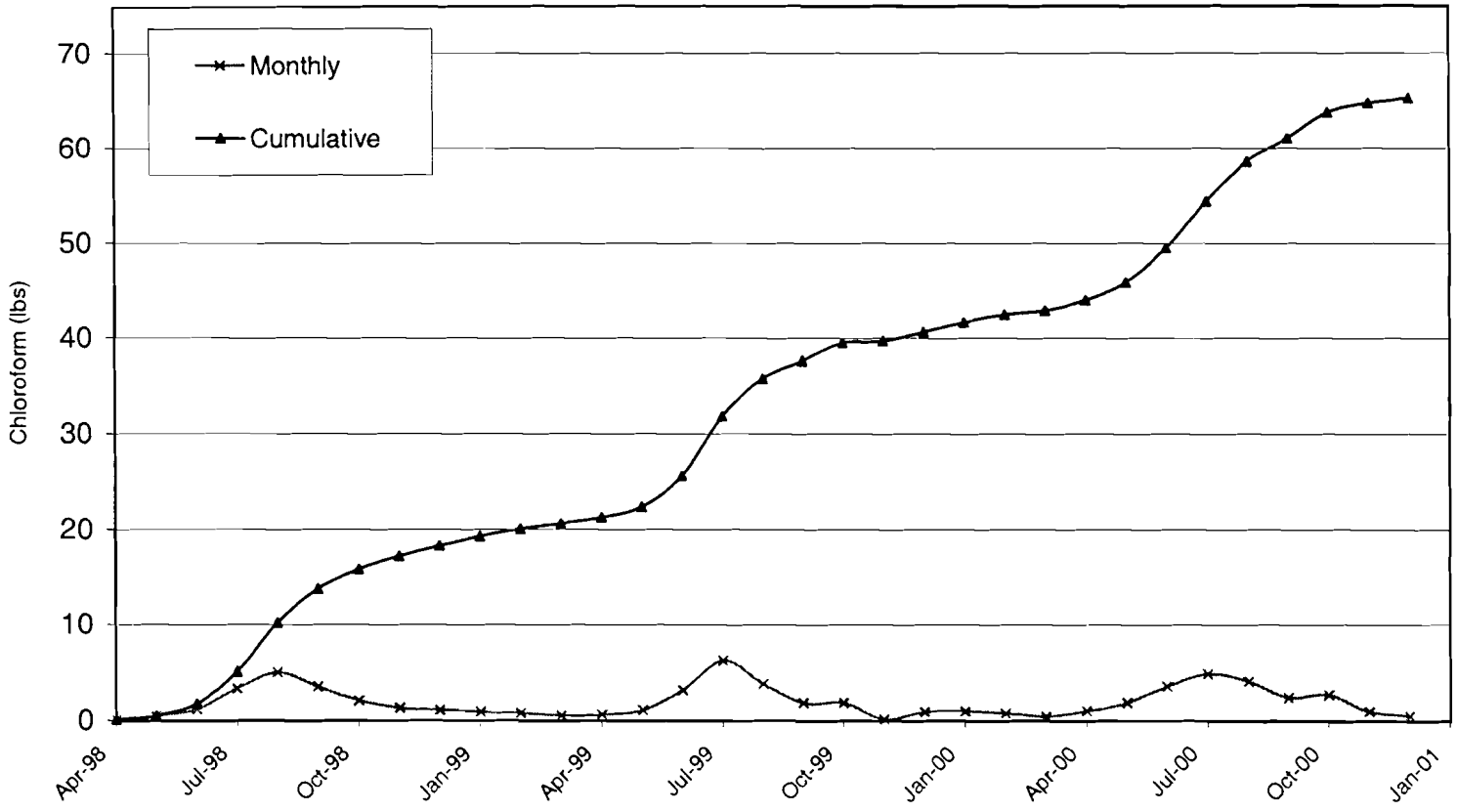
FIGURE 6B

UCDavis\LEHR las Apr 02, 2001 010301XSEC.dwg



CHLOROFORM MASS REMOVAL

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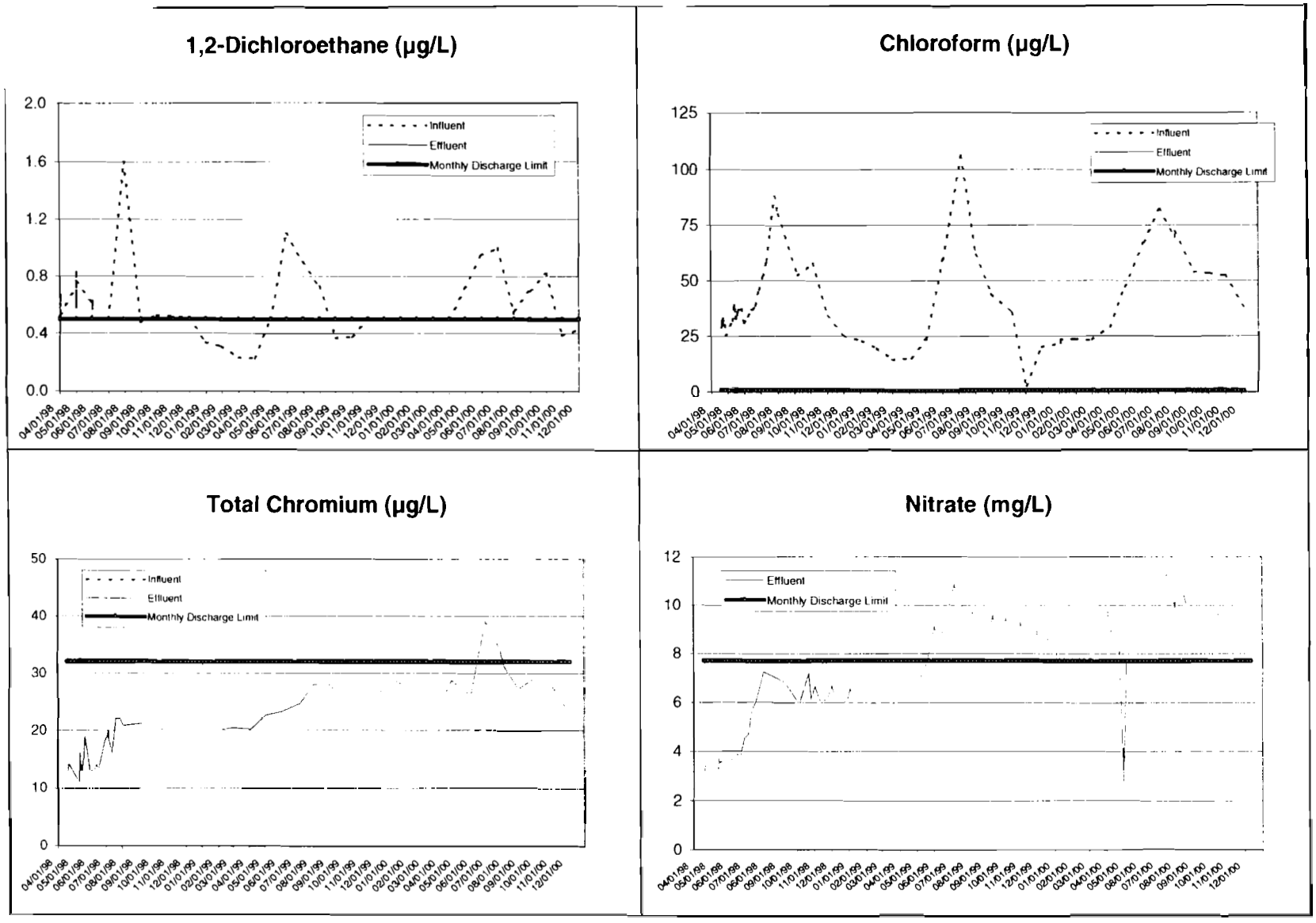
FIGURE 7



GROUNDWATER TREATMENT SYSTEM 1,2-DCA, CHLOROFORM, CHROMIUM AND NITRATE CONCENTRATION VS. TIME GRAPHS
2000 Annual Groundwater Treatment System and Water Monitoring Report
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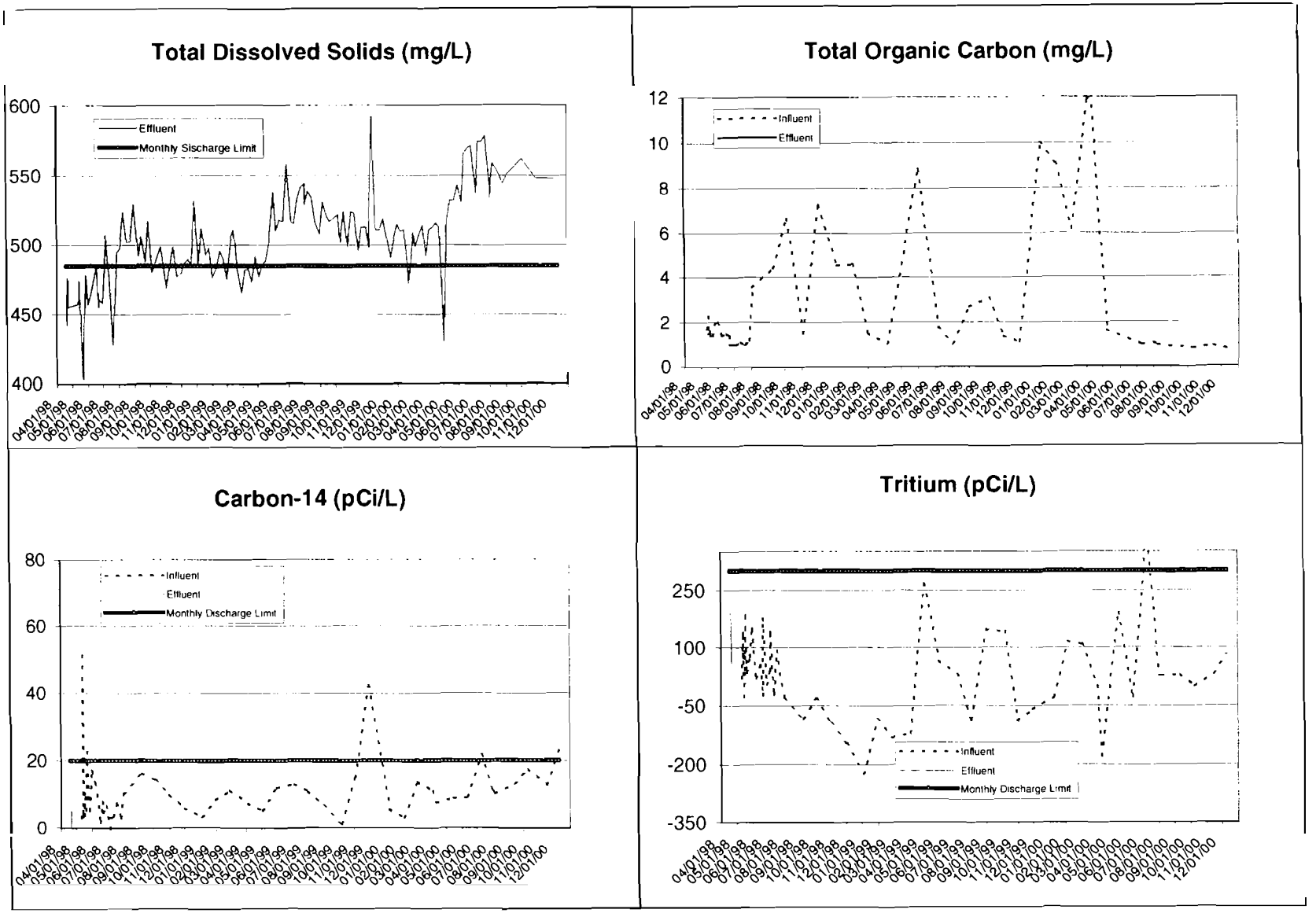
FIGURE 8



GROUNDWATER TREATMENT SYSTEM TDS, TOC, CARBON-14 AND TRITIUM CONCENTRATION VS. TIME GRAPHS

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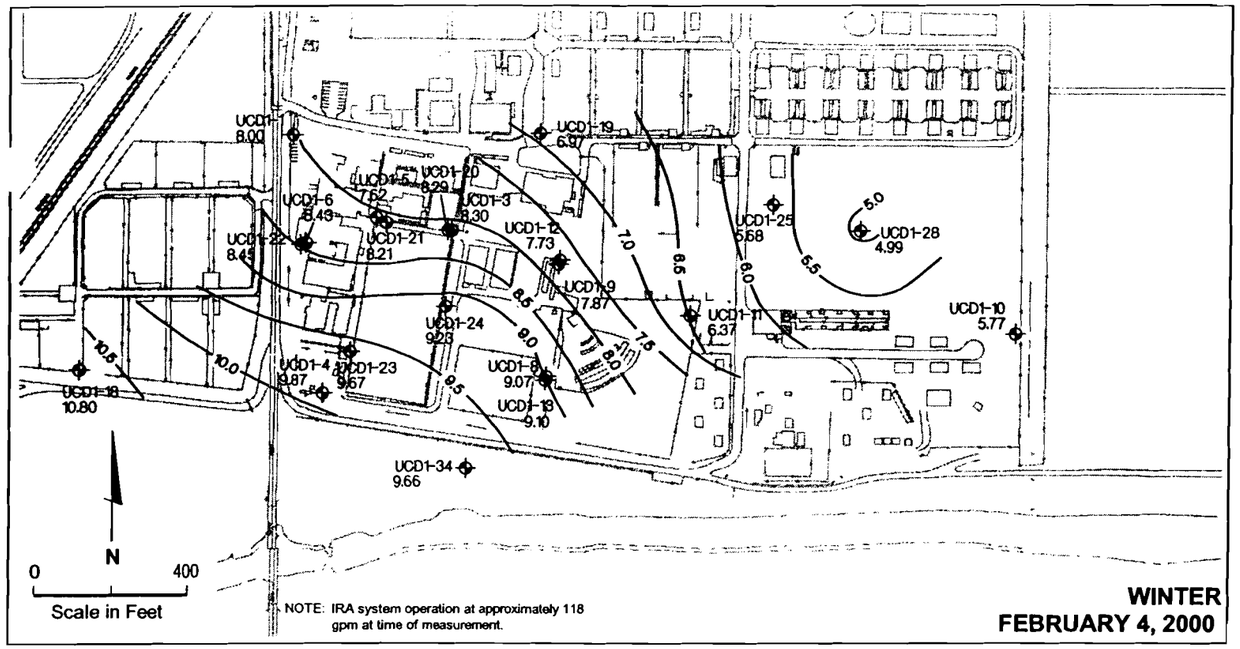
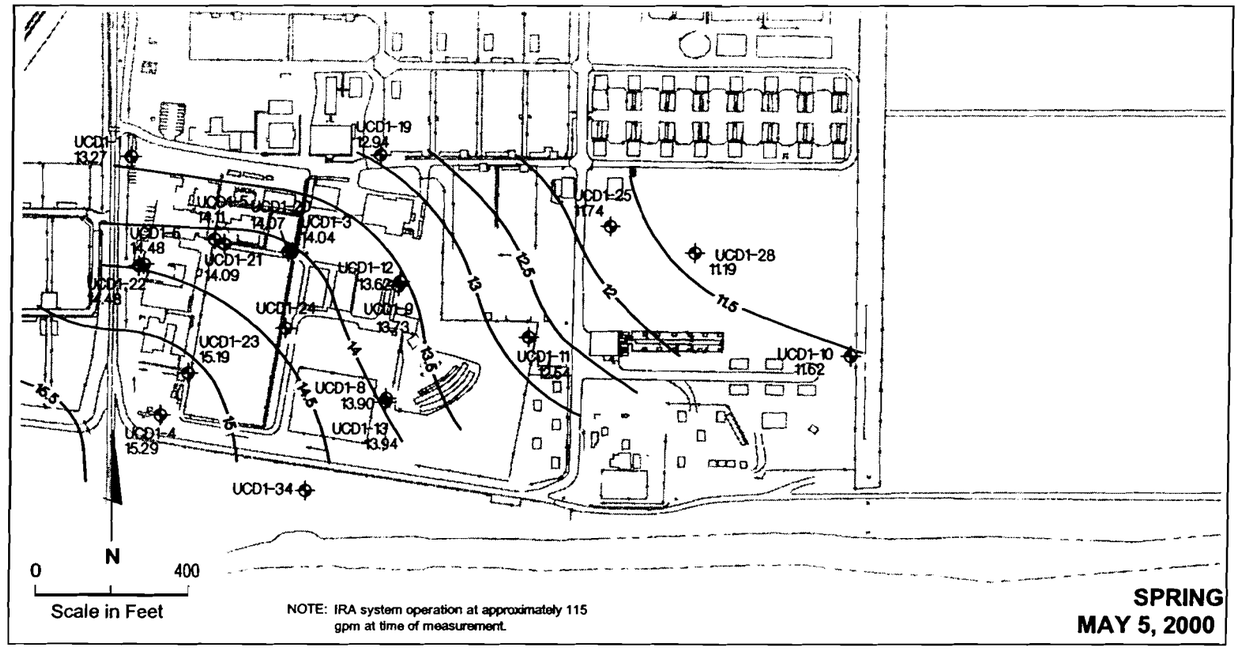
FIGURE 9



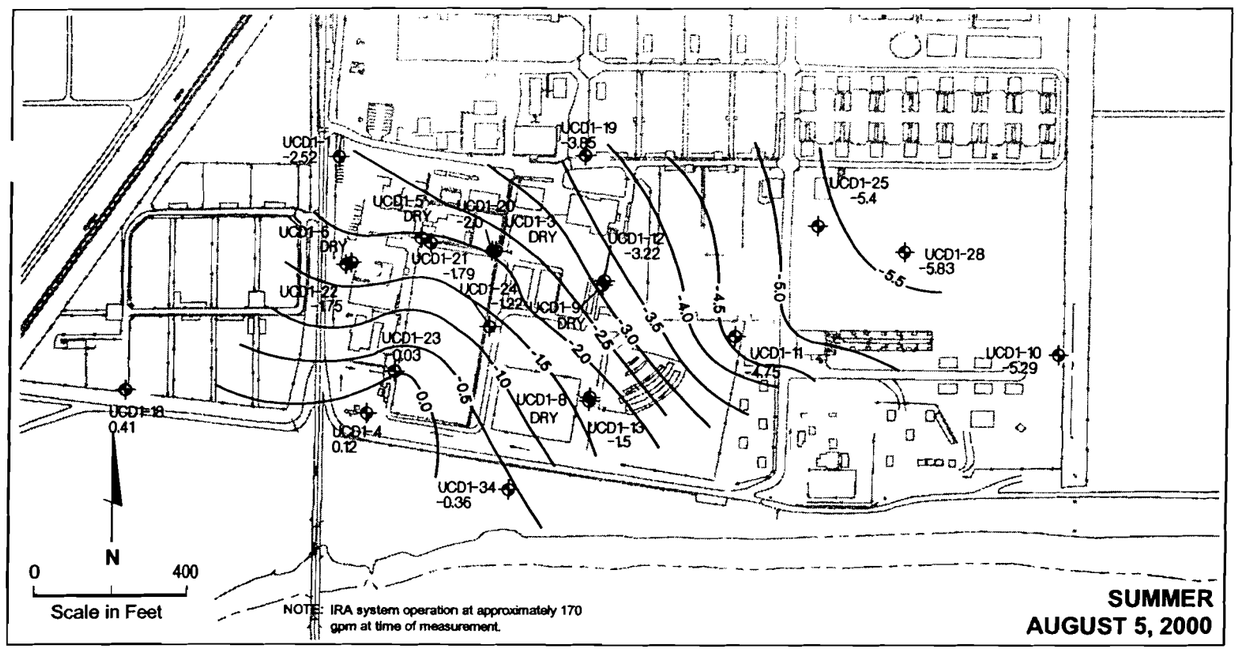
NOTE: IRA system operation at approximately 118 gpm at time of measurement.

WINTER
FEBRUARY 4, 2000



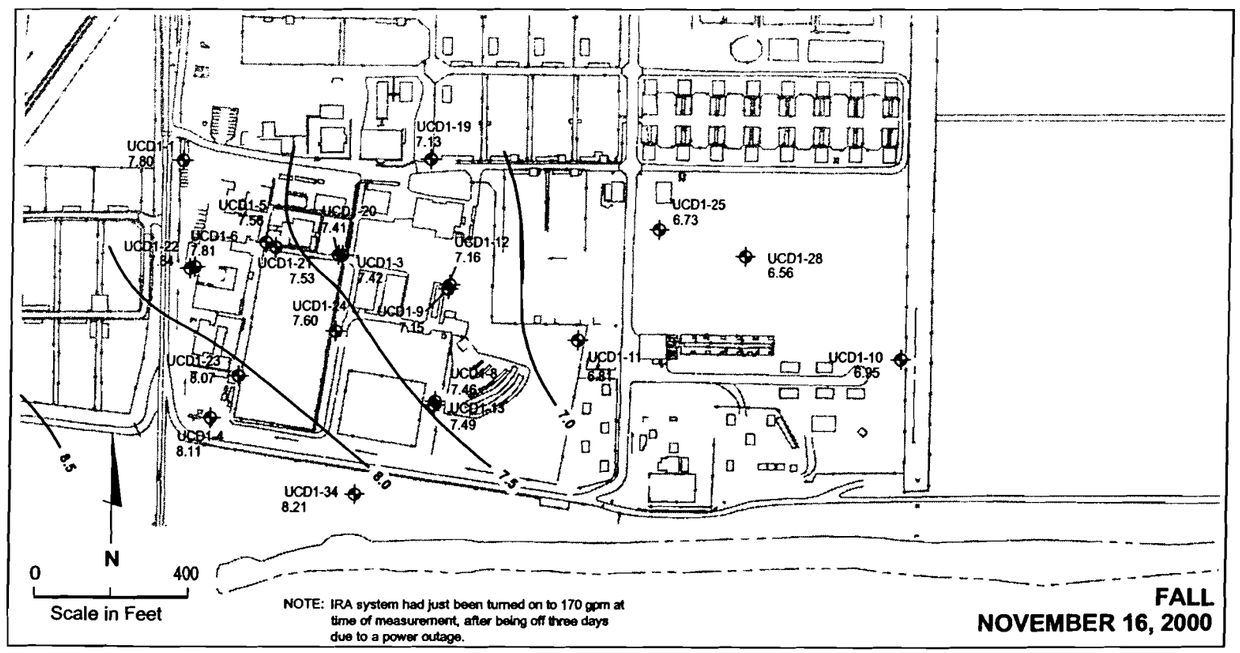
NOTE: IRA system operation at approximately 115 gpm at time of measurement.

SPRING
MAY 5, 2000



NOTE: IRA system operation at approximately 170 gpm at time of measurement.

SUMMER
AUGUST 5, 2000



NOTE: IRA system had just been turned on to 170 gpm at time of measurement, after being off three days due to a power outage.

FALL
NOVEMBER 16, 2000

EXPLANATION

UCD1-34 HSU-1 Monitoring Well

NM = Not Measured

24.0 Groundwater Elevation Contour (Feet MSL)

GROUNDWATER ELEVATION CONTOUR MAP - HSU-1

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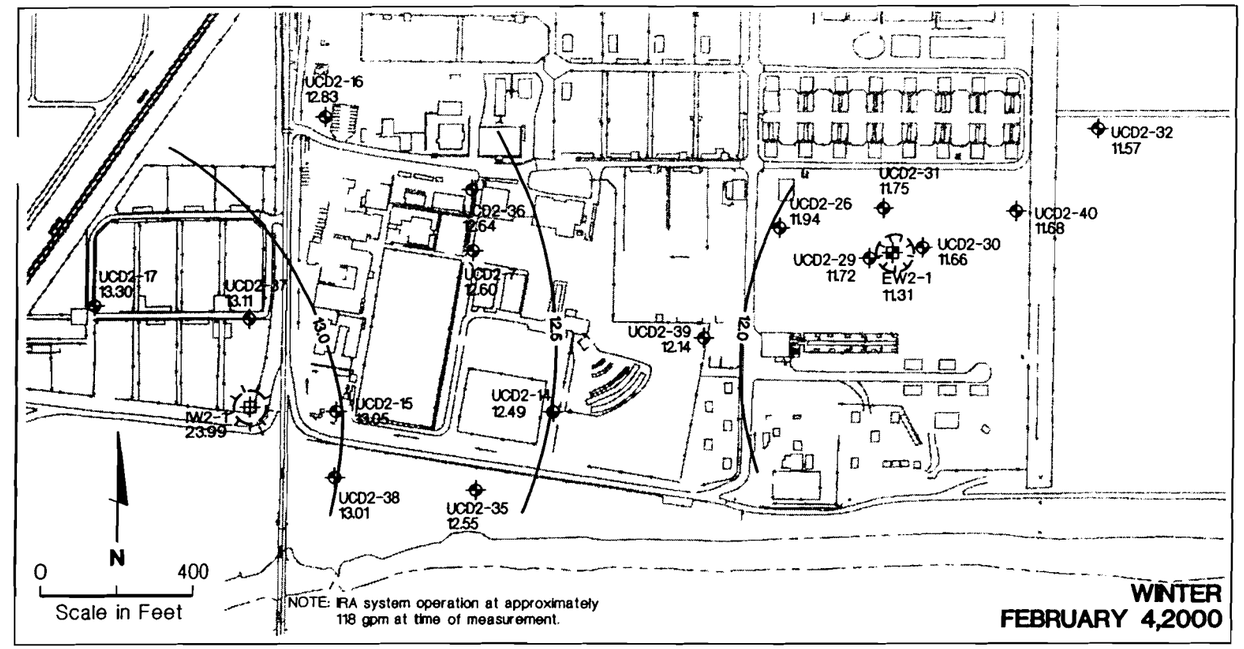
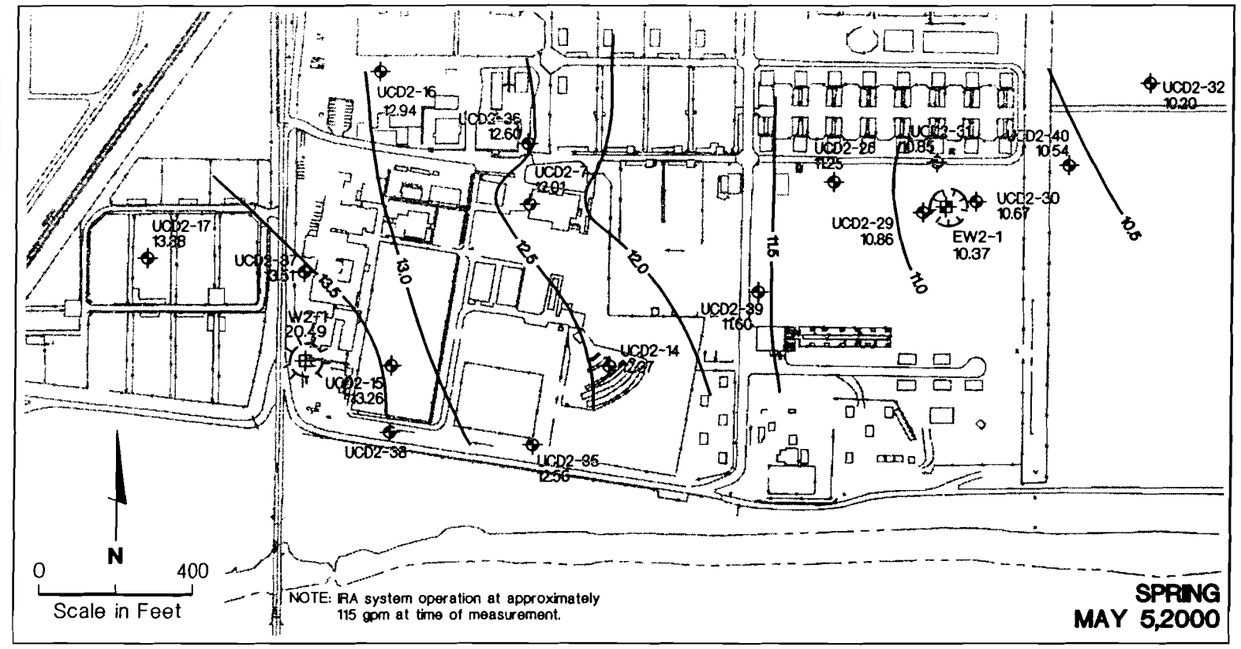
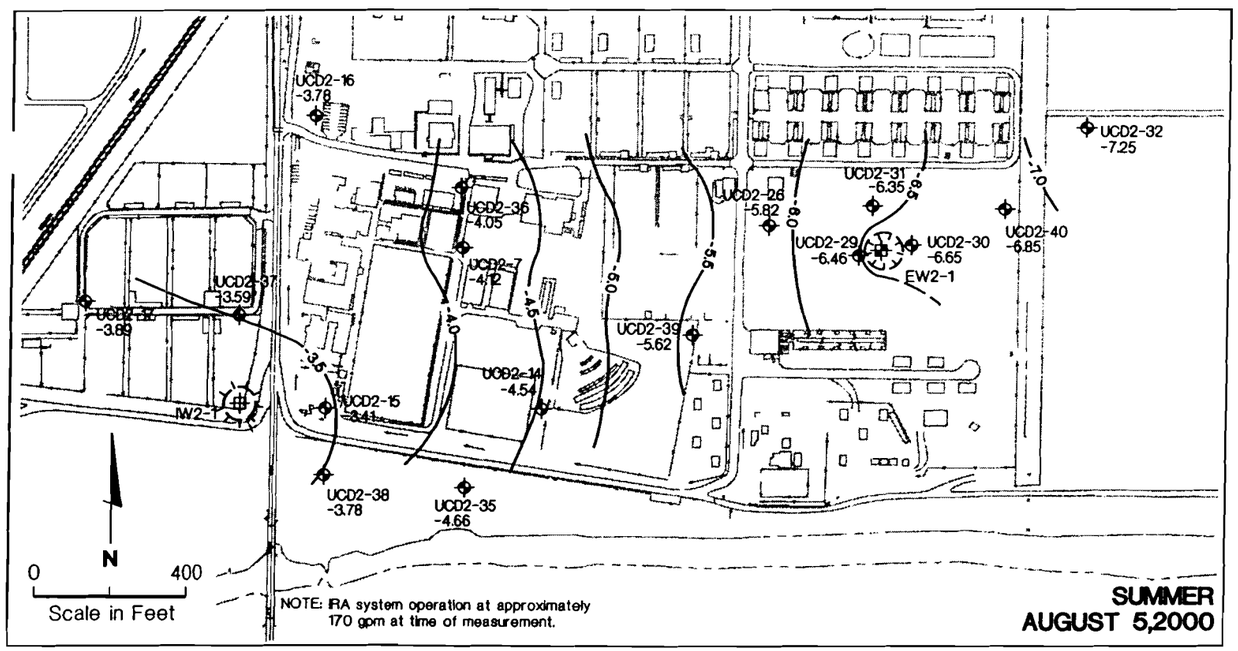
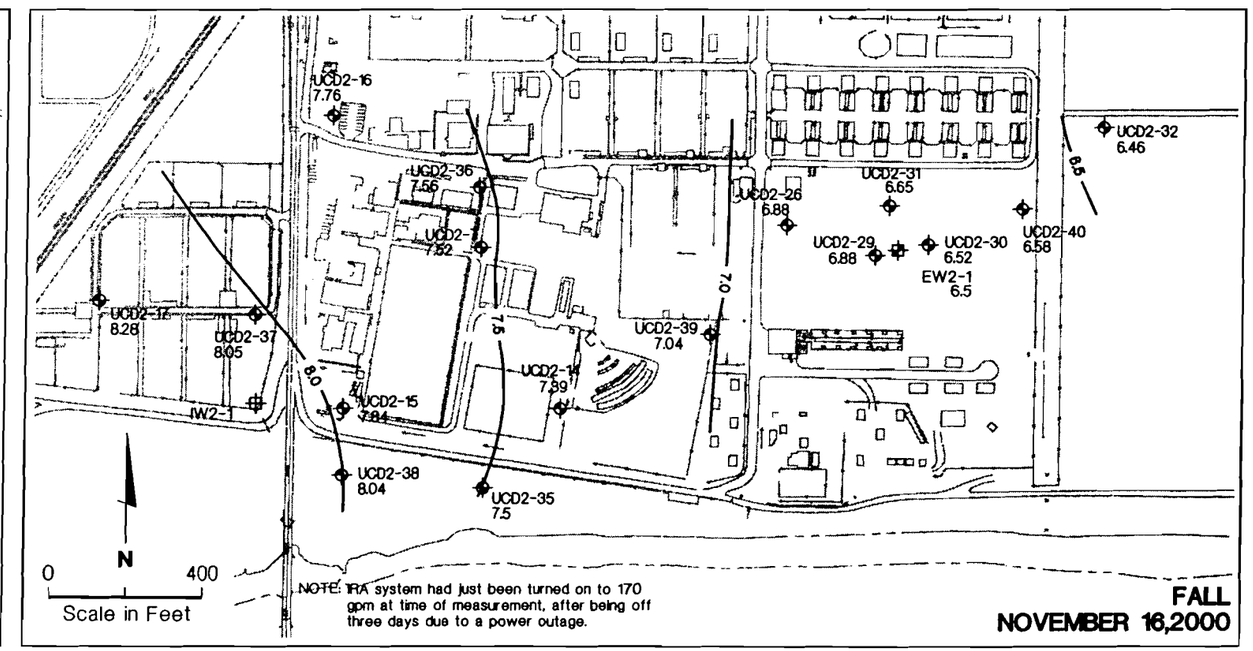
FIGURE 10









EXPLANATION

- UCD2-17 HSU-2 Monitoring Well
- EW2-1 HSU-2 Extraction Well
- IW2-1 HSU-2 Injection Well
- 24.0 Groundwater Elevation Contour (Feet MSL)

NM = Not Measured

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GROUNDWATER ELEVATION CONTOUR MAP - HSU-2

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FIGURE 11

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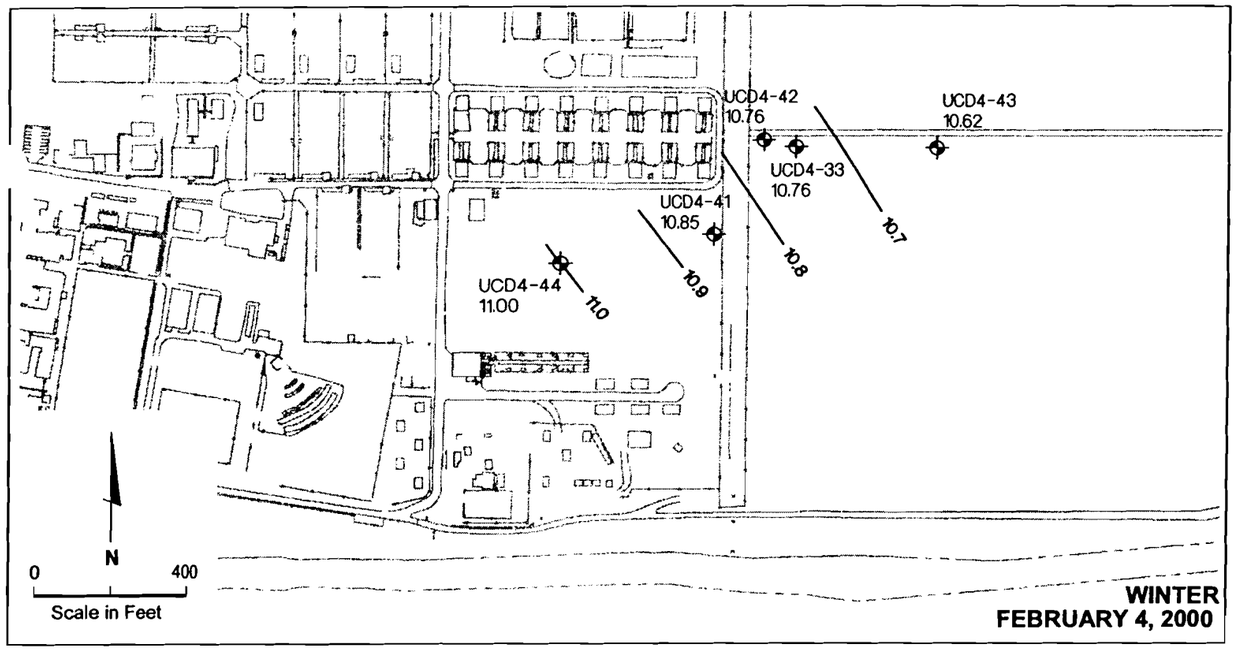

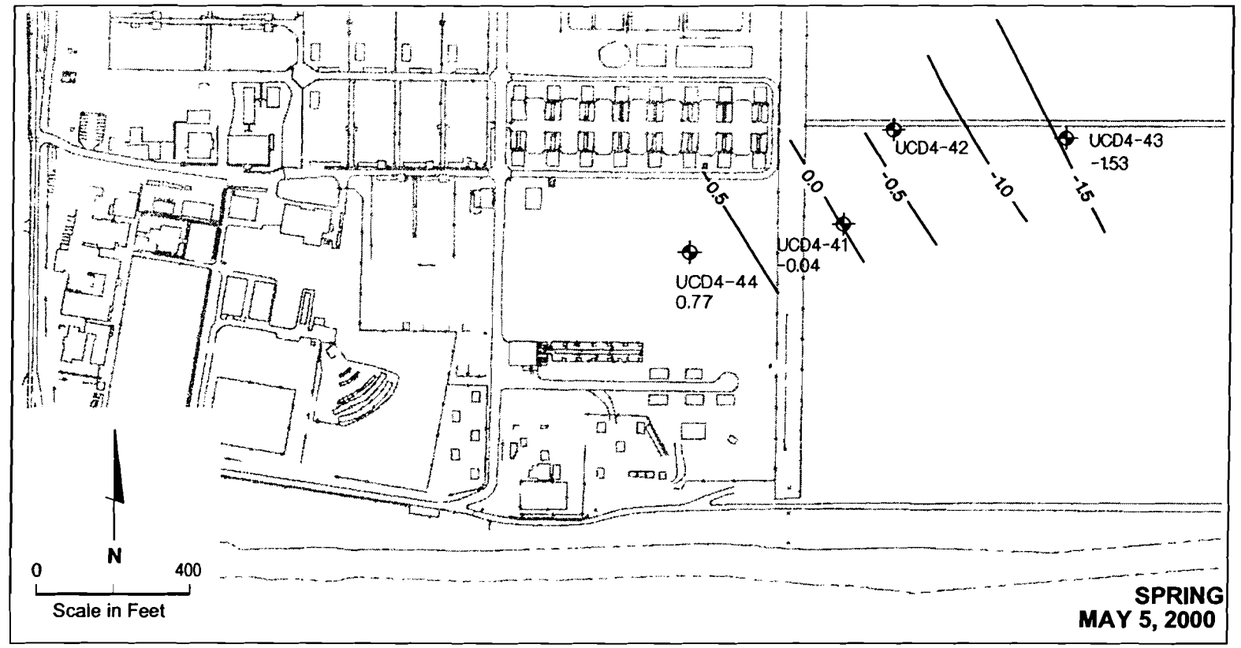

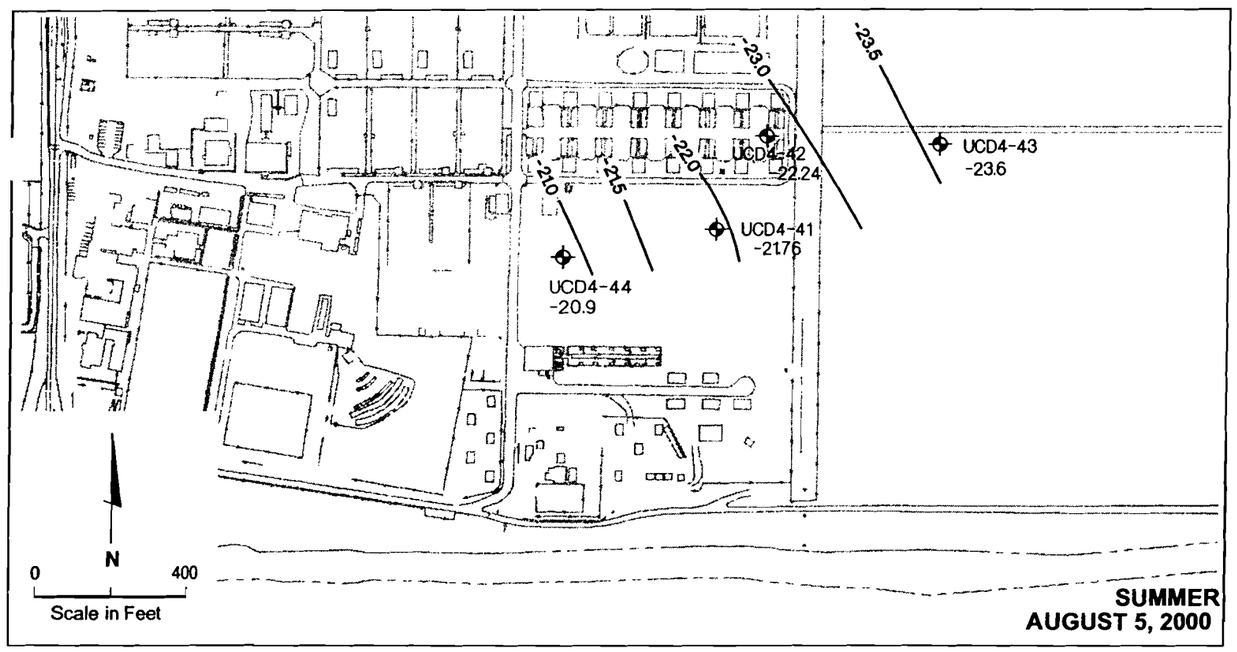

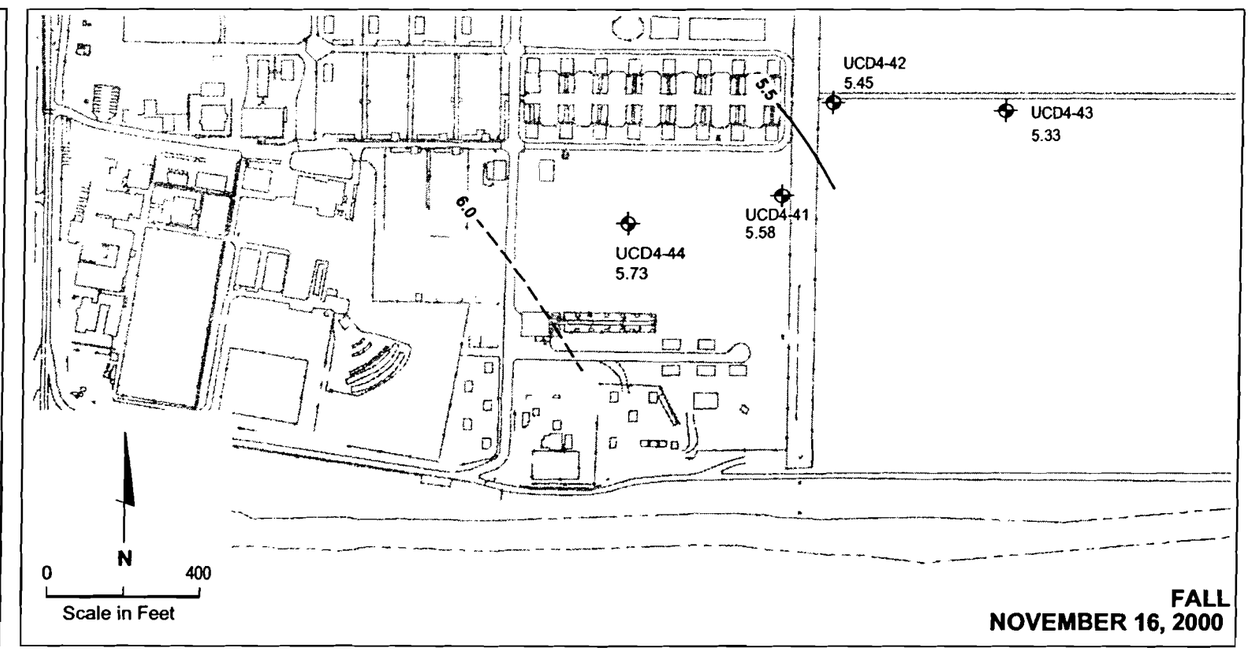

EXPLANATION

UCD4-44 HSU-4 Monitoring Well

NM = Not Measured

24.0 Groundwater Elevation Contour (Feet MSL)

GROUNDWATER ELEVATION CONTOUR MAP - HSU-4

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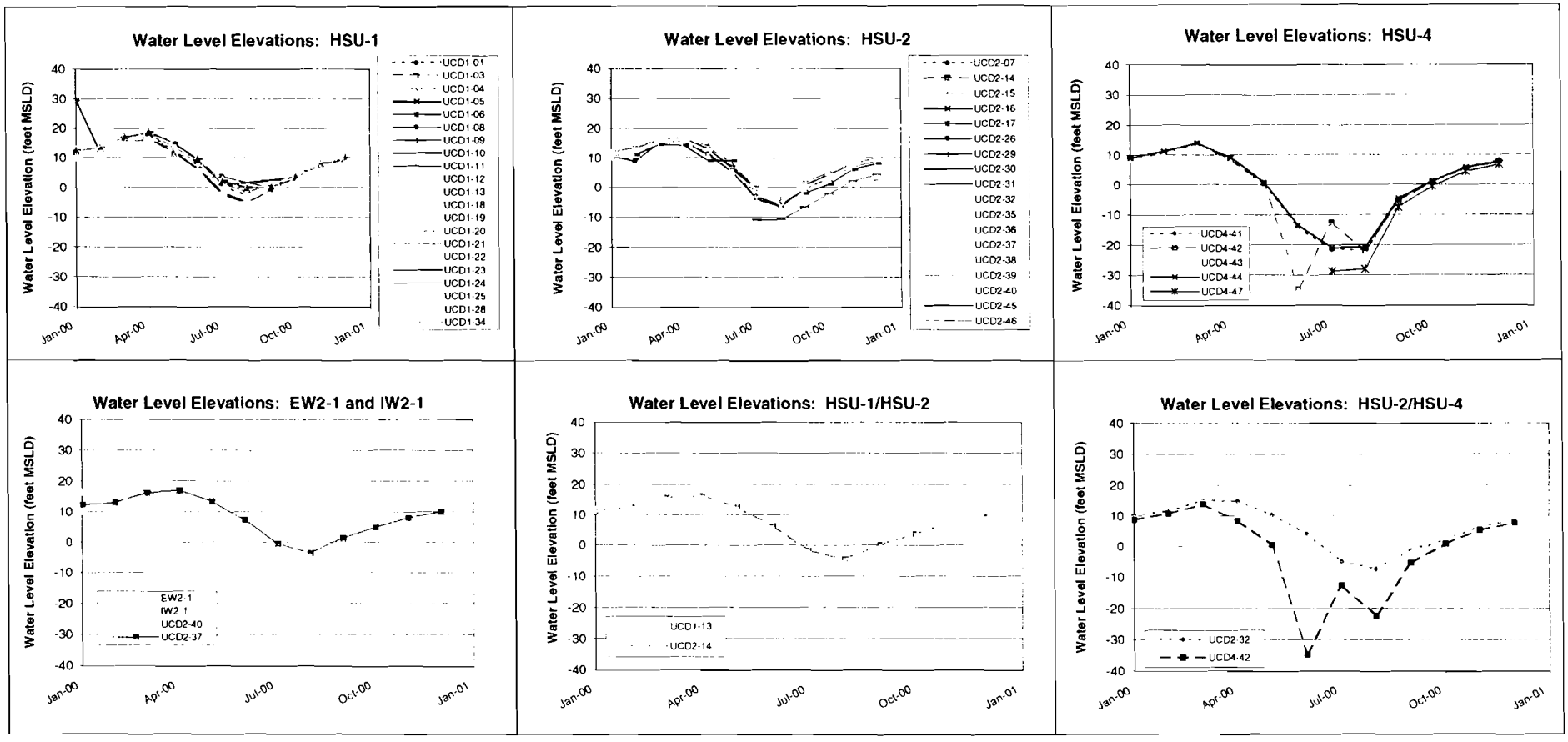
FIGURE 12



WATER LEVEL ELEVATION GRAPHS
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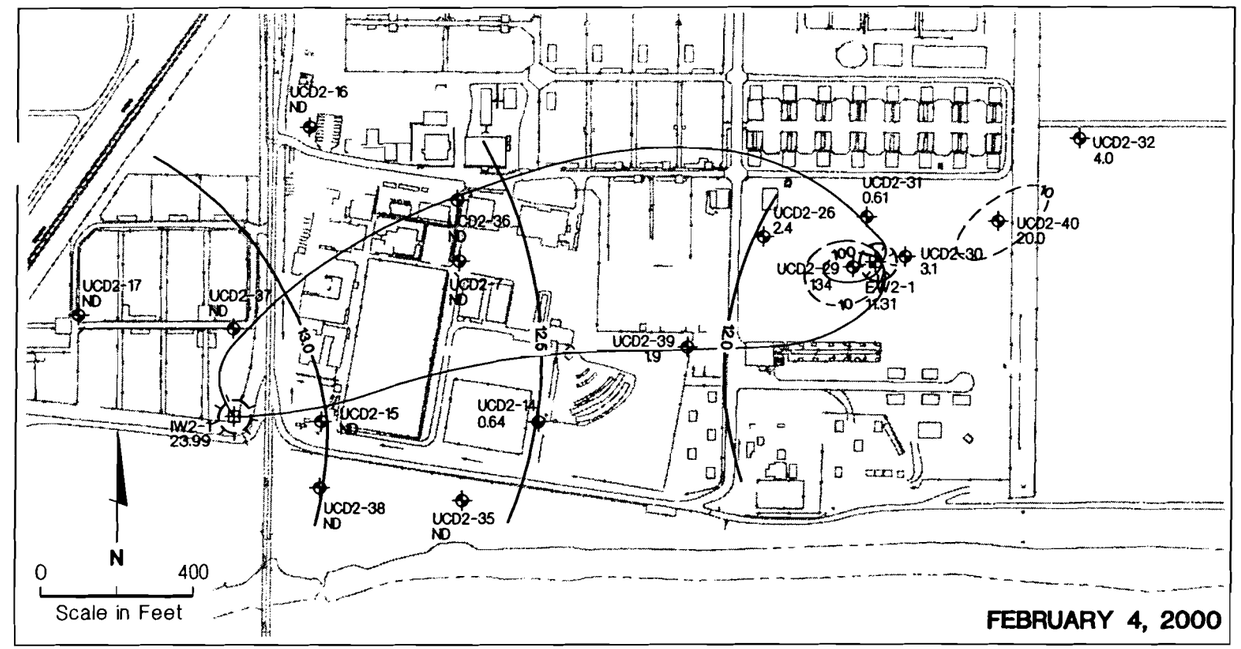
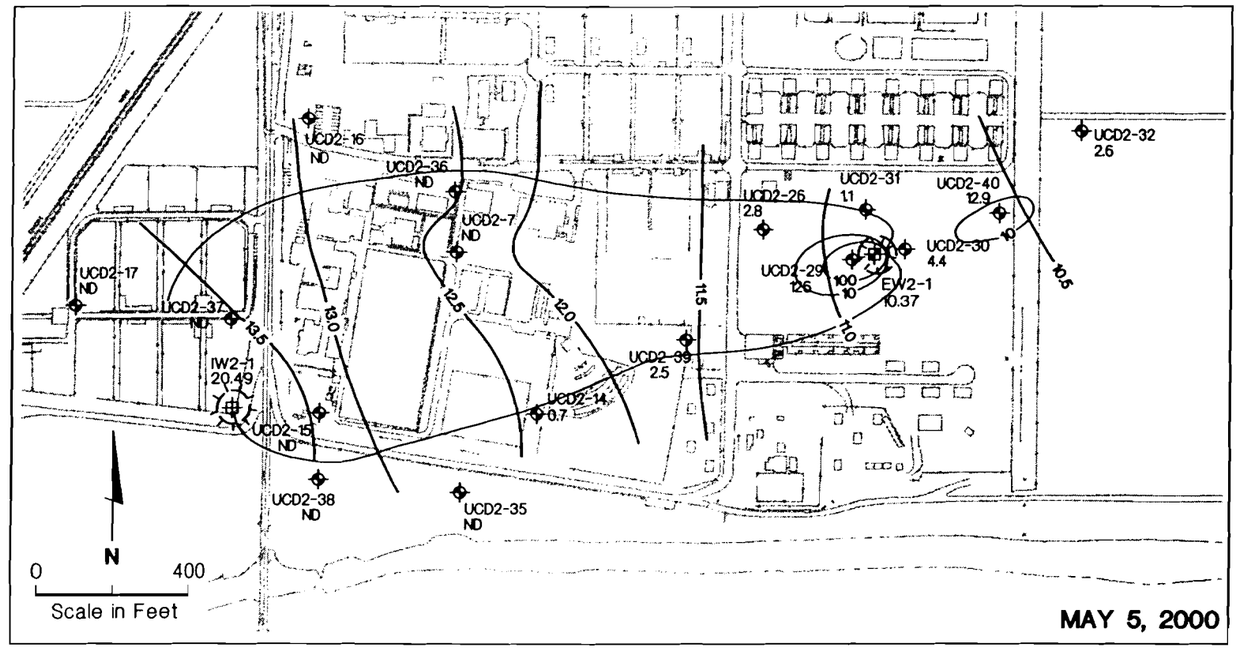
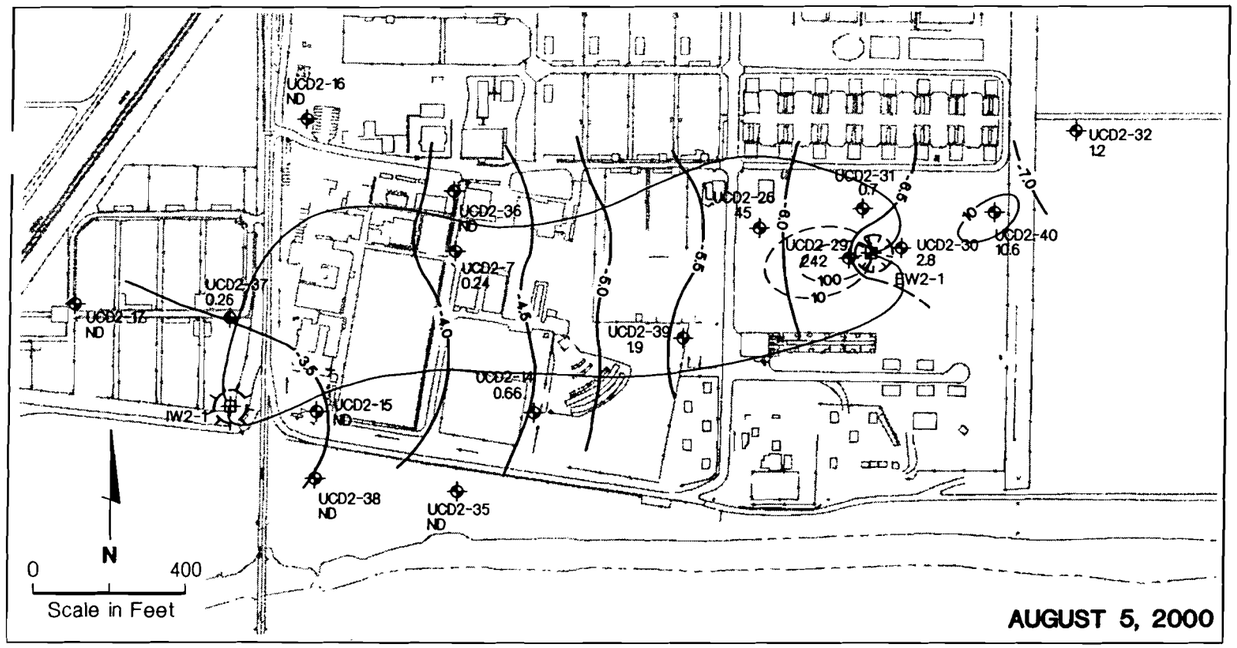
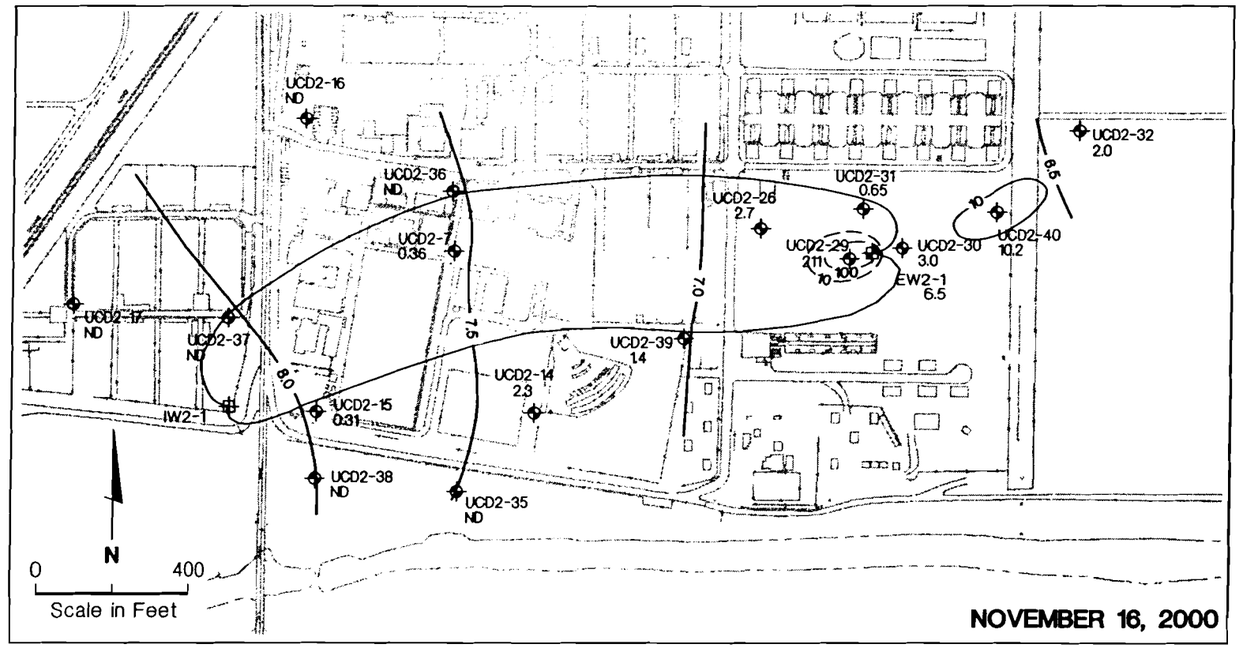
FIGURE 13









EXPLANATION

- UCD2-17 HSU-2 Monitoring Well
- EW2-1 HSU-2 Extraction Well
- IW2-1 HSU-2 Injection Well
- 10 — Chloroform Concentration Contours, in ug/L. Dashed Where Estimated.
- 18.5 — Groundwater Elevation Contour (Feet MSLD)
- Capture Zone

CAPTURE ZONE ANALYSIS MAPS

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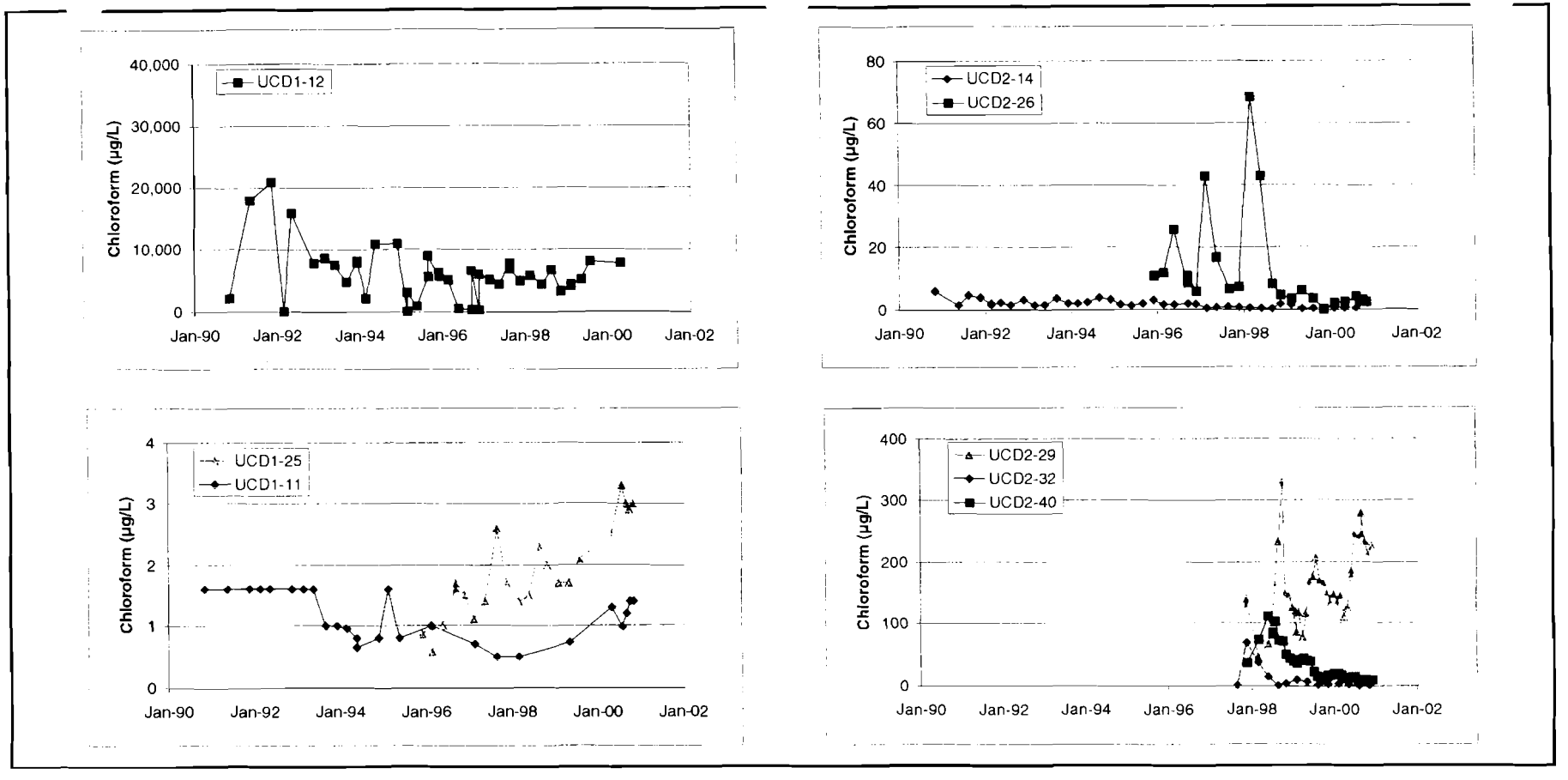
FIGURE 14



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PLOTS OF CHLOROFORM VERSUS TIME IN SELECTED HSU-1 AND HSU-2 WELLS

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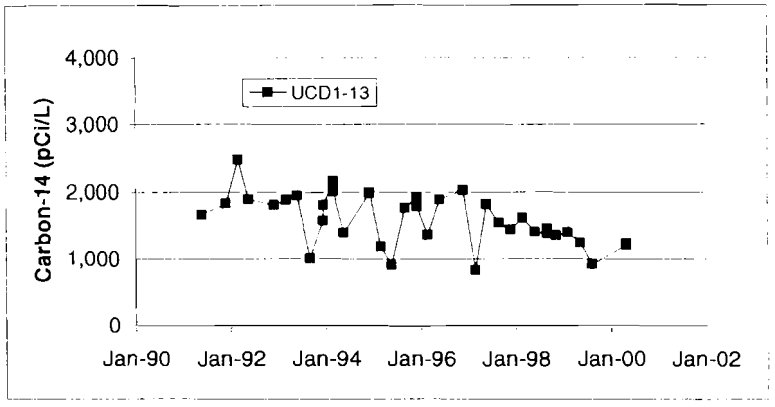
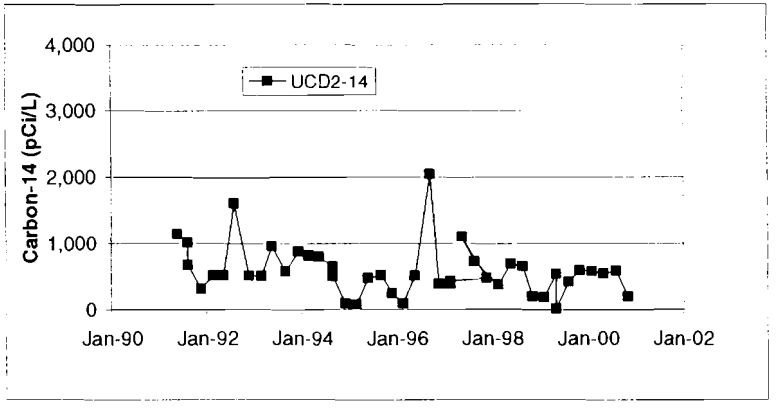
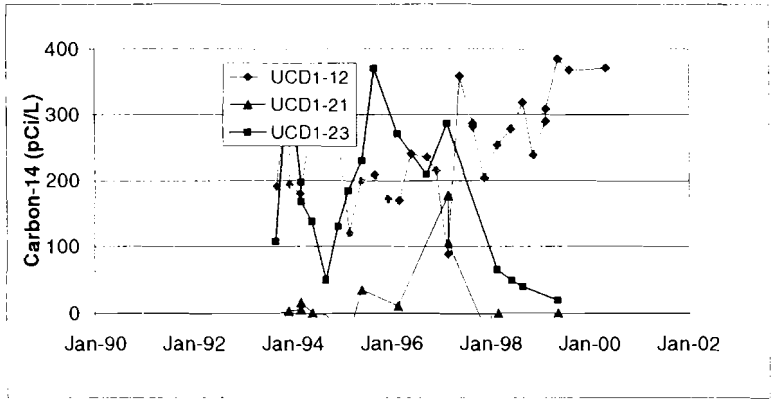
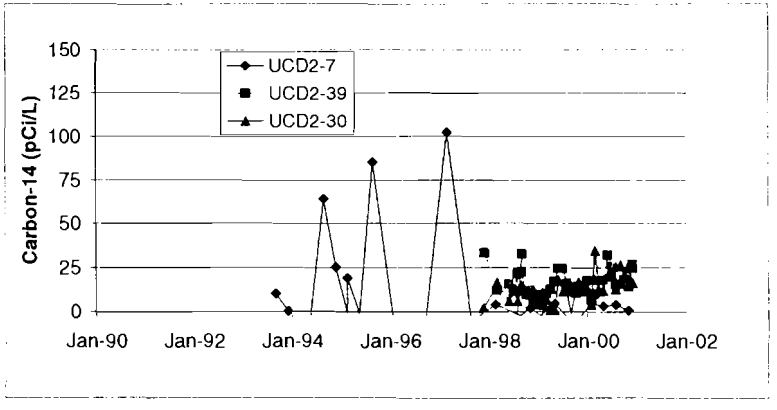
FIGURE 15









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PLOTS OF CARBON-14 VERSUS TIME IN SELECTED HSU-1 AND HSU-2 WELLS

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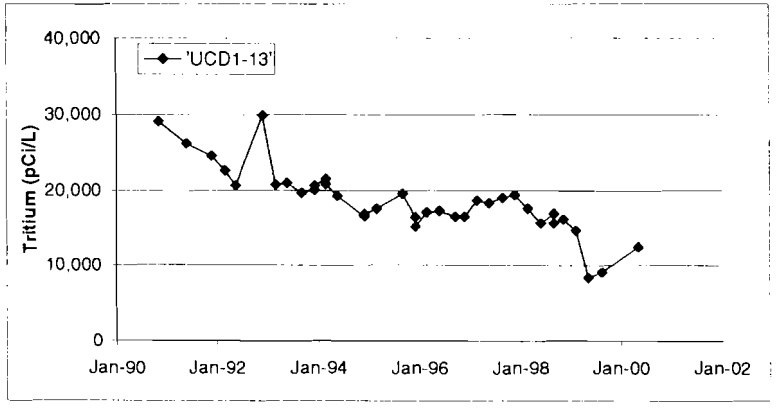
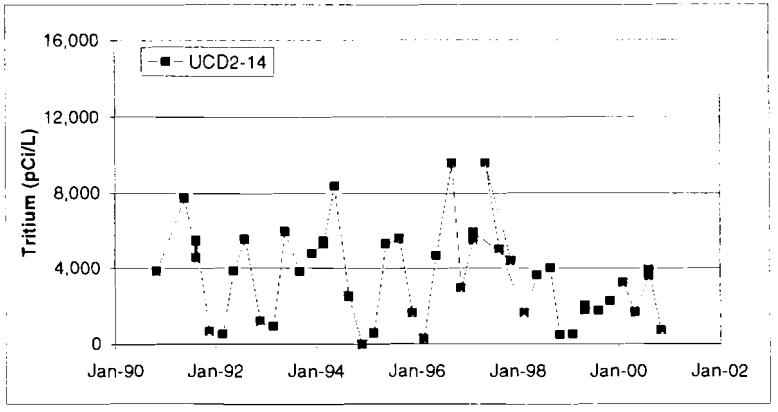
FIGURE 16





URS

PLOTS OF TRITIUM VERSUS TIME IN SELECTED HSU-1 AND HSU-2 WELLS

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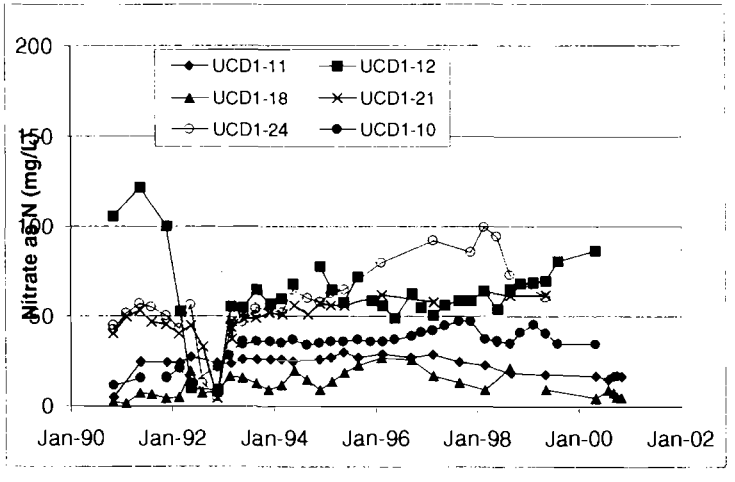
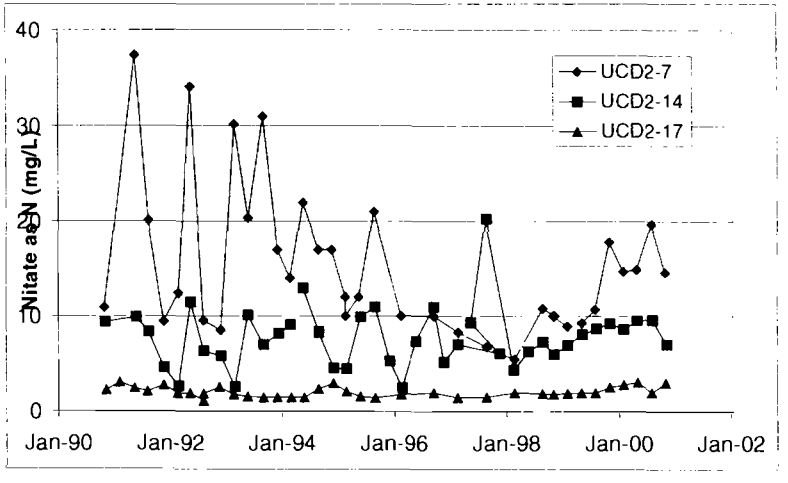
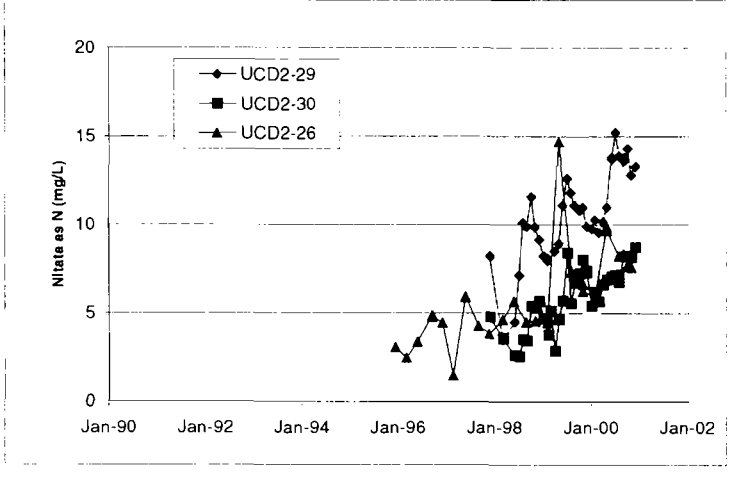
FIGURE 17







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PLOTS OF NITRATE AS N VERSUS TIME IN SELECTED HSU-1 AND HSU-2 WELLS

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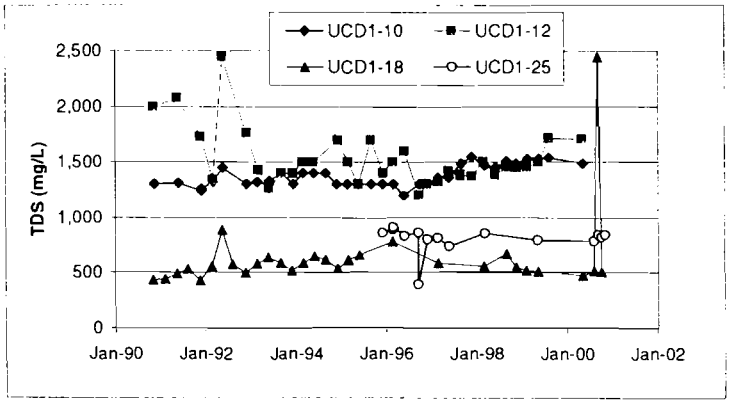
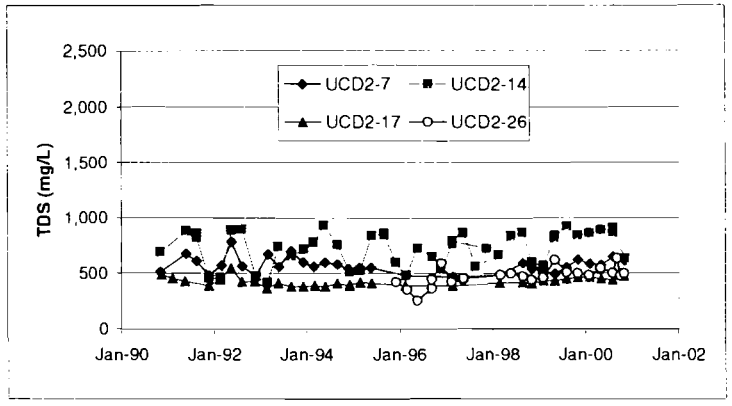
FIGURE 18



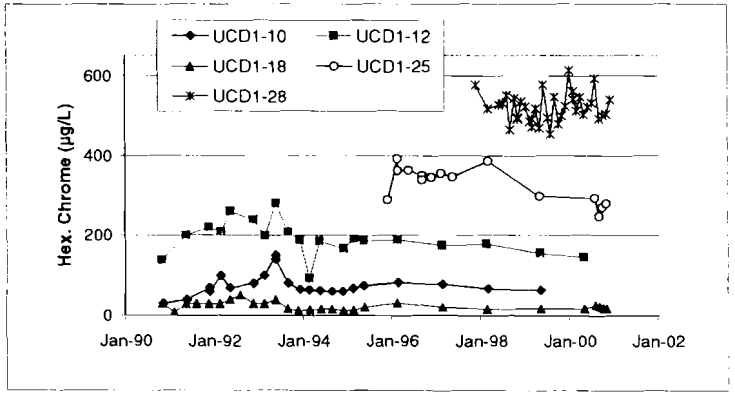


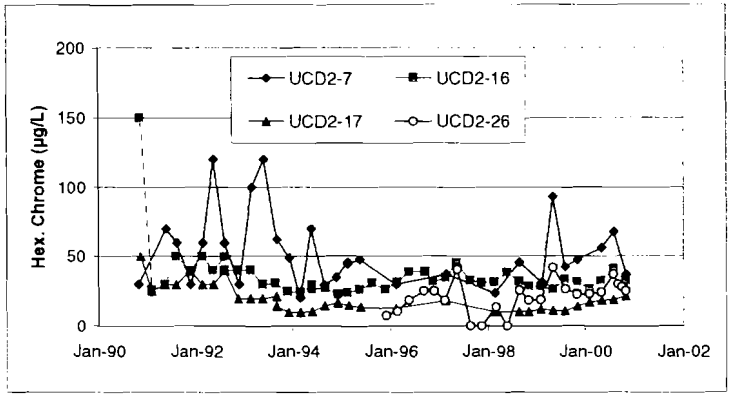
URS

PLOTS OF TDS VERSUS TIME IN SELECTED HSU-1 AND HSU-2 WELLS

2000 ANNUAL REPORT
LEHR/SCDS Environmental Restoration
Davis, California

FIGURE 19



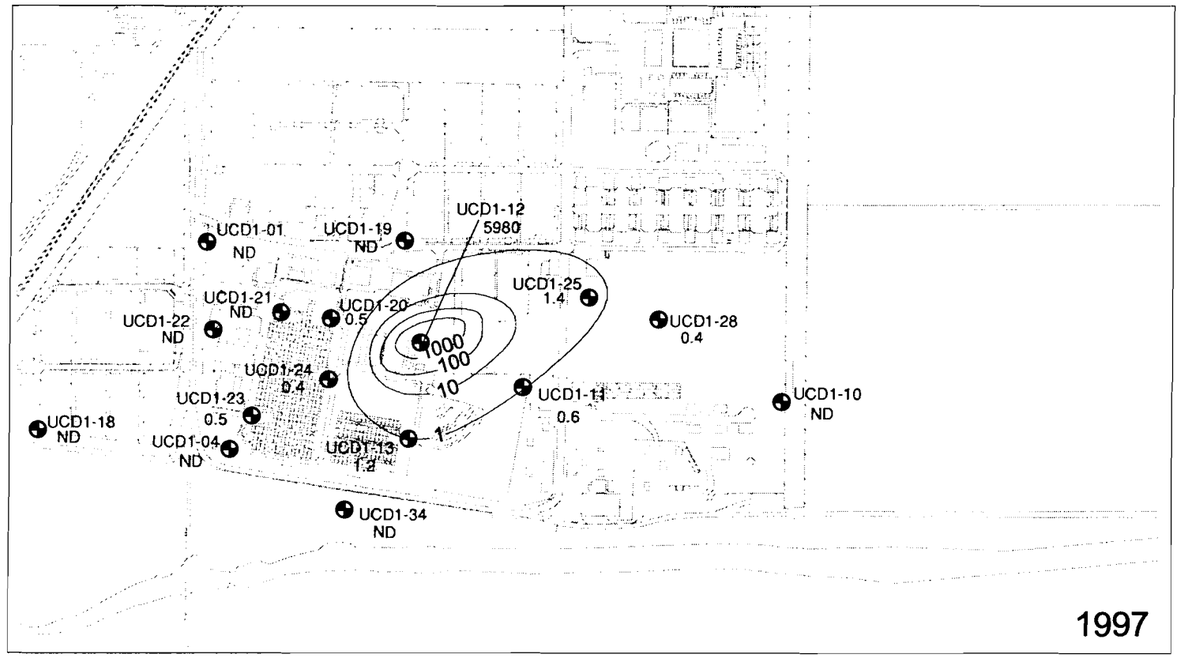


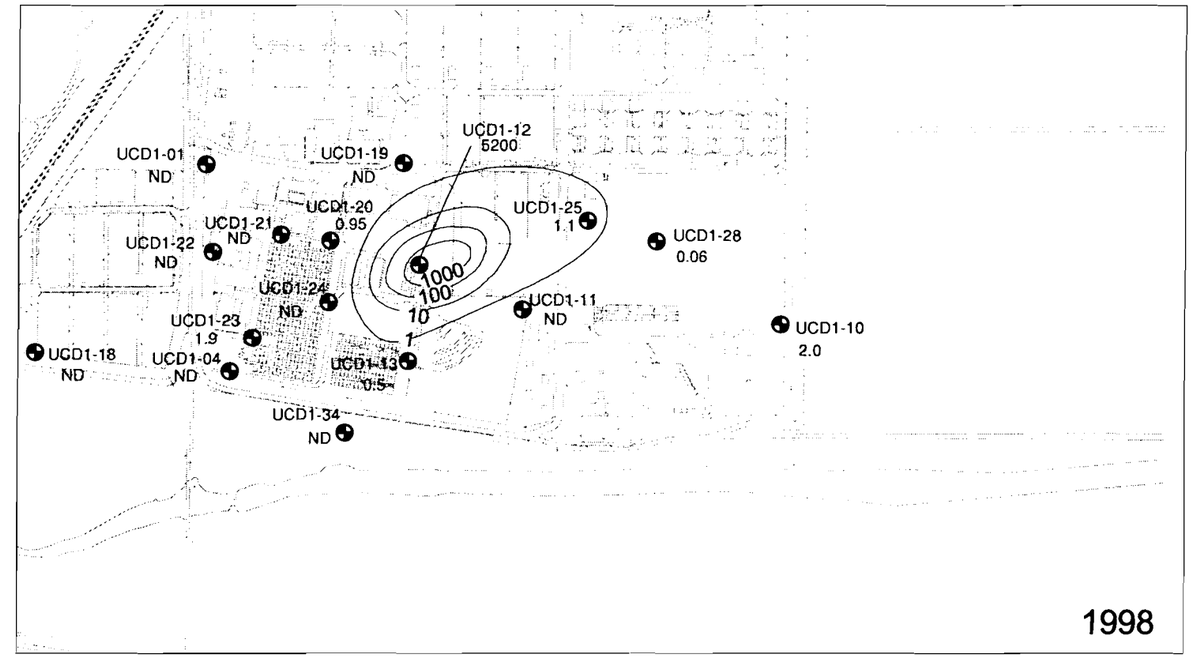
URS

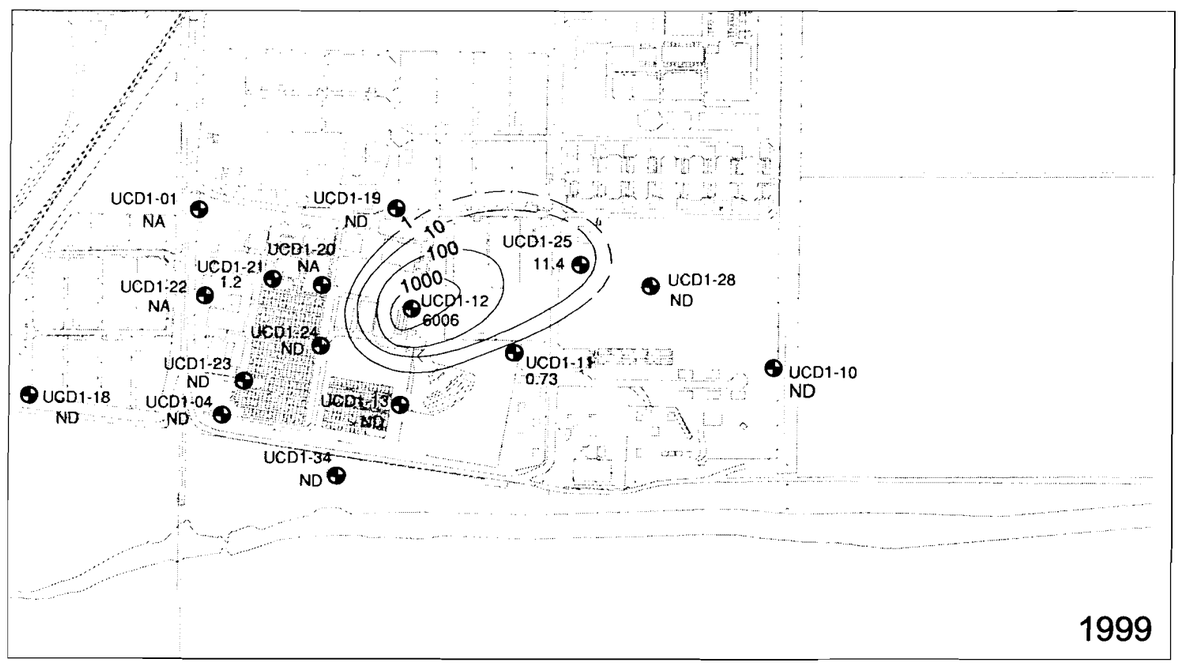
PLOTS OF TOTAL CHROMIUM VERSUS TIME IN SELECTED HSU-1 AND HSU-2 WELLS

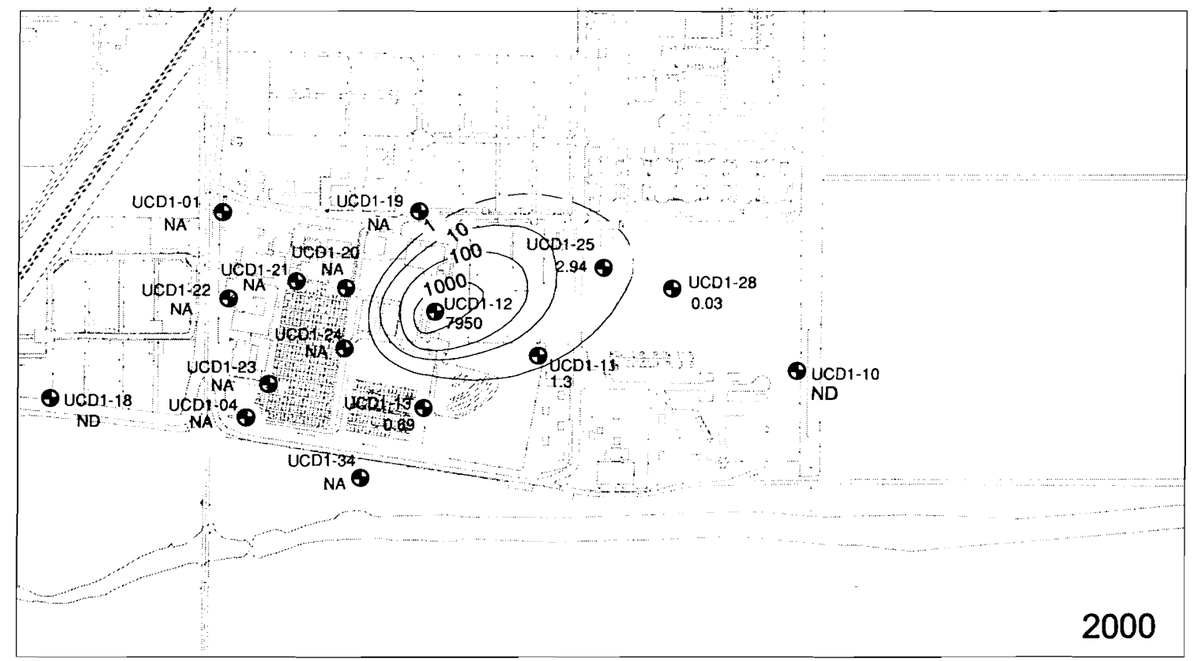
2000 ANNUAL REPORT
LEHR/SCDS Environmental Restoration
Davis, California

FIGURE 20









LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

CHLOROFORM ISOCONCENTRATION CONTOURS IN HSU-1, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 21

URS

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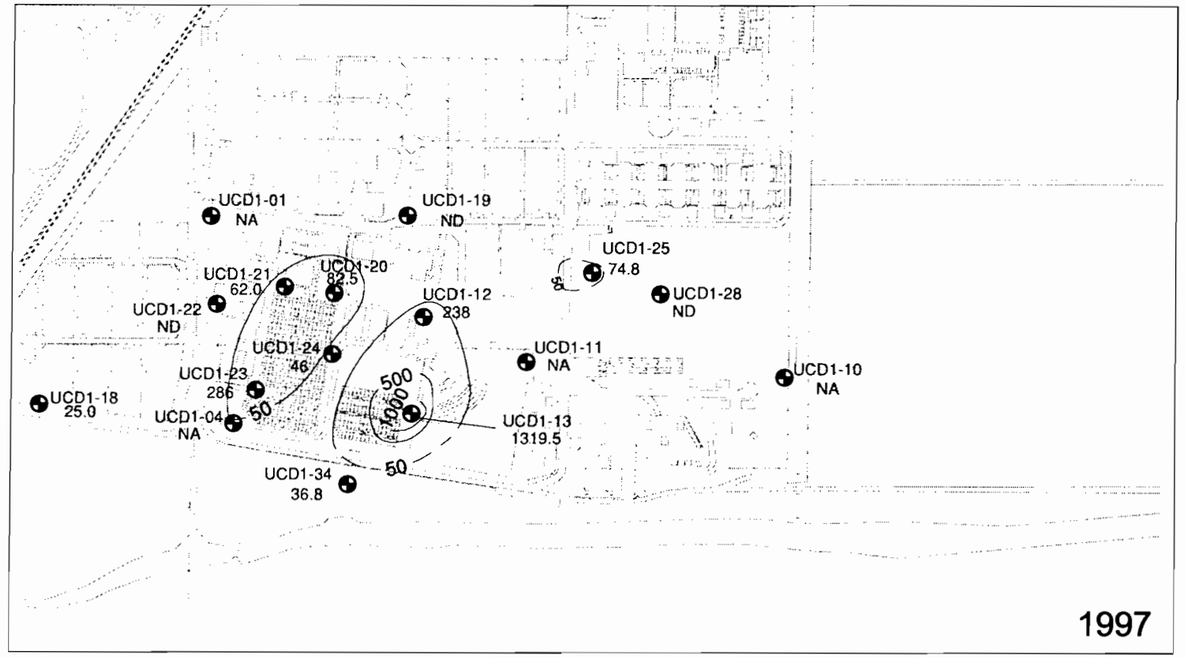

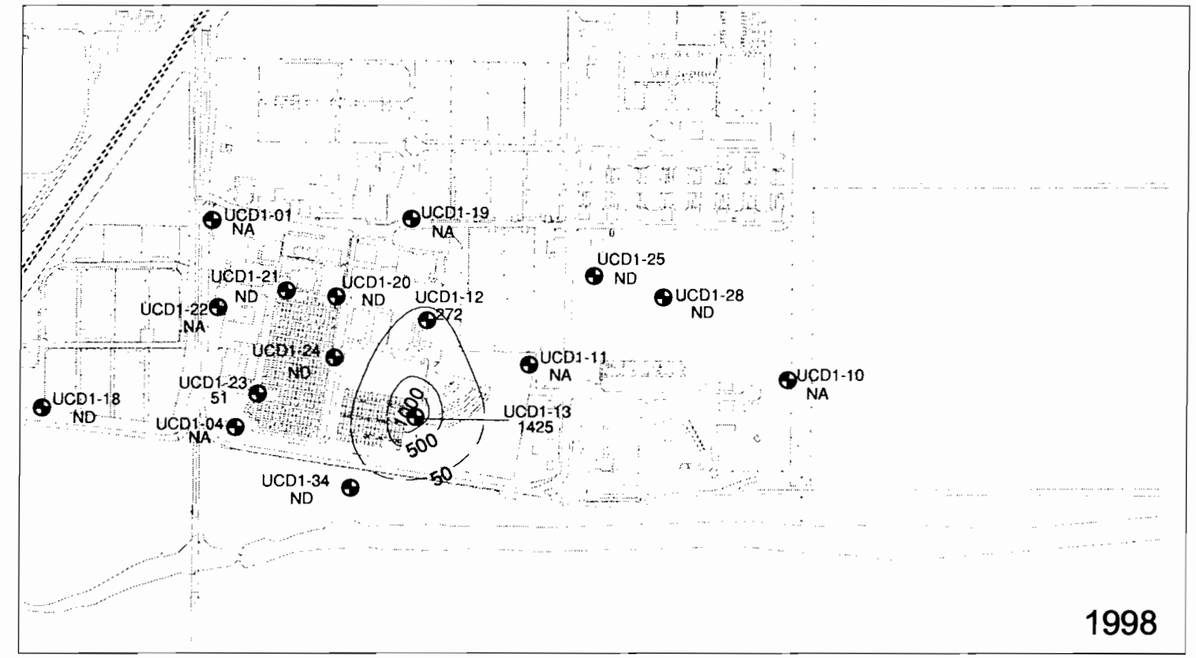

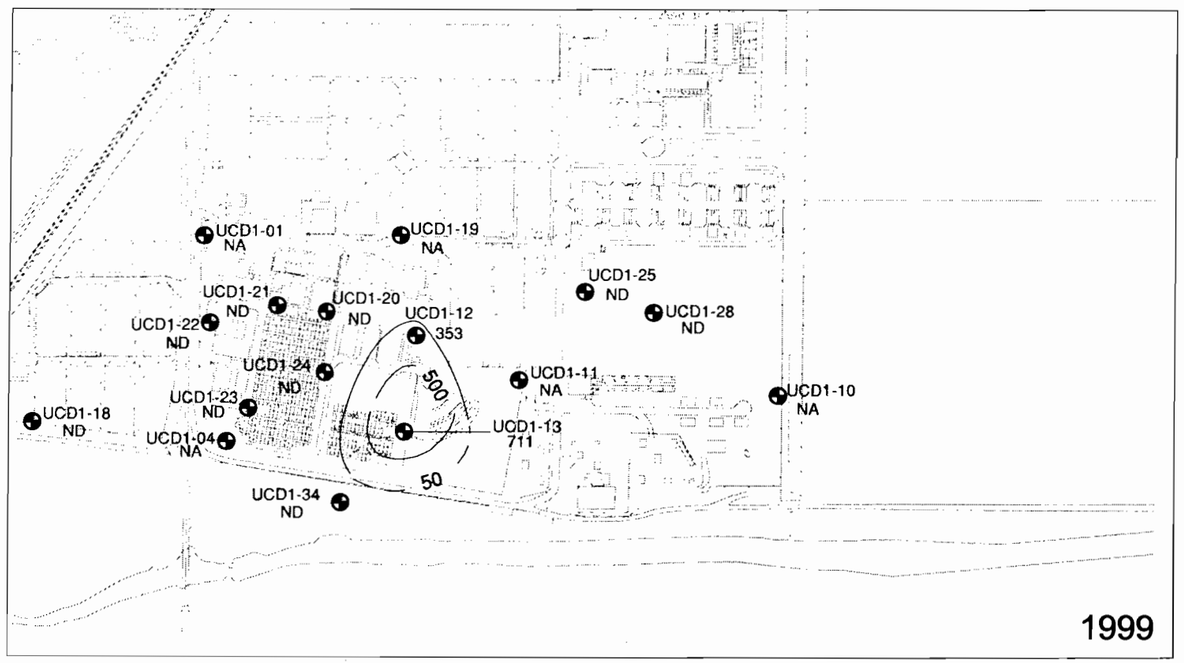

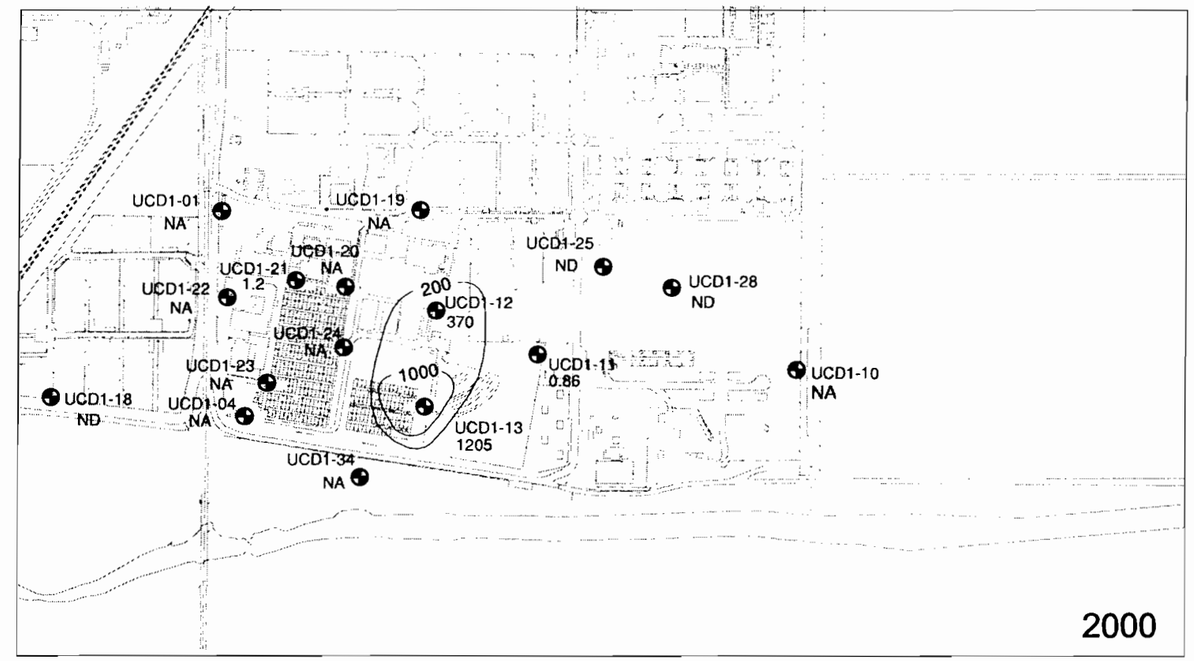

LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

CARBON-14 ISOCONCENTRATION CONTOURS IN HSU-1, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 22

URS

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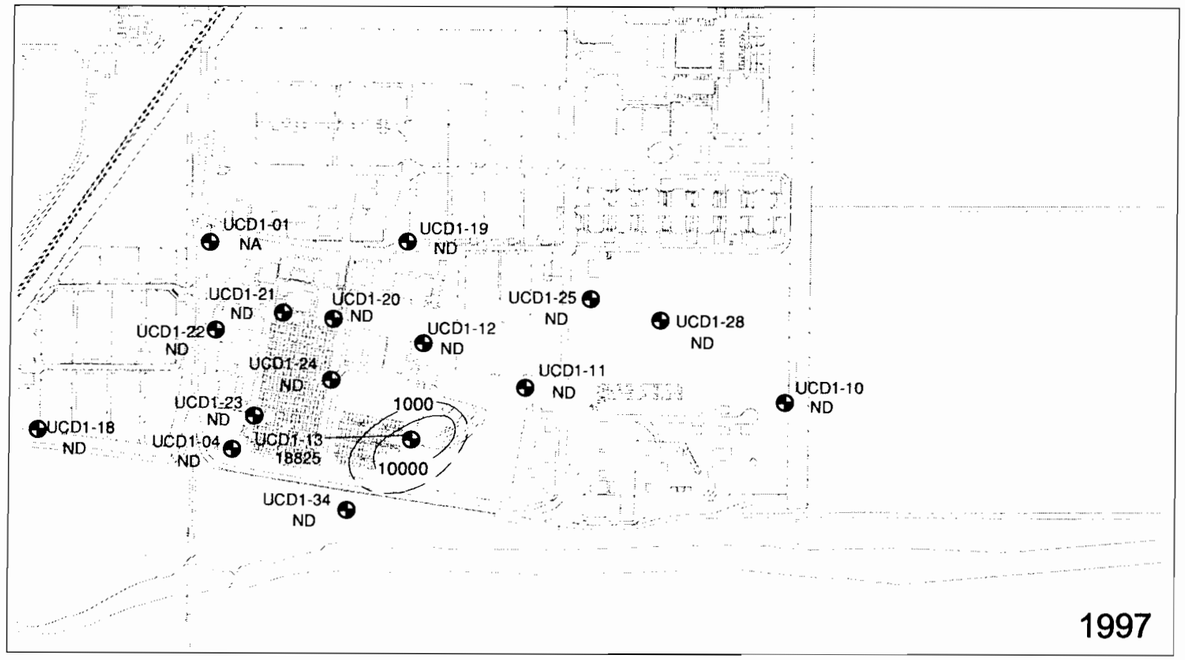

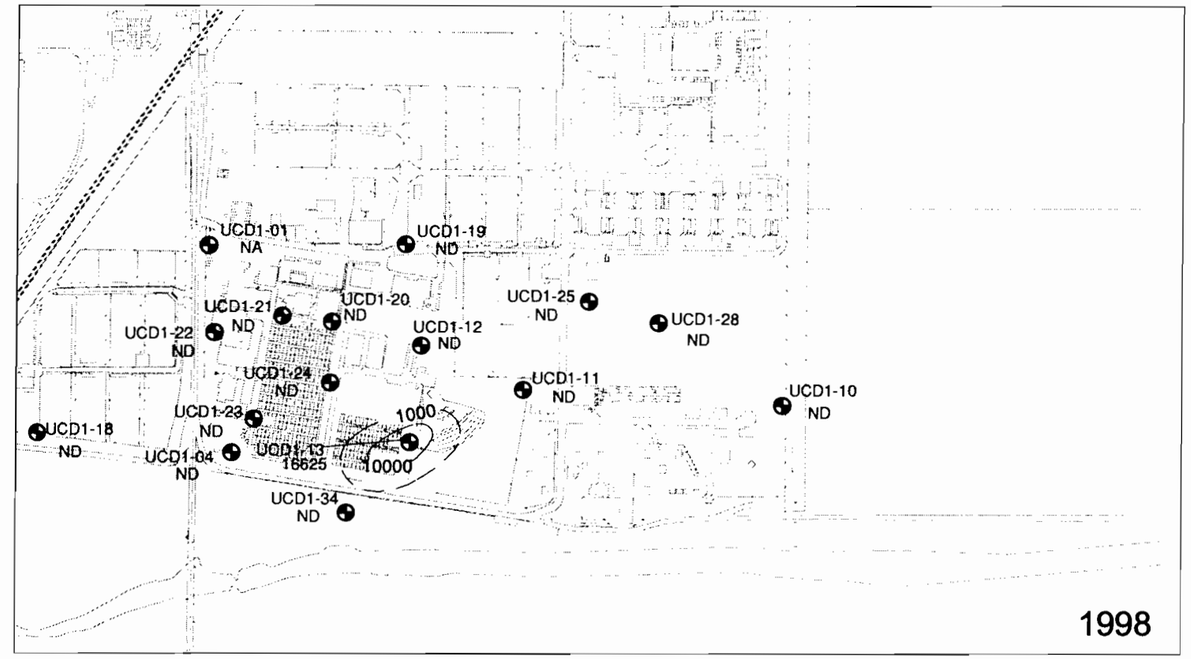

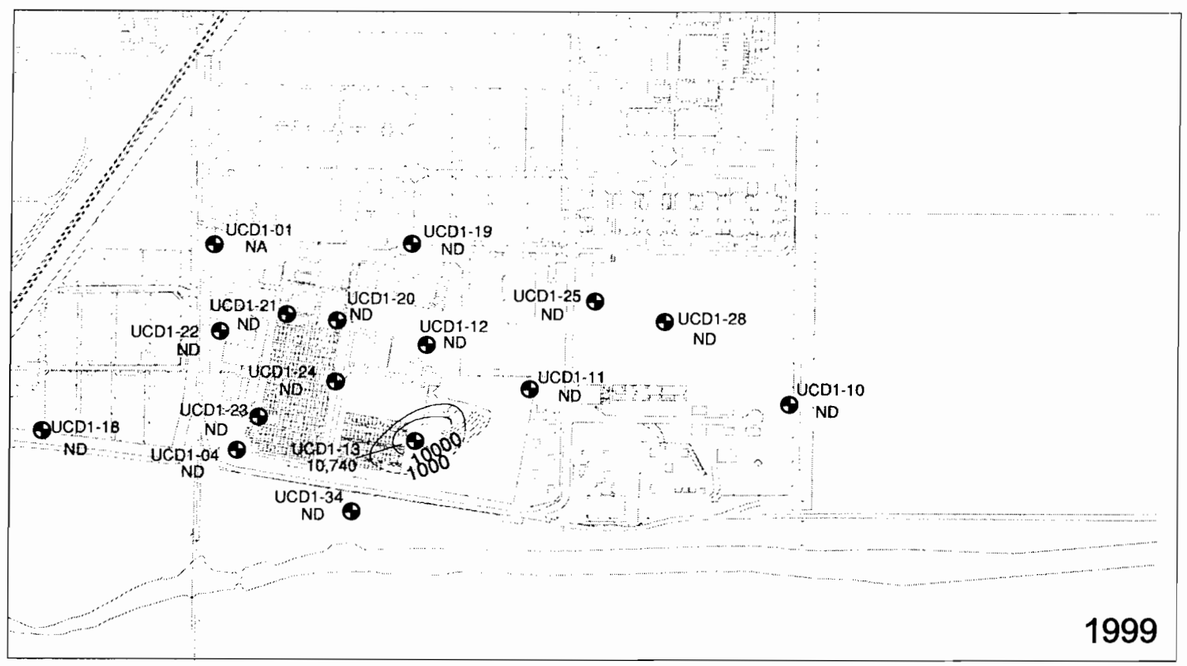

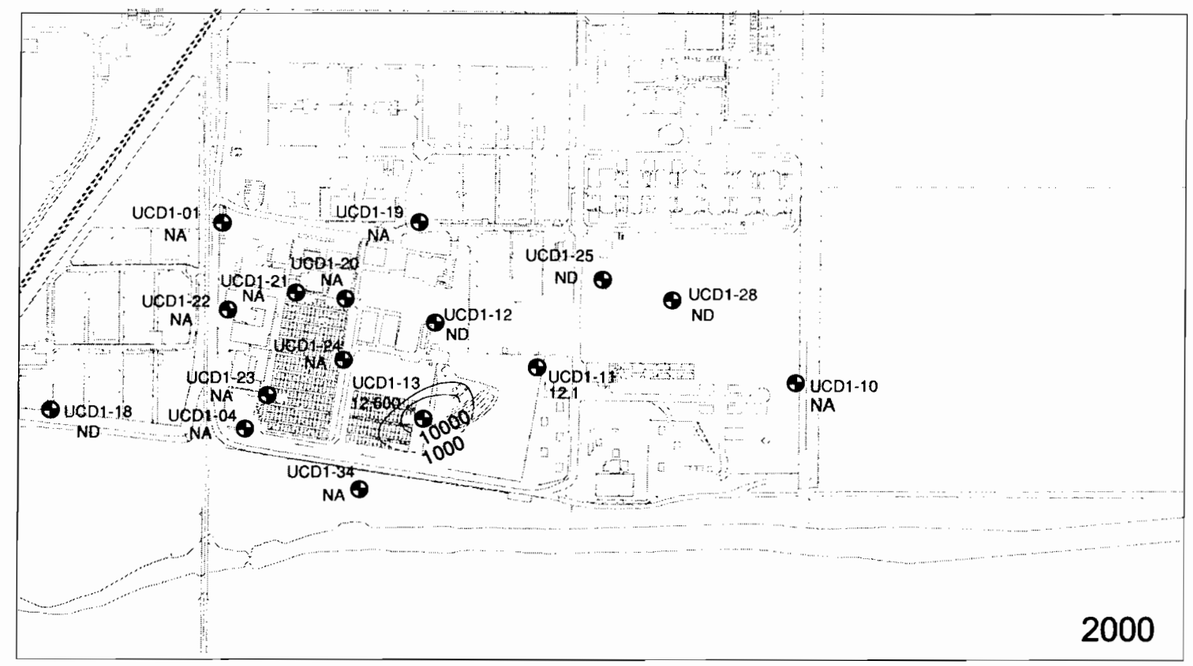

LEGEND

- UCD2-17 HSU-2 Monitoring Well
- All results reported in pCi/L
- Results represent average of quarterly data
- NA = Not Analyzed
- ND = Not Detected

TRITIUM ISOCONCENTRATION CONTOURS IN HSU-1, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
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Davis, California
FIGURE 23

URS

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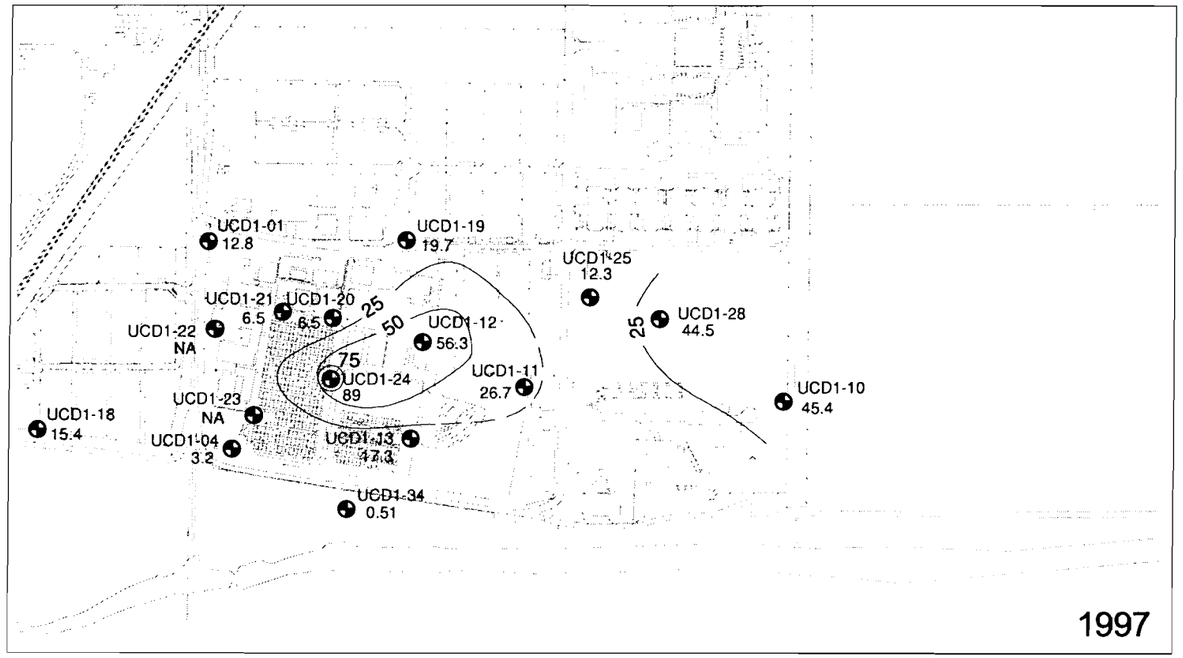

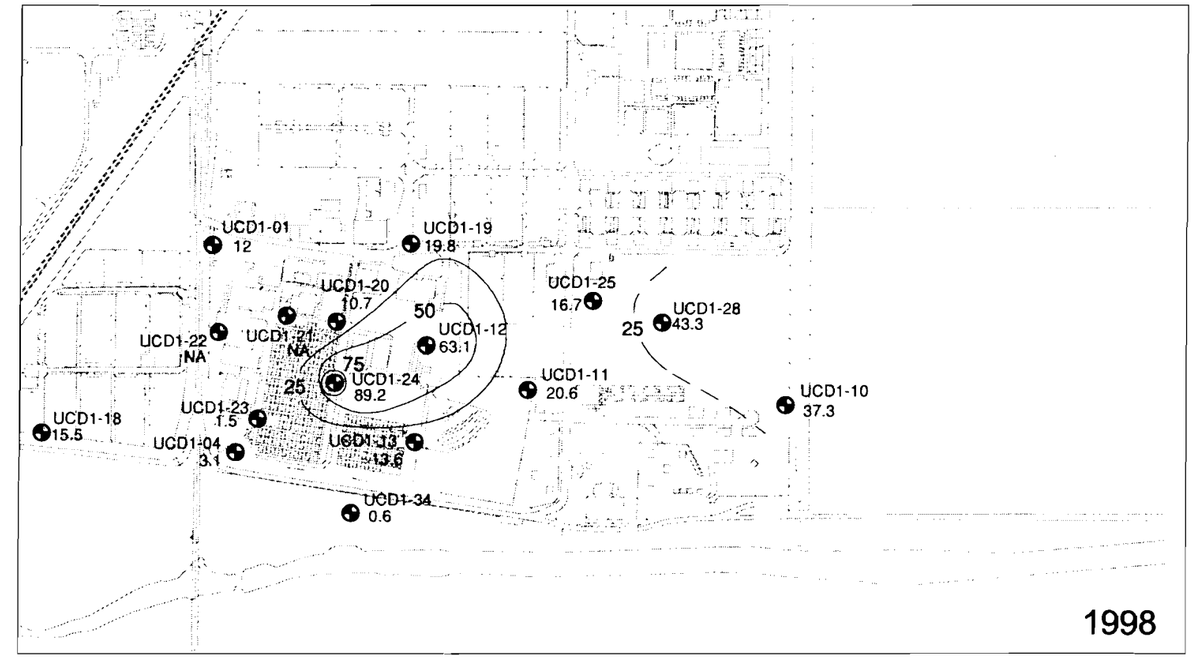

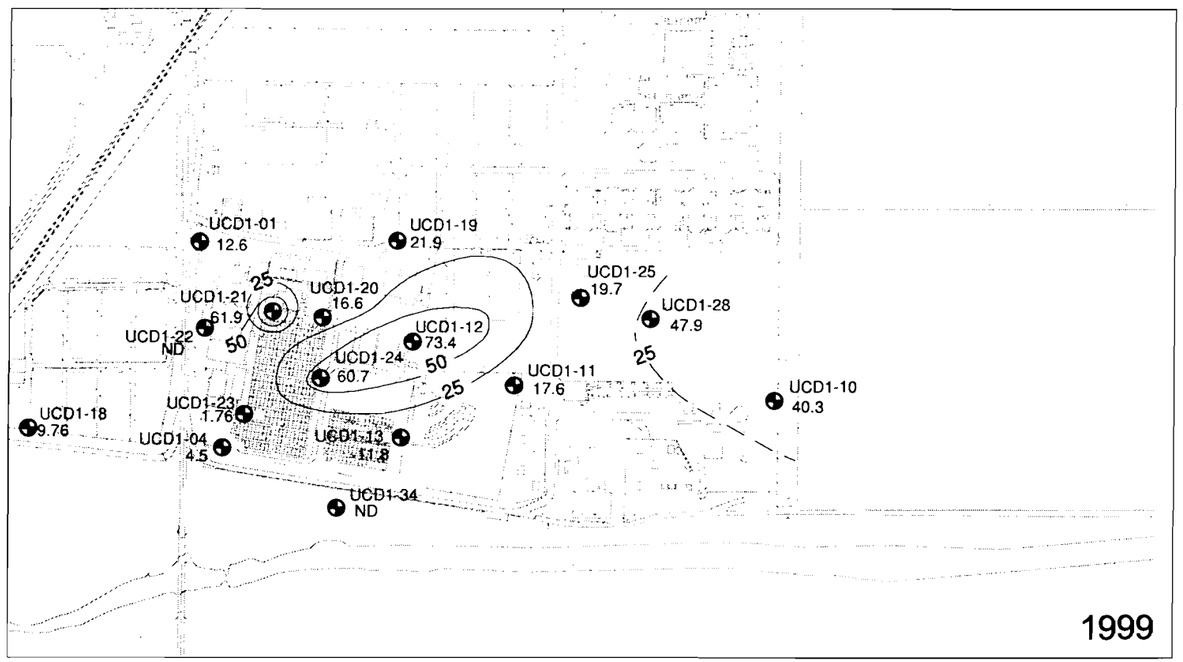

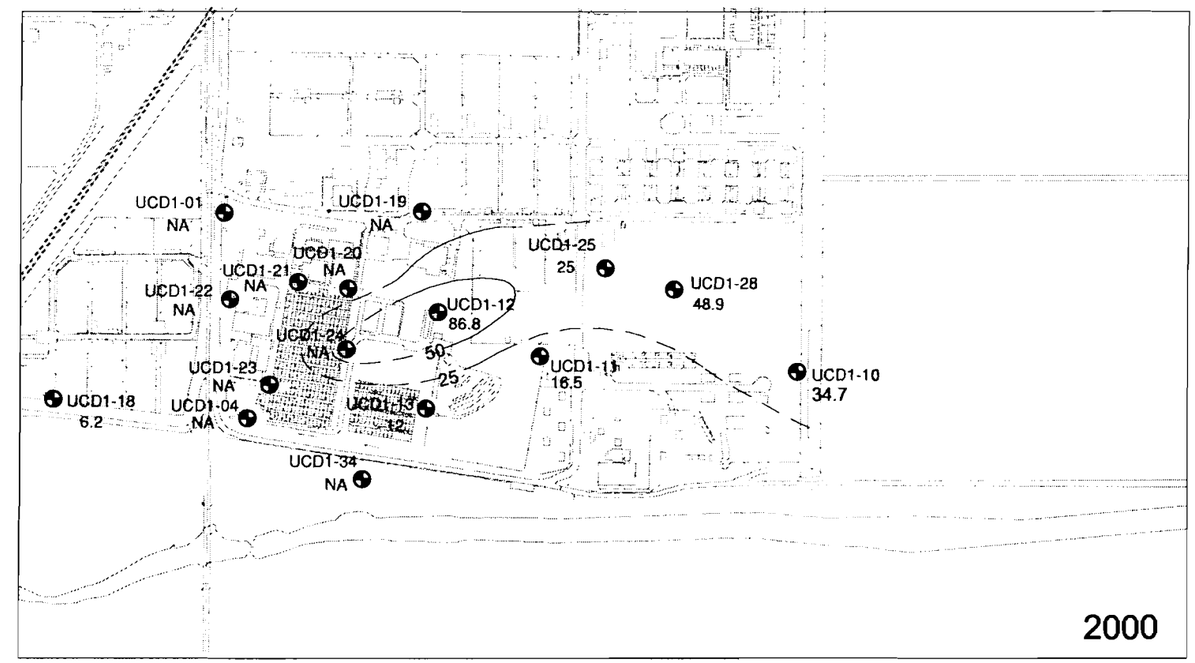

LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

NITRATE AS N ISOCONCENTRATION CONTOURS IN HSU-1, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
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Davis, California
FIGURE 24

URS

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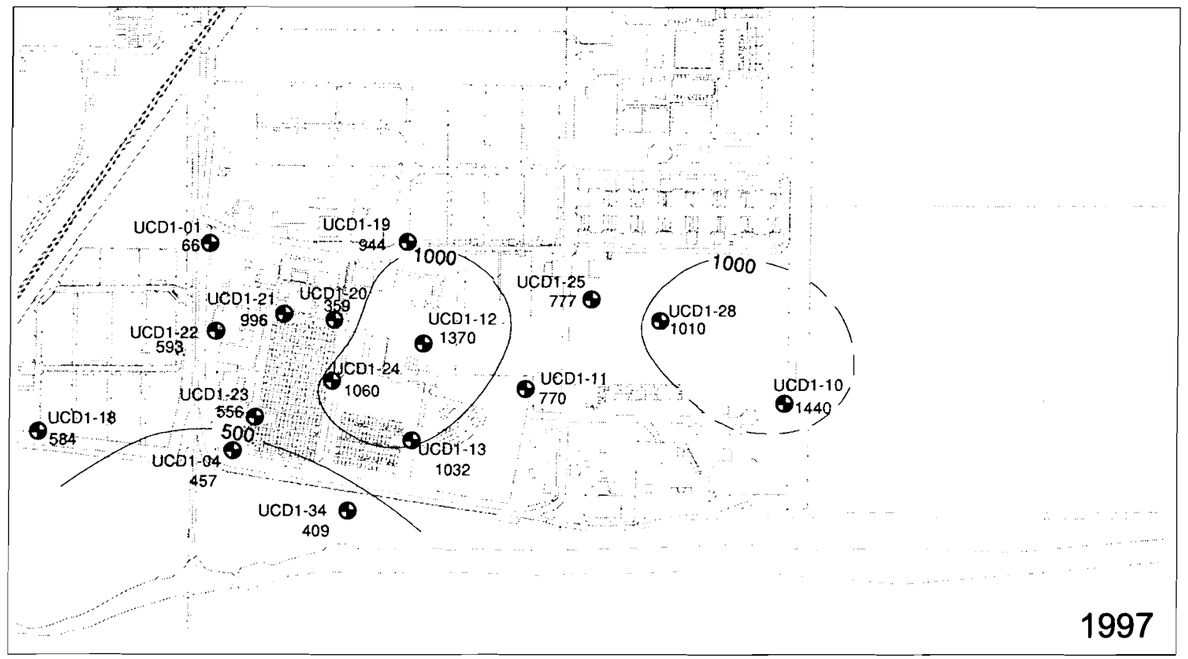

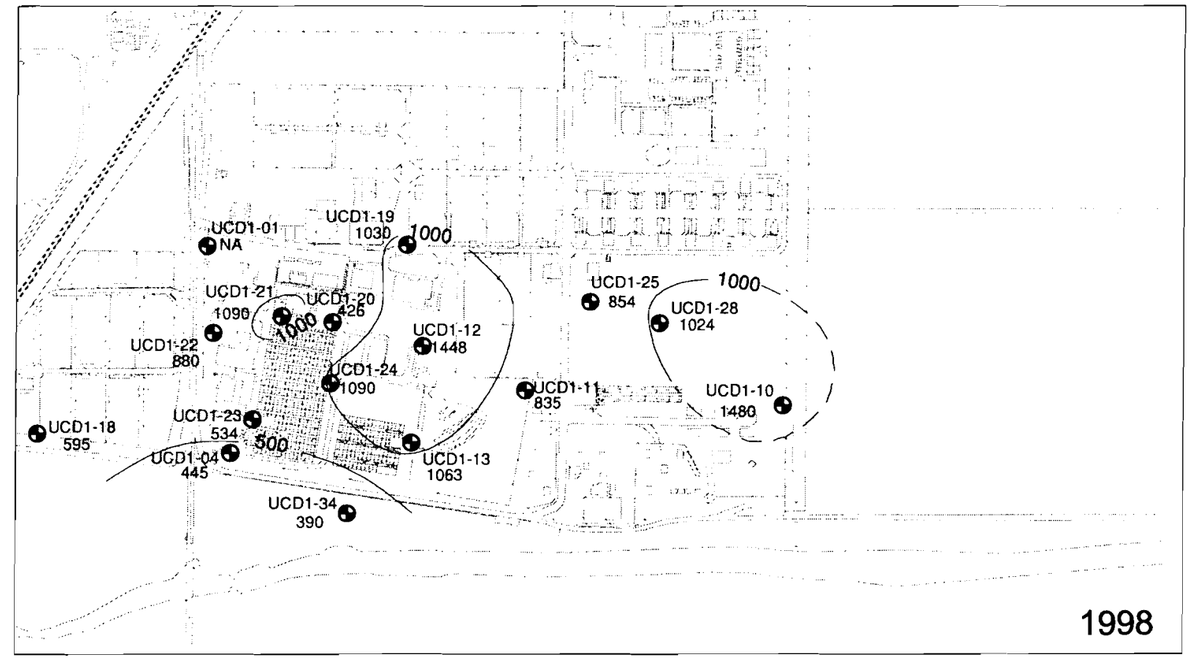

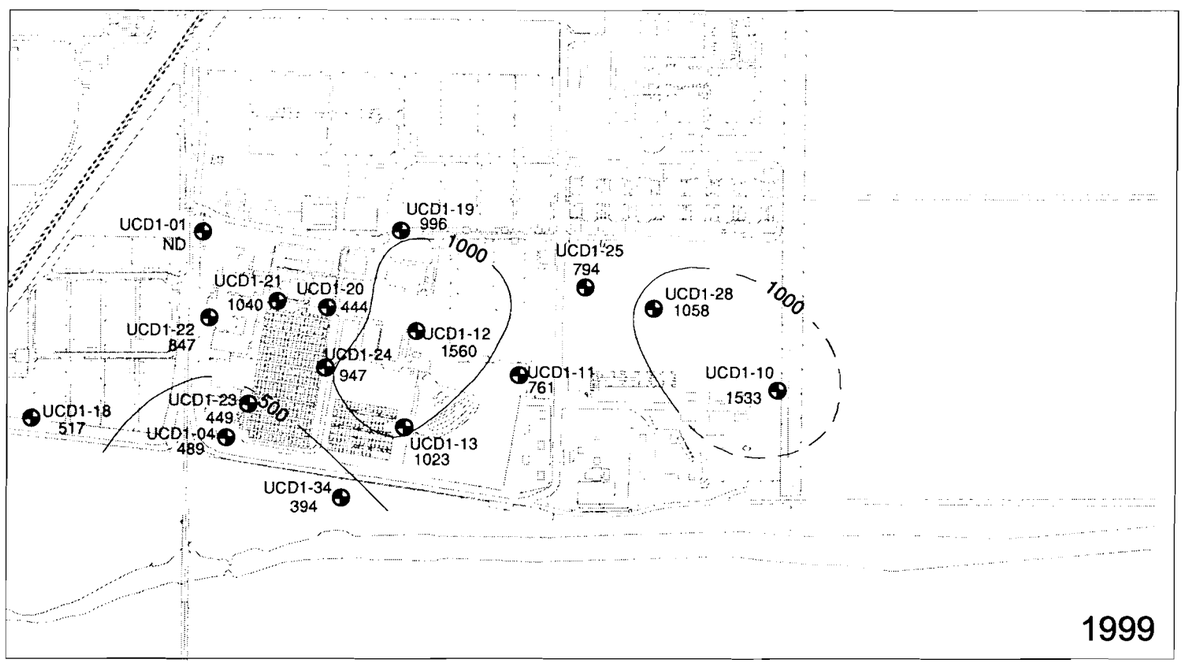

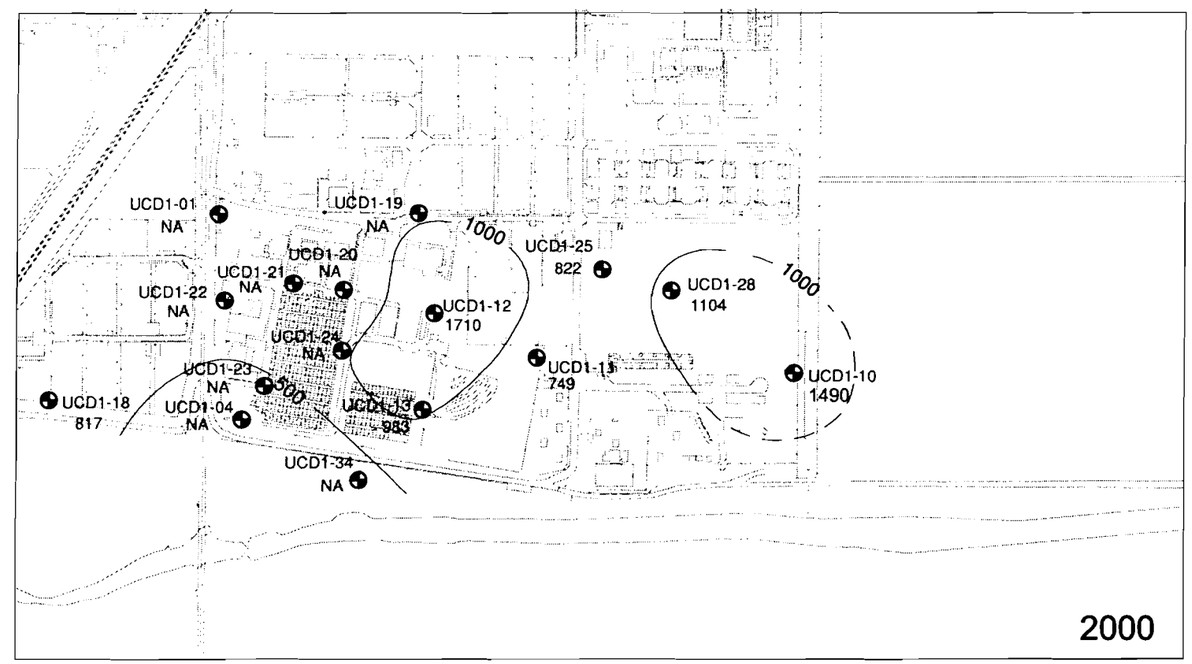

LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

URS

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TDS ISOCONCENTRATION CONTOURS IN HSU-1, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
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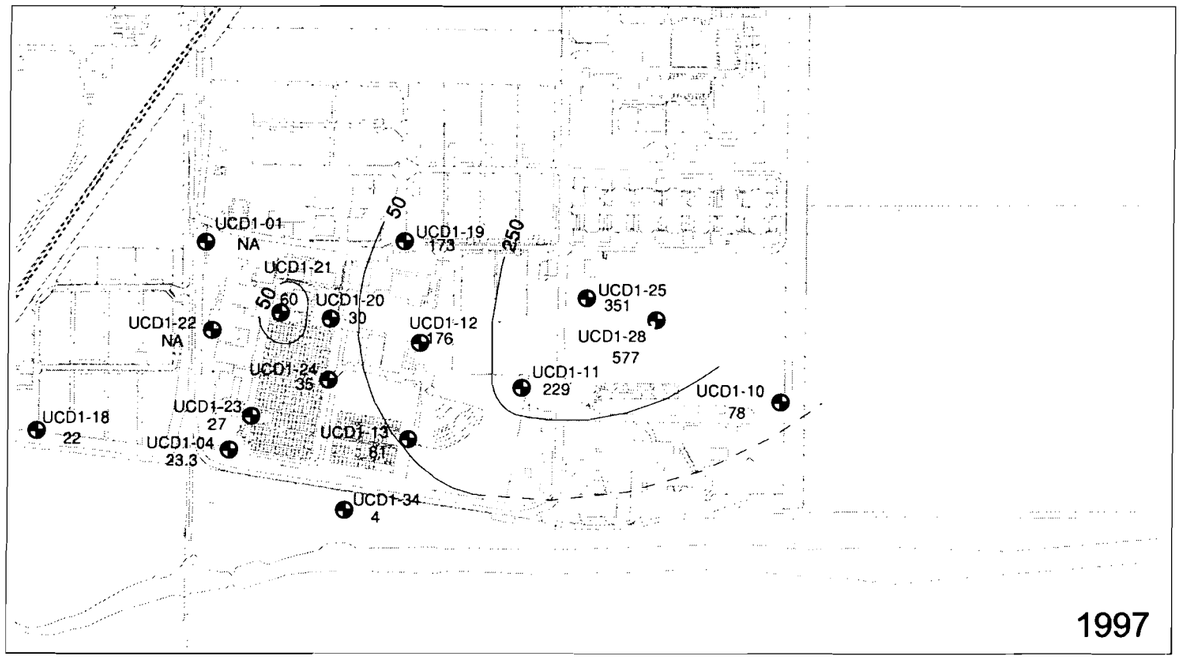
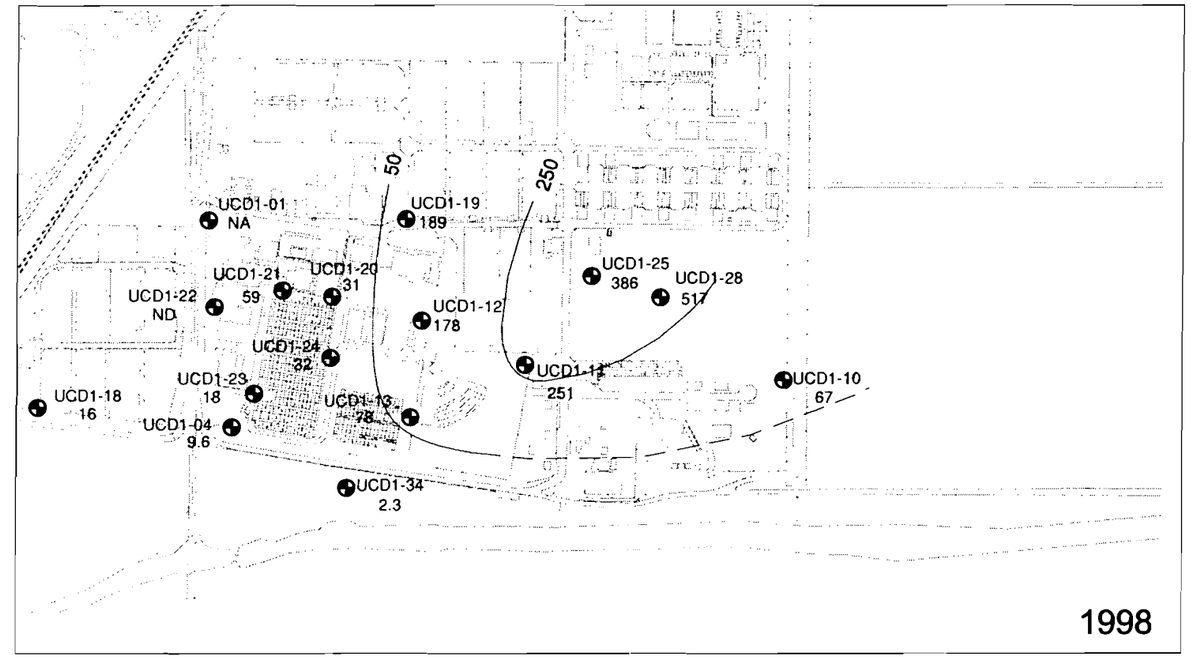
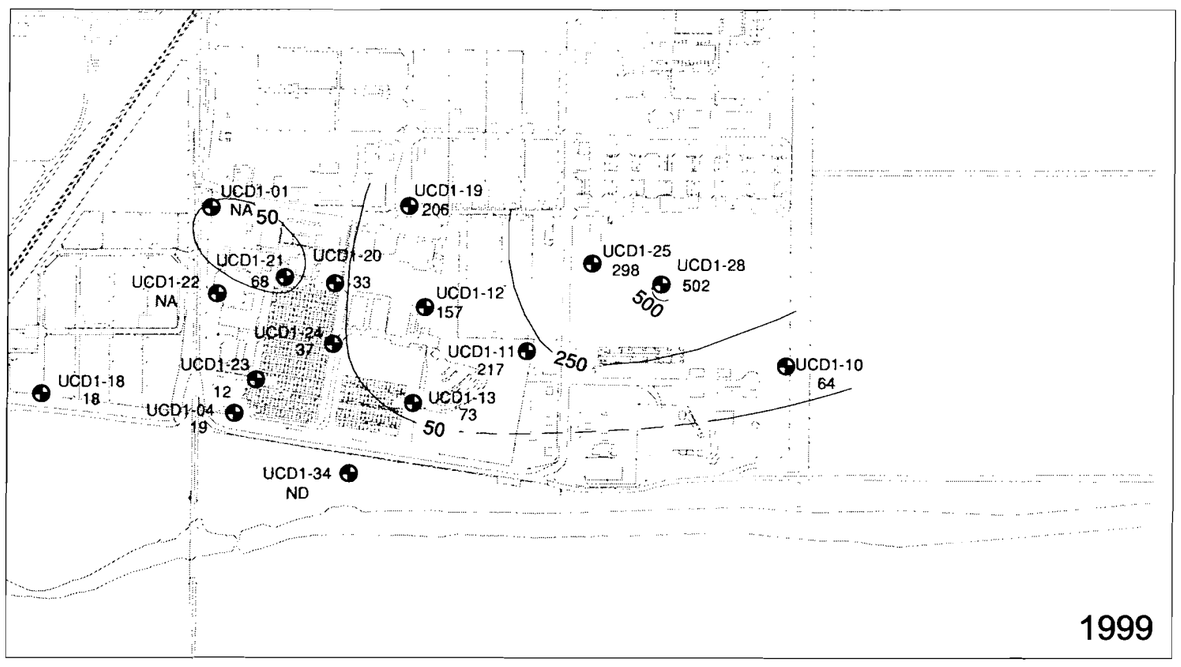
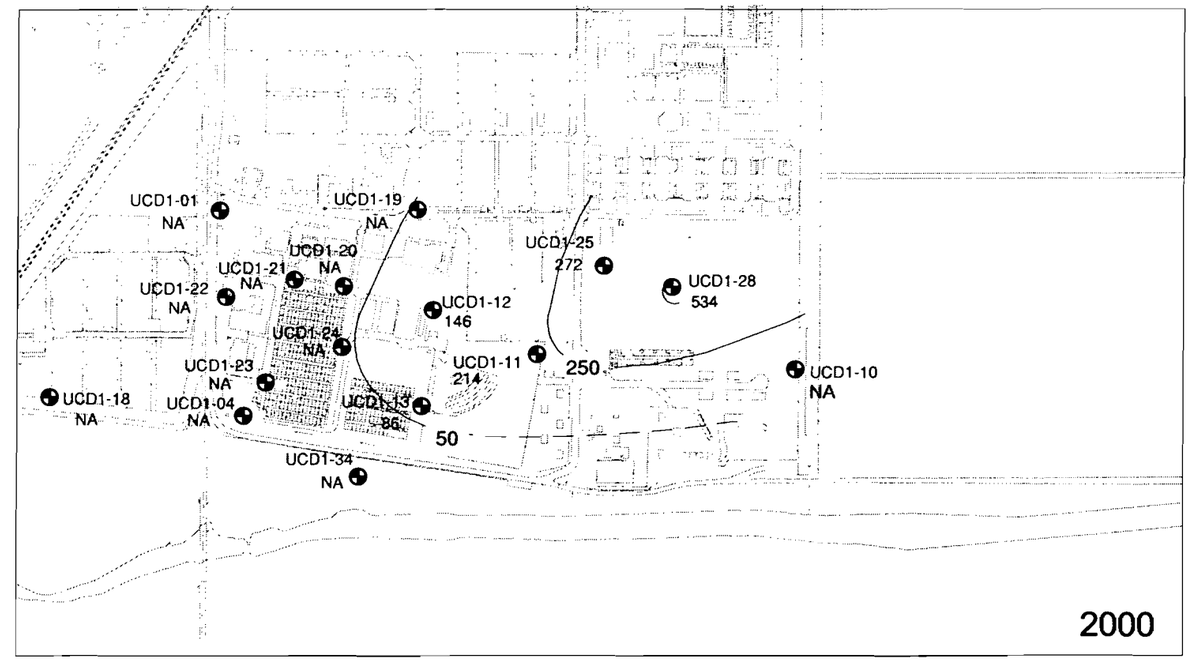
Davis, California
FIGURE 25









LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

CHROMIUM ISOCONCENTRATION CONTOURS IN HSU-1, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 26

URS

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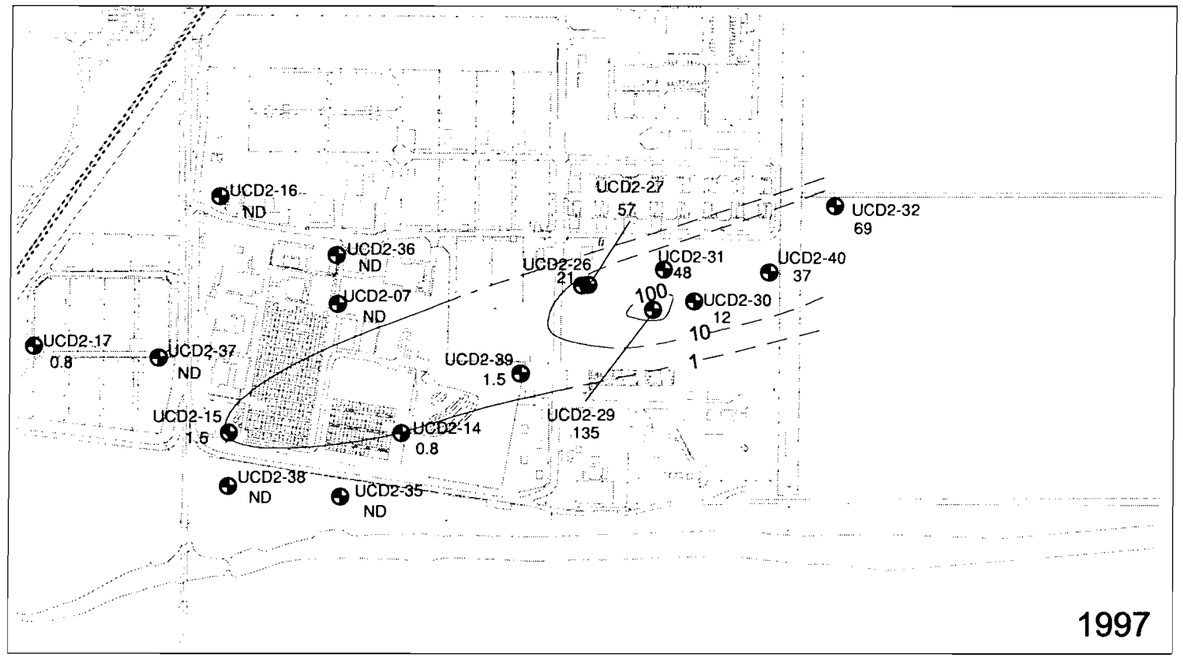

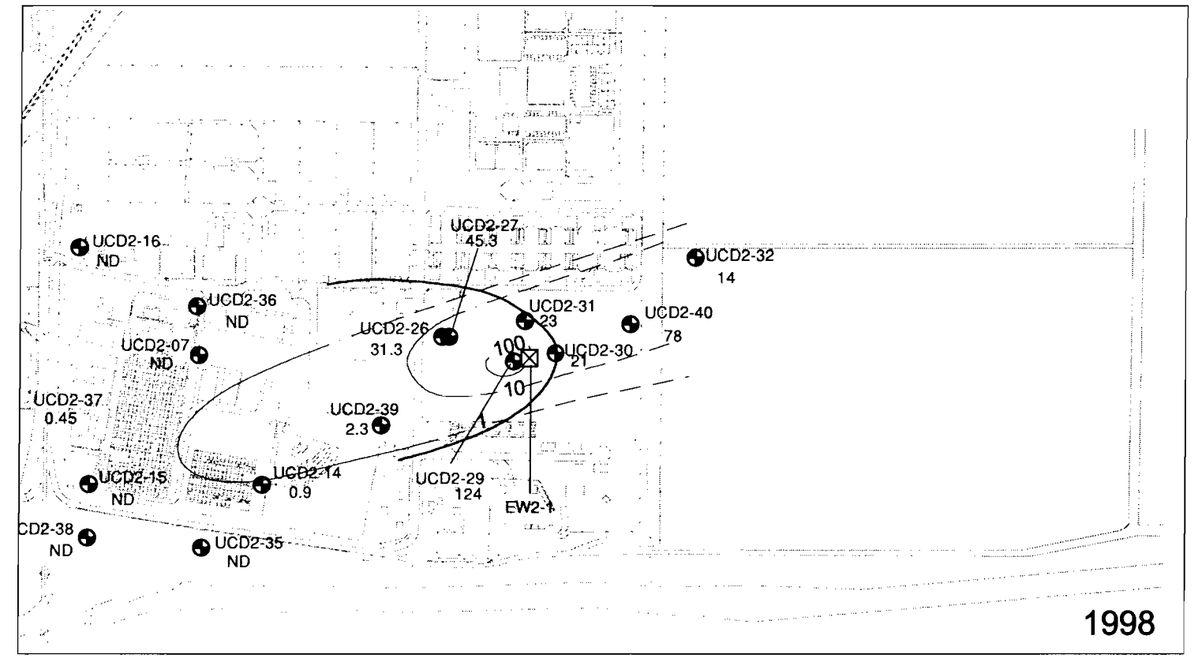

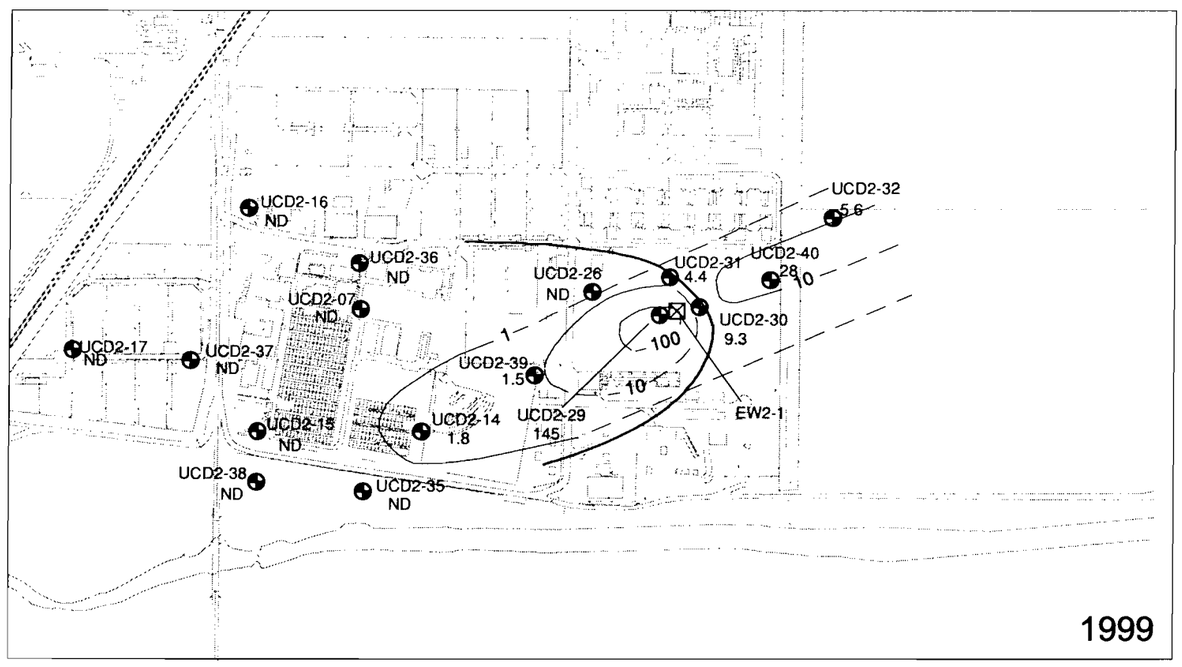

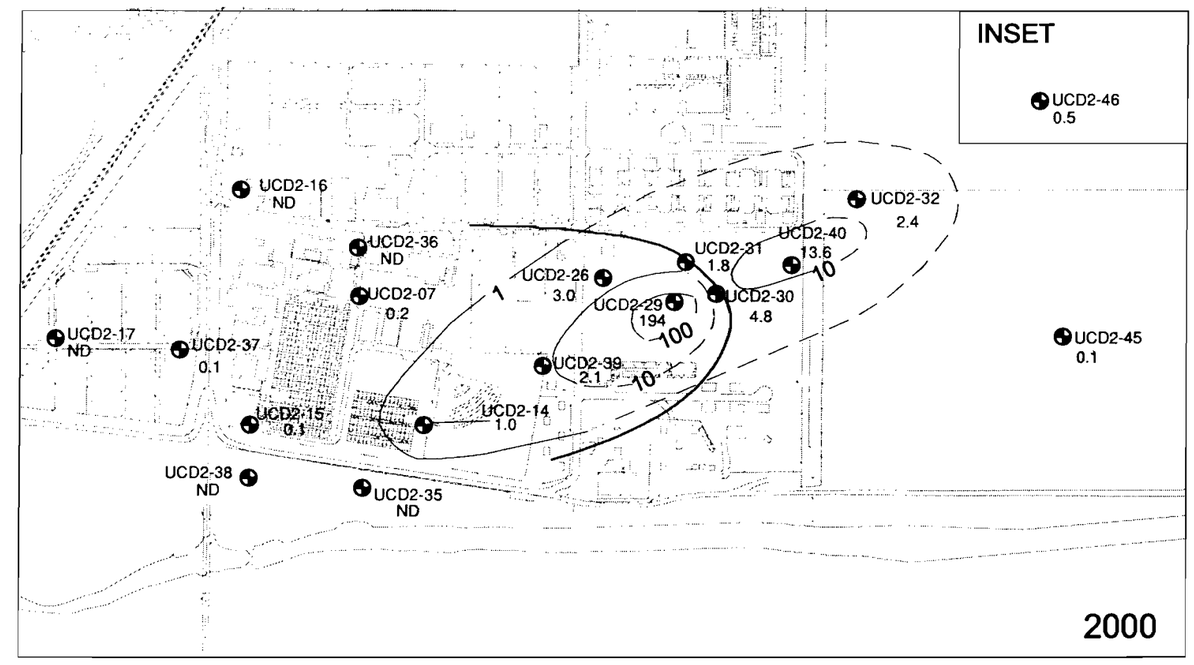

LEGEND

- UCD2-17 HSU-2 Monitoring Well
- All results reported in pCi/L
- Results represent average of quarterly data
- NA = Not Analyzed
- ND = Not Detected
- Extraction Well Capture Zone

CHLOROFORM ISOCONCENTRATION CONTOURS IN HSU-2, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 27

URS

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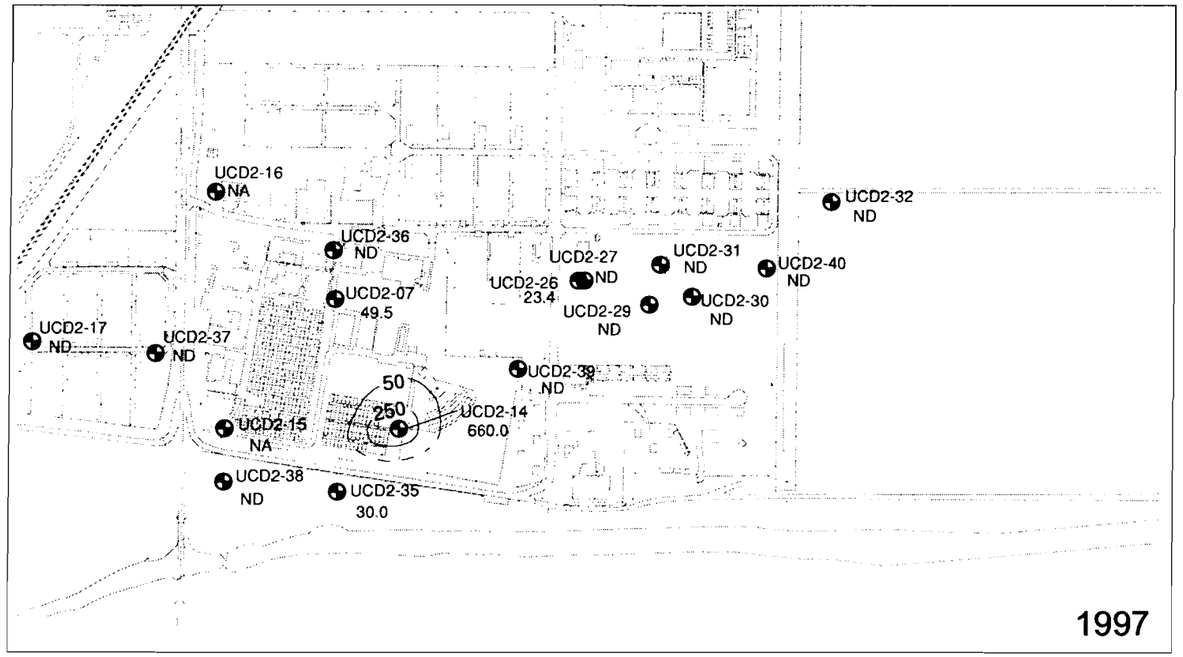

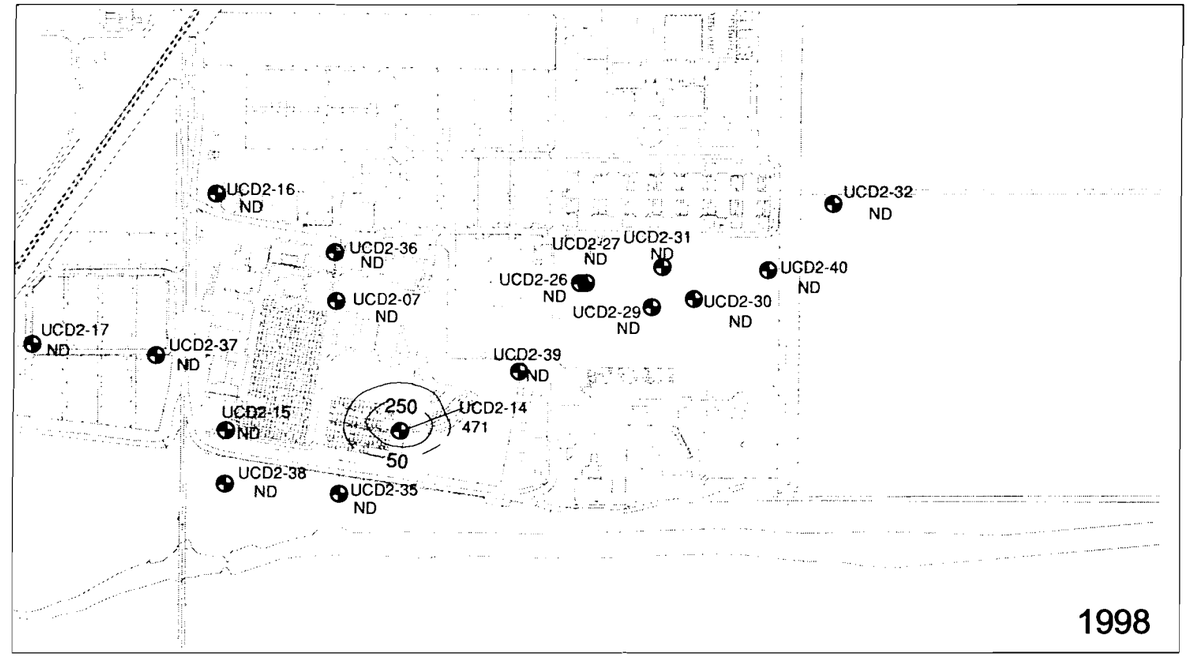

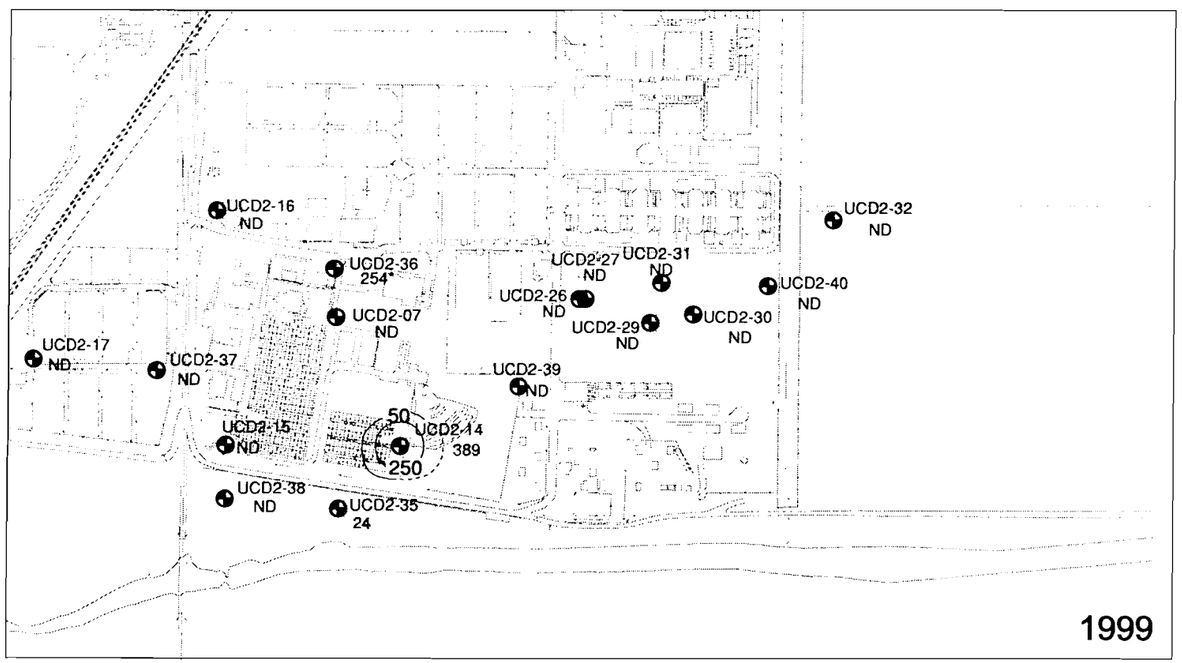

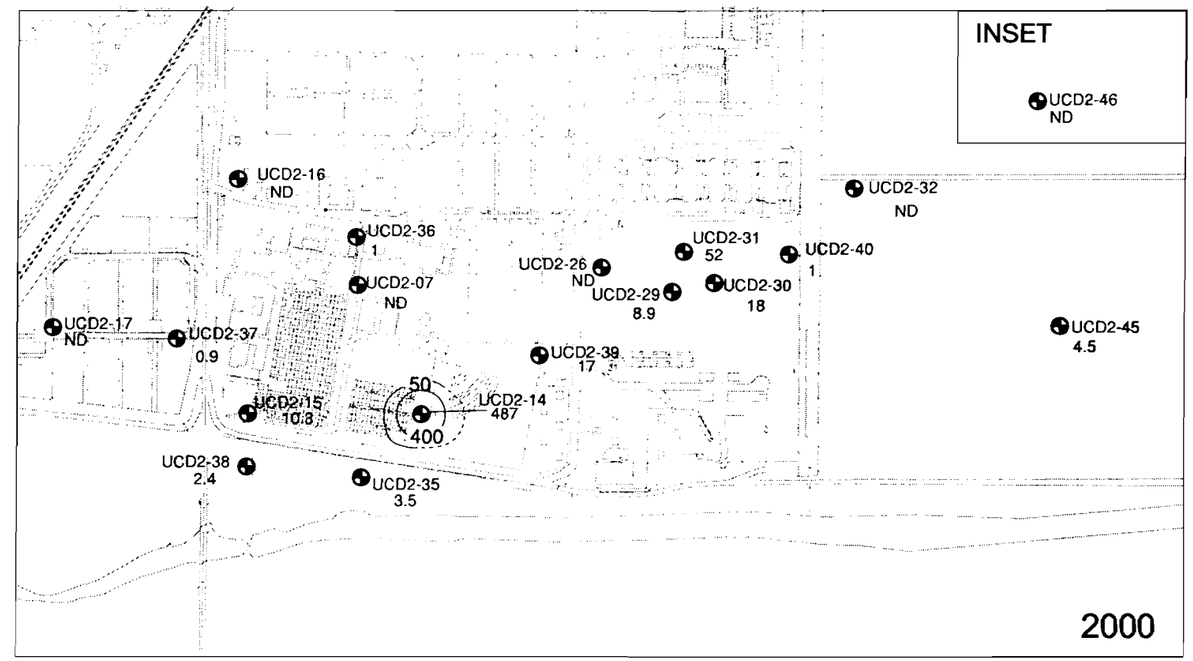

LEGEND

- UCD2-17 HSU-2 Monitoring Well
- All results reported in pCi/L
- Results represent average of quarterly data
- NA = Not Analyzed
- ND = Not Detected

CARBON-14 ISOCONCENTRATION CONTOURS IN HSU-2, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 28

URS

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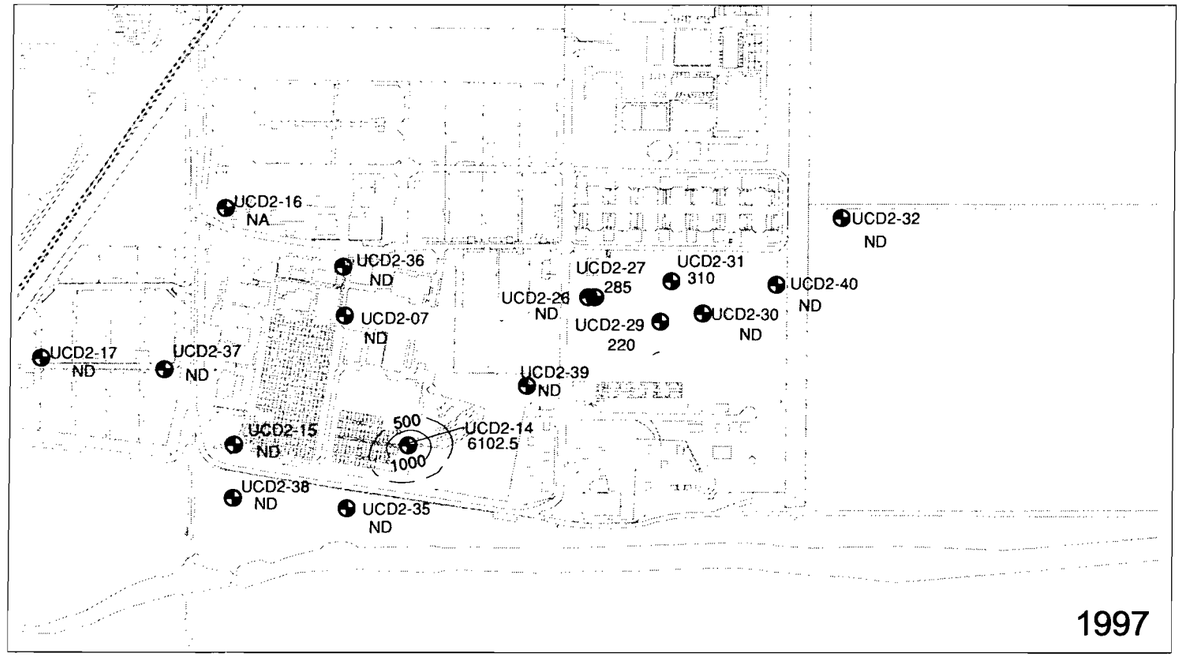

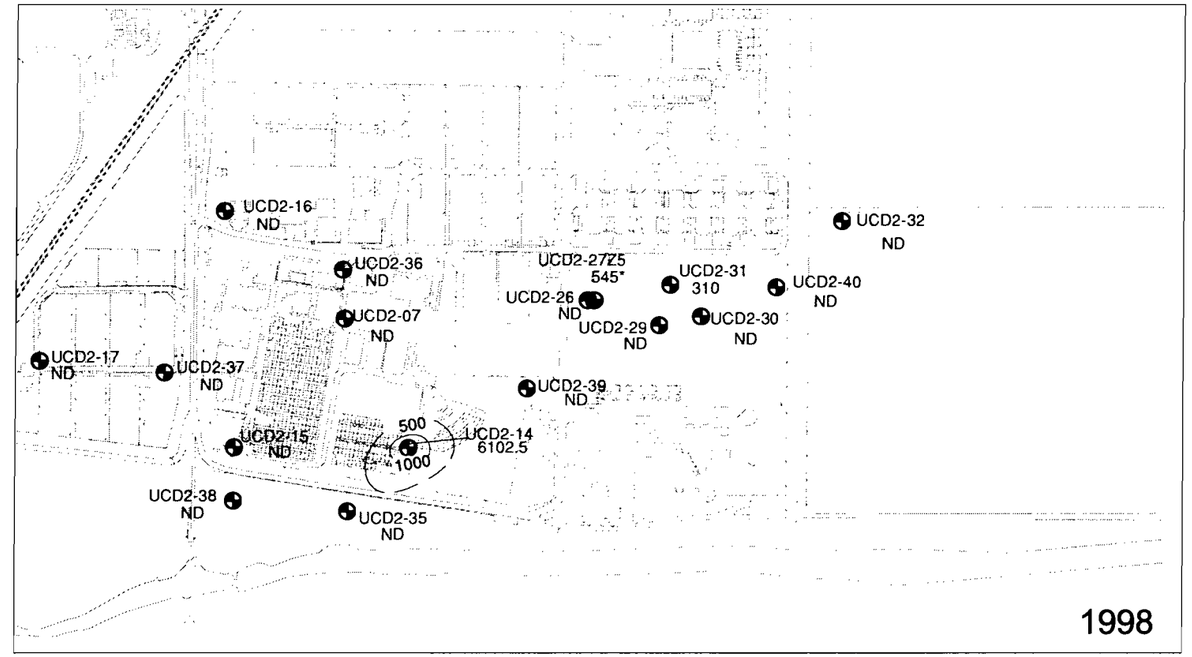

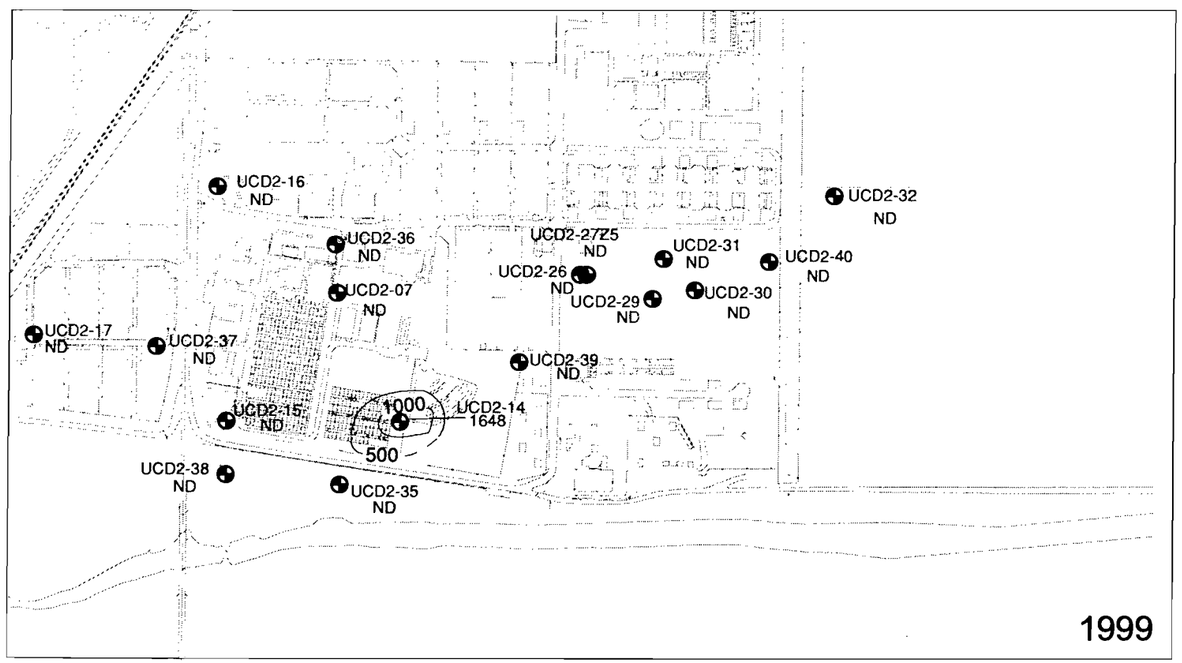

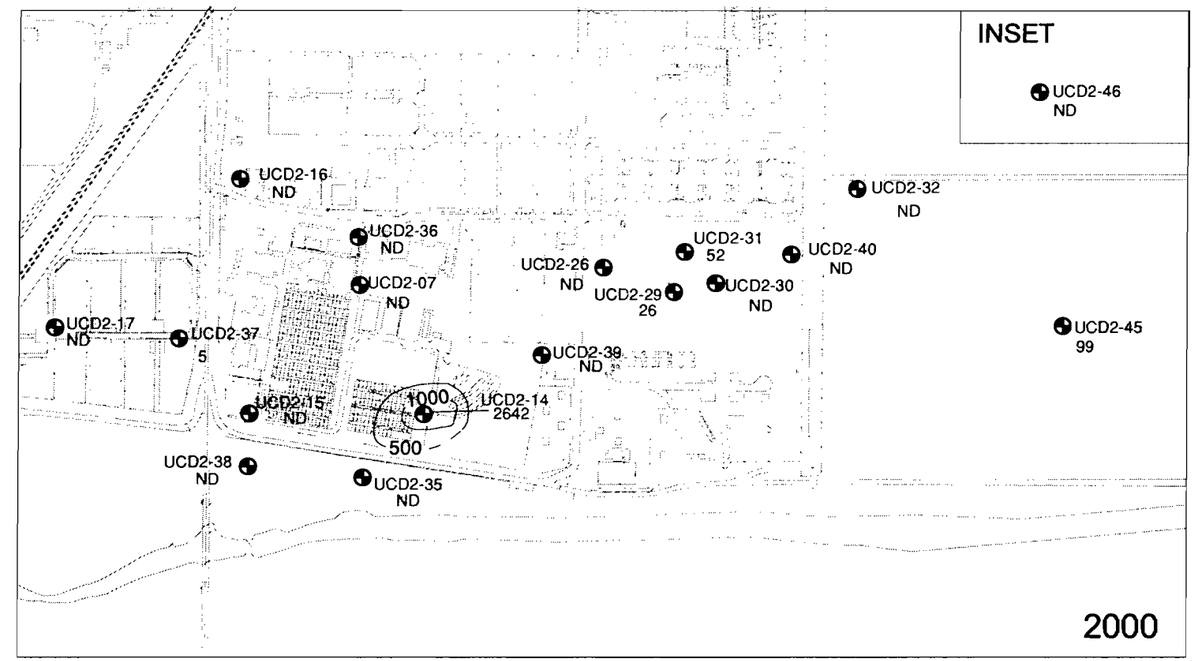

LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

TRITIUM ISOCONCENTRATION CONTOURS IN HSU-2, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 29

URS

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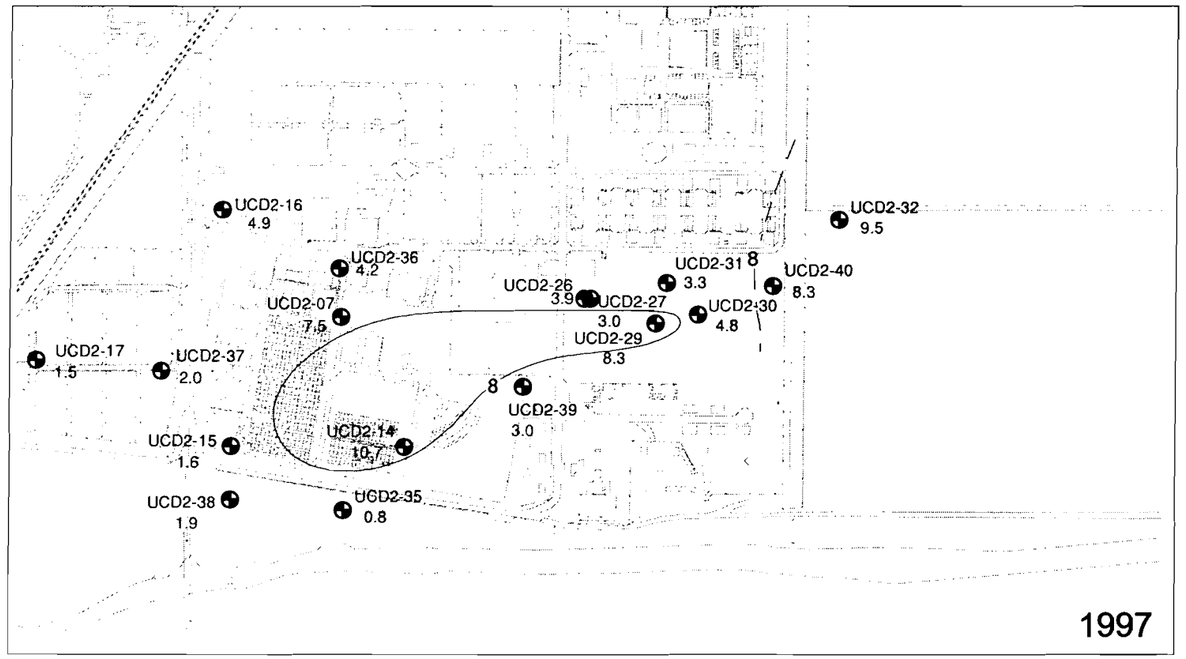

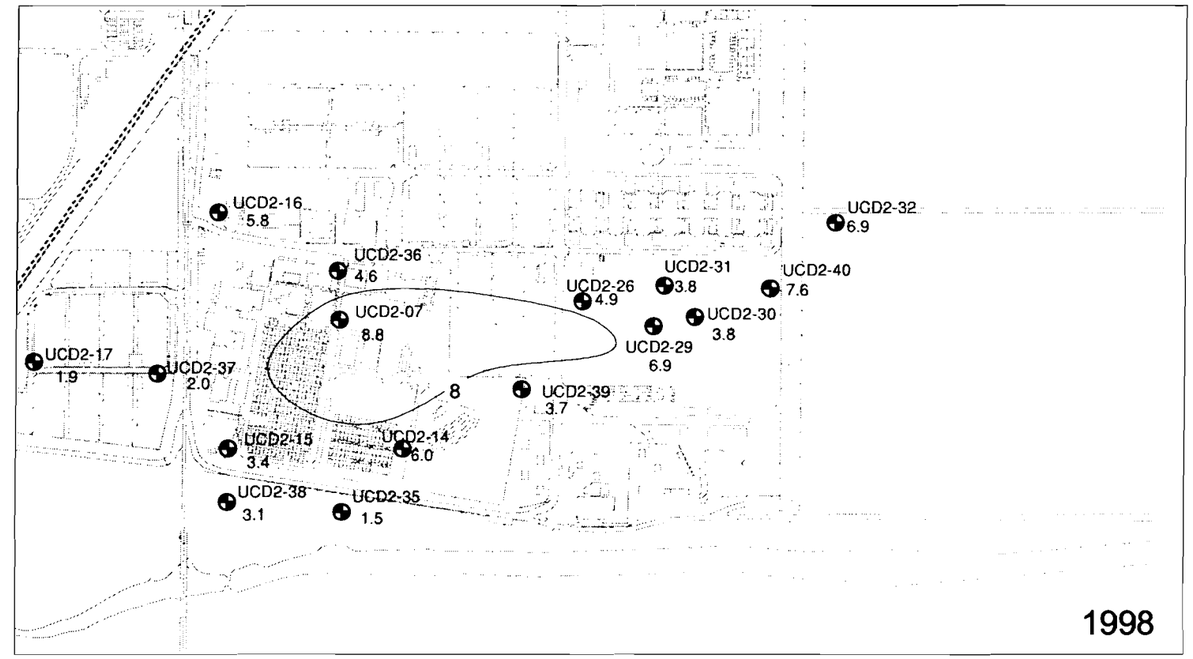

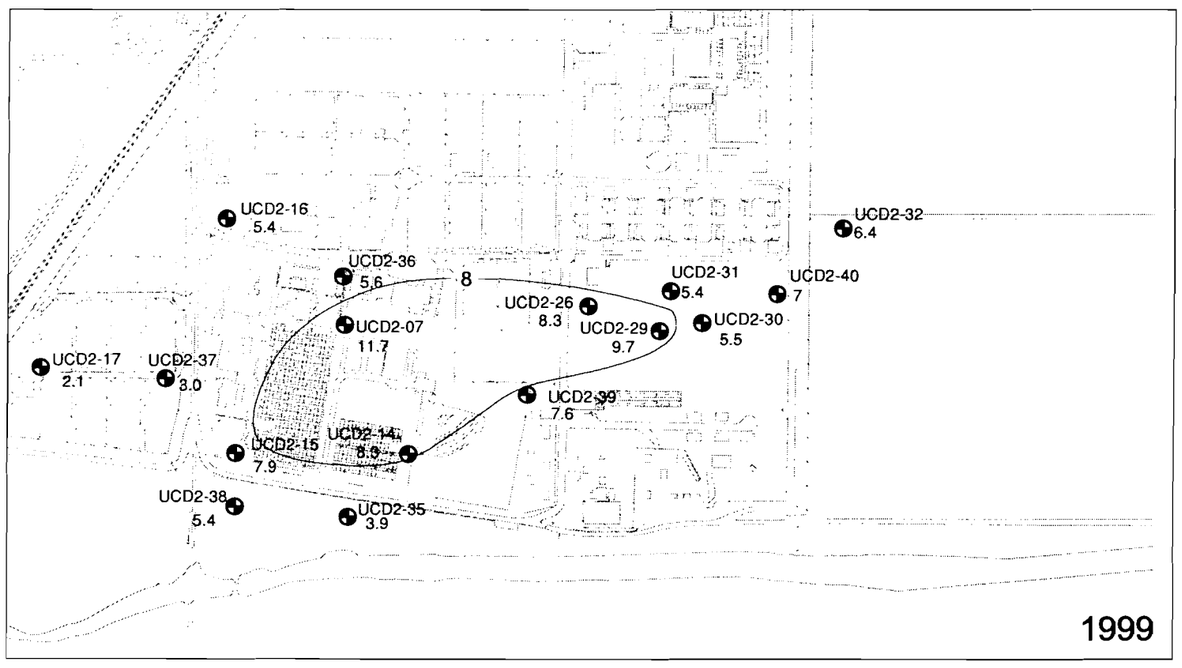

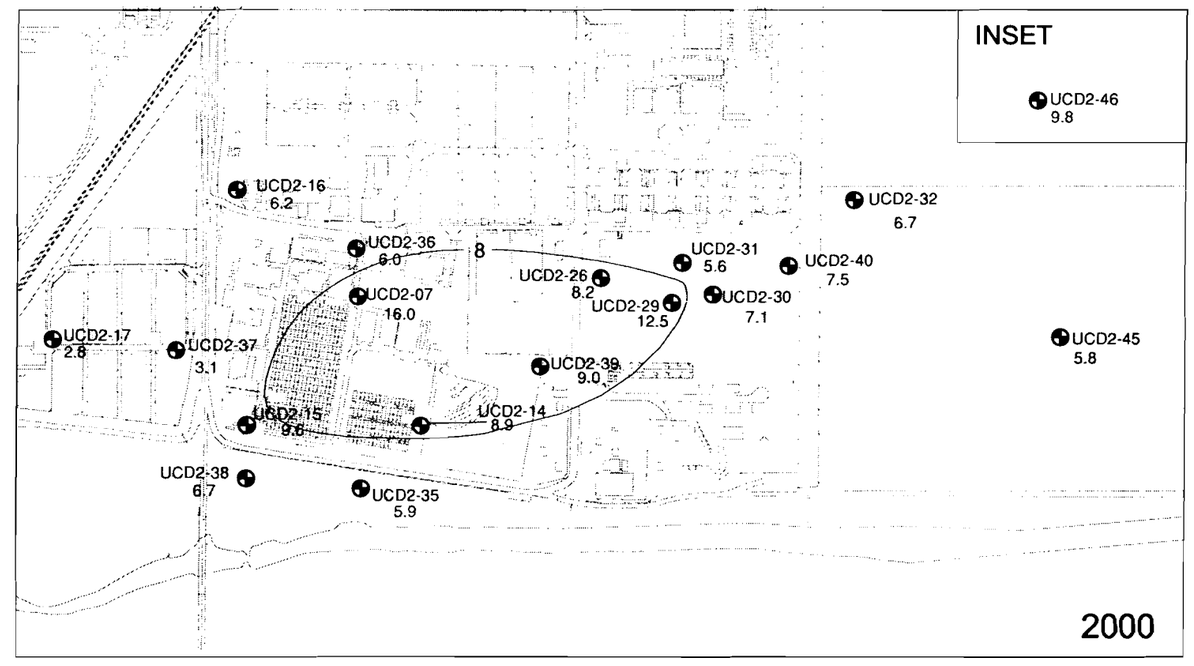

LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

NITRATE AS N ISOCONCENTRATION CONTOURS IN HSU-2, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
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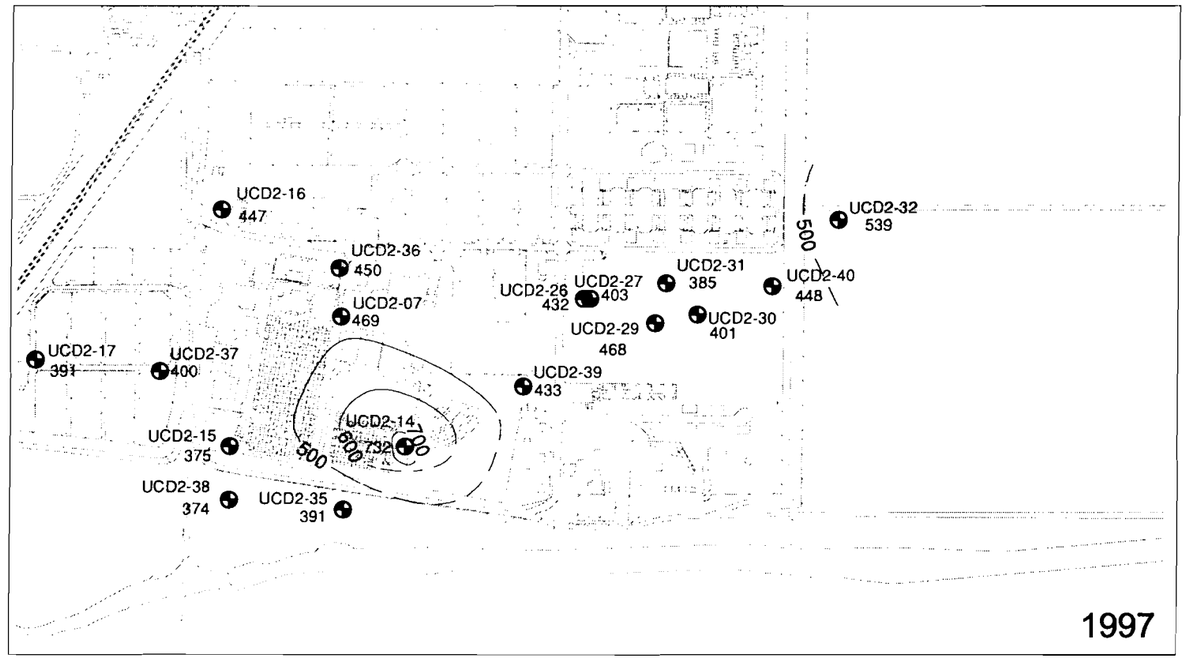
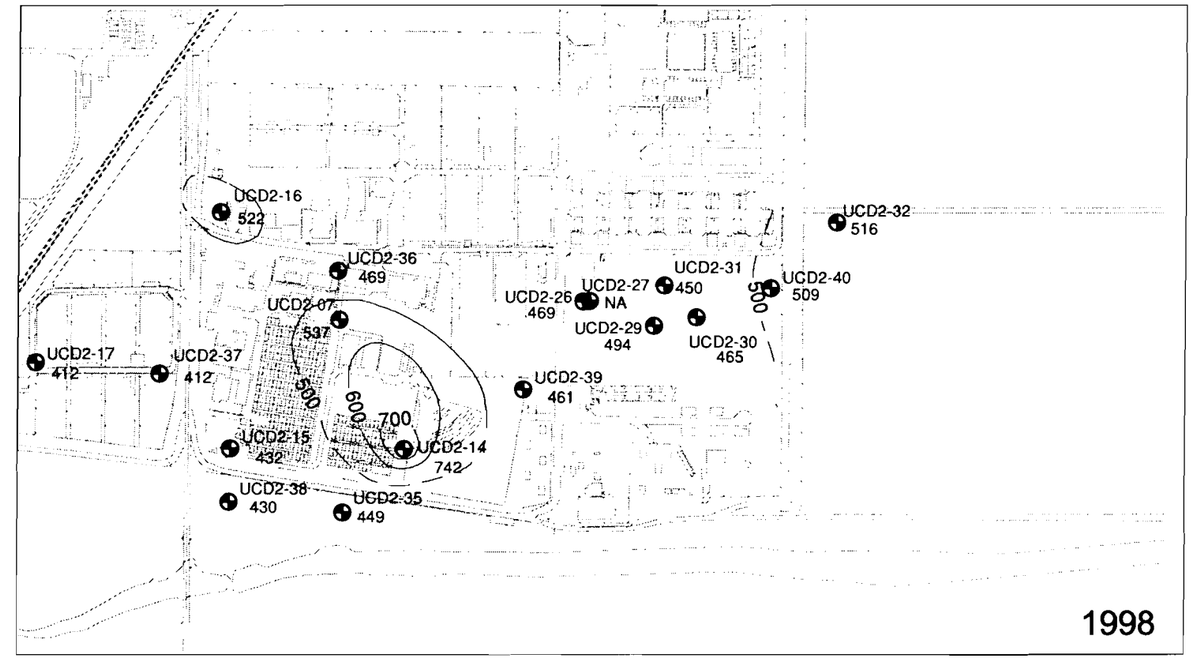
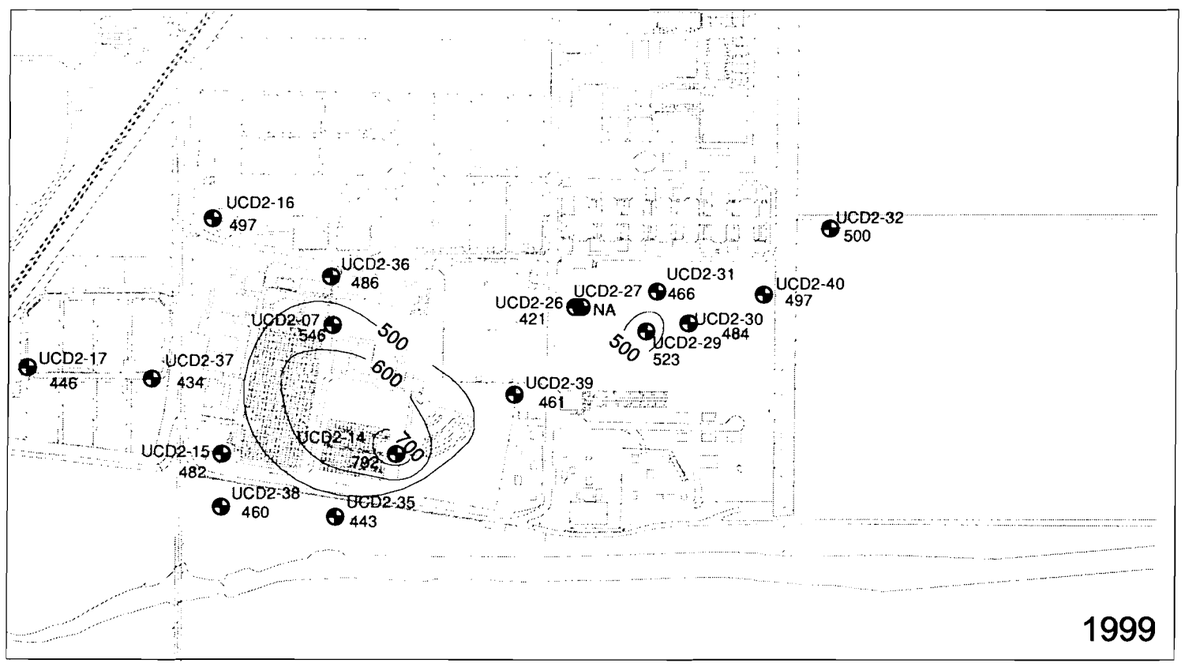
Davis, California
FIGURE 30

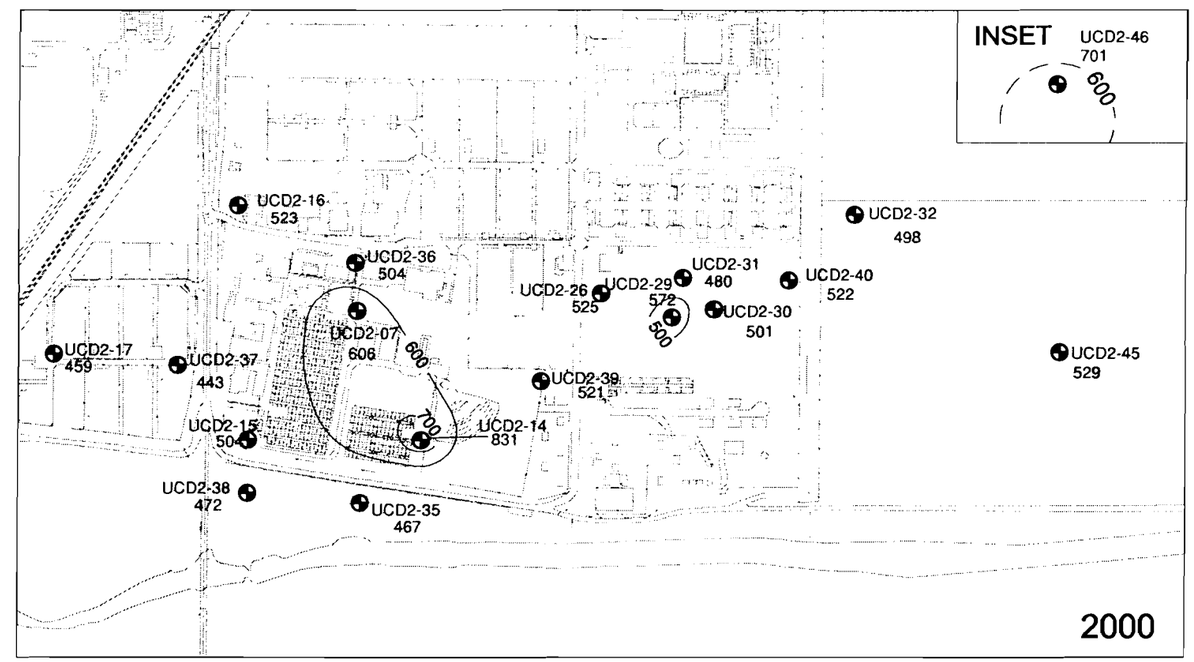
URS

UCDavis\LEHR lea Mar 19, 2001 010301LEHR.apr









LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

TDS ISOCONCENTRATION CONTOURS IN HSU-2, 1997 THROUGH 2000

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FIGURE 31

URS

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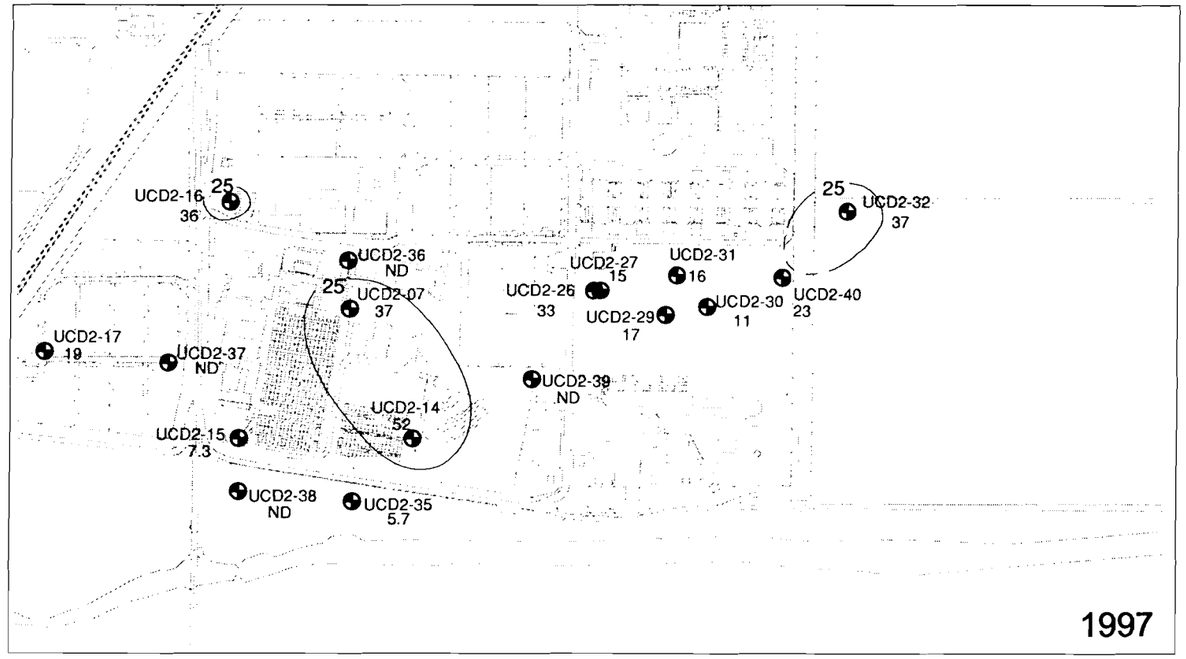
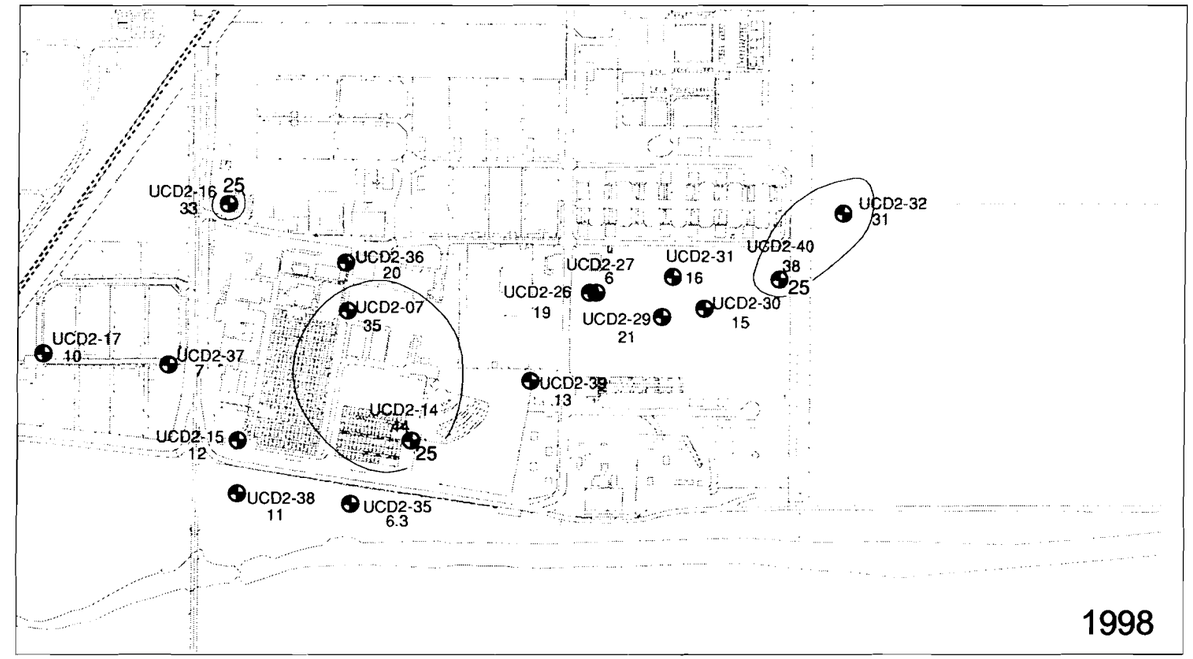
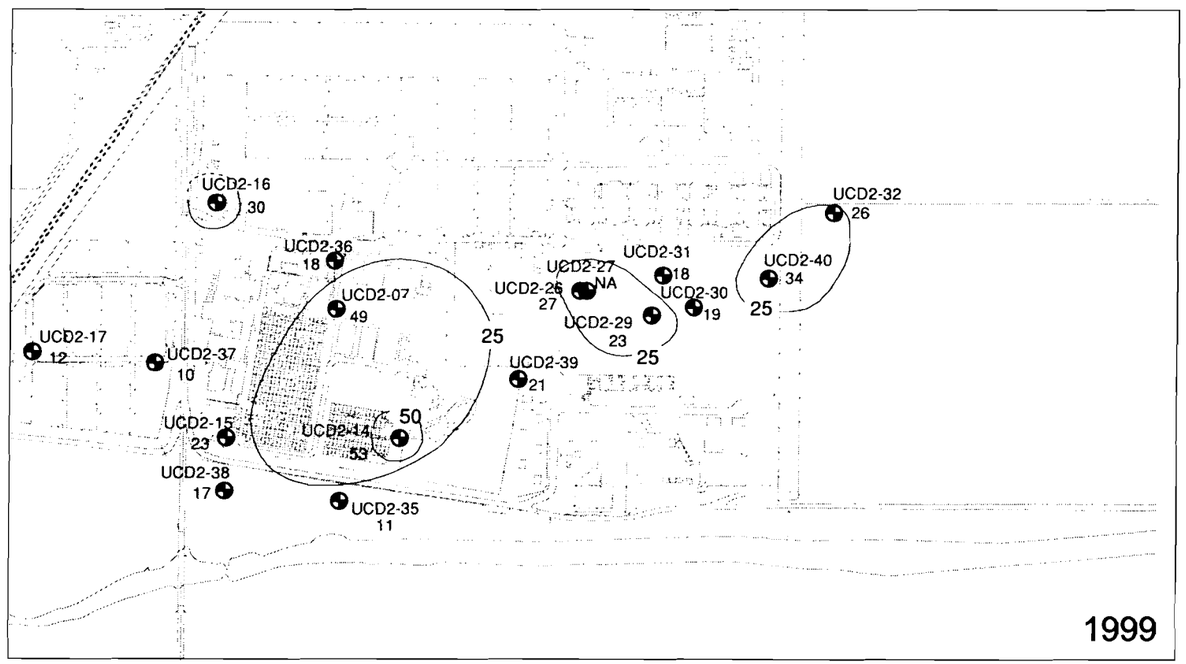
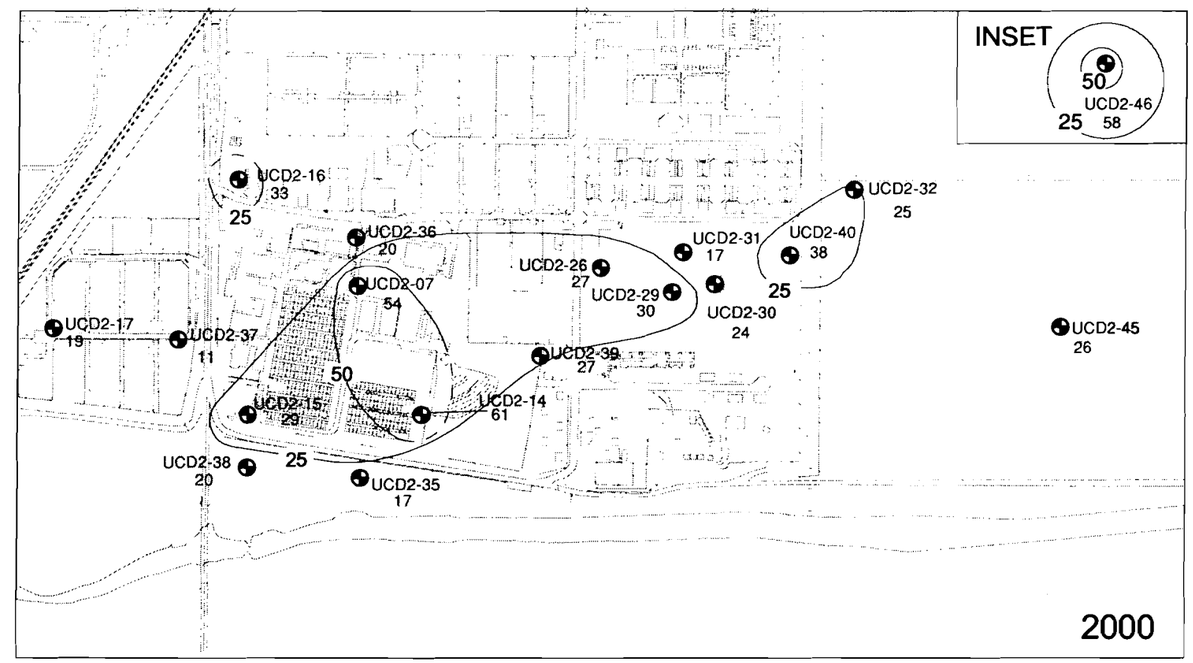








LEGEND

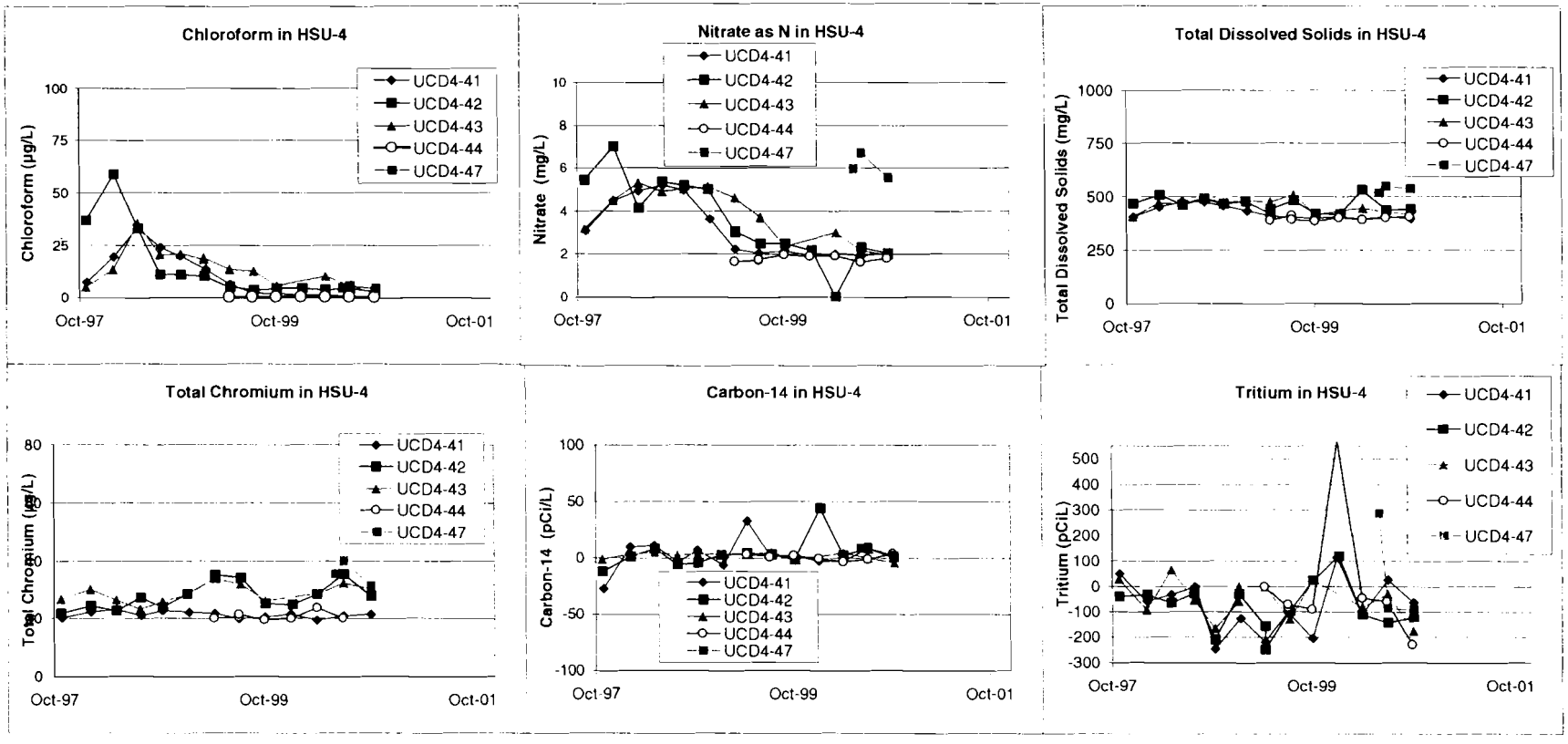
- UCD2-17 HSU-2 Monitoring Well
- All results reported in pCi/L
- Results represent average of quarterly data
- NA = Not Analyzed
- ND = Not Detected

CHROMIUM ISOCONCENTRATION CONTOURS IN HSU-2, 1997 THROUGH 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California
FIGURE 32

URS

UCDavis\LEHR lea Mar 19, 2001 010301LEHR.apr



URS

CHLOROFORM, NITRATE, TDS, CHROMIUM, CARBON-14, AND TRITIUM GRAPHS IN HSU-4 WELLS

2000 Annual Groundwater Treatment System and Water Monitoring Report
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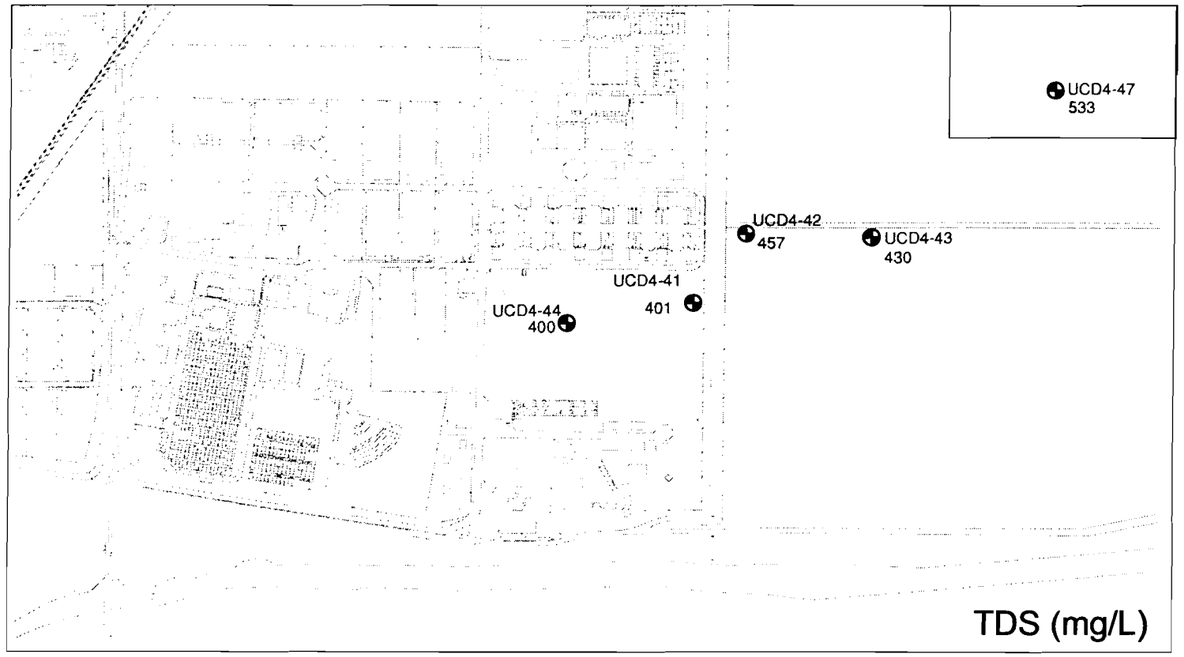
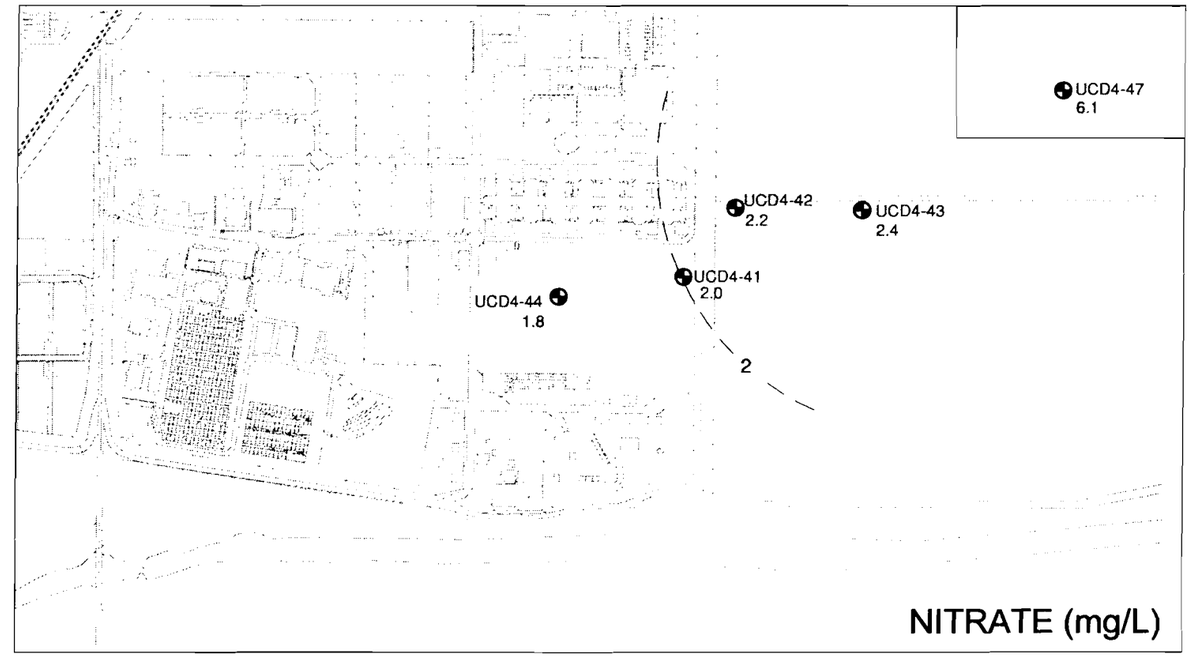
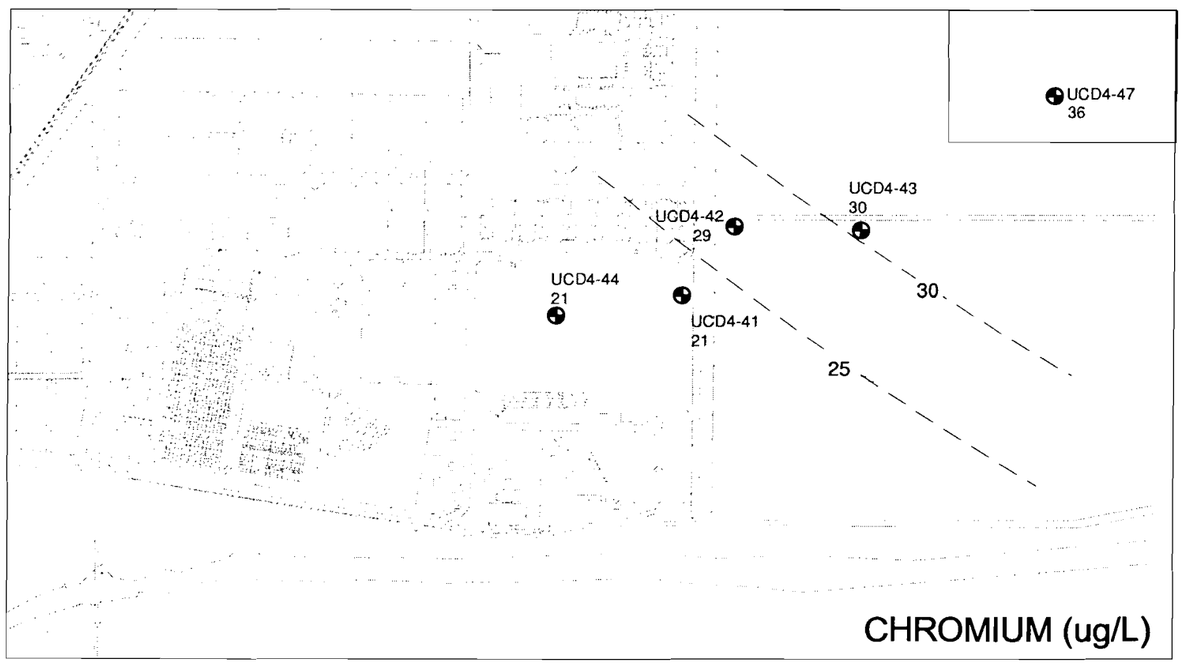
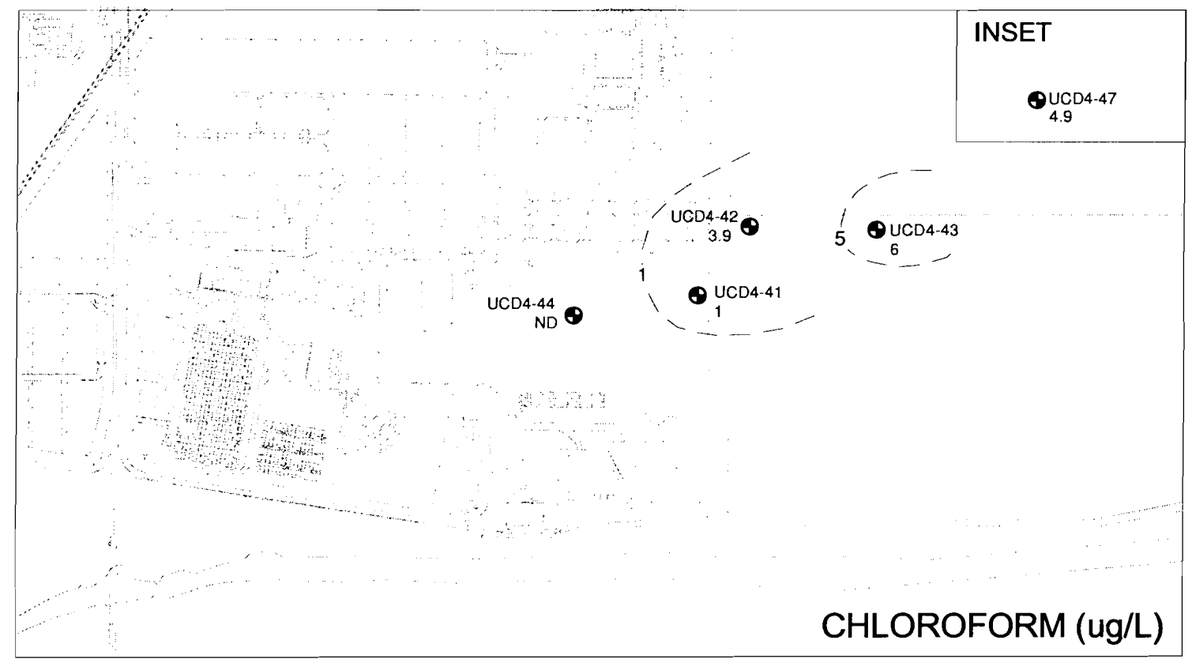
Davis, California

FIGURE 33









LEGEND

UCD2-17 HSU-2 Monitoring Well
All results reported in pCi/L
Results represent average of quarterly data
NA = Not Analyzed
ND = Not Detected

URS

ISOCONCENTRATION CONTOURS IN HSU-4 2000

2000 Annual Groundwater Treatment System and Water Monitoring Report
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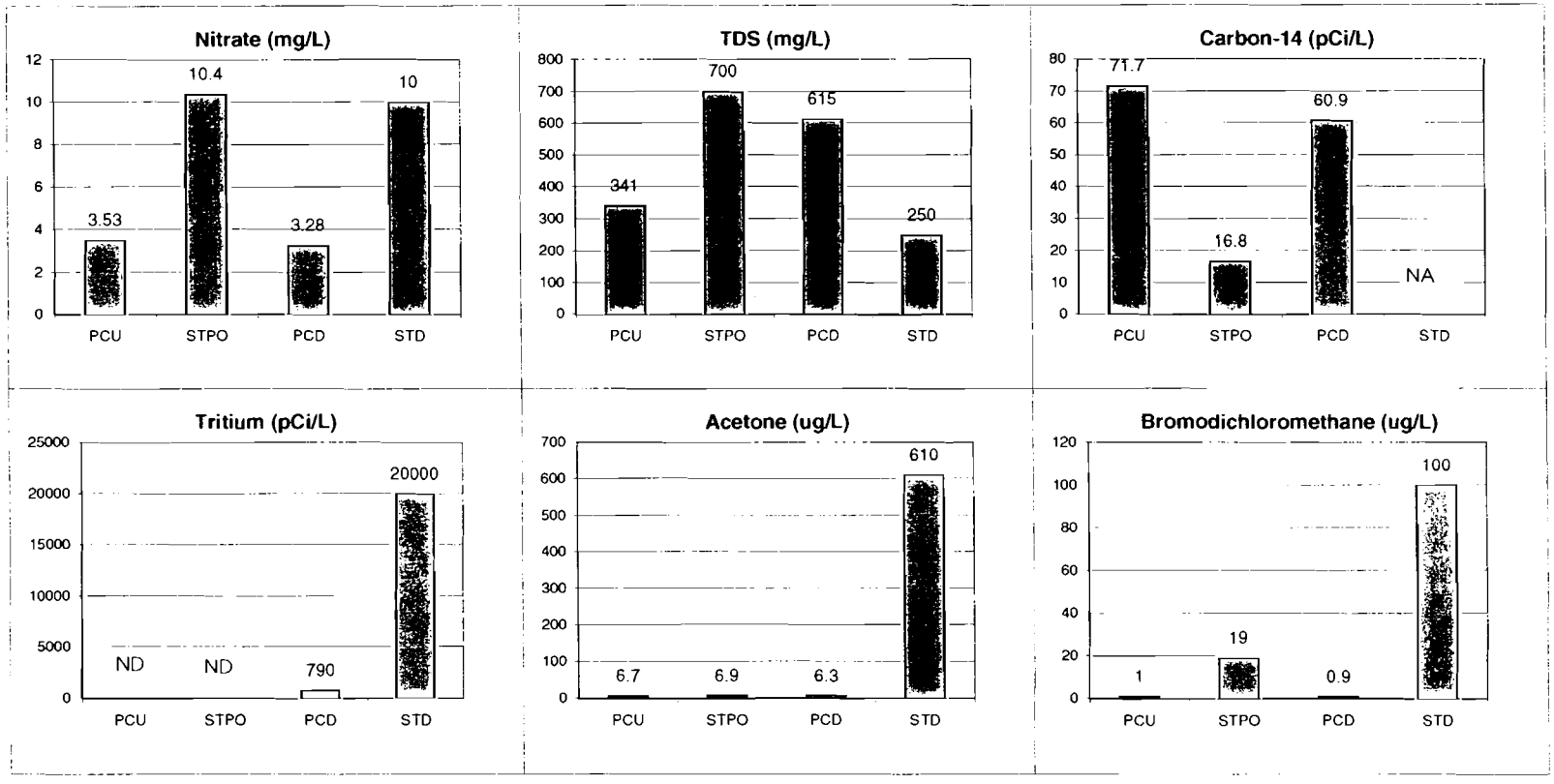
Davis, California

UCDavis\LEHR lea Mar 19, 2001 010301LEHR.apr

FIGURE 34



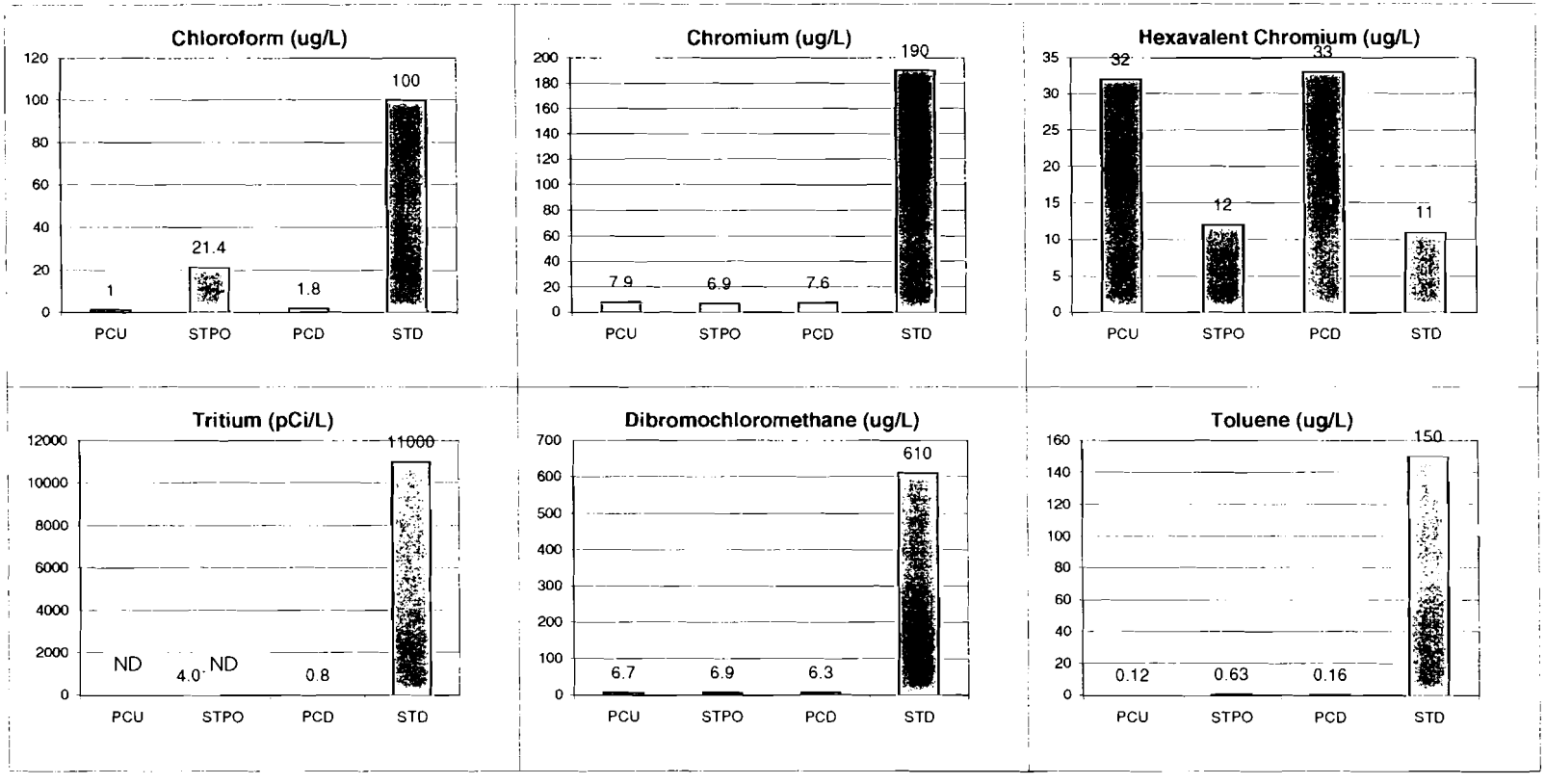
NA = Not Analyzed
ND = Not Reported Above CRDL
STD = Water Quality Standard

MAXIMUM CONCENTRATIONS OF DETECTED SURFACE WATER CONSTITUENTS, 1997-2000 COMPARED TO REGULATORY STANDARDS

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

URS

FIGURE 35



NA = Not Analyzed
ND = Not Reported Above CRDL
STD = Water Quality Standard

MAXIMUM CONCENTRATIONS OF DETECTED SURFACE WATER CONSTITUENTS, 1997-2000 COMPARED TO REGULATORY STANDARDS

2000 Annual Groundwater Treatment System and Water Monitoring Report
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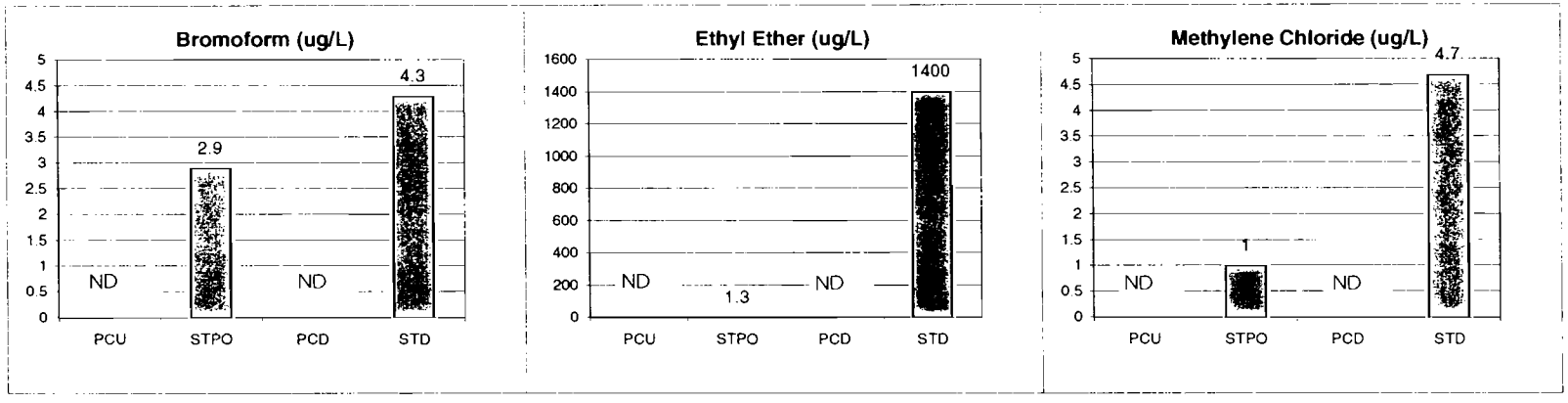
URS

FIGURE 36



NA = Not Analyzed
ND = Not Reported Above CRDL
STD = Water Quality Standard

MAXIMUM CONCENTRATIONS OF DETECTED SURFACE WATER CONSTITUENTS, 1997-2000 COMPARED TO REGULATORY STANDARDS

2000 Annual Groundwater Treatment System and Water Monitoring Report
LEHR/SCDS Environmental Restoration
Davis, California

URS

FIGURE 37

Appendix A

Comprehensive Analytical Results for 2000 Groundwater Treatment System Influent and Effluent

APPENDIX A
FIELD PARAMETERS - INFLUENT AND EFFLUENT
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Date	Analyte Units	EC-F umhos/cm	PH-F pH Units	TEMPERATURE degree C	TURBIDITY-F ntu
INFLUENT						
TPIN0105a	01/04/00		845	7.52	17.3	--
TPIN0105b	01/04/00		845	7.45	17.8	0.12
TPIN0109	02/01/00		841	7.89	17.3	--
TPIN0113	03/02/00		836	7.25	17.5	-0.05
TPIN0118	04/03/00		844	7.74	17.8	0.26
TPIN0122	05/01/00		855.6	7.66	17.6	0.13
TPIN0127	06/06/00		873	7.73	18.6	0.13
TPIN0135	08/01/00		891	7.54	18.7	0.11
TPIN0141	09/05/00		872	7.48	18.2	0.04
TPIN0145	10/04/00		880	7.40	18.3	0.07
TPIN0149	11/01/00		913	7.05	17.4	0.12
TPIN0153	12/05/00		891	7.49	16.2	0.02
EFFLUENT						
TPEF0105	01/04/00		828	8.36	17	-0.09
TPEF0109	02/01/00		824	8.31	17.1	0.01
TPEF0113	03/02/00		820	8.27	17.2	-0.07
TPEF0117	04/03/00		828	8.26	17.8	0.34
TPEF0122	05/01/00		842.5	7.93	17.4	0.14
TPEF0126	05/30/00		846	8.26	20.2	--
TPEF0127	06/06/00		860	8.16	19.4	0.15
TPEF0141	09/05/00		857	8.21	18.3	0.04
TPEF0145	10/04/00		865	8.08	17.8	0.06
TPEF0149	11/01/00		892	7.06	16.1	0.07
TPEF0153	12/05/00		884	7.86	15.0	0.00

APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-2	SP-2	SP-2	SP-2	SP-2	SP-2	SP-2
			INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
		Sample ID	TPIN0105a	TPIN0105b	TPIN0109	TPIN0113	TPIN0117	TPIN0118	TPIN0122
		Date	01/04/00	01/04/00	02/01/00	03/02/00	04/03/00	04/03/00	05/01/00
		QA		DUPLICATE					
Analyte	CRDL	Units							
1,1,1-TRICHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.76**
1,2-DICHLOROPROPANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	**5.0**	ug/L	<5.0	<5.0 |UJh	<5.0	<5.0	<1.1 JB|Uz	<1.1 JB|Uz	<5.0
BENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	**0.020** J|	<0.50
BROMOFORM	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0 |UJc	<1.0	<1.0	<1.0
CARBON DISULFIDE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50 |UJc	<0.50	<0.50	<0.50
CHLOROFORM	**0.50**	ug/L	**21.7**	**23.4**	**23.8**	**23.2**	**29.3**	**29.2**	**47.4**
CHLOROMETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJl	<0.50 |Uzl	<0.50
CIS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ETHYLBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	**1.0**	ug/L	<1.0	<1.0	<1.0	<8.1 B|UJzc	<1.0	<1.0	**1.1**

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-2	SP-2		SP-2		SP-2	SP-2	SP-2	SP-2
			INFLUENT	INFLUENT		INFLUENT		INFLUENT	INFLUENT	INFLUENT	INFLUENT
		Sample ID	TPIN0105a	TPIN0105b		TPIN0109		TPIN0113	TPIN0117	TPIN0118	TPIN0122
		Date	01/04/00	01/04/00		02/01/00		03/02/00	04/03/00	04/03/00	05/01/00
		QA		DUPLICATE							
Analyte	CRDL	Units									
STYRENE	**0.50**	ug/L	<0.50	<0.50	|UJh	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	**0.50**	ug/L	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50
TOLUENE	**0.50**	ug/L	<0.50	<0.50	|UJh	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	**0.50**	ug/L	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	**1.0**	ug/L	<1.0	<1.0	|UJh	<1.0	|UJh	<1.0	<1.0	<1.0	<1.0

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-2		SP-2		SP-2		SP-2		SP-2		SP-2		SP-2	
			INFLUENT		INFLUENT		INFLUENT		INFLUENT		INFLUENT		INFLUENT		INFLUENT	
		Sample ID	TPIN0127		TPIN0131		TPIN0135		TPIN0136		TPIN0141		TPIN0145		TPIN0149	
		Date	06/06/00		07/05/00		08/01/00		08/01/00		09/05/00		10/04/00		11/01/00	
		QA							DUPLICATE							
Analyte	CRDL	Units														
1,1,1-TRICHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	**0.50**	ug/L	**0.66**		**.75**		**0.54**		**0.56**		**0.48**	J|	**0.51**		**0.39**	J|
1,1-DICHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		**0.32**	J|	**0.32**	J|	**0.27**	J|	**0.29**	J|	**0.21**	J|
1,2-DIBROMO-3-CHLOROPROPANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50	
1,2-DICHLOROETHANE	**0.50**	ug/L	**0.95**		<1.0	|Uy	**0.80**		**0.81**		**0.70**		**0.82**		**0.69**	
1,2-DICHLOROPROPANE	**0.50**	ug/L	**0.74**		**.85**		**0.63**		**0.62**		**0.56**		**0.56**		**0.50**	
1,3-DICHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50	
1,4-DICHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50	
2-BUTANONE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	**5.0**	ug/L	<5.0		<5.0		<1.2	JB|UJclz	<1.4	JB|UJclz	<5.0		<5.0		<5.0	
BENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50	
BROMOCHLOROMETHANE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	**1.0**	ug/L	<1.0	|UJc	<1.0	|UJc	<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON TETRACHLORIDE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50	
CHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROFORM	**0.50**	ug/L	**67.5**		**82.2**		**69.7**		**71.2**		**54.1**		**53.7**		**52.4**	
CHLOROMETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
ETHYLBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50	
METHYLENE CHLORIDE	**1.0**	ug/L	<1.0		<1.0		<0.28	JB|Uz	<0.31	JB|Uz	<1.0		<0.70	J|UJyl	<0.23	JB|Uyz

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-2	SP-2	SP-2	SP-2	SP-2	SP-2	SP-2
			INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT	INFLUENT
		Sample ID	TPIN0127	TPIN0131	TPIN0135	TPIN0136	TPIN0141	TPIN0145	TPIN0149
		Date	06/06/00	07/05/00	08/01/00	08/01/00	09/05/00	10/04/00	11/01/00
		QA				DUPLICATE			
Analyte	CRDL	Units							
STYRENE	**0.50**	ug/L	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50
TETRACHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	**0.50**	ug/L	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	**0.32** J|	**0.32** J|	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	**1.0**	ug/L	<1.0	<1.0	<1.0 |UJh	<1.0	<1.0 |UJh	<1.0	<1.0

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-2	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5
			INFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
		Sample ID	TPIN0153	TPEF0105	TPEF0109	TPEF0113	TPEF0117	TPEF0118	TPEF0122	TPEF0127
		Date	12/05/00	01/04/00	02/01/00	03/02/00	04/03/00	04/03/00	05/01/00	06/06/00
		QA						DUPLICATE		
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	**0.50**	ug/L	**0.32** J|	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	**0.50**	ug/L	**0.43** J|	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	**0.50**	ug/L	**0.37** J|	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	**5.0**	ug/L	<5.0	<5.0 |UJm	<5.0	<5.0	<1.9 JB|Uz	<2.1 JB|Uz	<5.0	**5.3**
BENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0 |UJc	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	**1.0**	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 |UJc
CARBON TETRACHLORIDE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	**0.50**	ug/L	**38.4**	<0.50	<0.50	<0.50	<0.50	<0.50	**0.55**	<0.50
CHLOROMETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJl	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ETHYLBENZENE	**0.50**	ug/L	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	**1.0**	ug/L	<1.0	<1.0	<1.0	<8.6 B|UJlzc	<1.0	<1.0	**1.3**	<1.0

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APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-2		SP-5		SP-5	SP-5	SP-5	SP-5	SP-5	SP-5
			INFLUENT		EFFLUENT		EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
		Sample ID	TPIN0153		TPEF0105		TPEF0109	TPEF0113	TPEF0117	TPEF0118	TPEF0122	TPEF0127
		Date	12/05/00		01/04/00		02/01/00	03/02/00	04/03/00	04/03/00	05/01/00	06/06/00
		QA								DUPLICATE		
Analyte	CRDL	Units										
STYRENE	**0.50**	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	**0.50**	ug/L	<0.20	J|Uy	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	**0.50**	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	**1.0**	ug/L	<1.0		<1.0	|UJh	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-5		SP-5		SP-5		SP-5		SP-5		SP-5		SP-5	
			EFFLUENT		EFFLUENT		EFFLUENT		EFFLUENT		EFFLUENT		EFFLUENT		EFFLUENT	
		Sample ID	TPEF0131		TPEF0135		TPEF0136		TPEF0141		TPEF0145		TPEF0149		TPEF0153	
		Date	07/05/00		08/01/00		08/01/00		09/05/00		10/04/00		11/01/00		12/05/00	
		QA					DUPLICATE									
Analyte	CRDL	Units														
1,1,1-TRICHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1-DICHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	
1,2-DICHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROPROPANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,3-DICHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	
1,4-DICHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	
2-BUTANONE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	**5.0**	ug/L	<5.0		<2.0	JB|UJc|z	<1.7	JB|UJc|z	<5.0		<5.0		<1.2	JB|Uyz	<5.0	
BENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	
BROMOCHLOROMETHANE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	**1.0**	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	**1.0**	ug/L	<1.0	|UJc	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON TETRACHLORIDE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	
CHLOROETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROFORM	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		**0.21**	J|	**0.22**	J|
CHLOROMETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	**0.50**	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
ETHYLBENZENE	**0.50**	ug/L	<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	
METHYLENE CHLORIDE	**1.0**	ug/L	<1.0		<0.36	JB|Uz	<0.48	JB|Uz	<1.0		<0.88	J|UJyl	<0.25	JB|Uyz	<1.0	

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APPENDIX A
VOLATILE ORGANIC COMPOUNDS - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5	SP-5
			EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT	EFFLUENT
		Sample ID	TPEF0131	TPEF0135	TPEF0136	TPEF0141	TPEF0145	TPEF0149	TPEF0153
		Date	07/05/00	08/01/00	08/01/00	09/05/00	10/04/00	11/01/00	12/05/00
		QA			DUPLICATE				
Analyte	CRDL	Units							
STYRENE	**0.50**	ug/L	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
TETRACHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	**0.50**	ug/L	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	**0.50**	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	**1.0**	ug/L	<1.0	<1.0	<1.0 |UJh	<1.0 |UJh	<1.0	<1.0	<1.0

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX A
METALS, GENERAL CHEMICALS, AND RADIONUCLIDES - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

			Metals			General Chemicals					Radionuclides					
		Analyte	CHROMIUM	HEXAVALENT CHROMIUM		NITROGEN, NITRATE		TOTAL DISSOLVED SOLIDS	TOTAL ORGANIC CARBON		CARBON-14			TRITIUM		
		CRDL	10	10		0.1		20	1.00		20			300		
		Daily Limit	50	50		10.0		500	---		---			---		
		Monthly Limit	32	32		7.7		485	---		20			300		
		Units	ug/L	ug/L		mg/L		mg/L	mg/L		pCi/L			pCi/L		
Sample ID	Date	QA											MDA			MDA
INFLUENT																
TPIN0105b	01/04/00								**10.0**		5.53±4.22	U|	6.99	-27±124	U|	224
TPIN0109	02/01/00		--	--		--		--	**9.11**		3.1±5.09	U|	8.62	115±110	U|UJv	182
TPIN0113	03/02/00		--	--		--		--	**6.18**		13.7±5.73	|Jv	9.16	109±155	U|	261
TPIN0117	04/03/00		--	--		--		--	**11.9**		10.9±5.06	|Jv	8.06	0.00±155	U|	268
TPIN0118	04/03/00		--	--		--		--	**12.1**		7.60±4.90	U|UJv	8.00	-179±151	U|	272
TPIN0122	05/01/00		--	--		--		--	**1.63**	|Jm	8.89±5.30	U|	8.89	190±109	U|	190
TPIN0127	06/06/00		--	**27.0**		--		--	**1.06**		9.13±6.62	U|UJv	10.9	-27.4±130	U|	234
TPIN0131	07/05/00		--	--		--		--	0.992	J|Jd	21.8±6.60		9.99	406±146		216
TPIN0135	08/01/00		--	--		--		--	**1.09**		11.0±6.13	|Jv	10.1	28.8±133	U|	233
TPIN0136	08/01/00	D	--	--		--		--	0.979	J|	10.1±6.09	|Jv	10.0	28.8±132	U|	232
TPIN0141	09/05/00		--	--		--		--	0.907	J|	13.1±6.65	|Jv	10.7	30.4±162	U|	286
TPIN0145	10/04/00		--	--		--		--	0.835	J|	17.4±4.90		7.41	0.00±143	U|	253
TPIN0149	11/01/00		--	--		--		--	0.946	J|	12.7±4.64		7.23	32.4±172	U|	304
TPIN0153	12/05/00		--	--		--		--	0.803	J|Jh	23.2±7.15		11.0	80.5±131	U|	223
EFFLUENT																
TPEF0105	01/04/00		**28.8**	**25**		**7.88**		**519**	--		--			--		
TPEF0106	01/10/00		--	--		**8.4**		**506**	--		--			--		
TPEF0107	01/18/00		--	--		**8.5**		**491**	--		--			--		
TPEF0108	01/24/00		--	--		**8.3**		**503**	--		--			--		
TPEF0109	02/01/00		**27.8**	**24**		**8.28**		**515**	--		--			--		
TPEF0110	02/07/00		--	--		**8.4**		**510**	--		--			--		
TPEF0111	02/14/00		--	--		**8.5**		**511**	--		--			--		
TPEF0112	02/22/00		--	--		**8.4**		**472**	--		--			--		
TPEF0113	03/02/00		**25.3**	**25**		**8.27**		**509**	--		--			--		
TPEF0114	03/06/00		--	--		7.9		**499**	--		--			--		
TPEF0115	03/22/00		--	--		**8.5**		**514**	--		--			--		
TPEF0116	03/28/00		--	--		**8.6**		**492**	--		--			--		
TPEF0117	04/03/00		**25**	**27.0**		**9.78**		**513**	--		--			--		
TPEF0118	04/03/00		**25.1**	**26.0**		**9.81**		**511**	--		--			--		
TPEF0119	04/11/00		--	--		**8.7**		**515**	--		--			--		
TPEF0120	04/17/00		--	--		**8.7**		**516**	--		--			--		
TPEF0121	04/23/00		--	--		**8.9**		**513**	--		--			--		
TPEF0122	05/01/00		**24.3**	**20.0**	|Jh	**2.49**	|Jh	**430**	--		--			--		

D = Duplicate
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APPENDIX A
METALS, GENERAL CHEMICALS, AND RADIONUCLIDES - INFLUENT AND EFFLUENT
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

			Metals			General Chemicals			Radionuclides		
		Analyte	CHROMIUM	HEXAVALENT CHROMIUM		NITROGEN, NITRATE	TOTAL DISSOLVED SOLIDS	TOTAL ORGANIC CARBON	CARBON-14	TRITIUM	
		CRDL	10	10		0.1	20	1.00	20	300	
		Daily Limit	50	50		10.0	500	---	---	---	
		Monthly Limit	32	32		7.7	485	---	20	300	
		Units	ug/L	ug/L		mg/L	mg/L	mg/L	pCi/L	pCi/L	
Sample ID	Date	QA							MDA		MDA
TPEF0123	05/08/00		--	--		9.0	516	--	--	--	
TPEF0124	05/15/00		--	--		9.0	532	--	--	--	
TPEF0125	05/22/00		--	--		9.7	532	--	--	--	
TPEF0126	05/30/00		--	--		10.7	543	--	--	--	
TPEF0127	06/06/00		26.1	--		10.9	531	--	--	--	
TPEF0128	06/12/00		--	--		10.9	566	--	--	--	
TPEF0129	06/20/00		--	--		10.6	570	--	--	--	
TPEF0130	06/26/00		--	--		10.7	571	--	--	--	
TPEF0131	07/05/00		31.9	31.0	|Jh	11.3	537	--	--	--	
TPEF0132	07/10/00		--	--		11.0	574	--	--	--	
TPEF0133	07/17/00		--	--		11.3	574	--	--	--	
TPEF0134	07/24/00		--	--		10.7	578	--	--	--	
TPEF0135	08/01/00		31.4	--		9.73	545	--	--	--	
TPEF0136	08/01/00	D	31.1	--		10.4	534	--	--	--	
TPEF0137	08/07/00		--	--		10.5	559	--	--	--	
TPEF0138	08/16/00		--	--		10.4	554	--	--	--	
TPEF0139	08/21/00		--	--		9.9	550	--	--	--	
TPEF0140	08/28/00		--	--		10.2	544	--	--	--	
TPEF0141	09/05/00		27.3	--		9.96	551	--	--	--	
TPEF0142	09/13/00		--	--		9.7	547	--	--	--	
TPEF0143	09/18/00		--	--		9.9	556	--	--	--	
TPEF0144	09/26/00		--	--		10.1	558	--	--	--	
TPEF0145	10/04/00		29.0	--		9.58	562	--	--	--	
TPEF0146	10/11/00		--	--		9.4	527	--	--	--	
TPEF0147	10/16/00		--	--		10.9	556	--	--	--	
TPEF0148	10/24/00		--	--		9.2	564	--	--	--	
TPEF0149	11/01/00		27.4	--		9.67	548	--	--	--	
TPEF0150	11/16/00		--	--		10.6	559	--	--	--	
TPEF0151	11/20/00		--	--		10.0	549	--	--	--	
TPEF0152	11/27/00		--	--		9.7	542	--	--	--	
TPEF0153	12/05/00		23.9	--		8.97	548	--	--	--	
TPEF0154	12/11/00			--		11.1	563	--	--	--	

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APPENDIX A 2000.XLS on 4/3/01 at 5:23 PM

Appendix B

Comprehensive Analytical Results for 2000 Groundwater, Surface Water, and Storm Water

APPENDIX B
FIELD PARAMETERS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Analyte Units Date	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
UCD1-010	05/04/00	2070	66	7.24	18.9	0.28
UCD1-011	05/04/00	1200	-30	7.29	18.5	0.24
UCD1-011	08/01/00	1217	56	7.35	20.1	0.33
UCD1-011	09/07/00	1197	100	7.37	19.2	--
UCD1-011	10/04/00	1214	132	7.38	18.3	--
UCD1-011	11/06/00	1210	130	7.38	18.7	0.60
UCD1-012	05/01/00	2885	57	7.10	19.6	0.59
UCD1-013	05/01/00	1562	54	7.12	19.1	0.16
UCD1-013	05/01/00	1562	54	7.12	19.1	0.16
UCD1-018	05/03/00	792	84	7.51	18.5	0.50
UCD1-018	08/02/00	857	55	7.39	19.4	2.23
UCD1-018	09/07/00	835	51	7.37	18.5	--
UCD1-018	10/04/00	800	136	7.32	18.0	--
UCD1-018	11/02/00	787	84	7.36	18.8	0.07
UCD1-025	05/01/00	1324	42	7.28	19.0	0.34
UCD1-025	08/01/00	1291	-52	7.58	19.6	--
UCD1-025	09/05/00	1291	73	7.24	19.9	--
UCD1-025	10/03/00	1307	145	7.18	19.7	--
UCD1-025	11/01/00	1324	71	7.08	19.0	0.16
UCD1-028	02/01/00	1738	106	7.13	18.5	0.45
UCD1-028	03/01/00	1725	84	7.17	18.3	--
UCD1-028	04/03/00	1714	73	7.21	18.5	--
UCD1-028	05/01/00	1691	106	7.18	18.5	0.18
UCD1-028	06/06/00	1671	75	7.24	19	--
UCD1-028	07/05/00	1686	97	6.97	19.0	--
UCD1-028	08/01/00	1714	91	7.28	19.6	501
UCD1-028	09/05/00	1722	75	7.25	18.7	--
UCD1-028	10/03/00	1764	91	7.18	18.9	--
UCD1-028	11/01/00	1775	101	7.11	18.5	--
UCD1-028	12/05/00	1787	89	7.21	17.5	--
UCD2-007	02/02/00	932.6	60	7.39	19.0	0.27
UCD2-007	05/01/00	933	63	7.51	18.8	--

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Analyte Units Date	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
UCD2-007	08/02/00	1040	70	7.40	21.4	0.46
UCD2-007	11/02/00	982	128	7.24	18.9	0.36
UCD2-014	02/03/00	1392	51	7.03	18.8	0.12
UCD2-014	05/01/00	1403	88	7.14	19.0	0.37
UCD2-014	08/07/00	1418	81	7.19	19.1	0.29
UCD2-014	11/07/00	1046	149	7.22	18.9	0.13
UCD2-015	02/03/00	804	24	7.42	18.5	0.12
UCD2-015	05/03/00	795	40	7.69	19.1	0.36
UCD2-015	08/02/00	827	52	7.65	20.5	0.49
UCD2-015	11/02/00	836	106	7.60	19.2	0.03
UCD2-016	02/03/00	798	50	7.15	18.8	-0.02
UCD2-016	05/03/00	827	45	7.43	18.3	0.13
UCD2-016	08/02/00	975	63	7.43	19.2	0.15
UCD2-016	11/02/00	841	147	7.37	19.0	0.98
UCD2-017	02/03/00	756	52	7.47	18.3	-0.02
UCD2-017	05/03/00	763	31	7.62	18.1	0.11
UCD2-017	08/02/00	752	66	7.44	19.5	0.32
UCD2-017	11/02/00	771	103	7.22	18.7	0.04
UCD2-026	02/01/00	799.4	73	7.41	18.8	4.67
UCD2-026	05/01/00	874	93	7.31	19.2	5.94
UCD2-026	05/01/00	874	93	7.31	19.2	5.94
UCD2-026	08/01/00	833	56	7.43	19.2	5.77
UCD2-026	09/05/00	827	74	7.43	19.3	--
UCD2-026	10/03/00	823	88	7.30	19.5	--
UCD2-026	11/02/00	842	122	7.33	17.6	7.34
UCD2-029	02/01/00	874.5	64	7.30	18.3	0.04
UCD2-029	03/01/00	860.6	116	7.45	17.8	--
UCD2-029	04/03/00	870	32	7.41	18.3	--
UCD2-029	05/01/00	867	95	7.51	18.0	0.01
UCD2-029	06/06/00	916	68	7.47	18.8	--
UCD2-029	07/05/00	957	48	7.16	18.6	--
UCD2-029	08/01/00	961	56	7.58	19.0	0.31
UCD2-029	09/05/00	957	58	7.45	18.7	--

APPENDIX B
FIELD PARAMETERS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Analyte Units Date	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
UCD2-029	10/03/00	956	116	7.42	18.8	--
UCD2-029	11/01/00	948	84	7.37	18.6	--
UCD2-029	12/05/00	950	65	7.30	18.0	--
UCD2-030	02/01/00	815.8	67	7.38	18.2	0.35
UCD2-030	03/01/00	814.7	73	7.57	18.0	--
UCD2-030	04/03/00	795	29	7.44	18.2	--
UCD2-030	05/01/00	787	97	7.53	18.0	0.87
UCD2-030	06/06/00	808	58	7.49	19.2	--
UCD2-030	07/05/00	808	48	7.25	19.0	--
UCD2-030	08/01/00	802	68	7.53	18.7	0.31
UCD2-030	09/05/00	828	99	7.56	18.8	--
UCD2-030	10/03/00	824	89	7.44	18.7	--
UCD2-030	11/01/00	829	113	7.39	18.3	0.37
UCD2-030	12/05/00	847	79	7.36	17.5	--
UCD2-031	02/01/00	803.7	60	7.44	18.3	0.01
UCD2-031	03/01/00	811.5	66	7.37	18.3	--
UCD2-031	04/03/00	790	39	7.34	18.4	--
UCD2-031	05/01/00	774	81	7.39	18.3	0.03
UCD2-031	06/06/00	784	71	7.5	18.9	--
UCD2-031	07/05/00	784	41	7.14	18.7	--
UCD2-031	08/01/00	778	38	7.46	18.8	--
UCD2-031	09/05/00	783	31	7.45	18.6	--
UCD2-031	10/03/00	791	130	7.44	18.8	--
UCD2-031	11/01/00	804	104	7.43	18.4	0.06
UCD2-031	12/05/00	809	36	7.10	17.6	--
UCD2-032	02/07/00	813.9	46	7.53	18.5	1.60
UCD2-032	05/04/00	861	60	7.39	18.9	0.84
UCD2-032	08/07/00	835	62	7.42	19.0	1.67
UCD2-032	11/07/00	826	147	7.44	18.7	0.42
UCD2-035	02/02/00	778.1	76	7.45	18.0	0.13
UCD2-035	03/01/00	783.5	100	7.59	17.8	--
UCD2-035	04/03/00	790	-33	7.54	18.6	--
UCD2-035	05/04/00	780	44	7.56	18.9	0.18

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Analyte Units Date	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
UCD2-035	06/07/00	769	114	7.59	18.1	--
UCD2-035	07/06/00	754	69	7.30	18.3	--
UCD2-035	08/02/00	741	56	7.56	18.7	0.09
UCD2-035	09/07/00	746	67	7.51	19.7	--
UCD2-035	11/06/00	785	71	7.37	18.1	0.58
UCD2-035	12/05/00	786	163	7.52	17.7	--
UCD2-036	02/02/00	771.7	83	7.42	18.6	0.27
UCD2-036	03/02/00	782.6	130	7.60	18.2	--
UCD2-036	04/03/00	782	9	7.5	18.7	--
UCD2-036	05/03/00	792	114	7.36	18.5	0.33
UCD2-036	06/06/00	828	52	7.42	19.5	--
UCD2-036	07/05/00	855	118	7.11	19.0	--
UCD2-036	08/01/00	864	48	7.53	20.3	0.18
UCD2-036	09/07/00	893	117	7.49	18.5	--
UCD2-036	10/03/00	876	82	7.40	19.2	--
UCD2-036	11/06/00	831	175	7.41	18.4	0.10
UCD2-036	12/05/00	857	127	7.39	17.8	--
UCD2-037	02/02/00	752.4	56	7.30	18.5	0.07
UCD2-037	03/02/00	753.7	145	7.56	17.6	--
UCD2-037	04/03/00	737	18	7.37	18.1	--
UCD2-037	05/03/00	725	81	7.57	18.1	0.27
UCD2-037	06/07/00	726	147	7.53	18.1	--
UCD2-037	07/05/00	727	93	7.09	18.4	--
UCD2-037	08/01/00	727	35	7.53	19.7	0.04
UCD2-037	09/07/00	721	92	7.54	18.1	--
UCD2-037	10/04/00	727	121	7.63	18.0	--
UCD2-037	11/06/00	730	172	7.35	18.0	0.13
UCD2-037	12/05/00	729	124	7.24	17.2	--
UCD2-038	02/02/00	798.8	90	7.51	18.4	0.03
UCD2-038	03/01/00	797.3	121	7.60	17.9	--
UCD2-038	04/03/00	786	24	7.38	18.9	--
UCD2-038	05/03/00	767	75	7.55	18.5	0.61
UCD2-038	06/07/00	744	129	7.62	18.1	--

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Analyte Units Date	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
UCD2-038	07/06/00	734	79	7.34	17.7	--
UCD2-038	08/01/00	792	40	7.47	19.7	0.34
UCD2-038	09/05/00	817	82	7.63	18.7	--
UCD2-038	10/03/00	777	125	7.50	18.9	--
UCD2-038	11/06/00	804	132	7.54	18.2	0.22
UCD2-038	12/05/00	774	145	7.50	17.8	--
UCD2-039	02/03/00	848	49	7.38	18.2	0.18
UCD2-039	03/01/00	833.1	76	7.56	17.9	--
UCD2-039	04/03/00	840	7	7.39	19.0	--
UCD2-039	05/04/00	842	74	7.52	18.6	0.23
UCD2-039	06/06/00	857	60	7.48	19.4	--
UCD2-039	07/06/00	846	55	7.17	18.9	--
UCD2-039	08/01/00	841	74	7.60	20.6	0.21
UCD2-039	09/07/00	858	75	7.46	19.6	--
UCD2-039	10/04/00	862	80	7.40	18.8	--
UCD2-039	11/06/00	849	133	7.35	18.3	0.13
UCD2-039	12/05/00	842	118	7.37	17.9	--
UCD2-040	02/01/00	834.4	59	7.41	18.2	0.55
UCD2-040	03/01/00	827.6	89	7.57	17.7	--
UCD2-040	04/03/00	843	12	7.4	18.8	--
UCD2-040	05/01/00	838	96	7.35	18.3	0.67
UCD2-040	06/06/00	839	42	7.50	19.2	--
UCD2-040	07/05/00	844	59	7.16	19.0	--
UCD2-040	08/01/00	841	41	7.50	19.2	0.34
UCD2-040	09/05/00	829	76	7.47	18.6	--
UCD2-040	10/03/00	854	115	7.40	18.8	--
UCD2-040	11/01/00	840	105	7.33	18.6	0.23
UCD2-040	12/05/00	861	96	7.34	18.0	--
UCD2-045	02/07/00	865.2	39	7.56	18.2	11.85
UCD2-045	05/04/00	845	28	7.52	18.5	1.59
UCD2-045	08/07/00	895	126	7.31	18.3	2.78
UCD2-045	11/07/00	900	146	7.31	18.0	1.40

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Location	Date	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
	Analyte Units					
UCD2-046	07/06/00	1096	56	7.01	18.5	–
UCD2-046	08/07/00	1113	131	7.56	18.5	--
UCD2-046	11/07/00	1142	146	7.38	18.2	0.11
UCD4-041	02/01/00	665.0	89	7.58	18.2	0.44
UCD4-041	05/01/00	656	66	7.63	19.6	1.48
UCD4-041	08/03/00	655	52	7.60	19.6	1.87
UCD4-041	11/06/00	665	119	7.54	18.6	1.35
UCD4-042	02/07/00	691.0	91	7.46	18.4	0.01
UCD4-042	05/02/00	702	44	7.69	19.2	0.10
UCD4-042	08/03/00	717	43	7.54	19.5	0.08
UCD4-042	11/06/00	699	143	7.52	18	0.01
UCD4-043	02/07/00	707.1	161	7.50	18.5	0.00
UCD4-043	05/04/00	714	71	7.69	19.5	0.22
UCD4-043	08/03/00	701	71	7.71	19.7	0.07
UCD4-043	11/07/00	697	127	7.39	19.0	0.01
UCD4-044	02/02/00	666.8	89	7.61	18.6	0.32
UCD4-044	05/02/00	660	46	7.55	18.8	0.72
UCD4-044	08/01/00	654	56	7.57	19.9	0.29
UCD4-044	11/02/00	659	45	7.42	18.9	0.37
UCD4-047	07/06/00	864	50	7.20	19.1	--
UCD4-047	08/03/00	895	92	7.50	19.7	0.29
UCD4-047	11/07/00	881	166	7.47	18.4	1.30

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-011	UCD1-011		UCD1-011		UCD1-011		UCD1-011		UCD1-012	UCD1-013	UCD1-013
		Sample ID	GWGW1067	GWGW1123		GWGW1134		GWGW1149		GWGW1156		GWGW1051	GWGW1052	GWGW1053
		Date	05/04/00	08/01/00		09/07/00		10/04/00		11/06/00		05/01/00	05/01/00	05/01/00
		QA												DUPLICATE
Analyte	CRDL	Units												
ANTIMONY	5	ug/L	--	<0.683		<0.683		<0.683		<0.892	BN|UJmlo	--	--	--
ARSENIC	3	ug/L	--	**4.69**		**7.85**	E|Jk	**1.38**	B|	**6.15**		--	--	--
BARIUM	20	ug/L	--	**282**		**278**		**270**		**369**		--	--	--
BERYLLIUM	1	ug/L	--	<0.010		<0.010		<0.01		<0.010		--	--	--
BORON		ug/L	--	**836**		**871**		**803**		**906**		--	--	--
CADMIUM	1	ug/L	--	<0.130		<0.130		<0.130		<0.059		--	--	--
CALCIUM	2000	ug/L	--	**48200**		**45600**		**43700**		**47400**		--	--	--
CHROMIUM	10	ug/L	**226**	**225**		**201**		**215**		**205**		**146**	**86.7**	**85.9**
CHROMIUM, HEXAVALENT	10	ug/L	--	--		--		--		--		--	--	--
COBALT	10	ug/L	--	**0.086**	B|	**0.67**	B|	**0.08**	B|	<0.010		--	--	--
COPPER	10	ug/L	--	**0.885**	B|	**0.919**	B|	**1.57**	B|	**1.34**	B|	--	--	--
IRON	100	ug/L	--	<3.12	N*|UJmd	**119**	N|Jl	**41.2**	B|	<2.52		--	--	--
LEAD	3	ug/L	--	<0.010		<0.010		<0.010		<0.014		--	--	--
MAGNESIUM	2000	ug/L	--	**117000**		**115000**		**114000**		**124000**		--	--	--
MANGANESE	10	ug/L	--	**2.42**	B|	<0.382	B|Up	**0.24**	B|	<0.020		--	--	--
MERCURY	0.2	ug/L	--	<0.043		--		<0.043		<0.048		--	--	--
MOLYBDENUM	10	ug/L	--	**1.06**	B|	**1.390**	B|	<1.53	B|Uo	<1.31	B|Uo	--	--	--
NICKEL	20	ug/L	--	**1.06**	BE|Jk	**1.21**	BE|	**1.78**	B|	**0.692**	B|	--	--	--
POTASSIUM	2000	ug/L	--	**648**	B|	**601**	B|	**574**	B|	**651**	B|	--	--	--
SELENIUM	3	ug/L	--	**8.39**		**8.320**		**7.97**		**8.44**		--	--	--
SILVER	10	ug/L	--	**0.147**	B|	<0.084	B|Uo	<0.159	B|Up	<0.030		--	--	--
SODIUM	2000	ug/L	--	**76700**		**76100**		**74400**		**78600**		--	--	--
THALLIUM	10	ug/L	--	**0.154**	B|	**0.222**	BN|Jl	<0.314	BN|UJmo	**0.16**	BN|Jml	--	--	--
VANADIUM	10	ug/L	--	**6.78**	B|	<18.8	EN|UJkp	**9.96**	B|	**11.7**	E|	--	--	--
ZINC	20	ug/L	--	**1.66**	B|	**1.620**	B|	**4.09**	B|	**24.2**	E|	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-018		UCD1-018		UCD1-018		UCD1-018		UCD1-018		UCD1-018		UCD1-025		UCD1-025	
		Sample ID	GWGW1058		GWGW1059		GWGW1124		GWGW1135		GWGW1150		GWGW1157		GWGW1125		GWGW1126	
		Date	05/03/00		05/03/00		08/02/00		09/07/00		10/04/00		11/02/00		08/01/00		09/05/00	
		QA			DUPLICATE													
Analyte	CRDL	Units																
ANTIMONY	5	ug/L	--		--		<0.683		<0.683		<0.683		<1.79	BN|UJlopm	<0.683		<0.683	
ARSENIC	3	ug/L	--		--		<5.05	|Up	**8.110**	E|Jk	**1.96**	B|	**3.5**		**4.16**		<1.630	B|Up
BARIUM	20	ug/L	--		--		**157**		**151**		**141**		**166**	BN|Jk	**292**		**312**	
BERYLLIUM	1	ug/L	--		--		<0.010		<0.010		<0.010		<0.100		<0.010		<0.010	
BORON		ug/L	--		--		**600**		**642**		**567**		**555**		**895**		**918**	
CADMIUM	1	ug/L	--		--		<0.130		<0.130		<0.130		<0.059		<0.130		<0.130	
CALCIUM	2000	ug/L	--		--		**34900**		**33600**		**30300**		**30900**	E|Jk	**39000**		**36600**	
CHROMIUM	10	ug/L	**18.4**		**18.1**		**26.8**		**22.8**		**19.7**		**17.5**		**294**		**248**	
CHROMIUM, HEXAVALENT	10	ug/L	<27	|Uo	<27	|Uo	--		--		--		--		--		--	
COBALT	10	ug/L	--		--		<0.010		**0.060**	B|	**0.033**	B|	<0.010		**0.09**	B|	<0.381	B|Uo
COPPER	10	ug/L	--		--		**0.581**	B|	**0.699**	B|	**0.918**	B|	**0.777**	*BEN|Jkmci	**0.764**	B|	<0.958	B|Up
IRON	100	ug/L	--		--		<4.09	BN|UJpm	**98.6**	BN|JI	<14.3	B|Uo	**40.4**	B|	<1.56	N*|UJmd	**240**	E|Jk
LEAD	3	ug/L	--		--		<0.010		<0.010		<0.010		<0.140		<0.010		<0.010	
MAGNESIUM	2000	ug/L	--		--		**91700**		**85300**		**79700**		**76300**		**122000**		**113000**	
MANGANESE	10	ug/L	--		--		<1.0	B|Up	<0.449	B|Up	**0.297**	B|	<0.020		**1.79**	B|	**5.95**	B|
MERCURY	0.2	ug/L	--		--		--		--		<0.043		<0.048		<0.043		<0.043	
MOLYBDENUM	10	ug/L	--		--		**1.3**	B|	**1.200**	B|	<1.50	B|Uo	**1.26**	B|	**0.595**	B|	**0.394**	B|
NICKEL	20	ug/L	--		--		**8.5**	B|	**6.800**	BE|	**5.00**	B|	**3.36**	B|	**48.0**	E|Jk	**77.6**	
POTASSIUM	2000	ug/L	--		--		**393**	B|	**383**	B|	**372**	B|	**385**	B|	**897**	B|	**887**	B|
SELENIUM	3	ug/L	--		--		**2.02**	B|	**1.970**	B|	**2.10**	B|	**1.87**	B|	**5.98**		**6.450**	
SILVER	10	ug/L	--		--		<0.13	B|Uop	<0.053	B|Uo	<0.051	B|Up	<0.295		**0.144**	B|	<0.014	
SODIUM	2000	ug/L	--		--		**34600**		**33400**		**30300**		**31300**	E|Jk	**81900**		**92300**	
THALLIUM	10	ug/L	--		--		<0.026		**0.417**	BN|JI	<0.421	BN|UJmo	<0.019	N|UJlm	**0.035**	B|	<0.026	
VANADIUM	10	ug/L	--		--		**8.13**	B|	<23.2	EN|UJkp	**10.4**		**11.7**		<0.100		**5.160**	B|
ZINC	20	ug/L	--		--		**1.28**	B|	<1.200	B|Up	**3.18**	B|	**14.8**	B|	**3.82**	B|	<3.51	B|Uo

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-025		UCD1-025		UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028
		Sample ID	GWGW1141		GWGW1158		GWGW0985	GWGW0996	GWGW0997	GWGW1020	GWGW1031	GWGW1043
		Date	10/03/00		11/01/00		01/04/00	02/01/00	02/01/00	03/01/00	04/03/00	05/01/00
		QA							DUPLICATE			
Analyte	CRDL	Units										
ANTIMONY	5	ug/L	<3.41		<0.357	BN|UJmlop	--	--	--	--	--	--
ARSENIC	3	ug/L	**1.63**	B|	**2.33**	B|	--	--	--	--	--	--
BARIUM	20	ug/L	**337**		**328**	NE|Jk	--	--	--	--	--	--
BERYLLIUM	1	ug/L	<0.050		<0.100		--	--	--	--	--	--
BORON		ug/L	**899**		**893**		--	--	--	--	--	--
CADMIUM	1	ug/L	<0.130		<0.059		--	--	--	--	--	--
CALCIUM	2000	ug/L	**40800**		**41200**	E|Jk	--	--	--	--	--	--
CHROMIUM	10	ug/L	**270**		**279**		**613**	**540**	**561**	**511**	**546**	**502**
CHROMIUM, HEXAVALENT	10	ug/L	--		--		**552**	--	--	**500**	**560**	**490**
COBALT	10	ug/L	**0.24**	B|	**0.188**	B|	--	--	--	--	--	--
COPPER	10	ug/L	**0.76**	B|	**1.36**	*BEN|Jdkm	--	--	--	--	--	--
IRON	100	ug/L	**93.5**	B|	**66.3**	B|	--	--	--	--	--	--
LEAD	3	ug/L	<0.010		**1.29**	B|	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	**126000**		**120000**		--	--	--	--	--	--
MANGANESE	10	ug/L	**3.32**	BE|Jk	**6.88**	B|	--	--	--	--	--	--
MERCURY	0.2	ug/L	<0.043		<0.048		--	--	--	--	--	--
MOLYBDENUM	10	ug/L	<0.449	B|Uo	<0.449	B|Uo	--	--	--	--	--	--
NICKEL	20	ug/L	**128**	E|Jk	**121**		--	--	--	--	--	--
POTASSIUM	2000	ug/L	**962**	B|	**869**	B|	--	--	--	--	--	--
SELENIUM	3	ug/L	**6.22**		**6.55**		--	--	--	--	--	--
SILVER	10	ug/L	<1.03	B|Uo	<0.295		--	--	--	--	--	--
SODIUM	2000	ug/L	**88900**		**84600**	E|Jk	--	--	--	--	--	--
THALLIUM	10	ug/L	<2.01	B|UJlp	<0.143	BN|UJmlo	--	--	--	--	--	--
VANADIUM	10	ug/L	**11.6**	E|Jk	**4.5**	B|	--	--	--	--	--	--
ZINC	20	ug/L	<2.75	B|Uo	**10.8**	B|	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-028	UCD1-028	UCD1-028		UCD1-028		UCD1-028		UCD1-028		UCD1-028
		Sample ID	GWGW1073	GWGW1084	GWGW1097		GWGW1127		GWGW1142		GWGW1159		GWGW1186
		Date	06/06/00	07/05/00	08/01/00		09/05/00		10/03/00		11/01/00		12/05/00
		QA											
Analyte	CRDL	Units											
ANTIMONY	5	ug/L	--	--	<0.683		<0.683		<3.41		<0683	BN|UJmlop	--
ARSENIC	3	ug/L	--	--	**3.13**		<1.500	B|Up	**0.872**	B|	**3.32**		--
BARIUM	20	ug/L	--	--	**280**		**311**		**329**		**265**	BNE|Jk	--
BERYLLIUM	1	ug/L	--	--	<0.010		<0.010		<0.050		<1.00		--
BORON		ug/L	--	--	**1280**		**1160**		**1160**		**1250**	B|	--
CADMIUM	1	ug/L	--	--	<0.130		<0.130		<0.130		<0.059		--
CALCIUM	2000	ug/L	--	--	**50200**		**44500**		**47400**		**50400**	E|Jk	--
CHROMIUM	10	ug/L	**521**	**531**	**592**		**491**		**499**		**503**		**539**
CHROMIUM, HEXAVALENT	10	ug/L	**530**	--	--		--		--		--		--
COBALT	10	ug/L	--	--	**.255**	B|	**0.454**	B|	**0.275**	B|	**0.357**	B|	--
COPPER	10	ug/L	--	--	**1.21**	B|	**1.300**	B|	**0.75**	B|	**2.97**	*BEN|Jdkm	--
IRON	100	ug/L	--	--	<3.12	N*|UJmd	**303**	E|Jk	**122**	B|	**58.4**	B|	--
LEAD	3	ug/L	--	--	<0.010		<0.010		<0.010		**0.032**	B|	--
MAGNESIUM	2000	ug/L	--	--	**172000**		**157000**		**164000**		**168000**		--
MANGANESE	10	ug/L	--	--	**1.68**	B|	<0.555	B|Up	**0.425**	BE|Jk	**0.859**	B|	--
MERCURY	0.2	ug/L	--	--	<0.043		<0.043		<0.043		<0.048		--
MOLYBDENUM	10	ug/L	--	--	**1.99**	B|	**0.921**	B|	<0.761	B|Uo	**0.869**	B|	--
NICKEL	20	ug/L	--	--	**3.07**	BE|Jk	**2.280**	B|	**4.46**	BE|Jk	**1.6**	B|	--
POTASSIUM	2000	ug/L	--	--	**1080**	B|	**909**	B|	**935**	B|	**918**	B|	--
SELENIUM	3	ug/L	--	--	**10.3**		**12.3**		**10.1**		**10.4**		--
SILVER	10	ug/L	--	--	**0.163**	B|	<0.014		<0.995	B|Uo	<2.95		--
SODIUM	2000	ug/L	--	--	**111000**		**119000**		**114000**		**116000**	E|Jk	--
THALLIUM	10	ug/L	--	--	**1.33**	B|	<0.026		**4.79**	B|Jl	<0.019	N|UJml	--
VANADIUM	10	ug/L	--	--	<0.100		<0.100		**9.52**	BE|Jk	**8.4**	B|	--
ZINC	20	ug/L	--	--	**2.15**	B|	<2.060	B|Up	<0.594	B|Uo	**7.87**	B|	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-007	UCD2-007	UCD2-007	UCD2-014	UCD2-014	UCD2-014	UCD2-014	UCD2-014
		Sample ID	GWGW1054	GWGW1108	GWGW1160	GWGW1009	GWGW1055	GWGW1115	GWGW1116	GWGW1161
		Date	05/01/00	08/02/00	11/02/00	02/03/00	05/01/00	08/07/00	08/07/00	11/07/00
		QA							DUPLICATE	
Analyte	CRDL	Units								
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	**40900**	--	--	--	--	--	--
CHROMIUM	10	ug/L	**56.4**	**68**	**37**	**68.3**	**64.7**	**64.8**	**67.3**	**40**
CHROMIUM, HEXAVALENT	10	ug/L	**57.0**	--	--	**65**	**67.0**	--	--	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	**92900**	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	**825** B|	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	**60600**	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-016	UCD2-016	UCD2-016
		Sample ID	GWGW1010	GWGW1056	GWGW1117	GWGW1162	GWGW1163	GWGW1011	GWGW1060	GWGW1109
		Date	02/03/00	05/03/00	08/02/00	11/02/00	11/02/00	02/03/00	05/03/00	08/02/00
		QA					DUPLICATE			
Analyte	CRDL	Units								
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**24.8**	**26.2**	**32.5**	**29.3**	**30.3**	**26.8**	**32.5**	**41.2**
CHROMIUM, HEXAVALENT	10	ug/L	**24**	<26 |Uo	--	--	--	**26**	<33 |Uo	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-016	UCD2-016	UCD2-017	UCD2-017	UCD2-017	UCD2-017	UCD2-026	UCD2-026	UCD2-026
		Sample ID	GWGW1164	GWGW1165	GWGW1012	GWGW1061	GWGW1110	GWGW1166	GWGW0998	GWGW1044	GWGW1045
		Date	11/02/00	11/02/00	02/03/00	05/03/00	08/02/00	11/02/00	02/01/00	05/01/00	05/01/00
		QA		DUPLICATE							DUPLICATE
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**31.7**	**32.3**	**17.2**	**18.3**	**19.3**	**21.7**	**22.9**	**24.1**	**23.9**
CHROMIUM, HEXAVALENT	10	ug/L	--	--	**16**	<26 |Uo	--	--	--	**24.0**	**24.0**
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-026		UCD2-026		UCD2-026		UCD2-026		UCD2-029	UCD2-029	UCD2-029	UCD2-029
		Sample ID	GWGW1098		GWGW1128		GWGW1143		GWGW1167		GWGW0986	GWGW0999	GWGW1021	GWGW1032
		Date	08/01/00		09/05/00		10/03/00		11/02/00		01/04/00	02/01/00	03/01/00	04/03/00
		QA												
Analyte	CRDL	Units												
ANTIMONY	5	ug/L	<0.683		<0.921	BN|UJmo	<3.41		<1.34	BN|UJlopm	--	--	--	--
ARSENIC	3	ug/L	**5.18**		**1.640**	B|Jp	**1.71**	B|	**2.39**	B|	--	--	--	--
BARIUM	20	ug/L	**168**		**165**		**181**		**264**	E|Jk	--	--	--	--
BERYLLIUM	1	ug/L	<0.010		<0.010		<0.050		<0.100		--	--	--	--
BORON		ug/L	**542**		**557**		**580**		**561**		--	--	--	--
CADMIUM	1	ug/L	<0.130		<0.130		<0.130		<0.059		--	--	--	--
CALCIUM	2000	ug/L	**42500**		**37900**		**42100**		**42800**	E|Jk	--	--	--	--
CHROMIUM	10	ug/L	**36.8**		**30.0**		**27.9**		**25**		**27.9**	**27.5**	**24.2**	**24.8**
CHROMIUM, HEXAVALENT	10	ug/L	--		--		--		--		**24**	--	**29**	**26**
COBALT	10	ug/L	<0.010		<0.274	B|Uo	**0.18**	B|	<0.010		--	--	--	--
COPPER	10	ug/L	**0.598**	B|	<0.934	B|Up	**0.525**	B|	**0.812**	EN*B|Jkmd	--	--	--	--
IRON	100	ug/L	<3.12	N*|UJmd	**249**	E|Jk	**94.8**	B|	**64.5**	B|	--	--	--	--
LEAD	3	ug/L	<0.010		<0.010		**0.143**	B|	<0.140		--	--	--	--
MAGNESIUM	2000	ug/L	**74300**		**66500**		**72900**		**72300**		--	--	--	--
MANGANESE	10	ug/L	**0.697**	B|	<0.609	B|Up	**0.32**	BE|Jk	**0.303**	B|	--	--	--	--
MERCURY	0.2	ug/L	<0.043		<0.043		<0.043		<0.048		--	--	--	--
MOLYBDENUM	10	ug/L	**1.8**	B|	**1.820**	B|	<1.54	B|Uo	**1.73**	B|	--	--	--	--
NICKEL	20	ug/L	**15**	BE|Jk	**23.3**		**33.7**	BE|Jk	**20**		--	--	--	--
POTASSIUM	2000	ug/L	**783**	B|	**765**	B|	**815**	B|	**756**	B|	--	--	--	--
SELENIUM	3	ug/L	**2.26**	B|	**1.720**	B|	<2.41	B|Uo	**2.0**	B|	--	--	--	--
SILVER	10	ug/L	**0.147**	B|	<0.014		<0.93	B|Uo	<0.295		--	--	--	--
SODIUM	2000	ug/L	**40200**		**42300**		**41400**		**40900**	E|Jk	--	--	--	--
THALLIUM	10	ug/L	**0.094**	B|	<0.026		<0.445	B|UJlp	<0.019	N|UJlm	--	--	--	--
VANADIUM	10	ug/L	**4.86**	B|	**9.120**	B|	**13.9**	E|Jk	**7.79**	B|	--	--	--	--
ZINC	20	ug/L	**3.32**	B|	<3.270	B|Up	**19.5**	B|	**36.8**		--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029		UCD2-029		UCD2-029		UCD2-029	
		Sample ID	GWGW1046	GWGW1074	GWGW1075	GWGW1085	GWGW1099		GWGW1129		GWGW1130		GWGW1144	
		Date	05/01/00	06/06/00	06/06/00	07/05/00	08/01/00		09/05/00		09/05/00		10/03/00	
		QA			DUPLICATE						DUPLICATE			
Analyte	CRDL	Units												
ANTIMONY	5	ug/L	--	--	--	--	<0.683		<0.683		<0.683		<3.41	
ARSENIC	3	ug/L	--	--	--	--	**4.0**		<2.240	B|Up	<2.42	B|Up	**0.972**	B|
BARIUM	20	ug/L	--	--	--	--	**203**		**204**		**209**		**259**	
BERYLLIUM	1	ug/L	--	--	--	--	<0.010		<0.010		<0.010		<0.050	
BORON		ug/L	--	--	--	--	**575**		**586**		**594**		**583**	
CADMIUM	1	ug/L	--	--	--	--	<0.130		<0.130		<0.130		<0.130	
CALCIUM	2000	ug/L	--	--	--	--	**48900**		**43500**		**43000**		**46500**	
CHROMIUM	10	ug/L	**25.0**	**27.6**	**28.5**	**31.8**	**38.3**		**33.3**		**33.7**		**35.1**	
CHROMIUM, HEXAVALENT	10	ug/L	**24.0**	**28**	**28**	--	--		--		--		--	
COBALT	10	ug/L	--	--	--	--	<0.010		<0.312	B|Uo	<0.326	B|Uo	**0.185**	B|
COPPER	10	ug/L	--	--	--	--	**0.474**	B|	<0.817	B|Up	<0.755	B|Up	<0.195	
IRON	100	ug/L	--	--	--	--	<3.12	N*|UJmd	**273**	E|Jk	**277**	E|Jk	<72.2	B|Uo
LEAD	3	ug/L	--	--	--	--	<0.010		<0.010		<0.010		<0.010	
MAGNESIUM	2000	ug/L	--	--	--	--	**86200**		**77500**		**76600**		**81700**	
MANGANESE	10	ug/L	--	--	--	--	**0.74**	B|	<0.390	B|Up	<0.258	B|Up	**0.331**	BE|Jk
MERCURY	0.2	ug/L	--	--	--	--	<0.043		<0.043		<0.043		<0.043	
MOLYBDENUM	10	ug/L	--	--	--	--	**1.8**	B|	**1.610**	B|	**1.590**	B|	<1.39	B|Uo
NICKEL	20	ug/L	--	--	--	--	**1.43**	BE|Jk	**1.810**	B|	**1.840**	B|	**4.03**	BE|Jk
POTASSIUM	2000	ug/L	--	--	--	--	**791**	B|	**796**	B|	**789**	B|	**815**	B|
SELENIUM	3	ug/L	--	--	--	--	**1.94**	B|	**2.400**	B|	**1.930**	B|	<2.61	B|Uo
SILVER	10	ug/L	--	--	--	--	**0.17**	B|	<0.014		<0.014		<0.945	B|Uo
SODIUM	2000	ug/L	--	--	--	--	**41900**		**46200**		**45700**		**43200**	
THALLIUM	10	ug/L	--	--	--	--	**1.77**	B|	<0.026		<0.026		<0.131	|UJ|
VANADIUM	10	ug/L	--	--	--	--	**5.73**	B|	**10.1**		**9.56**	B|	**14.2**	E|Jk
ZINC	20	ug/L	--	--	--	--	**1.28**	B|	<2.070	B|Up	<1.510	B|Up	**12.2**	B|

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-029		UCD2-029	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030
		Sample ID	GWGW1168		GWGW1187	GWGW0987	GWGW1000	GWGW1022	GWGW1033	GWGW1047	GWGW1076
		Date	11/01/00		12/05/00	01/04/00	02/01/00	03/01/00	04/03/00	05/01/00	06/06/00
		QA									
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	<1.18	BN|UJmlop	--	--	--	--	--	--	--
ARSENIC	3	ug/L	**3.12**		--	--	--	--	--	--	--
BARIUM	20	ug/L	**252**	NE|Jk	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	<0.100		--	--	--	--	--	--	--
BORON		ug/L	**646**		--	--	--	--	--	--	--
CADMIUM	1	ug/L	<0.059		--	--	--	--	--	--	--
CALCIUM	2000	ug/L	**49100**	E|Jk	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**31.7**		**32.4**	**23.9**	**24.4**	**21.1**	**20.9**	**19.8**	**21.1**
CHROMIUM, HEXAVALENT	10	ug/L	--		--	**20**	--	**23**	**22**	**20**	**23**
COBALT	10	ug/L	**0.051**	B|	--	--	--	--	--	--	--
COPPER	10	ug/L	**1.16**	*BEN|Jdkm	--	--	--	--	--	--	--
IRON	100	ug/L	**74.4**	B|	--	--	--	--	--	--	--
LEAD	3	ug/L	**0.095**	B|	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	**82100**		--	--	--	--	--	--	--
MANGANESE	10	ug/L	**0.554**	B|	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	<0.048		--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	**1.63**	B|	--	--	--	--	--	--	--
NICKEL	20	ug/L	**1.41**	B|	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	**775**	B|	--	--	--	--	--	--	--
SELENIUM	3	ug/L	**2.34**	B|	--	--	--	--	--	--	--
SILVER	10	ug/L	<0.295		--	--	--	--	--	--	--
SODIUM	2000	ug/L	**43700**	E|Jk	--	--	--	--	--	--	--
THALLIUM	10	ug/L	<0.468	BN|UJmlo	--	--	--	--	--	--	--
VANADIUM	10	ug/L	**8.45**	B|	--	--	--	--	--	--	--
ZINC	20	ug/L	**18.4**	B|	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Analyte	CRDL	Units	Location Sample ID Date QA	UCD2-030 GWGW1086 07/05/00	UCD2-030 GWGW1100 08/01/00	UCD2-030 GWGW1101 08/01/00 DUPLICATE	UCD2-030 GWGW1131 09/05/00	UCD2-030 GWGW1145 10/03/00	UCD2-030 GWGW1169 11/01/00	UCD2-030 GWGW1188 12/05/00
ANTIMONY	5	ug/L		--	--	--	--	--	--	--
ARSENIC	3	ug/L		--	--	--	--	--	--	--
BARIUM	20	ug/L		--	--	--	--	--	--	--
BERYLLIUM	1	ug/L		--	--	--	--	--	--	--
BORON		ug/L		--	--	--	--	--	--	--
CADMIUM	1	ug/L		--	--	--	--	--	--	--
CALCIUM	2000	ug/L		--	--	--	--	--	--	--
CHROMIUM	10	ug/L		**23.9**	**24.5**	**24.9**	**26.8**	**25.1**	**24.1**	**25.6**
CHROMIUM, HEXAVALENT	10	ug/L		--	--	--	--	--	--	--
COBALT	10	ug/L		--	--	--	--	--	--	--
COPPER	10	ug/L		--	--	--	--	--	--	--
IRON	100	ug/L		--	--	--	--	--	--	--
LEAD	3	ug/L		--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L		--	--	--	--	--	--	--
MANGANESE	10	ug/L		--	--	--	--	--	--	--
MERCURY	0.2	ug/L		--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L		--	--	--	--	--	--	--
NICKEL	20	ug/L		--	--	--	--	--	--	--
POTASSIUM	2000	ug/L		--	--	--	--	--	--	--
SELENIUM	3	ug/L		--	--	--	--	--	--	--
SILVER	10	ug/L		--	--	--	--	--	--	--
SODIUM	2000	ug/L		--	--	--	--	--	--	--
THALLIUM	10	ug/L		--	--	--	--	--	--	--
VANADIUM	10	ug/L		--	--	--	--	--	--	--
ZINC	20	ug/L		--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031
		Sample ID	GWGW0988	GWGW1002	GWGW1023	GWGW1034	GWGW1048	GWGW1077	GWGW1087	GWGW1088
		Date	01/04/00	02/01/00	03/01/00	04/03/00	05/01/00	06/06/00	07/05/00	07/05/00
		QA								DUPLICATE
Analyte	CRDL	Units								
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**22.8**	**20.0**	**18.9**	**18.5**	**15.3**	**15.6**	**17.1**	**17.4**
CHROMIUM, HEXAVALENT	10	ug/L	**20**	--	**32**	**20**	**14**	**15**	--	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-032	UCD2-032	UCD2-032	UCD2-032
		Sample ID	GWGW1102	GWGW1132	GWGW1146	GWGW1170	GWGW1189	GWGW1014	GWGW1069	GWGW1118	GWGW1171
		Date	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00	02/07/00	05/04/00	08/07/00	11/07/00
		QA									
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**17.4**	<16.1 |Uo	**17.3**	**17**	**17.3**	**23.2** B|	**30.8**	**27.7**	**23.4**
CHROMIUM, HEXAVALENT	10	ug/L	--	--	--	--	--	**24**	**29**	--	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-032	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035
		Sample ID	GWGW1172	GWGW0991	GWGW0992	GWGW1026	GWGW1038	GWGW1062	GWGW1080	GWGW1091	GWGW1111
		Date	11/07/00	01/05/00	01/05/00	03/01/00	04/03/00	05/04/00	06/07/00	07/06/00	08/02/00
		QA	DUPLICATE		DUPLICATE						
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**20.3**	**16.2**	**16.7**	**18.1**	**20**	**21.2**	**19.4**	**14.7**	**14.3**
CHROMIUM, HEXAVALENT	10	ug/L	--	**15**	**15**	**20**	**21**	**20**	**20**	--	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-035	UCD2-035	UCD2-035	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036
		Sample ID	GWGW1136	GWGW1173	GWGW1190	GWGW0993	GWGW1003	GWGW1027	GWGW1039	GWGW1063	GWGW1081
		Date	09/07/00	11/06/00	12/05/00	01/05/00	02/02/00	03/02/00	04/03/00	05/03/00	06/06/00
		QA									
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	13	18.3	19	17.1	15.4	14.8	14.3	17.1	16.6
CHROMIUM, HEXAVALENT	10	ug/L	--	--	--	17	--	15	15	<23 |Uo	18
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-037	UCD2-037
		Sample ID	GWGW1092	GWGW1105	GWGW1137	GWGW1152	GWGW1153	GWGW1174	GWGW1191	GWGW0994	GWGW1004
		Date	07/05/00	08/01/00	09/07/00	10/03/00	10/03/00	11/06/00	12/05/00	01/05/00	02/02/00
		QA					DUPLICATE				
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**22.8**	**24.5**	**25.3**	**22.8**	**23.4**	**21.9**	**22**	<15.9 |Up	**13.8**
CHROMIUM, HEXAVALENT	10	ug/L	--	--	--	--	--	--	--	**15**	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037
		Sample ID	GWGW1028	GWGW1029	GWGW1040	GWGW1064	GWGW1082	GWGW1093	GWGW1112	GWGW1138	GWGW1154
		Date	03/02/00	03/02/00	04/03/00	05/03/00	06/07/00	07/05/00	08/01/00	09/07/00	10/04/00
		QA		DUPLICATE							
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**14.4**	**13.8**	**12.5**	**9.18** B|	**8.690** B|	**8.470** B|	**21.3**	**8.73** B|	**8.02** B|
CHROMIUM, HEXAVALENT	10	ug/L	**15**	**12**	**12**	<17 |Uo	**4** J|	--	--	--	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-037	UCD2-037	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038
		Sample ID	GWGW1175	GWGW1192	GWGW0995	GWGW1005	GWGW1030	GWGW1041	GWGW1065	GWGW1083	GWGW1094
		Date	11/06/00	12/05/00	01/05/00	02/02/00	03/01/00	04/03/00	05/03/00	06/07/00	07/06/00
		QA									
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**9.5** B|	**9.08** B|	**27.0**	**24.3**	**23.7**	**25.5**	**20.1**	**12.3**	**8.950** B|
CHROMIUM, HEXAVALENT	10	ug/L	--	--	**25**	--	**18**	**24**	<28 |Uo	**13**	--
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Analyte	CRDL	Units	Location Sample ID Date QA	UCD2-038 GWGW1113 08/01/00	UCD2-038 GWGW1139 09/05/00	UCD2-038 GWGW1147 10/03/00	UCD2-038 GWGW1176 11/06/00	UCD2-038 GWGW1193 12/05/00	UCD2-039 GWGW0989 01/04/00	UCD2-039 GWGW1015 02/03/00	UCD2-039 GWGW1016 02/03/00 DUPLICATE	UCD2-039 GWGW1024 03/01/00
ANTIMONY	5	ug/L		--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L		--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L		--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L		--	--	--	--	--	--	--	--	--
BORON		ug/L		--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L		--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L		--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L		**8.98**	B| **24.1**	**18.1**	**23.1**	**18.1**	**28.6**	**26.7**	**25.6**	**24.0**
CHROMIUM, HEXAVALENT	10	ug/L		--	--	--	--	--	**24**	**25**	**25**	**23**
COBALT	10	ug/L		--	--	--	--	--	--	--	--	--
COPPER	10	ug/L		--	--	--	--	--	--	--	--	--
IRON	100	ug/L		--	--	--	--	--	--	--	--	--
LEAD	3	ug/L		--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L		--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L		--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L		--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L		--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L		--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L		--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L		--	--	--	--	--	--	--	--	--
SILVER	10	ug/L		--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L		--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L		--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L		--	--	--	--	--	--	--	--	--
ZINC	20	ug/L		--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039		UCD2-039		UCD2-039		UCD2-039	
		Sample ID	GWGW1035	GWGW1068	GWGW1078	GWGW1089	GWGW1104		GWGW1140		GWGW1155		GWGW1177	
		Date	04/03/00	05/04/00	06/06/00	07/06/00	08/01/00		09/07/00		10/04/00		11/06/00	
		QA												
Analyte	CRDL	Units												
ANTIMONY	5	ug/L	--	--	--	--	<0.683		<0.683		<0.683		<0.173	
ARSENIC	3	ug/L	--	--	--	--	**4.54**		**8.070**	E|Jk	**1.15**	B|	**6.55**	
BARIUM	20	ug/L	--	--	--	--	**173**		**185**		**178**		**172**	
BERYLLIUM	1	ug/L	--	--	--	--	<0.010		<0.010		<0.010		<0.010	
BORON		ug/L	--	--	--	--	**551**		**636**		**549**		**647**	
CADMIUM	1	ug/L	--	--	--	--	<0.130		<0.130		<0.130		<0.059	
CALCIUM	2000	ug/L	--	--	--	--	**41200**		**44000**		**40000**		**43500**	
CHROMIUM	10	ug/L	**25.6**	**27.5**	**26.0**	**23.5**	**29.7**		**30.5**		**27.8**		**28.3**	
CHROMIUM, HEXAVALENT	10	ug/L	**26**	**26.0**	**27**	--	--		--		--		--	
COBALT	10	ug/L	--	--	--	--	**0.028**	B|	**0.066**	B|	**0.038**	B|	<0.010	
COPPER	10	ug/L	--	--	--	--	**0.632**	B|	**0.572**	B|	**1.11**	B|	**0.76**	B|
IRON	100	ug/L	--	--	--	--	<3.12	N*|UJmd	**135**	N|JI	**36.0**	B|	<2.52	
LEAD	3	ug/L	--	--	--	--	<0.010		<0.010		<0.010		<0.014	
MAGNESIUM	2000	ug/L	--	--	--	--	**72700**		**76400**		**72200**		**78000**	
MANGANESE	10	ug/L	--	--	--	--	**0.866**	B|	<0.623	B|Up	**0.341**	B|	<0.020	
MERCURY	0.2	ug/L	--	--	--	--	<0.043		--		<0.043		<0.048	
MOLYBDENUM	10	ug/L	--	--	--	--	**2.04**	B|	**2.070**	B|	<2.16	B|Uo	<1.99	B|Uo
NICKEL	20	ug/L	--	--	--	--	**1.5**	BE|Jk	**2.250**	BE|	**2.82**	B|	**1.7**	B|
POTASSIUM	2000	ug/L	--	--	--	--	**743**	B|	**765**	B|	**707**	B|	**788**	B|
SELENIUM	3	ug/L	--	--	--	--	**1.88**	B|	**1.830**	B|	**2.32**	B|	**2.33**	B|
SILVER	10	ug/L	--	--	--	--	**0.167**	B|	<0.065	B|Uo	<0.041	B|Up	<0.030	
SODIUM	2000	ug/L	--	--	--	--	**39000**		**41200**		**37900**		**40500**	
THALLIUM	10	ug/L	--	--	--	--	**0.316**	B|	<0.026	N|UJIm	<0.159	BN|UJmo	**0.369**	BN|JmI
VANADIUM	10	ug/L	--	--	--	--	**5.56**	B|	<21.6	EN|UJkp	**10.0**		**13.4**	E|
ZINC	20	ug/L	--	--	--	--	**1.65**	B|	<1.280	B|Up	**5.83**	B|	**1.28**	BE|

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-039	UCD2-039	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040
		Sample ID	GWGW1194	GWGW1195	GWGW0990	GWGW1006	GWGW1025	GWGW1036	GWGW1037	GWGW1049	GWGW1079
		Date	12/05/00	12/05/00	01/04/00	02/01/00	03/01/00	04/03/00	04/03/00	05/01/00	06/06/00
		QA		DUPLICATE					DUPLICATE		
Analyte	CRDL	Units									
ANTIMONY	5	ug/L	--	--	--	--	--	--	--	--	--
ARSENIC	3	ug/L	--	--	--	--	--	--	--	--	--
BARIUM	20	ug/L	--	--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L	--	--	--	--	--	--	--	--	--
BORON		ug/L	--	--	--	--	--	--	--	--	--
CADMIUM	1	ug/L	--	--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L	**27.4**	**27.5**	**36.6**	**36.4**	**29.3**	**33**	**32.6**	**31.8**	**38.3**
CHROMIUM, HEXAVALENT	10	ug/L	--	--	**31**	--	**28**	**32**	**33**	**34**	**42**
COBALT	10	ug/L	--	--	--	--	--	--	--	--	--
COPPER	10	ug/L	--	--	--	--	--	--	--	--	--
IRON	100	ug/L	--	--	--	--	--	--	--	--	--
LEAD	3	ug/L	--	--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
MANGANESE	10	ug/L	--	--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L	--	--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L	--	--	--	--	--	--	--	--	--
NICKEL	20	ug/L	--	--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
SELENIUM	3	ug/L	--	--	--	--	--	--	--	--	--
SILVER	10	ug/L	--	--	--	--	--	--	--	--	--
SODIUM	2000	ug/L	--	--	--	--	--	--	--	--	--
THALLIUM	10	ug/L	--	--	--	--	--	--	--	--	--
VANADIUM	10	ug/L	--	--	--	--	--	--	--	--	--
ZINC	20	ug/L	--	--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-040	UCD2-040		UCD2-040		UCD2-040		UCD2-040		UCD2-040
		Sample ID	GWGW1090	GWGW1103		GWGW1133		GWGW1148		GWGW1178		GWGW1196
		Date	07/05/00	08/01/00		09/05/00		10/03/00		11/01/00		12/05/00
		QA										
Analyte	CRDL	Units										
ANTIMONY	5	ug/L	--	<0.683		<0.683		**4.51**	B|Jo	<0.549	BN|UJmlop	--
ARSENIC	3	ug/L	--	**3.82**		<0.850	B|Up	**1.46**	B|	**2.43**	B|	--
BARIUM	20	ug/L	--	**181**		**180**		**273**		**182**	BNE|Jk	--
BERYLLIUM	1	ug/L	--	<0.010		<0.010		<0.050		<0.100		--
BORON		ug/L	--	**579**		**577**		**530**		**593**		--
CADMIUM	1	ug/L	--	<0.130		<0.130		<0.130		<0.059		--
CALCIUM	2000	ug/L	--	**43200**		**38700**		**42100**		**45600**	E|Jk	--
CHROMIUM	10	ug/L	**45.8**	**54**		**38.6**		**53.2**		**35.2**		**36.1**
CHROMIUM, HEXAVALENT	10	ug/L	--	--		--		--		--		--
COBALT	10	ug/L	--	<0.010		<0.276	B|Uo	**0.29**	B|	<0.010		--
COPPER	10	ug/L	--	**0.615**	B|	<0.728	B|Up	**0.21**	B|	**18.9**	EN*|Jdkm	--
IRON	100	ug/L	--	<3.12	N*|UJmd	**241**	E|Jk	**272**	B|	**63.1**	B|	--
LEAD	3	ug/L	--	<0.010		<0.010		<0.010		**0.215**	B|	--
MAGNESIUM	2000	ug/L	--	**74500**		**67500**		**72500**		**72100**		--
MANGANESE	10	ug/L	--	**1.1**	B|	<1.310	B|Up	**0.782**	BE|Jk	**0.73**	B|	--
MERCURY	0.2	ug/L	--	<0.043		<0.043		<0.043		<0.048		--
MOLYBDENUM	10	ug/L	--	**1.59**	B|	**1.510**	B|	<1.43	B|Uo	**1.59**	B|	--
NICKEL	20	ug/L	--	**5.12**	BE|Jk	**2.600**	B|	**5.52**	BE|JI	**1.57**	B|	--
POTASSIUM	2000	ug/L	--	**796**	B|	**806**	B|	**838**	B|	**754**	B|	--
SELENIUM	3	ug/L	--	**4.77**		**3.320**		**4.47**		**2.56**	B|	--
SILVER	10	ug/L	--	**0.178**	B|	<0.014		<1.62	B|Uo	<0.295		--
SODIUM	2000	ug/L	--	**41200**		**45500**		**42500**		**41400**	E|Jk	--
THALLIUM	10	ug/L	--	**0.577**	B|	<0.026		<0.455	B|UJlp	<0.341	BN|UJmlo	--
VANADIUM	10	ug/L	--	**6.75**	B|	**8.930**	B|	**14.9**	E|Jk	**8.65**	B|	--
ZINC	20	ug/L	--	**1.51**	B|	<1.570	B|Up	**13.9**	B|	**5.95**	B|	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-045		UCD2-045		UCD2-045		UCD2-045		UCD2-046		UCD2-046		UCD2-046	
		Sample ID	GWGW1017		GWGW1070		GWGW1119		GWGW1179		GWGW1095		GWGW1120		GWGW1180	
		Date	02/07/00		05/04/00		08/07/00		11/07/00		07/06/00		08/07/00		11/07/00	
		QA														
Analyte	CRDL	Units														
ANTIMONY	5	ug/L	<0.683		**1.210**	B|	<3.41		<1.04	BN|UJmlop	<5.00		<3.41		<0.212	BN|UJmlop
ARSENIC	3	ug/L	**2.59**	B|	**1.880**	B|	**3.1**	B|	**2.38**	B|	**5.250**		**5.2**	B|	**3.09**	
BARIUM	20	ug/L	**135**		**311**		**193**		**166**		**101**		**114**		**104**	
BERYLLIUM	1	ug/L	<0.010		<1.00		<0.050		<0.050		<1.00		<0.050		<0.050	
BORON		ug/L	--		--		**585**		**830**	|JI	--		**1060**		**1180**	|JI
CADMIUM	1	ug/L	<0.130		<1.00		<0.650		<0.068	B|Uo	<1.00		<0.650		<0.059	
CALCIUM	2000	ug/L	**40300**		**43800**		**42700**		**48900**		**50000**		**50800**		**58200**	
CHROMIUM	10	ug/L	--		**22.1**		**32.1**	B|	**32.7**		--		**62.0**		**58.7**	
CHROMIUM, HEXAVALENT	10	ug/L	**15**		**22**		--		--		**58**		--		--	
COBALT	10	ug/L	<0.381	B|Uo	**0.311**	B|	<0.050		<0.349	B|Uo	**0.201**	B|	<0.050		<0.27	B|Uo
COPPER	10	ug/L	<0.074	B|Uo	<0.842	B|Up	<0.195		**1.31**	B|	**1.270**	B|	<0.195		**1.54**	B|
IRON	100	ug/L	**130**		**24.2**	BN|JI	**154**	B|	**55.4**	B|	<4.660	B*N|UJlomd	**200**	B|	**54**	B|
LEAD	3	ug/L	<0.010		<0.169	B|Up	<0.050		<0.070		**0.031**	B|	<0.050		<0.070	
MAGNESIUM	2000	ug/L	**70700**		**73100**		**73700**		**81600**		**84600**		**84800**		**98400**	
MANGANESE	10	ug/L	**18.3**	|Up	**0.882**	B|	**1.22**	B|	<0.896	B|Up	**3.170**	BE|	**1.85**	B|	<0.782	B|Uop
MERCURY	0.2	ug/L	<0.044		<0.200		<0.043		<0.048		--		<0.043		<0.048	
MOLYBDENUM	10	ug/L	**3.40**	B|	**2.220**	B|	**2.61**	B|	**2.01**	B|	**1.360**	B|Jk	<1.96		**1.23**	B|
NICKEL	20	ug/L	<2.390	B|Uo	**2.780**	B|	**2.89**	B|	**3.15**	B|	**1.920**	B|	**2.12**	B|	**1.82**	B|
POTASSIUM	2000	ug/L	**1930**	B|	**1170**		**969**	B|	**1080**	B|	**1060**	B|	**1030**	B|	**1170**	B|
SELENIUM	3	ug/L	**2.61**	B|	**3.300**		**4.48**	B|	**3.96**		**9.810**		**9.89**	B|	**10.3**	
SILVER	10	ug/L	<0.042	B|Uop	<0.158	B|Uop	<0.067		<0.83	B|Uop	<0.269	B|Uo	<0.067		<0.71	B|Uop
SODIUM	2000	ug/L	**55700**		**44000**		**48400**		**49800**		**76300**		**74800**		**79100**	
THALLIUM	10	ug/L	<0.220	B|Uo	<0.611	B|Uop	**1.44**	B|	<0.093	N|UJmlo	<0.444	B|Uo	**0.49**	B|	<0.20	BN|UJmlo
VANADIUM	10	ug/L	**12.7**	|Up	**11.8**	E|Jk	**10**	B|	**9.07**	B|	**13.0**	E|Jk	**12.8**	B|	**9.54**	B|
ZINC	20	ug/L	**2.08**	B|	**44.2**		**1.72**	B|	**3.2**	B|	**4.630**	B|	**2.52**	B|	**3.48**	B|

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Analyte	CRDL	Units	Location Sample ID Date QA	UCD4-041 GWGW1001 02/01/00	UCD4-041 GWGW1050 05/01/00	UCD4-041 GWGW1106 08/03/00	UCD4-041 GWGW1181 11/06/00	UCD4-042 GWGW1018 02/07/00	UCD4-042 GWGW1071 05/02/00	UCD4-042 GWGW1114 08/03/00	UCD4-042 GWGW1182 11/06/00
ANTIMONY	5	ug/L		--	--	--	--	--	--	--	--
ARSENIC	3	ug/L		--	--	--	--	--	--	--	--
BARIUM	20	ug/L		--	--	--	--	--	--	--	--
BERYLLIUM	1	ug/L		--	--	--	--	--	--	--	--
BORON		ug/L		--	--	--	--	--	--	--	--
CADMIUM	1	ug/L		--	--	--	--	--	--	--	--
CALCIUM	2000	ug/L		--	--	--	--	--	--	--	--
CHROMIUM	10	ug/L		**21.6**	**19.4**	**21**	**21.5**	**24.9** B|	**28.6**	**35.4**	**27.9**
CHROMIUM, HEXAVALENT	10	ug/L		--	--	--	--	--	--	--	--
COBALT	10	ug/L		--	--	--	--	--	--	--	--
COPPER	10	ug/L		--	--	--	--	--	--	--	--
IRON	100	ug/L		--	--	--	--	--	--	--	--
LEAD	3	ug/L		--	--	--	--	--	--	--	--
MAGNESIUM	2000	ug/L		--	--	--	--	--	--	--	--
MANGANESE	10	ug/L		--	--	--	--	--	--	--	--
MERCURY	0.2	ug/L		--	--	--	--	--	--	--	--
MOLYBDENUM	10	ug/L		--	--	--	--	--	--	--	--
NICKEL	20	ug/L		--	--	--	--	--	--	--	--
POTASSIUM	2000	ug/L		--	--	--	--	--	--	--	--
SELENIUM	3	ug/L		--	--	--	--	--	--	--	--
SILVER	10	ug/L		--	--	--	--	--	--	--	--
SODIUM	2000	ug/L		--	--	--	--	--	--	--	--
THALLIUM	10	ug/L		--	--	--	--	--	--	--	--
VANADIUM	10	ug/L		--	--	--	--	--	--	--	--
ZINC	20	ug/L		--	--	--	--	--	--	--	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-043		UCD4-043	UCD4-043	UCD4-043	UCD4-044		UCD4-044		UCD4-044		UCD4-044
		Sample ID	GWGW1019		GWGW1072	GWGW1121	GWGW1183	GWGW1007		GWGW1057		GWGW1107		GWGW1184
		Date	02/07/00		05/04/00	08/03/00	11/07/00	02/02/00		05/02/00		08/01/00		11/02/00
		QA												
Analyte	CRDL	Units												
ANTIMONY	5	ug/L	--		--	--	--	**0.803**	B|	<0.138	B|Uop	<0.683		--
ARSENIC	3	ug/L	--		--	--	--	**4.00**		**2.160**	B|	**4.91**		--
BARIUM	20	ug/L	--		--	--	--	**127**		**124**		**121**		--
BERYLLIUM	1	ug/L	--		--	--	--	<0.046	B|Uo	<1.00		<0.010		--
BORON		ug/L	--		--	--	--	--		--		**514**		--
CADMIUM	1	ug/L	--		--	--	--	<0.130		<1.00		<0.130		--
CALCIUM	2000	ug/L	--		--	--	--	**30200**		**33700**		**32000**		--
CHROMIUM	10	ug/L	**26.5**	B|	**28.7**	**32.3**	**30.4**	--		**20.1**		**23.8**		**20.2**
CHROMIUM, HEXAVALENT	10	ug/L	--		--	--	--	**19**		**8.00**	J|	--		--
COBALT	10	ug/L	--		--	--	--	<0.139	B|Uo	**0.085**	B|	<0.010		--
COPPER	10	ug/L	--		--	--	--	<0.039		**0.562**	B|	**0.295**	B|	--
IRON	100	ug/L	--		--	--	--	**127**	EN|Jmk	**9.380**	B|	<1.56	N*|UJmd	--
LEAD	3	ug/L	--		--	--	--	<0.010		<3.00		<0.010		--
MAGNESIUM	2000	ug/L	--		--	--	--	**47400**		**53700**	|Jm	**50800**		--
MANGANESE	10	ug/L	--		--	--	--	**25**	E|Jk	**13.8**		**17.8**		--
MERCURY	0.2	ug/L	--		--	--	--	<0.044		<0.0200		<0.043		--
MOLYBDENUM	10	ug/L	--		--	--	--	**1.660**	B|	**1.700**	B|	**1.46**	B|	--
NICKEL	20	ug/L	--		--	--	--	<0.633	B|Uo	**1.330**	B|	**0.663**	BE|Jk	--
POTASSIUM	2000	ug/L	--		--	--	--	**935**	B|	**957**		**976**	B|	--
SELENIUM	3	ug/L	--		--	--	--	**2.71**	B|	<3.63	|Uop	**1.65**	B|	--
SILVER	10	ug/L	--		--	--	--	<0.105	B|Uop	<10.0	|UJl	**0.21**	B|	--
SODIUM	2000	ug/L	--		--	--	--	**42000**		**44100**		**43500**		--
THALLIUM	10	ug/L	--		--	--	--	<0.678	B|Uo	<10.0		<0.026		--
VANADIUM	10	ug/L	--		--	--	--	<13.8	E|UJpk	**9.890**	BE|Jk	**6.12**	B|	--
ZINC	20	ug/L	--		--	--	--	**13.8**	BE|Jk	**0.932**	B|	**0.645**	B|	--

APPENDIX B
METALS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-047		UCD4-047		UCD4-047	
		Sample ID	GWGW1096		GWGW1122		GWGW1185	
		Date	07/06/00		08/03/00		11/07/00	
		QA						
Analyte	CRDL	Units						
ANTIMONY	5	ug/L	<5.00		<0.683		<0.173	
ARSENIC	3	ug/L	**7.980**		**6.74**		**2.84**	B|
BARIUM	20	ug/L	**169**		**168**		**147**	
BERYLLIUM	1	ug/L	<1.00		<0.010		<0.050	
BORON		ug/L	--		**788**		**699**	|JI
CADMIUM	1	ug/L	<0.174	B|Uo	<0.130		<0.059	
CALCIUM	2000	ug/L	**36800**		**42000**		**42600**	
CHROMIUM	10	ug/L	--		**39.9**		**31.4**	
CHROMIUM, HEXAVALENT	10	ug/L	**34**		--		--	
COBALT	10	ug/L	**0.144**	B|	<0.010		<0.20	B|Uop
COPPER	10	ug/L	**0.951**	B|	**0.484**	B|	**1.09**	B|
IRON	100	ug/L	<1.560	*N|UJlomd	<13.6	BN|UJopm	**25.9**	B|
LEAD	3	ug/L	<3.00		<0.010		<0.070	
MAGNESIUM	2000	ug/L	**64800**		**71600**		**74600**	
MANGANESE	10	ug/L	<1.510	BE|UJpk	**1.57**	B|	<0.438	B|Uop
MERCURY	0.2	ug/L	--		<0.043		<0.048	
MOLYBDENUM	10	ug/L	**1.710**	B|	**1.68**	B|	**1.42**	B|
NICKEL	20	ug/L	**1.530**	B|	**0.735**	B|	**1.13**	B|
POTASSIUM	2000	ug/L	**3930**		**3610**		**3230**	
SELENIUM	3	ug/L	**4.360**		**4.27**		**4.2**	
SILVER	10	ug/L	<0.248	B|Uo	<0.199	B|UJop	<0.673	B|Uop
SODIUM	2000	ug/L	**57000**		**62200**		**59100**	
THALLIUM	10	ug/L	<0.715	B|Uo	**0.409**	B|	<0.093	N|UJmlo
VANADIUM	10	ug/L	**14.0**	E|Jk	**16.7**	E|Jk	**8.67**	B|
ZINC	20	ug/L	**4.120**	B|	<0.142		**2.47**	B|

APPENDIX B
GENERAL CHEMISTRY - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-010	UCD1-011	UCD1-011	UCD1-011	UCD1-011	UCD1-011	UCD1-012	UCD1-013
		Sample ID	GWGW1066	GWGW1067	GWGW1123	GWGW1134	GWGW1149	GWGW1156	GWGW1051	GWGW1052
		Date	05/04/00	05/04/00	08/01/00	09/07/00	10/04/00	11/06/00	05/01/00	05/01/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	**566** |Jh	**778**	**551**	**541**	--	--
NITROGEN, NITRATE	0.1	mg/L	**34.7**	**16.8**	**15.1**	**17.0**	**17.2**	**16.5**	**86.8**	**11.9**
TOTAL DISSOLVED SOLIDS	20	mg/L	**1490**	**755**	**736**	**779**	**720**	**756**	**1710**	**968**
TOTAL ORGANIC CARBON	1.00	mg/L	--	--	**1.44**	**1.52**	**1.68**	**0.957** J|	--	--

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		Location	UCD1-013	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-025
		Sample ID	GWGW1053	GWGW1058	GWGW1059	GWGW1124	GWGW1135	GWGW1150	GWGW1157	GWGW1125
		Date	05/01/00	05/03/00	05/03/00	08/02/00	09/07/00	10/04/00	11/02/00	08/01/00
		QA	DUPLICATE		DUPLICATE					
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	**378**	**393**	**160**	**367**	**523** |Jh
NITROGEN, NITRATE	0.1	mg/L	**12.0**	**4.79**	**4.59**	**9.29**	**7.78**	**5.29**	**5.14**	**24.8**
TOTAL DISSOLVED SOLIDS	20	mg/L	**999**	**478**	**472**	**515**	**2450**	**506**	**476**	**786**
TOTAL ORGANIC CARBON	1.00	mg/L	--	--	--	**1.38**	**1.21**	**2.29**	**1.67**	**1.19**

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		Location	UCD1-025	UCD1-025	UCD1-025	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028
		Sample ID	GWGW1126	GWGW1141	GWGW1158	GWGW0985	GWGW0996	GWGW0997	GWGW1020	GWGW1031
		Date	09/05/00	10/03/00	11/01/00	01/04/00	02/01/00	02/01/00	03/01/00	04/03/00
		QA						DUPLICATE		
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	**588**	**552**	**553**	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**25.0**	**25.9**	**24.4**	**48.0**	**46.1**	**46.9** |Jh	**49.3**	**52.4**
TOTAL DISSOLVED SOLIDS	20	mg/L	**842**	**819**	**842**	**1074**	**1090**	**1060**	**1100**	**1110**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.30**	**1.18**	**1.30**	**8.26**	**17.5**	**22.1**	**10.6**	**21.1**

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		Location	UCD1-028		UCD1-028		UCD1-028		UCD1-028		UCD1-028		UCD1-028		UCD1-028		UCD1-028	
		Sample ID	GWGW1043		GWGW1073		GWGW1084		GWGW1097		GWGW1127		GWGW1142		GWGW1159		GWGW1186	
		Date	05/01/00		06/06/00		07/05/00		08/01/00		09/05/00		10/03/00		11/01/00		12/05/00	
		QA																
Analyte	CRDL	Units																
ALKALINITY, TOTAL AS CACO3	10	mg/L	--		--		--		**699**	|Jh	**729**		**727**		**706**		--	
NITROGEN, NITRATE	0.1	mg/L	**48.2**		**47.0**		**49.9**		**43.8**		**47.8**		**50.0**		**53.4**		**52.5**	
TOTAL DISSOLVED SOLIDS	20	mg/L	**1070**		**1080**		**1090**		**1070**		**1230**		**1120**		**1130**		**1130**	
TOTAL ORGANIC CARBON	1.00	mg/L	**11.9**	|Jm	**1.71**		**1.43**	|Jd	**1.16**		**2.02**		**1.85**		**1.57**		**1.88**	|Jh

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		Location	UCD2-007	UCD2-007	UCD2-007	UCD2-007	UCD2-014	UCD2-014	UCD2-014	UCD2-014
		Sample ID	GWGW1008	GWGW1054	GWGW1108	GWGW1160	GWGW1009	GWGW1055	GWGW1115	GWGW1116
		Date	02/02/00	05/01/00	08/02/00	11/02/00	02/03/00	05/01/00	08/07/00	08/07/00
		QA								DUPLICATE
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**14.7**	**14.9**	**19.7**	**14.6**	**8.66**	**9.56**	**9.65**	**9.61**
TOTAL DISSOLVED SOLIDS	20	mg/L	**584**	**575**	**652**	**614**	**861**	**889**	**910**	**866**
TOTAL ORGANIC CARBON	1.00	mg/L	**13.8**	**5.11** |Jm	--	**0.822** J|	**7.18**	**1.72** |Jm	**2.02**	**2.10**

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		Location	UCD2-014	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-016	UCD2-016
		Sample ID	GWGW1161	GWGW1010	GWGW1056	GWGW1117	GWGW1162	GWGW1163	GWGW1011	GWGW1060
		Date	11/07/00	02/03/00	05/03/00	08/02/00	11/02/00	11/02/00	02/03/00	05/03/00
		QA						DUPLICATE		
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**7.06**	**8.8**	**9.29**	**9.99**	**10.0**	**9.86**	**4.51**	**5.41**
TOTAL DISSOLVED SOLIDS	20	mg/L	**631**	**486**	**491**	**504**	**518**	**523**	**484**	**502**
TOTAL ORGANIC CARBON	1.00	mg/L	**0.460** J|	**3.06**	<1.00	**1.01**	**0.756** J|	**0.856** J|	**10.7**	**1.50**

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		Location	UCD2-016	UCD2-016	UCD2-016	UCD2-017	UCD2-017	UCD2-017	UCD2-017	UCD2-026
		Sample ID	GWGW1109	GWGW1164	GWGW1165	GWGW1012	GWGW1061	GWGW1110	GWGW1166	GWGW0998
		Date	08/02/00	11/02/00	11/02/00	02/03/00	05/03/00	08/02/00	11/02/00	02/01/00
		QA			DUPLICATE					
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**8.70**	**6.24**	**5.94**	**2.87**	**3.09**	**2.06**	**3.04**	**5.94**
TOTAL DISSOLVED SOLIDS	20	mg/L	**563**	**535**	**529**	**468**	**449**	**444**	**476**	**479**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.06**	**0.839** J|	**0.752** J|	**11**	**1.78**	**1.29**	**1.09**	**13.9**

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		Location	UCD2-026		UCD2-026		UCD2-026		UCD2-026		UCD2-026		UCD2-029		UCD2-029	
		Sample ID	GWGW1044		GWGW1045		GWGW1098		GWGW1128		GWGW1143		GWGW1167		GWGW0986		GWGW0999	
		Date	05/01/00		05/01/00		08/01/00		09/05/00		10/03/00		11/02/00		01/04/00		02/01/00	
		QA			DUPLICATE													
Analyte	CRDL	Units																
ALKALINITY, TOTAL AS CACO3	10	mg/L	--		--		**347**	|Jh	**367**		**365**		**362**		--		--	
NITROGEN, NITRATE	0.1	mg/L	**9.89**		**9.71**		**8.26**		**8.36**		**7.69**		**7.61**		**9.79**		**10.3**	|Jh
TOTAL DISSOLVED SOLIDS	20	mg/L	**533**		**544**		**503**		**639**		**477**		**500**		**543**		**537**	
TOTAL ORGANIC CARBON	1.00	mg/L	**3.37**	|Jmf	<1.00	|UJmf	**1.02**		**1.51**		**0.910**	J|	**1.00**		**3.87**		**5.71**	

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		Location	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029
		Sample ID	GWGW1021	GWGW1032	GWGW1046	GWGW1074	GWGW1075	GWGW1085	GWGW1099	GWGW1129
		Date	03/01/00	04/03/00	05/01/00	06/06/00	06/06/00	07/05/00	08/01/00	09/05/00
		QA					DUPLICATE			
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	**568** |Jh	**417**
NITROGEN, NITRATE	0.1	mg/L	**9.56**	**10.2**	**11.0**	**13.7**	**13.8**	**15.2**	**13.9**	**13.8**
TOTAL DISSOLVED SOLIDS	20	mg/L	**528**	**531**	**531**	**574**	**539**	**592**	**590**	**601**
TOTAL ORGANIC CARBON	1.00	mg/L	**14.7**	**8.92**	**3.93** |Jm	**0.966** J|	**1.27**	**1.71** |Jd	**1.38**	**1.54**

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		Location	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-030	UCD2-030	UCD2-030	UCD2-030
		Sample ID	GWGW1130	GWGW1144	GWGW1168	GWGW1187	GWGW0987	GWGW1000	GWGW1022	GWGW1033
		Date	09/05/00	10/03/00	11/01/00	12/05/00	01/04/00	02/01/00	03/01/00	04/03/00
		QA	DUPLICATE							
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	**404**	**399**	**389**	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**13.6**	**14.3**	**12.8**	**13.3**	**5.42**	**6.21**	**5.68**	**6.63**
TOTAL DISSOLVED SOLIDS	20	mg/L	**630**	**639**	**584**	**595**	**490**	**508**	**507**	**484**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.17**	**0.865** J|	**1.71**	**1.64** |Jh	**8.47**	**6.84**	**12.6**	**22.8**

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		Location	UCD2-030		UCD2-030		UCD2-030		UCD2-030		UCD2-030		UCD2-030		UCD2-030		UCD2-030		UCD2-030	
		Sample ID	GWGW1047		GWGW1076		GWGW1086		GWGW1100		GWGW1101		GWGW1131		GWGW1145		GWGW1169		GWGW1188	
		Date	05/01/00		06/06/00		07/05/00		08/01/00		08/01/00		09/05/00		10/03/00		11/01/00		12/05/00	
		QA									DUPLICATE									
Analyte	CRDL	Units																		
ALKALINITY, TOTAL AS CACO3	10	mg/L	--		--		--		--		--		--		--		--		--	
NITROGEN, NITRATE	0.1	mg/L	**6.90**		**7.10**		**7.18**		**7.06**		**6.78**		**8.22**		**8.21**		**8.17**		**8.73**	
TOTAL DISSOLVED SOLIDS	20	mg/L	**464**		**478**		**487**		**496**		**494**		**541**		**524**		**519**		**521**	
TOTAL ORGANIC CARBON	1.00	mg/L	**3.10**	|Jm	**0.986**	J|	**1.19**	|Jd	**0.807**	J|	**0.929**	J|	**0.891**	J|	**0.962**	J|	**0.967**	J|	**0.967**	J|Jh

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		Location	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031
		Sample ID	GWGW0988	GWGW1002	GWGW1023	GWGW1034	GWGW1048	GWGW1077	GWGW1087	GWGW1088
		Date	01/04/00	02/01/00	03/01/00	04/03/00	05/01/00	06/06/00	07/05/00	07/05/00
		QA								DUPLICATE
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**5.35**	**5.21**	**5.60**	**5.33**	**4.81**	**5.48**	**6.34**	**6.43**
TOTAL DISSOLVED SOLIDS	20	mg/L	**492**	**480**	**490**	**455**	**472**	**477**	**470**	**471**
TOTAL ORGANIC CARBON	1.00	mg/L	**13.7**	**14.2**	**9.70**	**18.1**	**8.21** |Jm	**1.41**	**0.846** J|Jd	**0.852** J|Jd

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		Location	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-032	UCD2-032	UCD2-032
		Sample ID	GWGW1102	GWGW1132	GWGW1146	GWGW1170	GWGW1189	GWGW1014	GWGW1069	GWGW1118
		Date	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00	02/07/00	05/04/00	08/07/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**5.25**	**5.22**	**5.28**	**5.78**	**6.01**	**6.55**	**7.92**	**6.58**
TOTAL DISSOLVED SOLIDS	20	mg/L	**461**	**491**	**481**	**500**	**502**	**488**	**529**	**507**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.42**	**0.942** J|	**0.947** J|	**1.09**	**1.24** |Jh	**10.4**	**1.92**	**1.66**

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		Location	UCD2-032	UCD2-032	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035
		Sample ID	GWGW1171	GWGW1172	GWGW0991	GWGW0992	GWGW1013	GWGW1026	GWGW1038	GWGW1062
		Date	11/07/00	11/07/00	01/05/00	01/05/00	02/02/00	03/01/00	04/03/00	05/04/00
		QA		DUPLICATE		DUPLICATE				
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**6.08**	**6.11**	**5.85**	**5.51**	**6.62**	**6.57**	**7.43**	**7.72**
TOTAL DISSOLVED SOLIDS	20	mg/L	**501**	**465**	**449**	**471**	**453**	**481**	**475**	**501**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.35**	**1.51**	<1.77 |Rf	<9.59 |Rf	**14.4**	**19.4**	**12.9**	**1.54**

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		Location	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-036	UCD2-036
		Sample ID	GWGW1080	GWGW1091	GWGW1111	GWGW1136	GWGW1173	GWGW1190	GWGW0993	GWGW1003
		Date	06/07/00	07/06/00	08/02/00	09/07/00	11/06/00	12/05/00	01/05/00	02/02/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**6.48**	**4.41**	**2.75**	**4.00**	**6.70**	**6.85**	**5.35**	**4.58**
TOTAL DISSOLVED SOLIDS	20	mg/L	**467**	**464**	**435**	**447**	**470**	**488**	**466**	**476**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.82** |Jd	**7.38**	**1.87**	**1.05**	**0.828** J|	**1.07** |Jh	**5.41**	**15.8**

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		Location	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036
		Sample ID	GWGW1027	GWGW1039	GWGW1063	GWGW1081	GWGW1092	GWGW1105	GWGW1137	GWGW1152
		Date	03/02/00	04/03/00	05/03/00	06/06/00	07/05/00	08/01/00	09/07/00	10/03/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**3.78**	**3.28**	**4.67**	**6.87**	**7.70**	**7.86**	**8.48**	**6.86**
TOTAL DISSOLVED SOLIDS	20	mg/L	**482**	**452**	**467**	**490**	**533**	**534**	**550**	**523**
TOTAL ORGANIC CARBON	1.00	mg/L	**6.78**	**18.0**	**2.75**	**2.14**	**1.08** |Jd	**1.41**	**1.31**	**0.801** J|

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		Location	UCD2-036	UCD2-036	UCD2-036	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037
		Sample ID	GWGW1153	GWGW1174	GWGW1191	GWGW0994	GWGW1004	GWGW1028	GWGW1029	GWGW1040
		Date	10/03/00	11/06/00	12/05/00	01/05/00	02/02/00	03/02/00	03/02/00	04/03/00
		QA	DUPLICATE						DUPLICATE	
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**7.33**	**4.63**	**5.91**	**4.56**	**5.15**	**4.32**	**4.21**	**3.68**
TOTAL DISSOLVED SOLIDS	20	mg/L	**542**	**513**	**522**	**454**	**449**	**439**	**452**	**439**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.03**	**0.708** J|	**1.22** |Jh	**2.64**	**20.9**	**8.53**	**6.99**	**9.51**

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		Location	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037
		Sample ID	GWGW1064	GWGW1082	GWGW1093	GWGW1112	GWGW1138	GWGW1154	GWGW1175	GWGW1192
		Date	05/03/00	06/07/00	07/05/00	08/01/00	09/07/00	10/04/00	11/06/00	12/05/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**2.63**	**2.41**	**2.06**	**2.28**	**2.46**	**2.03**	**2.06**	**2.09**
TOTAL DISSOLVED SOLIDS	20	mg/L	**429**	**428**	**439**	**433**	**436**	**465**	**445**	**449**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.66**	**0.976** J|Jd	**1.22** |Jd	**0.936** J|	**1.02**	**1.40**	**0.818** J|	**1.05** |Jh

APPENDIX B
GENERAL CHEMISTRY - GROUNDWATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-038
		Sample ID	GWGW0995	GWGW1005	GWGW1030	GWGW1041	GWGW1065	GWGW1083	GWGW1094	GWGW1113
		Date	01/05/00	02/02/00	03/01/00	04/03/00	05/03/00	06/07/00	07/06/00	08/01/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**7.51**	**8.95**	**8.66**	**9.18**	**5.89**	**3.05**	**1.80**	**6.91**
TOTAL DISSOLVED SOLIDS	20	mg/L	**478**	**470**	**482**	**483**	**455**	**439**	**431**	**467**
TOTAL ORGANIC CARBON	1.00	mg/L	**9.99**	**9.46**	**7.91**	**4.83**	**5.15**	**1.07** |Jd	**1.72**	**1.14**

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-038	UCD2-038	UCD2-038	UCD2-038	UCD2-039	UCD2-039	UCD2-039	UCD2-039
		Sample ID	GWGW1139	GWGW1147	GWGW1176	GWGW1193	GWGW0989	GWGW1015	GWGW1016	GWGW1024
		Date	09/05/00	10/03/00	11/06/00	12/05/00	01/04/00	02/03/00	02/03/00	03/01/00
		QA							DUPLICATE	
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**9.58**	**5.28**	**7.63**	**5.42**	**8.2**	**7.95**	**8.48**	**8.87**
TOTAL DISSOLVED SOLIDS	20	mg/L	**532**	**467**	**482**	**479**	**514**	**515**	**516**	**510**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.19**	**0.952** J|	**0.304** J|	**1.12** |Jh	**6.6**	**11.8**	**12.6**	**4.21**

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039
		Sample ID	GWGW1035	GWGW1068	GWGW1078	GWGW1089	GWGW1104	GWGW1140	GWGW1155	GWGW1177
		Date	04/03/00	05/04/00	06/06/00	07/06/00	08/01/00	09/07/00	10/04/00	11/06/00
		QA								
Analyte	CRDL	Units								
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	**338** |Jh	**566**	**338**	**361**
NITROGEN, NITRATE	0.1	mg/L	**9.18**	**9.13**	**8.07**	**8.91**	**8.29**	**9.76**	**9.60**	**9.52**
TOTAL DISSOLVED SOLIDS	20	mg/L	**514**	**527**	**528**	**518**	**494**	**526**	**536**	**532**
TOTAL ORGANIC CARBON	1.00	mg/L	**20.0**	**0.764** J|	**2.91**	**1.33**	**1.10**	**1.10**	**0.882** J|	**0.763** J|

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-039		UCD2-039		UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040		UCD2-040	
		Sample ID	GWGW1194		GWGW1195		GWGW0990	GWGW1006	GWGW1025	GWGW1036	GWGW1037		GWGW1049	
		Date	12/05/00		12/05/00		01/04/00	02/01/00	03/01/00	04/03/00	04/03/00		05/01/00	
		QA			DUPLICATE						DUPLICATE			
Analyte	CRDL	Units												
ALKALINITY, TOTAL AS CACO3	10	mg/L	--		--		--	--	--	--	--		--	
NITROGEN, NITRATE	0.1	mg/L	**9.74**		**9.73**		**6.95**	**7.32**	**7.19**	**7.73**	**7.98**		**7.51**	
TOTAL DISSOLVED SOLIDS	20	mg/L	**524**		**534**		**501**	**502**	**492**	**520**	**543**		**513**	
TOTAL ORGANIC CARBON	1.00	mg/L	**1.04**	|Jh	**1.04**	|Jh	**14.6**	**12.6**	**6.89**	**7.42**	**15.7**	|Jf	**2.58**	|Jm

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040
		Sample ID	GWGW1079	GWGW1090	GWGW1103	GWGW1133	GWGW1148	GWGW1178	GWGW1196
		Date	06/06/00	07/05/00	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00
		QA							
Analyte	CRDL	Units							
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	**561** |Jh	**381**	**377**	**370**	--
NITROGEN, NITRATE	0.1	mg/L	**8.44**	**2.20**	**9.99**	**8.36**	**8.21**	**7.74**	**8.03**
TOTAL DISSOLVED SOLIDS	20	mg/L	**518**	**526**	**545**	**527**	**543**	**527**	**532**
TOTAL ORGANIC CARBON	1.00	mg/L	**1.34**	**1.59** |Jd	**1.41**	**0.881** J|	**0.827** J|	**0.884** J|	**1.18** |Jh

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Analyte	CRDL	Units	Location Sample ID Date QA	UCD2-045 GWGW1017 02/07/00	UCD2-045 GWGW1070 05/04/00	UCD2-045 GWGW1119 08/07/00	UCD2-045 GWGW1179 11/07/00	UCD2-046 GWGW1095 07/06/00	UCD2-046 GWGW1120 08/07/00	UCD2-046 GWGW1180 11/07/00
ALKALINITY, TOTAL AS CACO3	10	mg/L		**374**	**349**	**370**	**400**	**450**	**474**	**711**
CHLORIDES	1	mg/L		**29.4**	**27.6**	**28.2**	**26.8**	**23.0**	**23.6**	**21.0**
HARDNESS	2	mg/L		**349**	**402**	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L		**4.59**	**4.86**	**7.47**	**6.22**	**10.3**	**10.4**	**8.78**
SULFATE AS SO4	1	mg/L		**47.7**	**44.8**	**46.0**	**47.6**	**56.1**	**57.4**	**56.1**
TOTAL DISSOLVED SOLIDS	20	mg/L		**523**	**524**	**530**	**540**	**696**	**691**	**717**
TOTAL ORGANIC CARBON	1.00	mg/L		**14.5**	**0.787** J|	**1.75**	**0.510** J|	**1.72**	**1.94**	**0.781** J|

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		Location	UCD4-041	UCD4-041	UCD4-041	UCD4-041	UCD4-042	UCD4-042	UCD4-042
		Sample ID	GWGW1001	GWGW1050	GWGW1106	GWGW1181	GWGW1018	GWGW1071	GWGW1114
		Date	02/01/00	05/01/00	08/03/00	11/06/00	02/07/00	05/02/00	08/03/00
		QA							
Analyte	CRDL	Units							
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	--	--
CHLORIDES	1	mg/L	--	--	--	--	--	--	--
HARDNESS	2	mg/L	--	--	--	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**1.96**	**2.01**	**1.93**	**2.04**	**2.2**	--	**2.32**
SULFATE AS SO4	1	mg/L	--	--	--	--	--	--	--
TOTAL DISSOLVED SOLIDS	20	mg/L	**406**	**394**	**406**	**398**	**419**	**530**	**437**
TOTAL ORGANIC CARBON	1.00	mg/L	**7.18**	--	--	--	--	--	--

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GENERAL CHEMISTRY - GROUNDWATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-042	UCD4-043	UCD4-043	UCD4-043	UCD4-043	UCD4-044	UCD4-044	UCD4-044	
		Sample ID	GWGW1182	GWGW1019	GWGW1072	GWGW1121	GWGW1183	GWGW1007	GWGW1057	GWGW1107	
		Date	11/06/00	02/07/00	05/04/00	08/03/00	11/07/00	02/02/00	05/02/00	08/01/00	
		QA									
Analyte	CRDL	Units									
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	--	--	--	--	**294**	**291**	**300**	|Jh
CHLORIDES	1	mg/L	--	--	--	--	--	**17.9**	**17.7**	**15.6**	
HARDNESS	2	mg/L	--	--	--	--	--	**264**	**304**	--	
NITROGEN, NITRATE	0.1	mg/L	**2.04**	**2.26**	**3.01**	**2.17**	**1.97**	**1.9**	**1.93**	**1.63**	
SULFATE AS SO4	1	mg/L	--	--	--	--	--	**32.1**	**31.1**	**27.2**	
TOTAL DISSOLVED SOLIDS	20	mg/L	**442**	**424**	**446**	**426**	**418**	**400**	**392**	**403**	
TOTAL ORGANIC CARBON	1.00	mg/L	--	--	--	--	--	**6.61**	**1.72**	**0.839**	J|

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD4-044	UCD4-047	UCD4-047	UCD4-047
		Sample ID	GWGW1184	GWGW1096	GWGW1122	GWGW1185
		Date	11/02/00	07/06/00	08/03/00	11/07/00
		QA				
Analyte	CRDL	Units				
ALKALINITY, TOTAL AS CACO3	10	mg/L	--	**360**	**385** |Jh	**389**
CHLORIDES	1	mg/L	--	**23.1**	**25.4**	**23.9**
HARDNESS	2	mg/L	--	--	--	--
NITROGEN, NITRATE	0.1	mg/L	**1.82**	**5.97**	**6.73**	**5.54**
SULFATE AS SO4	1	mg/L	--	**44.4**	**45.9**	**40.9**
TOTAL DISSOLVED SOLIDS	20	mg/L	**407**	**516**	**549**	**536**
TOTAL ORGANIC CARBON	1.00	mg/L	--	**0.955** J|	**0.911** J|	**0.381** J|

APPENDIX B
PESTICIDES/PCBS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Analyte	CRDL	Location Sample ID Date QA Units	UCD2-045 GWGW1017 02/07/00	UCD2-045 GWGW1070 05/04/00	UCD2-045 GWGW1119 08/07/00	UCD2-045 GWGW1179 11/07/00	UCD2-046 GWGW1095 07/06/00	UCD2-046 GWGW1120 08/07/00	UCD2-046 GWGW1180 11/07/00	UCD4-044 GWGW1007 02/02/00
4,4'-DDD	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	<0.019	<0.019	<0.0040	<0.020
4,4'-DDE	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	<0.019	<0.019	<0.0040	<0.020
4,4'-DDT	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	**0.0050** J|	<0.019	<0.0040	<0.020
ALDRIN	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010 |UJc
ALPHA-BHC	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
ALPHA-CHLORDANE	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
AROCLOR-1016	0.2	ug/L	<0.19 |UJs	<0.20 |UJv	<0.19 |UJc	<0.10	<0.19	<0.19 |UJc	<0.10	<0.20
AROCLOR-1221	0.4	ug/L	<0.39 |UJs	<0.40 |UJv	<0.39	<0.10	<0.39	<0.39	<0.10	<0.40
AROCLOR-1232	0.2	ug/L	<0.19 |UJs	<0.20 |UJv	<0.19	<0.10	<0.19	<0.19	<0.10	<0.20
AROCLOR-1242	0.2	ug/L	<0.19 |UJs	<0.20 |UJv	<0.19	<0.10	<0.19	<0.19	<0.10	<0.20
AROCLOR-1248	0.2	ug/L	<0.19 |UJs	<0.20 |UJv	<0.19	<0.10	<0.19	<0.19	<0.10	<0.20
AROCLOR-1254	0.2	ug/L	<0.19 |UJs	<0.20 |UJv	<0.19	<0.10	<0.19	<0.19	<0.10	<0.20
AROCLOR-1260	0.2	ug/L	<0.19 |UJs	<0.20 |UJv	<0.19	<0.10	<0.19	<0.19	<0.10	<0.20
BETA-BHC	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
DELTA-BHC	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010 |UJc
DIELDRIN	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	<0.019	<0.019	<0.0040	<0.020
ENDOSULFAN I	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097 |UJl	<0.0097	<0.0020	<0.010
ENDOSULFAN II	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	<0.019 |UJl	<0.019	<0.0040	<0.020
ENDOSULFAN SULFATE	0.02	ug/L	<0.019 |UJs	<0.020 |UJvl	<0.019	<0.0040	<0.019	<0.019	<0.0040	<0.020
ENDRIN	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	<0.019	<0.019	<0.0040	<0.020 |UJc
ENDRIN ALDEHYDE	0.02	ug/L	<0.019 |UJs	<0.020 |UJvl	<0.019	<0.0040	**0.0022** JP|Jq	<0.019	<0.0040	<0.020
ENDRIN KETONE	0.02	ug/L	<0.019 |UJs	<0.020 |UJv	<0.019	<0.0040	<0.019	<0.019	<0.0040	<0.020
GAMMA-BHC	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	**0.0021** J|	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
GAMMA-CHLORDANE	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
HEPTACHLOR	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
HEPTACHLOR EPOXIDE	0.01	ug/L	<0.0097 |UJs	<0.010 |UJv	<0.0097	<0.0020	<0.0097	<0.0097	<0.0020	<0.010
METHOXYCHLOR	0.1	ug/L	<0.097 |UJs	<0.10 |UJvc	<0.097	<0.020	<0.097	<0.097	<0.020	<0.10
TOXAPHENE	1.0	ug/L	<0.97 |UJs	<1.0 |UJv	<0.97	<0.20	<0.97	<0.97	<0.20	<1.0

APPENDIX B
PESTICIDES/PCBS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-044		UCD4-044	UCD4-047		UCD4-047	UCD4-047
		Sample ID	GWGW1057		GWGW1107	GWGW1096		GWGW1122	GWGW1185
		Date	05/02/00		08/01/00	07/06/00		08/03/00	11/07/00
		QA							
Analyte	CRDL	Units							
4,4'-DDD	0.02	ug/L	<0.020	|UJv	<0.020	<0.019		<0.020	<0.0040
4,4'-DDE	0.02	ug/L	<0.020	|UJv	<0.020	<0.019		<0.020	<0.0040
4,4'-DDT	0.02	ug/L	<0.020	|UJv	<0.020	<0.019		<0.020	<0.0040
ALDRIN	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
ALPHA-BHC	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
ALPHA-CHLORDANE	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
AROCLOR-1016	0.2	ug/L	<0.20	|UJv	<0.20	<0.19		<0.20	<0.10
AROCLOR-1221	0.4	ug/L	<0.40	|UJv	<0.40	<0.39		<0.40	<0.10
AROCLOR-1232	0.2	ug/L	<0.20	|UJv	<0.20	<0.19		<0.20	<0.10
AROCLOR-1242	0.2	ug/L	<0.20	|UJv	<0.20	<0.19		<0.20	<0.10
AROCLOR-1248	0.2	ug/L	<0.20	|UJv	<0.20	<0.19		<0.20	<0.10
AROCLOR-1254	0.2	ug/L	<0.20	|UJv	<0.20	<0.19		<0.20	<0.10
AROCLOR-1260	0.2	ug/L	<0.20	|UJv	<0.20	<0.19		<0.20	<0.10
BETA-BHC	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
DELTA-BHC	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
DIELDRIN	0.02	ug/L	<0.020	|UJv	<0.020	<0.019		<0.020	<0.0040
ENDOSULFAN I	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097	|UJl	<0.010	<0.0020
ENDOSULFAN II	0.02	ug/L	<0.020	|UJv	<0.020	<0.019	|UJl	<0.020	<0.0040
ENDOSULFAN SULFATE	0.02	ug/L	<0.020	|UJvl	<0.020	<0.019		<0.020	<0.0040
ENDRIN	0.02	ug/L	<0.020	|UJv	<0.020	<0.019		<0.020	<0.0040
ENDRIN ALDEHYDE	0.02	ug/L	<0.020	|UJvl	<0.020	<0.019		<0.020	<0.0040
ENDRIN KETONE	0.02	ug/L	<0.020	|UJv	<0.020	<0.019		<0.020	<0.0040
GAMMA-BHC	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
GAMMA-CHLORDANE	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
HEPTACHLOR	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
HEPTACHLOR EPOXIDE	0.01	ug/L	<0.010	|UJv	<0.010	<0.0097		<0.010	<0.0020
METHOXYCHLOR	0.1	ug/L	<0.10	|UJvc	<0.10	<0.097		<0.10	<0.020
TOXAPHENE	1.0	ug/L	<1.0	|UJv	<1.0	<0.97		<1.0	<0.20

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		Location	UCD1-010	UCD1-011	UCD1-011	UCD1-011	UCD1-011	UCD1-011	UCD1-012	UCD1-013
		Sample ID	GWGW1066	GWGW1067	GWGW1123	GWGW1134	GWGW1149	GWGW1156	GWGW1051	GWGW1052
		Date	05/04/00	05/04/00	08/01/00	09/07/00	10/04/00	11/06/00	05/01/00	05/01/00
		QA								
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	**5.1**	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**31.7**	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**29.2**	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**12.3**	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<1.0 JB|UJclz	**34.1** |JI	<5.0	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	<0.50	**1.3**	**0.98**	**1.2**	**1.4**	**1.4**	**7950** D|	**0.70**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD1-010	UCD1-011	UCD1-011	UCD1-011	UCD1-011	UCD1-011	UCD1-012	UCD1-013
		Sample ID	GWGW1066	GWGW1067	GWGW1123	GWGW1134	GWGW1149	GWGW1156	GWGW1051	GWGW1052
		Date	05/04/00	05/04/00	08/01/00	09/07/00	10/04/00	11/06/00	05/01/00	05/01/00
		QA								
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.1 B|Uz	<1.0	<0.72 J|UJy|	<1.0	1	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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		Location	UCD1-013	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-025
		Sample ID	GWGW1053	GWGW1058	GWGW1059	GWGW1124	GWGW1135	GWGW1150	GWGW1157	GWGW1042
		Date	05/01/00	05/03/00	05/03/00	08/02/00	09/07/00	10/04/00	11/02/00	05/01/00
		QA	DUPLICATE		DUPLICATE					
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0	<5.0 |UJc	<5.0	<5.0	<5.6 B|Uyz	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**0.69**	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**2.5**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD1-013	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-018	UCD1-025
		Sample ID	GWGW1053	GWGW1058	GWGW1059	GWGW1124	GWGW1135	GWGW1150	GWGW1157	GWGW1042
		Date	05/01/00	05/03/00	05/03/00	08/02/00	09/07/00	10/04/00	11/02/00	05/01/00
		QA	DUPLICATE		DUPLICATE					
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<0.26 JB|Uz	<1.0	<0.78 J|UJyl	<1.0	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	--	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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		Location	UCD1-025		UCD1-025		UCD1-025		UCD1-025		UCD1-028		UCD1-028		UCD1-028		UCD1-028	
		Sample ID	GWGW1125		GWGW1126		GWGW1141		GWGW1158		GWGW0985		GWGW0996		GWGW0997		GWGW1020	
		Date	08/01/00		09/05/00		10/03/00		11/01/00		01/04/00		02/01/00		02/01/00		03/01/00	
		QA													DUPLICATE			
Analyte	CRDL	Units																
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	5.0	ug/L	<5.0	|UJc	<5.0		<5.0	|UJm	<5.0		<5.0	|UJm	<5.0		<5.0		<5.0	|UJm
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	|UJc
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJc
CHLOROFORM	0.50	ug/L	**3.3**		**3.0**		**2.9**		**3.0**		<0.50		<0.50		<0.50		<0.50	
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	

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		Location	UCD1-025		UCD1-025		UCD1-025		UCD1-025		UCD1-028	UCD1-028		UCD1-028		UCD1-028	
		Sample ID	GWGW1125		GWGW1126		GWGW1141		GWGW1158		GWGW0985	GWGW0996		GWGW0997		GWGW1020	
		Date	08/01/00		09/05/00		10/03/00		11/01/00		01/04/00	02/01/00		02/01/00		03/01/00	
		QA												DUPLICATE			
Analyte	CRDL	Units															
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
METHYLENE CHLORIDE	1.0	ug/L	<0.80	JB|Uz	<1.0		<1.4	|Uy	<0.26	JB|Uyz	<1.0	<1.0		<1.0		<9.1	B|UJzmc
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	<0.50	|UJh	<0.50	|UJh	<0.50	|UJh
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50	<0.50		<0.50		<0.50	
TOLUENE	0.50	ug/L	<0.50	|UJh	<0.50	|UJh	<0.50		<0.50		<0.50	<0.50	|UJh	<0.50	|UJh	<0.50	
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50	<0.50		<0.50		<0.50	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50	<0.50		<0.50	|UJh	<0.50	
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50	<0.50		<0.50		<0.50	
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50	<0.50		<0.50		<0.50	
XYLENES (TOTAL)	1.0	ug/L	<1.0	|UJh	<1.0		<1.0		<1.0		<1.0	<1.0	|UJh	<1.0	|UJh	<1.0	|UJh

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		Location	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028
		Sample ID	GWGW1031	GWGW1043	GWGW1073	GWGW1084	GWGW1097	GWGW1127	GWGW1142	GWGW1159	GWGW1186
		Date	04/03/00	05/01/00	06/06/00	07/05/00	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00
		QA									
Analyte	CRDL	Units									
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0 |UJm	<1.0 |UJm	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0 |UJm	<5.0 |UJm	<0.93 JB|UJclz	<5.0	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0 |UJc	<1.0 |UJc	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	**0.23** J|	<0.50	<0.50	**0.21** J|
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028	UCD1-028
		Sample ID	GWGW1031	GWGW1043	GWGW1073	GWGW1084	GWGW1097	GWGW1127	GWGW1142	GWGW1159	GWGW1186
		Date	04/03/00	05/01/00	06/06/00	07/05/00	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00
		QA									
Analyte	CRDL	Units									
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<0.62 JB|Uz	<1.0	<1.1 |Uy	<0.25 JB|Uyz	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50 |UJh	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-007	UCD2-007	UCD2-007	UCD2-007	UCD2-014	UCD2-014	UCD2-014	UCD2-014
		Sample ID	GWGW1008	GWGW1054	GWGW1108	GWGW1160	GWGW1009	GWGW1055	GWGW1115	GWGW1116
		Date	02/02/00	05/01/00	08/02/00	11/02/00	02/03/00	05/01/00	08/07/00	08/07/00
		QA								DUPLICATE
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0 |UJc	<5.0	<5.0	<5.0	<5.0 |UJc	<5.0 |UJc
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	<0.50	<0.50	**0.24** J|	**0.36** J|	**0.64**	0.70	**0.66**	**0.62**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-007	UCD2-007	UCD2-007	UCD2-007	UCD2-014	UCD2-014	UCD2-014	UCD2-014
		Sample ID	GWGW1008	GWGW1054	GWGW1108	GWGW1160	GWGW1009	GWGW1055	GWGW1115	GWGW1116
		Date	02/02/00	05/01/00	08/02/00	11/02/00	02/03/00	05/01/00	08/07/00	08/07/00
		QA								DUPLICATE
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<0.29 JB|Uz	<1.0	<1.0	<1.0	<0.47 JB|Uz	<0.28 JB|Uz
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	**0.52**	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0	<1.0	<1.0

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		Location	UCD2-014	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-016	UCD2-016
		Sample ID	GWGW1161	GWGW1010	GWGW1056	GWGW1117	GWGW1162	GWGW1163	GWGW1011	GWGW1060
		Date	11/07/00	02/03/00	05/03/00	08/02/00	11/02/00	11/02/00	02/03/00	05/03/00
		QA						DUPLICATE		
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0	<5.0 |UJc	<4.7 JB|Uyz	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**2.3**	<0.50	<0.50	<0.50	**0.32** J|	**0.31** J|	<0.50	<0.50
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-014	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-015	UCD2-016	UCD2-016
		Sample ID	GWGW1161	GWGW1010	GWGW1056	GWGW1117	GWGW1162	GWGW1163	GWGW1011	GWGW1060
		Date	11/07/00	02/03/00	05/03/00	08/02/00	11/02/00	11/02/00	02/03/00	05/03/00
		QA						DUPLICATE		
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<0.85 J|Uy	<1.0	<0.28 JB|Uz	<1.0	<1.0	<0.56 J|Uy	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0

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		Location	UCD2-016		UCD2-016		UCD2-016		UCD2-017		UCD2-017		UCD2-017		UCD2-017
		Sample ID	GWGW1109		GWGW1164		GWGW1165		GWGW1012		GWGW1061		GWGW1110		GWGW1166
		Date	08/02/00		11/02/00		11/02/00		02/03/00		05/03/00		08/02/00		11/02/00
		QA					DUPLICATE								
Analyte	CRDL	Units													
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0	|UJm	<1.0		<1.0		<1.0
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0	|UJm	<1.0		<1.0		<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
ACETONE	5.0	ug/L	<5.0	|UJc	<1.8	JB|Uyz	<2.5	JB|Uyz	<5.0	|UJm	<5.0		<5.0	|UJc	<5.0
BENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50	|UJm	<0.50		<0.50	|UJh	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50	|UJm	<0.50		<0.50		<0.50

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		Location	UCD2-016		UCD2-016	UCD2-016	UCD2-017		UCD2-017		UCD2-017		UCD2-017
		Sample ID	GWGW1109		GWGW1164	GWGW1165	GWGW1012		GWGW1061		GWGW1110		GWGW1166
		Date	08/02/00		11/02/00	11/02/00	02/03/00		05/03/00		08/02/00		11/02/00
		QA				DUPLICATE							
Analyte	CRDL	Units											
ETHYLBENZENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	UJh	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<0.23	JB|Uz	<1.0	<1.0	<0.65	J|Uy	<1.0		<0.21	JB|Uz	<1.0
STYRENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	UJh	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50
TOLUENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	UJh	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	UJh	<1.0

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Analyte	CRDL	Location Sample ID Date QA Units	UCD2-026 GWGW0998 02/01/00		UCD2-026 GWGW1044 05/01/00	UCD2-026 GWGW1045 05/01/00 DUPLICATE	UCD2-026 GWGW1098 08/01/00		UCD2-026 GWGW1128 09/05/00	UCD2-026 GWGW1143 10/03/00	UCD2-026 GWGW1167 11/02/00	UCD2-029 GWGW0986 01/04/00	
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<1.0	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<1.0	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	**0.67**	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	|UJh
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	**0.72**	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	**0.64**	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	|UJh
2-BUTANONE	1.0	ug/L	<1.0	|UJe	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
2-HEXANONE	1.0	ug/L	<1.0	|UJl	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0	<5.0	<5.0	|UJc	<5.0	<5.0	<5.0	<5.0	
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	|UJh
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	|UJh
CHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
CHLOROFORM	0.50	ug/L	**2.4**		**2.8**	**2.3**	**4.5**		**2.9**	**3.3**	**2.7**	**148**	D|
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	

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		Location	UCD2-026		UCD2-026	UCD2-026	UCD2-026		UCD2-026	UCD2-026		UCD2-026	UCD2-026		UCD2-029	
		Sample ID	GWGW0998		GWGW1044	GWGW1045	GWGW1098		GWGW1128	GWGW1143		GWGW1167	GWGW0986			
		Date	02/01/00		05/01/00	05/01/00	08/01/00		09/05/00	10/03/00		11/02/00	01/04/00			
		QA				DUPLICATE										
Analyte	CRDL	Units														
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	|UJh		
METHYLENE CHLORIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.1	B|Uz	<1.0	<0.94	J|Uy	<1.0	<1.0			
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	|UJh		
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50	<0.50			
TOLUENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	|UJh		
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50	<0.50			
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50	<0.50			
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50	<0.50			
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50	<0.50			
XYLENES (TOTAL)	1.0	ug/L	<1.0	|UJh	<1.0	<1.0	<1.0	|UJh	<1.0	<1.0		<1.0	<1.0	|UJh		

APPENDIX B
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		Location	UCD2-029		UCD2-029		UCD2-029		UCD2-029		UCD2-029		UCD2-029		UCD2-029		UCD2-029	
		Sample ID	GWGW0999		GWGW1021		GWGW1032		GWGW1046		GWGW1074		GWGW1075		GWGW1085		GWGW1099	
		Date	02/01/00		03/01/00		04/03/00		05/01/00		06/06/00		06/06/00		07/05/00		08/01/00	
		QA											DUPLICATE					
Analyte	CRDL	Units																
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		**0.22**	J|
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		**0.90**		**0.94**		**1.1**		**0.79**	
1,1-DICHLOROETHENE	0.50	ug/L	**0.58**		**0.61**		**0.56**		**0.52**		**0.85**		**0.84**		1		**0.78**	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
1,2-DICHLOROETHANE	0.50	ug/L	**0.60**		**0.63**		**0.58**		**0.64**		**1.5**		**1.5**		**1.6**		**1.3**	
1,2-DICHLOROPROPANE	0.50	ug/L	**0.57**		**0.54**		**0.52**		<0.50		**1.6**		**1.7**		**2**		**1.6**	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<5.0	|UJc
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|Uy	<0.50	|UJh
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		**0.074**	J|	<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0	|UJc	<1.0	|UJc	<1.0	|UJc	<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROFORM	0.50	ug/L	**134**	D|	**146**	D|	**110**	E|	**126**	D|	**187**	D|	**180**	D|	**247**	D|	**242**	D|
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	

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		Location	UCD2-029		UCD2-029		UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029	
		Sample ID	GWGW0999		GWGW1021		GWGW1032	GWGW1046	GWGW1074	GWGW1075	GWGW1085	GWGW1099	
		Date	02/01/00		03/01/00		04/03/00	05/01/00	06/06/00	06/06/00	07/05/00	08/01/00	
		QA								DUPLICATE			
Analyte	CRDL	Units											
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	|UJh
METHYLENE CHLORIDE	1.0	ug/L	<1.0		<9.8	B|UJclz	<1.0	<1.0	<1.0	<1.0	<1.0	<0.49	JB|Uz
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	|UJh
TETRACHLOROETHENE	0.50	ug/L	**0.52**		**0.59**		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
TOLUENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	|UJh
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	**0.78**	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	
XYLENES (TOTAL)	1.0	ug/L	<1.0	|UJh	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	|UJh

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		Location	UCD2-029		UCD2-029		UCD2-029		UCD2-029		UCD2-029		UCD2-030		UCD2-030		UCD2-030	
		Sample ID	GWGW1129		GWGW1130		GWGW1144		GWGW1168		GWGW1187		GWGW0987		GWGW1000		GWGW1022	
		Date	09/05/00		09/05/00		10/03/00		11/01/00		12/05/00		01/04/00		02/01/00		03/01/00	
		QA			DUPLICATE													
Analyte	CRDL	Units																
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	**0.20**	J|	**0.21**	J|	**0.25**	J|	**0.20**	J|	**0.24**	J|	<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	**0.86**		**0.84**		**0.93**		**0.64**		**0.67**		<0.50		<0.50		<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	**0.87**		**0.86**		**0.86**		**0.65**		**0.82**		<0.50		<0.50		<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	
1,2-DICHLOROETHANE	0.50	ug/L	**1.3**		**1.3**		**1.5**		**1.1**		**1.0**		<0.50		<0.50		<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	**1.6**		**1.6**		**1.6**		**1.2**		**1.2**		<0.50		<0.50		<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0		<5.0		<0.85	JB|Uyz	<5.0		<5.0	|UJm	<5.0		<5.0	
BENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh	<0.50	
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROFORM	0.50	ug/L	**248**	D|	**280**	D|	**235**	D|	**211**	D|	**227**	D|	**3.4**		**3.1**		**5.5**	
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	

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		Location	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-029	UCD2-030	UCD2-030	UCD2-030
		Sample ID	GWGW1129	GWGW1130	GWGW1144	GWGW1168	GWGW1187	GWGW0987	GWGW1000	GWGW1022
		Date	09/05/00	09/05/00	10/03/00	11/01/00	12/05/00	01/04/00	02/01/00	03/01/00
		QA		DUPLICATE						
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0 |Uy	<0.25 JB|Uyz	<1.0	<1.0	<1.0	<7.8 B|UJclz
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.55**
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0

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		Location	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030
		Sample ID	GWGW1033	GWGW1047	GWGW1076	GWGW1086	GWGW1100	GWGW1101	GWGW1131	GWGW1145	GWGW1169	GWGW1188
		Date	04/03/00	05/01/00	06/06/00	07/05/00	08/01/00	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00
		QA						DUPLICATE				
Analyte	CRDL	Units										
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.21** J|
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.26** J|
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**0.22** J|
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<1.1 JB|Uz	<5.0	<5.0	<5.0	<5.0 |UJc	<5.0 |UJc	<5.0	<5.0	<1.2 JB|Uyz	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0 |UJc	<1.0 |UJc	<1.0	<1.0	**0.23** J|	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**6.7**	**4.4**	**4.7**	**3.4**	**2.9**	**2.8**	**3.0**	**4.8**	**3.0**	**14.1**
CHLOROMETHANE	0.50	ug/L	<0.50 |UJl	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

APPENDIX B
VOLATILE ORGANIC COMPOUNDS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030	UCD2-030
		Sample ID	GWGW1033	GWGW1047	GWGW1076	GWGW1086	GWGW1100	GWGW1101	GWGW1131	GWGW1145	GWGW1169	GWGW1188
		Date	04/03/00	05/01/00	06/06/00	07/05/00	08/01/00	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00
		QA						DUPLICATE				
Analyte	CRDL	Units										
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	1 |Jc	<0.83 JB|Uz	<0.53 JB|Uz	<1.0	<0.94 J|Uy	<0.40 JB|Uyz	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0	<1.0 |UJh	<1.0	<1.0	<1.0

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-031		UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031		UCD2-031		UCD2-031	
		Sample ID	GWGW0988		GWGW1002	GWGW1023	GWGW1034	GWGW1048	GWGW1077		GWGW1087		GWGW1088	
		Date	01/04/00		02/01/00	03/01/00	04/03/00	05/01/00	06/06/00		07/05/00		07/05/00	
		QA											DUPLICATE	
Analyte	CRDL	Units												
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
2-BUTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0	<5.0	<5.0	<5.0	<5.0		<5.0		<5.0	
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0		<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	|UJc	<1.0	|UJc	<1.0	|UJc
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
CHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0:50	
CHLOROFORM	0.50	ug/L	**0.65**		**0.61**	**0.77**	**0.87**	**1.1**	**6.0**		**4.2**		**4.1**	
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50		<0.50	

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DAVIS, CALIFORNIA

		Location	UCD2-031		UCD2-031	UCD2-031		UCD2-031	UCD2-031	UCD2-031	UCD2-031	UCD2-031
		Sample ID	GWGW0988		GWGW1002	GWGW1023		GWGW1034	GWGW1048	GWGW1077	GWGW1087	GWGW1088
		Date	01/04/00		02/01/00	03/01/00		04/03/00	05/01/00	06/06/00	07/05/00	07/05/00
		QA										DUPLICATE
Analyte	CRDL	Units										
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--		--	--		--	--	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0		<1.0	<7.2	B|UJclz	<1.0	<1.0	<1.0	<1.0	<1.0
O-XYLENE		ug/l	--		--	--		--	--	--	--	--
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	**0.52**		<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	|UJh	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-031		UCD2-031		UCD2-031	UCD2-031	UCD2-031		UCD2-032	UCD2-032		UCD2-032	UCD2-032	
		Sample ID	GWGW1102		GWGW1132		GWGW1146	GWGW1170	GWGW1189		GWGW1014	GWGW1069		GWGW1118		
		Date	08/01/00		09/05/00		10/03/00	11/01/00	12/05/00		02/07/00	05/04/00		08/07/00		
		QA														
Analyte	CRDL	Units														
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50	|UJl	<0.50	<0.50		<0.50		
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
ACETONE	5.0	ug/L	<5.0	|UJc	<5.0		<5.0	<5.0	<5.0		<5.0	<5.0	|UJm	<5.0	|UJc	
BENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0	<1.0	<1.0		<1.0	<1.0		<1.0		
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
CHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
CHLOROFORM	0.50	ug/L	**0.70**		**0.60**		**2.1**	**0.65**	**0.80**		**4.0**	**2.6**		**1.2**		
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50	<0.50		<0.50	<0.50		<0.50		

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DAVIS, CALIFORNIA

		Location	UCD2-031		UCD2-031		UCD2-031		UCD2-031		UCD2-031		UCD2-032		UCD2-032		UCD2-032	
		Sample ID	GWGW1102		GWGW1132		GWGW1146		GWGW1170		GWGW1189		GWGW1014		GWGW1069		GWGW1118	
		Date	08/01/00		09/05/00		10/03/00		11/01/00		12/05/00		02/07/00		05/04/00		08/07/00	
		QA																
Analyte	CRDL	Units																
ETHYLBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
M,P-XYLENE		ug/l	--		--		--		--		--		--		--		--	
METHYLENE CHLORIDE	1.0	ug/L	<0.53	JB|Uz	<1.0		<0.97	J|Uy	<1.0		<1.0		0.73	J|	<1.0		<0.30	JB|Uz
O-XYLENE		ug/l	--		--		--		--		--		--		--		--	
STYRENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TOLUENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
XYLENES (TOTAL)	1.0	ug/L	<1.0		<1.0	|UJh	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	

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		Location	UCD2-032	UCD2-032	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035
		Sample ID	GWGW1171	GWGW1172	GWGW0991	GWGW0992	GWGW1013	GWGW1026	GWGW1038
		Date	11/07/00	11/07/00	01/05/00	01/05/00	02/02/00	03/01/00	04/03/00
		QA		DUPLICATE		DUPLICATE			
Analyte	CRDL	Units							
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.1 JB|Uz
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	2.0	2.0	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJI
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-032	UCD2-032	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035
		Sample ID	GWGW1171	GWGW1172	GWGW0991	GWGW0992	GWGW1013	GWGW1026	GWGW1038
		Date	11/07/00	11/07/00	01/05/00	01/05/00	02/02/00	03/01/00	04/03/00
		QA		DUPLICATE		DUPLICATE			
Analyte	CRDL	Units							
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--	--	--	--	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<8.0 B|UJclz	<1.0
O-XYLENE		ug/l	--	--	--	--	--	--	--
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	**0.51**	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0	<1.0	<1.0

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		Location	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-036
		Sample ID	GWGW1062	GWGW1080	GWGW1091	GWGW1111	GWGW1136	GWGW1173	GWGW1190	GWGW0993
		Date	05/04/00	06/07/00	07/06/00	08/02/00	09/07/00	11/06/00	12/05/00	01/05/00
		QA								
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJl	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0	<5.0 |UJc	**13** |Jl	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0 |UJc	<1.0 |UJc	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-035	UCD2-036
		Sample ID	GWGW1062	GWGW1080	GWGW1091	GWGW1111	GWGW1136	GWGW1173	GWGW1190	GWGW0993
		Date	05/04/00	06/07/00	07/06/00	08/02/00	09/07/00	11/06/00	12/05/00	01/05/00
		QA								
Analyte	CRDL	Units									
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--	--	--	--	--	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<0.25 JB|Uz	<1.0	<1.0	<1.0	<1.0
O-XYLENE		ug/l	--	--	--	--	--	--	--	--
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0 |UJh	<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-036		UCD2-036		UCD2-036		UCD2-036		UCD2-036		UCD2-036		UCD2-036		UCD2-036
		Sample ID	GWGW1003		GWGW1027		GWGW1039		GWGW1063		GWGW1081		GWGW1092		GWGW1105		GWGW1137
		Date	02/02/00		03/02/00		04/03/00		05/03/00		06/06/00		07/05/00		08/01/00		09/07/00
		QA															
Analyte	CRDL	Units															
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	|UJs	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
ACETONE	5.0	ug/L	<5.0		<5.0		<5.0		<5.0		<5.0		<5.0		<1.0	JB|UJclz	<5.0
BENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
BROMOMETHANE	1.0	ug/L	<1.0		<1.0	|UJc	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0	|UJc	<1.0	|UJc	<1.0		<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		0.089	J|	<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROETHANE	0.50	ug/L	<0.50		<0.50	|UJc	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50	|UJl	<0.50		<0.50		<0.50		<0.50		<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50

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		Location	UCD2-036	UCD2-036		UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-036		UCD2-036
		Sample ID	GWGW1003	GWGW1027		GWGW1039	GWGW1063	GWGW1081	GWGW1092	GWGW1105		GWGW1137
		Date	02/02/00	03/02/00		04/03/00	05/03/00	06/06/00	07/05/00	08/01/00		09/07/00
		QA										
Analyte	CRDL	Units										
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
M,P-XYLENE		ug/l	--	--		--	--	--	--	--		--
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<7.5	B|UJzc	<1.0	<1.0	<1.0	1.0	<0.38	JB|Uz	<1.0
O-XYLENE		ug/l	--	--		--	--	--	--	--		--
STYRENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50		<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0		<1.0

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		Location	UCD2-036	UCD2-036	UCD2-036	UCD2-036	UCD2-037	UCD2-037	UCD2-037	UCD2-037
		Sample ID	GWGW1152	GWGW1153	GWGW1174	GWGW1191	GWGW0994	GWGW1004	GWGW1028	GWGW1029
		Date	10/03/00	10/03/00	11/06/00	12/05/00	01/05/00	02/02/00	03/02/00	03/02/00
		QA		DUPLICATE						DUPLICATE
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50 |UJl	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.2 |UJyl	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 |UJc	<1.0 |UJc
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50 |UJc	<0.50 |UJc
CHLOROFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-036		UCD2-036	UCD2-036	UCD2-036		UCD2-037		UCD2-037		UCD2-037		UCD2-037	
		Sample ID	GWGW1152		GWGW1153	GWGW1174	GWGW1191		GWGW0994		GWGW1004		GWGW1028		GWGW1029	
		Date	10/03/00		10/03/00	11/06/00	12/05/00		01/05/00		02/02/00		03/02/00		03/02/00	
		QA			DUPLICATE										DUPLICATE	
Analyte	CRDL	Units														
ETHYLBENZENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50	
M,P-XYLENE		ug/l	--		--	--	--		--		--		--		--	
METHYLENE CHLORIDE	1.0	ug/L	<0.95	J|Uy	<1.0	<1.0	<1.0		<1.0		<1.0		<6.5	B|UJzc	<4.7	B|UJzc
O-XYLENE		ug/l	--		--	--	--		--		--		--		--	
STYRENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50	
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50		<0.50	
TOLUENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.25	JB|Uz	<0.50	|UJh	<0.50		<0.50		<0.50	
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50		<0.50	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50		<0.50	
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50		<0.50	
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50		<0.50		<0.50	
XYLENES (TOTAL)	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	|UJh	<1.0		<1.0		<1.0	

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		Location	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037
		Sample ID	GWGW1040	GWGW1064	GWGW1082	GWGW1093	GWGW1112	GWGW1138	GWGW1154	GWGW1175
		Date	04/03/00	05/03/00	06/07/00	07/05/00	08/01/00	09/07/00	10/04/00	11/06/00
		QA								
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	1.1 JB|	<5.0	<5.0	<5.0	<5.0 |UJc	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0 |UJc	<1.0 |UJc	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	**0.26** J|	**0.23** J|	**0.20** J|	<0.50
CHLOROMETHANE	0.50	ug/L	<0.50 |UJI	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037	UCD2-037
		Sample ID	GWGW1040	GWGW1064	GWGW1082	GWGW1093	GWGW1112	GWGW1138	GWGW1154	GWGW1175
		Date	04/03/00	05/03/00	06/07/00	07/05/00	08/01/00	09/07/00	10/04/00	11/06/00
		QA								
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--	--	--	--	--	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<0.33 JB|Uz	<1.0	<0.68 J|UJyl	<1.0
O-XYLENE		ug/l	--	--	--	--	--	--	--	--
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-037		UCD2-038		UCD2-038		UCD2-038		UCD2-038		UCD2-038		UCD2-038		UCD2-038	
		Sample ID	GWGW1192		GWGW0995		GWGW1005		GWGW1030		GWGW1041		GWGW1065		GWGW1083		GWGW1094	
		Date	12/05/00		01/05/00		02/02/00		03/01/00		04/03/00		05/03/00		06/07/00		07/06/00	
		QA																
Analyte	CRDL	Units																
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	|UJl	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0		<5.0		<5.0		<1.0	JB|Uz	<5.0		<5.0		<5.0	
BENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	|UJc	<1.0	|UJc
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROFORM	0.50	ug/L	**0.24**	J|	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50	|UJl	<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	

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		Location	UCD2-037		UCD2-038		UCD2-038	UCD2-038		UCD2-038	UCD2-038	UCD2-038	UCD2-038
		Sample ID	GWGW1192		GWGW0995		GWGW1005	GWGW1030		GWGW1041	GWGW1065	GWGW1083	GWGW1094
		Date	12/05/00		01/05/00		02/02/00	03/01/00		04/03/00	05/03/00	06/07/00	07/06/00
		QA											
Analyte	CRDL	Units											
ETHYLBENZENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--		--		--	--		<1.0	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0		<1.0		<1.0	<12.9	B|UJclz	<1.0	<1.0	<1.0	<1.0
O-XYLENE		ug/l	--		--		--	--		<0.50	--	--	--
STYRENE	0.50	ug/L	<0.50		<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.29	JB|Uz	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50	<0.50		<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0		<1.0	|UJh	<1.0	<1.0		<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-038		UCD2-038	UCD2-038	UCD2-038		UCD2-038		UCD2-039	UCD2-039	UCD2-039	
		Sample ID	GWGW1113		GWGW1139	GWGW1147	GWGW1176		GWGW1193		GWGW0989	GWGW1015	GWGW1016	
		Date	08/01/00		09/05/00	10/03/00	11/06/00		12/05/00		01/04/00	02/03/00	02/03/00	
		QA											DUPLICATE	
Analyte	CRDL	Units												
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	|UJl	<0.50	<0.50	<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	|UJh
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	|UJh
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50		<0.50	<0.50	**0.20**	J|	<0.50		<0.50	<0.50	<0.50	|UJh
2-BUTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
ACETONE	5.0	ug/L	<5.0	|UJc	<5.0	<5.0	<5.0		<5.0		<5.0	<5.0	<5.0	
BENZENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	|UJh
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0		<1.0	<1.0	<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	|UJh
CHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
CHLOROFORM	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		**0.20**	J|	**1.6**	**1.9**	**1.9**	
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50		<0.50	<0.50	<0.50	

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		Location	UCD2-038		UCD2-038		UCD2-038		UCD2-038		UCD2-038		UCD2-039		UCD2-039		UCD2-039	
		Sample ID	GWGW1113		GWGW1139		GWGW1147		GWGW1176		GWGW1193		GWGW0989		GWGW1015		GWGW1016	
		Date	08/01/00		09/05/00		10/03/00		11/06/00		12/05/00		01/04/00		02/03/00		02/03/00	
		QA															DUPLICATE	
Analyte	CRDL	Units																
ETHYLBENZENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
M,P-XYLENE		ug/l	--		--		--		--		--		--		--		--	
METHYLENE CHLORIDE	1.0	ug/L	<0.44	JB|Uz	<1.0		<0.97	J|Uy	<1.0		<1.0		<1.0		<0.76	|Uy	<0.63	|Uy
O-XYLENE		ug/l	--		--		--		--		--		--		--		--	
STYRENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TOLUENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	|UJh
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
XYLENES (TOTAL)	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	|UJh

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		Location	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039
		Sample ID	GWGW1024	GWGW1035	GWGW1068	GWGW1078	GWGW1089	GWGW1104	GWGW1140	GWGW1155
		Date	03/01/00	04/03/00	05/04/00	06/06/00	07/06/00	08/01/00	09/07/00	10/04/00
		QA								
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<1.1 JB|Uz	<5.0	<5.0	<5.0	<0.90 JB|UJctz	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0 |UJc	<1.0 |UJc	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**1.8**	**2.2**	**2.5**	**2.5**	**3.6**	**1.9**	**2.4**	**2.0**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50 |UJl	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039	UCD2-039
		Sample ID	GWGW1024	GWGW1035	GWGW1068	GWGW1078	GWGW1089	GWGW1104	GWGW1140	GWGW1155
		Date	03/01/00	04/03/00	05/04/00	06/06/00	07/06/00	08/01/00	09/07/00	10/04/00
		QA								
Analyte	CRDL	Units								
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--	--	--	--	--	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<8.2 B|UJ	<1.0	<1.0	<1.0	<1.0	<0.60 JB|Uz	<1.0	<0.80 J|UJyl
O-XYLENE		ug/l	--	--	--	--	--	--	--	--
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-039	UCD2-039	UCD2-039	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040
		Sample ID	GWGW1177	GWGW1194	GWGW1195	GWGW0990	GWGW1006	GWGW1025	GWGW1036	GWGW1037
		Date	11/06/00	12/05/00	12/05/00	01/04/00	02/01/00	03/01/00	04/03/00	04/03/00
		QA			DUPLICATE					DUPLICATE
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	**1.9** J|	<5.0	<5.0	<5.0	<1.2 JB|Uz	<1.2 JB|Uz
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	**.051** J|	**0.058** J|
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**1.4**	**1.5**	**1.7**	**19.8**	**20.0**	**17.7**	**14**	**13.3**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50 |UJ|	<0.50 |UJ|
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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		Location	UCD2-039	UCD2-039	UCD2-039	UCD2-040	UCD2-040	UCD2-040		UCD2-040	UCD2-040
		Sample ID	GWGW1177	GWGW1194	GWGW1195	GWGW0990	GWGW1006	GWGW1025		GWGW1036	GWGW1037
		Date	11/06/00	12/05/00	12/05/00	01/04/00	02/01/00	03/01/00		04/03/00	04/03/00
		QA			DUPLICATE						DUPLICATE
Analyte	CRDL	Units									
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
M,P-XYLENE		ug/l	--	--	--	--	--	--		--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<10.1	B|UJclz	<1.0	<1.0
O-XYLENE		ug/l	--	--	--	--	--	--		--	--
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	**0.52**		<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50		<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0		<1.0	<1.0

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		Location	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040	UCD2-040
		Sample ID	GWGW1049	GWGW1079	GWGW1090	GWGW1103	GWGW1133	GWGW1148	GWGW1178	GWGW1196
		Date	05/01/00	06/06/00	07/05/00	08/01/00	09/05/00	10/03/00	11/01/00	12/05/00
		QA								
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0	<0.98 JB|UJclz	<5.0	<5.0	<5.0	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0 |UJc	<1.0 |UJc	**0.24** J|	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**12.9**	**15.5**	**15.1**	**10.6**	**7.1**	**10.9**	**10.2**	**9.7**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50

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Analyte	CRDL	Location Sample ID Date QA Units	UCD2-040 GWGW1049 05/01/00	UCD2-040 GWGW1079 06/06/00	UCD2-040 GWGW1090 07/05/00	UCD2-040 GWGW1103 08/01/00	UCD2-040 GWGW1133 09/05/00	UCD2-040 GWGW1148 10/03/00	UCD2-040 GWGW1178 11/01/00	UCD2-040 GWGW1196 12/05/00
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
M,P-XYLENE		ug/l	--	--	--	--	--	--	--	--
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0 B|Uz	<1.0	<1.0	<0.22 JB|Uyz	<1.0
O-XYLENE		ug/l	--	--	--	--	--	--	--	--
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50 |UJh	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

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		Location	UCD2-045		UCD2-045		UCD2-045		UCD2-045		UCD2-046		UCD2-046		UCD2-046	
		Sample ID	GWGW1017		GWGW1070		GWGW1119		GWGW1179		GWGW1095		GWGW1120		GWGW1180	
		Date	02/07/00		05/04/00		08/07/00		11/07/00		07/06/00		08/07/00		11/07/00	
		QA														
Analyte	CRDL	Units														
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<9.7		<0.50		<0.50	
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<9.7		<0.50		<0.50	
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<9.7		<0.50		<0.50	
2-BUTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0		<5.0	|UJc	<2.6	J|Uy	<5.0		<5.0	|UJc	<5.0	
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0		<1.0		<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0		<1.0		<1.0		<1.0	|UJc	<1.0		<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CHLOROFORM	0.50	ug/L	**.92**		**0.78**		**0.62**		**0.71**		**.71**		**0.53**		**0.30**	J|
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50		<0.50		<0.50		<0.50		<0.50		<0.50	

APPENDIX B
VOLATILE ORGANIC COMPOUNDS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-045		UCD2-045	UCD2-045		UCD2-045	UCD2-046	UCD2-046		UCD2-046
		Sample ID	GWGW1017		GWGW1070	GWGW1119		GWGW1179	GWGW1095	GWGW1120		GWGW1180
		Date	02/07/00		05/04/00	08/07/00		11/07/00	07/06/00	08/07/00		11/07/00
		QA										
Analyte	CRDL	Units										
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
M,P-XYLENE		ug/l	--		--	--		--	--	--		--
METHYLENE CHLORIDE	1.0	ug/L	.9	J|	<1.0	<0.22	JB|Uz	<1.0	<1.0	<0.26	JB|Uz	<1.0
O-XYLENE		ug/l	--		--	--		--	--	--		--
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
TOLUENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50		<0.50	<0.50	<0.50		<0.50
XYLENES (TOTAL)	1.0	ug/L	<0.50	|UJh	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0

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2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-041	UCD4-041	UCD4-041	UCD4-041	UCD4-042	UCD4-042	UCD4-042	UCD4-042
		Sample ID	GWGW1001	GWGW1050	GWGW1106	GWGW1181	GWGW1018	GWGW1071	GWGW1114	GWGW1182
		Date	02/01/00	05/01/00	08/03/00	11/06/00	02/07/00	05/02/00	08/03/00	11/06/00
		QA								
Analyte	CRDL	Units								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0 |UJm	<1.0	<1.0
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<5.0	<5.0 |UJc	<5.0	<5.0	<5.0 |UJm	<5.0 |UJc	<5.0
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	**1.2**	**1.2**	**0.94**	**0.66**	**4.3**	**3.8**	**4.5**	**3.0**
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<0.24 JB|Uz	<1.0	**0.78** J|	<1.0	<0.27 JB|Uz	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0

APPENDIX B
VOLATILE ORGANIC COMPOUNDS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-043		UCD4-043	UCD4-043	UCD4-043		UCD4-044	UCD4-044	UCD4-044		UCD4-044	UCD4-047		UCD4-047	UCD4-047		UCD4-047
		Sample ID	GWGW1019		GWGW1072	GWGW1121	GWGW1183		GWGW1007	GWGW1057	GWGW1107		GWGW1184	GWGW1096			GWGW1122		GWGW1185
		Date	02/07/00		05/04/00	08/03/00	11/07/00		02/02/00	05/02/00	08/01/00		11/02/00	07/06/00			08/03/00		11/07/00
		QA																	
Analyte	CRDL	Units																	
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<9.7			<0.50		<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<9.7			<0.50		<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<9.7	|UJsl		<0.50		<0.50
2-BUTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0
2-HEXANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0
ACETONE	5.0	ug/L	<5.0		<5.0	<5.0	|UJc	<2.7	J|Uy	<5.0	<5.0	<5.0	|UJc	<5.0	<5.0		<5.0	|UJc	<5.0
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
BROMOFORM	0.50	ug/L	**.75**		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
BROMOMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0	|UJc		<1.0		<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
CHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
CHLOROFORM	0.50	ug/L	**8.8**		**10.2**	**5.9**	**1.9**		<0.50	<0.50	<0.50		<0.50	**4.7**			**5.7**		**4.3**
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
METHYLENE CHLORIDE	1.0	ug/L	**0.90**	J|	<1.0	<0.20	JB|Uz	<1.0		<1.0	<1.0	<0.44	JB|Uz	<0.34	J|Uyz	<1.0	<0.34	JB|Uz	<1.0
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
TOLUENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50	<0.50		<0.50	<0.50			<0.50		<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	|UJh	<1.0	<1.0	<1.0		<1.0	<1.0	<1.0		<1.0	<1.0			<1.0		<1.0

APPENDIX B
SEMI-VOLATILE ORGANIC COMPOUNDS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-045		UCD2-045		UCD2-045	UCD2-046		UCD2-046	UCD4-044		UCD4-044		UCD4-047		UCD4-047
		Sample ID	GWGW1070		GWGW1119		GWGW1179	GWGW1120		GWGW1180	GWGW1057		GWGW1107		GWGW1122		GWGW1185
		Date	05/04/00		08/07/00		11/07/00	08/07/00		11/07/00	05/02/00		08/01/00		08/03/00		11/07/00
		QA															
Analyte	CRDL	Units															
1,2,4-TRICHLOROBENZENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0	|UJl	<10.0		<10.0		<10.0
1,2-DICHLOROBENZENE	0.50	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0	|UJl	<10.0		<10.0		<10.0
1,3-DICHLOROBENZENE	0.50	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0	|UJl	<10.0		<10.0		<10.0
1,4-DICHLOROBENZENE	0.50	ug/L	--		<9.7		--	<9.7		--	--		<10.0		<10.0		--
1,4-DICHLOROBENZENE	10	ug/L	<10.0		--		<9.8	--		<9.8	<10.0		--		--		<10.0
2,4,5-TRICHLOROPHENOL	10	ug/L	<25.0	|UJs	<24.3	|UJs	<24.5	<24.3	|UJs	<24.5	<25.0	|UJs	<25.0	|UJs	<25.0	|UJs	<25.0
2,4,6-TRICHLOROPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJs	<10.0	|UJs	<10.0
2,4-DICHLOROPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJs	<10.0	|UJs	<10.0
2,4-DIMETHYLPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJs	<10.0	|UJs	<10.0
2,4-DINITROPHENOL	25	ug/L	<25.0	|UJsl	<24.3	|UJs	<24.5	<24.3	|UJs	<24.5	<25.0	|UJs	<25.0	|UJs	<25.0	|UJs	<25.0
2,4-DINITROTOLUENE	10	ug/L	<10.0		<9.7	|UJc	<9.8	<9.7	|UJc	<9.8	<10.0		<10.0		<10.0		<10.0
2,6-DINITROTOLUENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
2-2'-OXYBIS(1-CHLOROPROPANE)	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
2-CHLORONAPHTHALENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
2-CHLOROPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJs	<10.0	|UJs	<10.0
2-METHYLNAPHTHALENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
2-METHYLPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJs	<10.0	|UJs	<10.0
2-NITROANILINE	25	ug/L	<25.0		<24.3		<24.5	<24.3		<24.5	<25.0		<25.0		<25.0		<25.0
2-NITROPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJs	<10.0	|UJs	<10.0
3,3'-DICHLOROBENZIDINE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
3,4-METHYLPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJls	<10.0	|UJsl	<10.0
3-NITROANILINE	25	ug/L	<25.0		<24.3		<24.5	<24.3		<24.5	<25.0		<25.0		<25.0		<25.0
4,6-DINITRO-2-METHYLPHENOL	25	ug/L	<25.0	|UJsl	<24.3	|UJs	<24.5	<24.3	|UJs	<24.5	<25.0	|UJs	<25.0	|UJs	<25.0	|UJs	<25.0
4-BROMOPHENYL-PHENYLETHER	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
4-CHLORO-3-METHYLPHENOL	10	ug/L	<10.0	|UJs	<9.7	|UJs	<9.8	<9.7	|UJs	<9.8	<10.0	|UJs	<10.0	|UJls	<10.0	|UJsl	<10.0
4-CHLOROANILINE	10	ug/L	<25.0		<24.3		<24.5	<24.3		<24.5	<25.0		<25.0		<25.0		<25.0
4-CHLOROPHENYL-PHENYLETHER	10	ug/L	<10.0	|UJsl	<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
4-NITROANILINE	25	ug/L	<25.0		<24.3		<24.5	<24.3		<24.5	<25.0		<25.0		<25.0		<25.0
4-NITROPHENOL	25	ug/L	<25.0	|UJsl	<24.3	|UJsl	<24.5	<24.3	|UJsl	<24.5	<25.0	|Rl	<25.0	|Rl	<25.0	|Rl	<25.0
ACENAPHTHENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
ACENAPHTHYLENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
ANTHRACENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BENZO(A)ANTHRACENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BENZO(A)PYRENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BENZO(B)FLUORANTHENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BENZO(G,H,I)PERYLENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BENZO(K)FLUORANTHENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BIS(2-CHLOROETHOXY)METHANE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BIS(2-CHLOROETHYL) ETHER	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BIS(2-ETHYLHEXYL)PHTHALATE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
BUTYLBENZYLPHTHALATE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
CARBAZOLE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
CHRYSENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
DI-N-BUTYL PHTHALATE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
DI-N-OCTYL PHTHALATE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
DIBENZ(A,H)ANTHRACENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0

APPENDIX B
SEMI-VOLATILE ORGANIC COMPOUNDS - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-045		UCD2-045		UCD2-045	UCD2-046		UCD2-046	UCD4-044		UCD4-044		UCD4-047		UCD4-047
		Sample ID	GWGW1070		GWGW1119		GWGW1179	GWGW1120		GWGW1180	GWGW1057		GWGW1107		GWGW1122		GWGW1185
		Date	05/04/00		08/07/00		11/07/00	08/07/00		11/07/00	05/02/00		08/01/00		08/03/00		11/07/00
		QA															
Analyte	CRDL	Units															
DIBENZOFURAN	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
DIETHYL PHTHALATE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
DIMETHYL PHTHALATE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
DIPHENYLAMINE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
FLUORANTHENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
FLUORENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
HEXACHLOROBENZENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
HEXACHLOROBUTADIENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0	|UJI	<10.0		<10.0		<10.0
HEXACHLOROCYCLOPENTADIENE	10	ug/L	<10.0	|UJI	<9.7		<9.8	<9.7		<9.8	<10.0	|UJI	<10.0		<10.0		<10.0
HEXACHLOROETHANE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0	|UJI	<10.0		<10.0		<10.0
INDENO(1,2,3-C,D)PYRENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
ISOPHORONE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
N-NITROSODI-N-PROPYLAMINE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
NAPHTHALENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
NITROBENZENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
PENTACHLOROPHENOL	25	ug/L	<25.0	|UJs	<24.3	|UJs	<24.5	<24.3	|UJs	<24.5	<25.0	|UJs	<25.0	|UJs	<25.0	|UJs	<25.0
PHENANTHRENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0
PHENOL	10	ug/L	<10.0	|UJsl	<9.7	|UJsl	<9.8	<9.7	|UJsl	<9.8	<10.0	|RI	<10.0	|RI	<10.0	|RI	<10.0
PYRENE	10	ug/L	<10.0		<9.7		<9.8	<9.7		<9.8	<10.0		<10.0		<10.0		<10.0

APPENDIX B
RADIONUCLIDES - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-011			UCD1-011			UCD1-011			UCD1-011		
		Sample ID	GWGW1067			GWGW1123			GWGW1134			GWGW1149		
		Date	05/04/00			08/01/00			09/07/00			10/04/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	0.923±5.16	U|	8.90	-0.482±6.10	U|	10.5	4.31±6.42		10.9	1.75±4.39	U|UJv	7.50
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-18.4±109	U|	188	-178±121	U|	239	60.5±163		284	-60.5±141	U|	258
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD1-011			UCD1-012			UCD1-013			UCD1-013		
		Sample ID	GWGW1156			GWGW1051			GWGW1052			GWGW1053		
		Date	11/06/00			05/01/00			05/01/00			05/01/00		
		QA										DUPLICATE		
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-0.715±4.55	U|	7.94	**370±12.7**		8.94	**1190±24.3**		10.2	**1220±25.0**		10.3
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-151±139	U|	264	-78.9±111	U|	193	**12500±318**		233	**12500±310**		223
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

APPENDIX B
RADIONUCLIDES - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD1-018			UCD1-018			UCD1-018			UCD1-018		
		Sample ID	GWGW1058			GWGW1059			GWGW1124			GWGW1135		
		Date	05/03/00			05/03/00			08/02/00			09/07/00		
		QA				DUPLICATE								
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.46±5.22	U|	8.96	6.69±5.38	U|UJv	8.91	0.787±7.77	U|	13.5	-1.07±6.25		10.9
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-16.4±152	U|	263	54.0±152	U|	259	-56.6±138	U|	258	-60.8±154		285
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD1-018			UCD1-018			UCD1-025			UCD1-025		
		Sample ID	GWGW1150			GWGW1157			GWGW1125			GWGW1126		
		Date	10/04/00			11/02/00			08/01/00			09/05/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	3.32±4.45	U|	7.51	5.98±4.55	U|UJv	7.50	1.49±6.12	U|	10.4	3.15±6.39	U|	10.9
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-174±127	U|	247	-130±151	U|	283	0.00±133	U|	236	-30.3±156	U|	285
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD1-025			UCD1-025			UCD1-028			UCD1-028		
		Sample ID	GWGW1141			GWGW1158			GWGW0985			GWGW0996		
		Date	10/03/00			11/01/00			01/04/00			02/01/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.48±4.35	U|	7.46	2.50±4.61	U|	7.83	0.202±5.08	U|	8.75	-5.96±5.14	U|	9.29
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-120±136	U|	256	-129±151	U|	283	-111±122	U|	231	29.7±108	U|	188
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD1-028			UCD1-028			UCD1-028			UCD1-028		
		Sample ID	GWGW0997			GWGW1020			GWGW1031			GWGW1043		
		Date	02/01/00			03/01/00			04/03/00			05/01/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-2.87±4.95	U|	8.76	10.7±9.66	U|UJv	16.1	3.00±4.84	U|	8.21	0.281±5.14	U|	8.88
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	29.1±106	U|	184	-109±152	U|	267	-107±164	U|	290	-71.4±113	U|	196
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD1-028			UCD1-028			UCD1-028			UCD1-028		
		Sample ID	GWGW1073			GWGW1084			GWGW1097			GWGW1127		
		Date	06/06/00			07/05/00			08/01/00			09/05/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	3.74±6.23	U|	10.6	6.61±5.91	U|UJv	9.81	-1.14±6.00	U|	10.3	7.59±6.56	U|UJv	10.9
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-137±122	U|	233	59.6±129	U|	222	-29.8±133	U|	240	30.4±162	U|	286
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD1-028			UCD1-028			UCD1-028		
		Sample ID	GWGW1142			GWGW1159			GWGW1186		
		Date	10/03/00			11/01/00			12/05/00		
		QA									
Analyte	CRDL	Units			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--		
BISMUTH-212	70	pCi/L	--			--			--		
BISMUTH-214	10	pCi/L	--			--			--		
CARBON-14	20	pCi/L	1.04±4.37	U|	7.52	3.23±4.44	U|UJv	7.50	0.371±6.38	U|	11.0
CESIUM-137	10	pCi/L	--			--			--		
COBALT-60	10	pCi/L	--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--		
GROSS BETA	3	pCi/L	--			--			--		
LEAD-210	450	pCi/L	--			--			--		
LEAD-212	10	pCi/L	--			--			--		
LEAD-214	10	pCi/L	--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--		
RADIUM-226	1	pCi/L	--			--			--		
SODIUM-22	10	pCi/L	--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--		
THALLIUM-208	5	pCi/L	--			--			--		
THORIUM-234	200	pCi/L	--			--			--		
TRITIUM	300	pCi/L	-60.4±141	U|	258	-130±151	U|	283	-79.6±118	U|	220
URANIUM-235	25	pCi/L	--			--			--		
URANIUM-238	500	pCi/L	--			--			--		

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		Location	UCD2-007			UCD2-007			UCD2-007			UCD2-007		
		Sample ID	GWGW1008			GWGW1054			GWGW1108			GWGW1160		
		Date	02/02/00			05/01/00			08/02/00			11/02/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	4.27±5.08	U|UJv	8.54	2.98±5.19	U|	8.81	3.77±7.95	U|	13.6	0.602±4.56	U|	7.87
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	**636±136**	|Up	183	-57.1±112	U|	195	0.00±143	U|	257	-96.3±160	U|	302
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-014		UCD2-014		UCD2-014		UCD2-014	
		Sample ID	GWGW1009		GWGW1055		GWGW1115		GWGW1116	
		Date	02/03/00		05/01/00		08/07/00		08/07/00	
		QA							DUPLICATE	
Analyte	CRDL	Units		MDA		MDA		MDA		MDA
ACTINIUM-228	20	pCi/L	--		--		--		--	
AMERICIUM-241	1	pCi/L	--		--		--		--	
BISMUTH-212	70	pCi/L	--		--		--		--	
BISMUTH-214	10	pCi/L	--		--		--		--	
CARBON-14	20	pCi/L	**569±16.5**	9.8	**532±14.8**	8.89	**575±16.8**	10.5	**574±16.8**	10.5
CESIUM-137	10	pCi/L	--		--		--		--	
COBALT-60	10	pCi/L	--		--		--		--	
GROSS ALPHA	2	pCi/L	--		--		--		--	
GROSS BETA	3	pCi/L	--		--		--		--	
LEAD-210	450	pCi/L	--		--		--		--	
LEAD-212	10	pCi/L	--		--		--		--	
LEAD-214	10	pCi/L	--		--		--		--	
PLUTONIUM-241	10	pCi/L	--		--		--		--	
POTASSIUM-40	100	pCi/L	--		--		--		--	
RADIUM-226	1	pCi/L	--		--		--		--	
SODIUM-22	10	pCi/L	--		--		--		--	
STRONTIUM-90	1	pCi/L	--		--		--		--	
THALLIUM-208	5	pCi/L	--		--		--		--	
THORIUM-234	200	pCi/L	--		--		--		--	
TRITIUM	300	pCi/L	**3270±225**	181	**1690±147**	190	**3620±327**	256	**3920±329**	245
URANIUM-235	25	pCi/L	--		--		--		--	
URANIUM-238	500	pCi/L	--		--		--		--	

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		Location	UCD2-014			UCD2-015			UCD2-015			UCD2-015		
		Sample ID	GWGW1161			GWGW1010			GWGW1056			GWGW1117		
		Date	11/07/00			02/03/00			05/03/00			08/02/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	**185±9.10**		7.89	-3.12±8.45	U|	14.8	15.2±5.66		8.86	11.0±8.27	U|UJv	13.6
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	**709±170**		238	**455±126**	|Up	180	68.2±148	U|	252	85.0±151	U|	258
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-015			UCD2-015			UCD2-016			UCD2-016		
		Sample ID	GWGW1162			GWGW1163			GWGW1011			GWGW1060		
		Date	11/02/00			11/02/00			02/03/00			05/03/00		
		QA				DUPLICATE								
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	18.4±4.89		7.32	17.9±4.89		7.35	-2.84±4.97	U|	8.81	0.124±5.15	U|	8.92
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	160±180	U|UJv	301	-33.1±161	U|	290	115±109	U|UJv	181	-161±146	U|	260
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-016			UCD2-016			UCD2-016			UCD2-017		
		Sample ID	GWGW1109			GWGW1164			GWGW1165			GWGW1012		
		Date	08/02/00			11/02/00			11/02/00			02/03/00		
		QA							DUPLICATE					
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	7.41±8.07	U|UJv	13.5	3.30±4.44	U|UJv	7.49	5.54±4.55	U|UJv	7.53	-1.35±5.01	U|	8.77
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-85.8±137	U|	261	-132±154	U|	288	-66.2±159	U|	289	60.4±118	U|	203
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-017			UCD2-017			UCD2-017			UCD2-026		
		Sample ID	GWGW1061			GWGW1110			GWGW1166			GWGW0998		
		Date	05/03/00			08/02/00			11/02/00			02/01/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	2.44±5.16	U|	8.80	-1.69±7.73	U|	13.6	0.258±4.19	U|	7.26	-1.78±4.91	U|	8.63
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	32.9±154	U|	263	0.00±142	U|	256	-132±154	U|	288	145±112	U|UJv	183
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-026			UCD2-026			UCD2-026			UCD2-026		
		Sample ID	GWGW1044			GWGW1045			GWGW1098			GWGW1128		
		Date	05/01/00			05/01/00			08/01/00			09/05/00		
		QA				DUPLICATE								
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.24±5.19	U|	8.90	2.18±5.24	U|	8.94	1.84±5.88	U|	10.0	8.51±6.58	U|UJv	10.9
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-52.1±113	U|	195	-24.2±113	U|	194	-57.9±127	U|	233	91.7±167	U|	287
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-026			UCD2-026			UCD2-029			UCD2-029		
		Sample ID	GWGW1143			GWGW1167			GWGW0986			GWGW0999		
		Date	10/03/00			11/02/00			01/04/00			02/01/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	6.59±4.55	U|UJv	7.47	6.46±4.48	U|UJv	7.35	7.24±4.3	J|	7.03	1.55±5.1	U|	8.74
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-121±137	U|	259	-32.4±158	U|	283	0.00±131	U|Jv	233	**319±121**	|Up	183
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-029			UCD2-029			UCD2-029			UCD2-029		
		Sample ID	GWGW1021			GWGW1032			GWGW1046			GWGW1074		
		Date	03/01/00			04/03/00			05/01/00			06/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	26.3±7.19		11.0	10.2±5.09	|Jv	8.15	0.956±5.17	U|	8.89	10.2±6.62	U|UJv	10.8
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-61±152	U|	264	-96.4±162	U|	285	-7.0±115	U|	197	-110±124	U|	234
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-029			UCD2-029			UCD2-029			UCD2-029		
		Sample ID	GWGW1075			GWGW1085			GWGW1099			GWGW1129		
		Date	06/06/00			07/05/00			08/01/00			09/05/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	10.5±6.63	U|UJv	10.8	16.3±6.38	|Jv	9.97	14.1±7.51	|Jv	12.3	9.24±6.57	U|UJv	10.8
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-110±124	U|	234	**357±146**	|Jv	221	-89.2±128	U|	240	152±171	U|UJv	286
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-029			UCD2-029			UCD2-029			UCD2-029		
		Sample ID	GWGW1130			GWGW1144			GWGW1168			GWGW1187		
		Date	09/05/00			10/03/00			11/01/00			12/05/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	9.75±6.74	U|UJv	11.1	10.8±4.78	|Jv	7.60	19.3±5.00		7.45	20.5±7.01		10.9
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	30.5±162	U|	286	-30.1±143	U|	257	-65±156	U|	284	-106±116	U|	220
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-030			UCD2-030			UCD2-030			UCD2-030		
		Sample ID	GWGW0987			GWGW1000			GWGW1022			GWGW1033		
		Date	01/04/00			02/01/00			03/01/00			04/03/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	12.6±4.54	J|	7.18	3.74±5.06	U|UJv	8.53	34.5±6.30		9.12	11.6±5.14	|Jv	8.15
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-27.8±128	U|	231	**433±126**	|Up	182	-43.3±153	U|	264	-199±147	U|	266
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-030			UCD2-030			UCD2-030			UCD2-030		
		Sample ID	GWGW1047			GWGW1076			GWGW1086			GWGW1100		
		Date	05/01/00			06/06/00			07/05/00			08/01/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	11.7±5.51	|Jv	8.86	20.1±6.99		10.8	20.9±6.33		9.58	12.7±6.17	|Jvf	10.0
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-31±112	U|	194	-54.2±127	U|	231	177±135	U|UJv	219	87.2±138	U|	234
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-030			UCD2-030			UCD2-030			UCD2-030		
		Sample ID	GWGW1101			GWGW1131			GWGW1145			GWGW1169		
		Date	08/01/00			09/05/00			10/03/00			11/01/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	25.6±6.45	|Jf	10.0	26.5±7.12		10.7	19.2±4.80		7.10	25.7±5.20		7.45
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	86.2±136	U|	232	243±177	U|UJv	285	0.00±146	U|	259	-32.4±158	U|	283
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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RADIONUCLIDES - GROUNDWATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-030		
		Sample ID	GWGW1188		
		Date	12/05/00		
		QA			
Analyte	CRDL	Units			MDA
ACTINIUM-228	20	pCi/L	--		
AMERICIUM-241	1	pCi/L	--		
BISMUTH-212	70	pCi/L	--		
BISMUTH-214	10	pCi/L	--		
CARBON-14	20	pCi/L	16.2±7.10	|Jv	11.3
CESIUM-137	10	pCi/L	--		
COBALT-60	10	pCi/L	--		
GROSS ALPHA	2	pCi/L	--		
GROSS BETA	3	pCi/L	--		
LEAD-210	450	pCi/L	--		
LEAD-212	10	pCi/L	--		
LEAD-214	10	pCi/L	--		
PLUTONIUM-241	10	pCi/L	--		
POTASSIUM-40	100	pCi/L	--		
RADIUM-226	1	pCi/L	--		
SODIUM-22	10	pCi/L	--		
STRONTIUM-90	1	pCi/L	--		
THALLIUM-208	5	pCi/L	--		
THORIUM-234	200	pCi/L	--		
TRITIUM	300	pCi/L	79.1±128	U|	219
URANIUM-235	25	pCi/L	--		
URANIUM-238	500	pCi/L	--		

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RADIONUCLIDES - GROUNDWATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-031			UCD2-031			UCD2-031			UCD2-031		
		Sample ID	GWGW0988			GWGW1002			GWGW1023			GWGW1034		
		Date	01/04/00			02/01/00			03/01/00			04/03/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.83±4.1	U|	6.9	-2.16±4.93	U|	8.68	1.78±5.34	U|	9.13	2.28±4.76	U|	8.11
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-83.3±124	U|	230	**315±120**	|Up	181	-91.9±150	U|	262	-194±154	U|	277
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-031			UCD2-031			UCD2-031			UCD2-031		
		Sample ID	GWGW1048			GWGW1048			GWGW1077			GWGW1087		
		Date	05/01/00			05/01/00			06/06/00			07/05/00		
		QA				DUPLICATE								
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	0.199±5.20	U|	8.99	0.763±5.19	U|	8.93	-2.14±6.13	U|	10.8	9.07±6.15	U|UJv	10.1
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-45.4±114	U|	197	-54.8±151	U|	263	-108±123	U|	231	**724±162**	|Jf	215
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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RADIONUCLIDES - GROUNDWATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-031			UCD2-031			UCD2-031			UCD2-031		
		Sample ID	GWGW1088			GWGW1102			GWGW1132			GWGW1146		
		Date	07/05/00			08/01/00			09/05/00			10/03/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	4.55±5.91	U|UJf	9.97	0.461±5.86	U|	10.0	-1.95±6.13	U|	10.8	0.257±4.27	U|	7.40
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	28.9±123	U|UJvf	215	-28.7±128	U|	231	30.5±162	U|	286	-152±136	U|	259
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-031			UCD2-031			UCD2-032			UCD2-032		
		Sample ID	GWGW1170			GWGW1189			GWGW1014			GWGW1069		
		Date	11/01/00			12/05/00			02/07/00			05/04/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	2.83±4.69	U|	7.96	-1.48±6.66	U|	11.6	-3.47±5.01	U|	8.91	1.34±5.14	U|	8.83
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-64.6±164	U|	304	-26.4±121	U|	219	60.5±119	U|	203	-81.9±108	U|	188
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-032			UCD2-032			UCD2-032			UCD2-035		
		Sample ID	GWGW1118			GWGW1171			GWGW1172			GWGW0991		
		Date	08/07/00			11/07/00			11/07/00			01/05/00		
		QA							DUPLICATE					
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-2.02±6.03	U|	10.6	0.686±4.59	U|	7.91	1.05±4.57	U|	7.85	-1.69±8.12	U|	14.2
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-55.9±137	U|	255	-119±139	U|	260	-122±142	U|	266	-55±125	U|	228
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-035			UCD2-035			UCD2-035			UCD2-035		
		Sample ID	GWGW0992			GWGW1013			GWGW1026			GWGW1038		
		Date	01/05/00			02/02/00			03/01/00			04/03/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	0.804±4.83	U|	8.31	9.79±5.43	|Jv	8.79	9.03±5.61	U|UJv	9.20	8.49±5.00	|Jv	8.11
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	0.00±130	U|	230	**886±146**	|Up	181	9.70±151	U|	259	-76.2±157	U|	276
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-035			UCD2-035			UCD2-035			UCD2-035		
		Sample ID	GWGW1062			GWGW1080			GWGW1091			GWGW1111		
		Date	05/04/00			06/07/00			07/06/00			08/02/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	9.88±5.51	|Jv	8.92	9.13±6.62	U|UJv	10.9	13.7±6.50	|Jv	10.3	5.46±8.03	U|	13.6
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	16.9±111	U|	190	-166±122	U|	236	28.7±122	U|	214	28.2±145	U|	257
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-035			UCD2-035			UCD2-035			UCD2-036		
		Sample ID	GWGW1136			GWGW1173			GWGW1190			GWGW0993		
		Date	09/07/00			11/06/00			12/05/00			01/05/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	5.89±6.36	|UJv	10.7	1.57±4.60	U|	7.86	7.81±7.04	U|UJv	11.7	2.14±5.05	U|	8.62
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-30.3±156		285	-60.3±145	U|	264	-53.0±120	U|	220	-113±124	U|	234
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-036			UCD2-036			UCD2-036			UCD2-036		
		Sample ID	GWGW1003			GWGW1027			GWGW1039			GWGW1063		
		Date	02/02/00			03/02/00			04/03/00			05/03/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-0.715±5.24	U|	9.13	3.57±5.51	U|	9.32	1.09±4.69	U|	8.07	1.24±5.21	U|	8.95
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	**517±130**	B|Up	182	-19.3±150	U|	259	-144±156	U|	278	-92.5±152	U|	267
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-036			UCD2-036			UCD2-036			UCD2-036		
		Sample ID	GWGW1081			GWGW1092			GWGW1105			GWGW1137		
		Date	06/06/00			07/05/00			08/01/00			09/07/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.53±6.29	U|	10.8	12.4±6.25	|Jv	10.0	-2.62±5.77	U|	10.0	8.82±6.68	U|UJv	11.0
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-167±122	U|	237	-29.4±121	U|	219	-90.6±130	U|	243	-121±148		285
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-036			UCD2-036			UCD2-036			UCD2-036		
		Sample ID	GWGW1152			GWGW1153			GWGW1174			GWGW1191		
		Date	10/03/00			10/03/00			11/06/00			12/05/00		
		QA				DUPLICATE								
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-0.528±4.35	U|	7.59	4.03±4.49	U|UJv	7.53	1.66±4.63	U|	7.92	-0.956±6.65	U|	11.6
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-213±131	U|	259	-91.1±140	U|	259	-181±136	U|	264	-79.5±118	U|	220
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-037			UCD2-037			UCD2-037			UCD2-037		
		Sample ID	GWGW0994			GWGW1004			GWGW1028			GWGW1029		
		Date	01/05/00			02/02/00			03/02/00			03/02/00		
		QA										DUPLICATE		
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	5.56±5.09	U|	8.48	1.69±5.09	U|	8.72	9.76±6.07	U|UJv	9.95	6.55±5.57	U|UJv	9.27
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-83.4±124	U|	231	**434±127**	|Up	183	-110±144	U|	253	15.2±149	U|	256
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-037			UCD2-037			UCD2-037			UCD2-037		
		Sample ID	GWGW1040			GWGW1064			GWGW1082			GWGW1093		
		Date	04/03/00			05/03/00			06/07/00			07/05/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	5.49±4.95	U|UJv	8.22	5.53±5.33	U|UJv	8.88	7.29±6.53	U|UJv	10.8	11.5±6.24	|Jv	10.0
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-86.9±161	U|	283	-154±146	U|	260	-83.7±128	U|	238	-57.5±117	U|	214
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-037			UCD2-037			UCD2-037			UCD2-037		
		Sample ID	GWGW1112			GWGW1138			GWGW1154			GWGW1175		
		Date	08/01/00			09/07/00			10/04/00			11/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-2.16±5.78	U|	10.0	0.116±6.13		10.7	-4.48±6.23	U|	11.1	-0.105±4.54	U|	7.88
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-58.2±128	U|	235	60.8±164		286	-151±135	U|	257	-96.3±152	U|	281
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-037			UCD2-038			UCD2-038			UCD2-038		
		Sample ID	GWGW1192			GWGW0995			GWGW1005			GWGW1030		
		Date	12/05/00			01/05/00			02/02/00			03/01/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.09±6.67	U|	11.5	7.57±5.1	U|	8.38	6.84±5.14	U|UJv	8.48	11.1±5.79	|Jv	9.39
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-78.8±117	U|	218	-28.1±129	U|	233	**596±132**	|Up	179	113±155	U|	262
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-038			UCD2-038			UCD2-038			UCD2-038		
		Sample ID	GWGW1041			GWGW1065			GWGW1083			GWGW1094		
		Date	04/03/00			05/03/00			06/07/00			07/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	13.9±5.47	U|UJv	8.58	9.53±5.47	|Jv	8.89	6.86±6.46	U|UJv	10.8	9.65±6.15	U|UJv	10.0
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-86.2±153	U|	270	-126±149	U|	263	-78.8±121	U|	224	0.00±119	U|	211
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-038			UCD2-038			UCD2-038			UCD2-038		
		Sample ID	GWGW1113			GWGW1139			GWGW1147			GWGW1176		
		Date	08/01/00			09/05/00			10/03/00			11/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	2.07±5.89	U|	10.0	8.36±6.46	U|UJv	10.7	5.65±4.59	U|UJv	7.60	7.93±4.81	|Jv	7.85
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	0.00±133	U|	236	30.5±162	U|	286	-30±142	U|	256	-59.9±144	U|	262
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-038			UCD2-039			UCD2-039			UCD2-039		
		Sample ID	GWGW1193			GWGW0989			GWGW1015			GWGW1016		
		Date	12/05/00			01/04/00			02/03/00			02/03/00		
		QA										DUPLICATE		
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	9.33±6.85	U|UJv	11.3	17.6±4.56	J|	6.96	7.62±5.32	U|UJv	8.74	9.73±5.46	|Jv	8.86
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-26.3±121	U|	219	0.00±129	U|	230	**345±122**	|Up	182	172±113	U|UJv	182
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-039			UCD2-039			UCD2-039			UCD2-039		
		Sample ID	GWGW1024			GWGW1035			GWGW1068			GWGW1078		
		Date	03/01/00			04/03/00			05/04/00			06/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	9.84±5.60	|Jv	9.13	17.5±5.32		8.11	17.9±5.78		8.90	31.8±7.38		10.8
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	107±154	U|	260	-40.1±156	U|	272	35.2±111	U|	188	82.1±137	U|	233
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD2-039			UCD2-039			UCD2-039			UCD2-039		
		Sample ID	GWGW1089			GWGW1104			GWGW1140			GWGW1155		
		Date	07/06/00			08/01/00			09/07/00			10/04/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	25.4±6.65		9.85	15.2±6.46	|Jv	10.4	15.3±6.85	|Jv	10.9	18.2±4.91		7.38
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	145±131	U|UJv	216	145±141	U|UJv	234	-30.3±156	U|	285	-29.5±140	U|	251
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD2-039			UCD2-039			UCD2-039		
		Sample ID	GWGW1177			GWGW1194			GWGW1195		
		Date	11/06/00			12/05/00			12/05/00		
		QA							DUPLICATE		
Analyte	CRDL	Units			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--		
BISMUTH-212	70	pCi/L	--			--			--		
BISMUTH-214	10	pCi/L	--			--			--		
CARBON-14	20	pCi/L	14.0±5.07		7.93	26.6±7.22		10.9	24.5±7.04		10.7
CESIUM-137	10	pCi/L	--			--			--		
COBALT-60	10	pCi/L	--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--		
GROSS BETA	3	pCi/L	--			--			--		
LEAD-210	450	pCi/L	--			--			--		
LEAD-212	10	pCi/L	--			--			--		
LEAD-214	10	pCi/L	--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--		
RADIUM-226	1	pCi/L	--			--			--		
SODIUM-22	10	pCi/L	--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--		
THALLIUM-208	5	pCi/L	--			--			--		
THORIUM-234	200	pCi/L	--			--			--		
TRITIUM	300	pCi/L	-59±142	U|	258	26.7±127	U|	222	-26.6±122	U|	221
URANIUM-235	25	pCi/L	--			--			--		
URANIUM-238	500	pCi/L	--			--			--		

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		Location	UCD2-040			UCD2-040			UCD2-040			UCD2-040		
		Sample ID	GWGW0990			GWGW1006			GWGW1025			GWGW1036		
		Date	01/04/00			02/01/00			03/01/00			04/03/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	4.11±4.18	U|	6.99	5.08±5.16	U|UJv	8.62	8.53±5.58	U|Jv	9.16	4.71±4.83	U|UJv	8.07
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	0.00±130	U|	231	258±117	|UJvp	181	-123±147	U|	258	-292±150	U|	276
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-040			UCD2-040			UCD2-040			UCD2-040		
		Sample ID	GWGW1037			GWGW1049			GWGW1079			GWGW1090		
		Date	04/03/00			05/01/00			06/06/00			07/05/00		
		QA	DUPLICATE											
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	8.03±5.01	U|UJv	8.15	1.53±5.23	U|	8.96	1.04±6.31	U|	10.9	12.5±6.17	|Jv	9.86
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	-165±154	U|	277	-32.9±113	U|	195	-111±125	U|	236	0.00±121	U|	215
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-040			UCD2-040			UCD2-040			UCD2-040		
		Sample ID	GWGW1103			GWGW1133			GWGW1148			GWGW1178		
		Date	08/01/00			09/05/00			10/03/00			11/01/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	1.61±5.87	U|	10.0	7.44±6.53	U|UJv	10.8	4.00±4.46	U|UJv	7.48	5.14±4.36	U|UJv	7.22
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	0.00±133	U|	236	60.7±164	U|	285	-60.3±141	U|	257	-65.1±156	U|	285
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD2-040			UCD2-045			UCD2-045		
		Sample ID	GWGW1196			GWGW1017			GWGW1070		
		Date	12/05/00			02/07/00			05/04/00		
		QA									
Analyte	CRDL	Units			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			6.01±6.05	U|UJv	11.4	11.9±14.5	U|UJv	18.1
AMERICIUM-241	1	pCi/L	--			0.016±0.091	U|	0.181	0.002174±0.	U|	0.0538
BISMUTH-212	70	pCi/L	--			0.594±11.8	U|	21	18.1±18.9	U|UJv	36.0
BISMUTH-214	10	pCi/L	--			6.28±5.32	U|UJv	6.64	0.00±11.7	U|UJv	11.4
CARBON-14	20	pCi/L	7.11±6.56	U|UJv	10.9	17.9±5.63		8.67	8.44±5.85	U|UJv	9.60
CESIUM-137	10	pCi/L	--			-0.17±1.49	U|	2.62	-2.26±2.66	U|	4.21
COBALT-60	10	pCi/L	--			1.69±3.28	U|UJv	3.35	0.276±2.41	U|	4.53
GROSS ALPHA	2	pCi/L	--			**3.12±1.47**	|Jv	1.78	0.0919±0.73	U|	1.89.
GROSS BETA	3	pCi/L	--			2.04±1.15	U|UJv	2.25	1.07±1.16	U|	2.45
LEAD-210	450	pCi/L	--			36±257	U|	392	0.00±57.6	U|	96.4
LEAD-212	10	pCi/L	--			2.85±4.8	U|UJv	4.82	**16.0±9.42**		5.74
LEAD-214	10	pCi/L	--			2.1±3.4	U|	5.92	8.30±8.33	|Jv	8.05
PLUTONIUM-241	10	pCi/L	--			**21.4±5.56**		8.62	0.316±5.35	U|	9.18
POTASSIUM-40	100	pCi/L	--			16.7±21.6	U|UJv	37.5	28.0±27.1	U|UJv	55.4
RADIUM-226	1	pCi/L	--			**2.92±1.06**		0.695	0.338±0.468	U|UJv	0.785
SODIUM-22	10	pCi/L	--			0.961±1.55	U|	3.07	2.83±2.66	U|UJv	5.48
STRONTIUM-90	1	pCi/L	--			0.132±0.267	U|	0.573	-0.0996±0.2	U|	0.509
THALLIUM-208	5	pCi/L	--			2.05±1.68	U|UJv	3.21	2.38±3.13	U|UJv	5.10
THORIUM-234	200	pCi/L	--			38.9±117	U|UJv	132	18.6±76.3	U|UJv	71.0
TRITIUM	300	pCi/L	-107±118	U|	223	**394±136**		203	-78±107	U|	187
URANIUM-235	25	pCi/L	--			1.95±15.6	U|UJv	16.2	1.34±21.8	U|	26.2
URANIUM-238	500	pCi/L	--			38.9±117	U|UJv	113	18.6±76.3	U|UJv	71.0

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		Location	UCD2-045			UCD2-045			UCD2-046			UCD2-046		
		Sample ID	GWGW1119			GWGW1179			GWGW1095			GWGW1120		
		Date	08/07/00			11/07/00			07/06/00			08/07/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	2.67±4.83	U|	8.74	5.05±4.55	U|UJv	8.33	8.72±5.78	U|UJv	10.8	6.65±11.9	U|UJv	10.7
AMERICIUM-241	1	pCi/L	0.0344±0.07	U|	0.187	0.0326±0.08	U|	0.226	0.00±2.00	U|UJv	0.119	-0.0129±0.1	U|	0.329
BISMUTH-212	70	pCi/L	-9.3±10.1	U|	16.2	9.35±9.47	U|UJv	16.6	14.5±12.1	U|UJv	22.4	3.99±9.88	U|	18.1
BISMUTH-214	10	pCi/L	4.46±5.79	U|UJv	6.13	0.00±5.54	U|UJv	5.20	11.2±7.21		4.98	6.29±5.50	U|UJv	6.34
CARBON-14	20	pCi/L	-2.16±6.02	U|	10.6	-1.29±4.40	U|	7.71	7.89±6.08	U|UJv	10.0	-3.92±5.92	U|	10.5
CESIUM-137	10	pCi/L	-0.0589±1.2	U|	2.15	-0.377±1.30	U|	2.14	0.00±2.87	U|	4.73	-0.158±1.28	U|	2.25
COBALT-60	10	pCi/L	-0.24±1.55	U|	2.73	1.41±1.23	U|UJv	2.30	1.50±1.61	U|UJv	3.02	0.624±1.35	U|	2.37
GROSS ALPHA	2	pCi/L	2.57±1.22	|Jv	1.73	**2.61±0.956**		0.863	**2.62±0.728**	|Jvm	0.815	2.26±1.25	|Jv	1.85
GROSS BETA	3	pCi/L	1.33±1.40	U|UJv	2.34	2.04±0.900	|Jvd	1.64	1.60±0.688	|Jvm	1.10	1.27±1.50	U|	2.87
LEAD-210	450	pCi/L	286±221	U|UJv	355	0.00±26.1	U|	45.2	0.00±34.9	U|	47.1	-202±650	U|	969
LEAD-212	10	pCi/L	0.0497±3.34	U|	4.52	1.68±3.61	U|UJv	2.95	6.95±2.73	|Jv	4.80	0.00±2.75	U|	4.93
LEAD-214	10	pCi/L	5.00±4.91	|Jv	4.41	6.32±4.37	|Jv	3.71	9.56±6.41	|Jv	4.99	**10.3±5.45**	|Jv	4.87
PLUTONIUM-241	10	pCi/L	3.35±4.20	U|UJv	7.07	1.88±5.16	U|	8.75	9.55±4.06	|Jv	6.55	2.81±4.30	U|	7.25
POTASSIUM-40	100	pCi/L	27.3±16.8	U|UJv	33.8	20.7±24.5	|Jv	19.0	9.02±37.7	U|	24.7	9.91±33.8	U|UJv	25.4
RADIUM-226	1	pCi/L	0.947±0.464		0.160	0.306±0.425	U|UJv	0.721	1.31±0.629		0.608	0.649±0.367		0.147
SODIUM-22	10	pCi/L	0.319±1.34	U|	2.49	0.157±1.26	U|	2.20	-0.724±1.78	U|	2.95	0.486±1.21	U|	2.35
STRONTIUM-90	1	pCi/L	0.0761±0.20	U|	0.421	0.0469±0.38	U|	0.924	0.176±0.251	U|	0.488	-0.0673±0.2	U|	0.491
THALLIUM-208	5	pCi/L	1.45±1.91	U|UJv	2.69	0.00±1.29	U|	2.39	2.41±1.65	U|UJv	3.05	2.51±1.53	U|UJv	2.93
THORIUM-234	200	pCi/L	47.6±108	U|UJv	97.4	0.00±25.5	U|	49.3	26.0±42.4	U|UJv	43.8	32.5±153	U|UJv	165
TRITIUM	300	pCi/L	0.00±141	U|	253	-91.8±145	U|	268	114±127	U|UJv	212	-55.8±137	U|	254
URANIUM-235	25	pCi/L	3.30±9.81	U|	15.4	2.67±11.5	U|UJv	10.5	4.90±9.20	U|	14.4	11.8±9.69	U|UJv	17.2
URANIUM-238	500	pCi/L	47.6±108	U|UJv	97.4	0.00±25.5	U|	49.3	26.0±42.4	U|UJv	31.9	32.5±153	U|UJv	149

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		Location	UCD2-046		
		Sample ID	GWGW1180		
		Date	11/07/00		
		QA			
Analyte	CRDL	Units			MDA
ACTINIUM-228	20	pCi/L	0.00±3.30	U|	6.42
AMERICIUM-241	1	pCi/L	0.0411±0.08	U|	0.123
BISMUTH-212	70	pCi/L	8.81±6.79	U|UJv	12.8
BISMUTH-214	10	pCi/L	3.67±4.00	U|UJv	4.00
CARBON-14	20	pCi/L	0.156±4.50	U|	7.78
CESIUM-137	10	pCi/L	0.326±0.855	U|	1.54
COBALT-60	10	pCi/L	0.571±1.65	U|UJv	1.85
GROSS ALPHA	2	pCi/L	**5.83±1.59**		1.50
GROSS BETA	3	pCi/L	**3.55±1.07**	|Jd	1.84
LEAD-210	450	pCi/L	191±242	U|UJv	365
LEAD-212	10	pCi/L	0.00±1.70	U|	3.08
LEAD-214	10	pCi/L	3.77±4.11	U|UJv	3.93
PLUTONIUM-241	10	pCi/L	3.99±5.35	U|UJv	9.01
POTASSIUM-40	100	pCi/L	13.1±20.4	U|UJv	14.8
RADIUM-226	1	pCi/L	-0.0442±0.1	U|	0.476
SODIUM-22	10	pCi/L	-0.25±0.918	U|	1.55
STRONTIUM-90	1	pCi/L	-0.0426±0.2	U|	0.731
THALLIUM-208	5	pCi/L	1.39±0.926	U|UJv	1.75
THORIUM-234	200	pCi/L	60.6±63.2	U|UJv	102
TRITIUM	300	pCi/L	-91.7±145	U|	267
URANIUM-235	25	pCi/L	5.15±6.61	U|UJv	11.6
URANIUM-238	500	pCi/L	60.6±63.2	U|UJv	102

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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD4-041			UCD4-041			UCD4-041			UCD4-041		
		Sample ID	GWGW1001			GWGW1050			GWGW1106			GWGW1181		
		Date	02/01/00			05/01/00			08/03/00			11/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	-2.06±4.9	U|	8.63	-2.98±5.03	U|	8.88	8.29±8.00	U|UJv	13.3	0.344±4.58	U|	7.92
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	115±110	U|UJv	182	-110±110	U|	193	28.2±145	U|	257	-61.6±148	U|	269
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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		Location	UCD4-042			UCD4-042			UCD4-042			UCD4-042		
		Sample ID	GWGW1018			GWGW1071			GWGW1114			GWGW1182		
		Date	02/07/00			05/02/00			08/03/00			11/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--		
AMERICIUM-241	1	pCi/L	--			--			--			--		
BISMUTH-212	70	pCi/L	--			--			--			--		
BISMUTH-214	10	pCi/L	--			--			--			--		
CARBON-14	20	pCi/L	**44.1±6.43**		8.66	2.38±5.25	U|	8.95	8.46±8.17	U|UJv	13.6	1.48±4.61	U|	7.90
CESIUM-137	10	pCi/L	--			--			--			--		
COBALT-60	10	pCi/L	--			--			--			--		
GROSS ALPHA	2	pCi/L	--			--			--			--		
GROSS BETA	3	pCi/L	--			--			--			--		
LEAD-210	450	pCi/L	--			--			--			--		
LEAD-212	10	pCi/L	--			--			--			--		
LEAD-214	10	pCi/L	--			--			--			--		
PLUTONIUM-241	10	pCi/L	--			--			--			--		
POTASSIUM-40	100	pCi/L	--			--			--			--		
RADIUM-226	1	pCi/L	--			--			--			--		
SODIUM-22	10	pCi/L	--			--			--			--		
STRONTIUM-90	1	pCi/L	--			--			--			--		
THALLIUM-208	5	pCi/L	--			--			--			--		
THORIUM-234	200	pCi/L	--			--			--			--		
TRITIUM	300	pCi/L	120±121	U|UJv	202	-111±148	U|	262	-141±130	U|	256	-121±141	U|	264
URANIUM-235	25	pCi/L	--			--			--			--		
URANIUM-238	500	pCi/L	--			--			--			--		

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RADIONUCLIDES - GROUNDWATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
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		Location	UCD4-043			UCD4-043			UCD4-043			UCD4-043			UCD4-044		
		Sample ID	GWGW1019			GWGW1072			GWGW1121			GWGW1183			GWGW1007		
		Date	02/07/00			05/04/00			08/03/00			11/07/00			02/02/00		
		QA															
Analyte	CRDL	Units			MDA			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	--			--			--			--			4.27±10.3	U|UJv	12.1
AMERICIUM-241	1	pCi/L	--			--			--			--			0.015±0.037	U|	0.0773
BISMUTH-212	70	pCi/L	--			--			--			--			4.9±12.1	U|	21.6
BISMUTH-214	10	pCi/L	--			--			--			--			2.43±6.97	U|UJv	5.75
CARBON-14	20	pCi/L	19.2±6.18		9.54	4.62±5.91	U|UJv	9.96	0.299±7.85	U|UJv	13.6	-3.96±4.30	U|	7.70	-0.197±4.75	U|	8.25
CESIUM-137	10	pCi/L	--			--			--			--			-0.163±1.5	U|	2.61
COBALT-60	10	pCi/L	--			--			--			--			0.203±1.64	U|	2.99
GROSS ALPHA	2	pCi/L	--			--			--			--			1.63±1.28	U|UJv	2
GROSS BETA	3	pCi/L	--			--			--			--			1.59±1.38	U|UJv	2.85
LEAD-210	450	pCi/L	--			--			--			--			180±756	U|UJv	627
LEAD-212	10	pCi/L	--			--			--			--			5.66±3.24	U|	5.66
LEAD-214	10	pCi/L	--			--			--			--			5.22±8.99	U|UJv	6.85
PLUTONIUM-241	10	pCi/L	--			--			--			--			-1.19±3.83	U|	6.63
POTASSIUM-40	100	pCi/L	--			--			--			--			19.5±45.3	U|UJv	27.9
RADIUM-226	1	pCi/L	--			--			--			--			**5.82±1.52**		1.01
SODIUM-22	10	pCi/L	--			--			--			--			0.147±1.67	U|	3.03
STRONTIUM-90	1	pCi/L	--			--			--			--			-0.0856±0.3	U|	0.84
THALLIUM-208	5	pCi/L	--			--			--			--			3.62±1.93	U|	3.62
THORIUM-234	200	pCi/L	--			--			--			--			82.3±187	U|UJv	134
TRITIUM	300	pCi/L	203±115	U|	203	-81.1±107	U|	186	-28.1±140	U|	256	-176±133	U|	257	**571±132**	B|Up	180
URANIUM-235	25	pCi/L	--			--			--			--			1.44±20	U|UJv	17.4
URANIUM-238	500	pCi/L	--			--			--			--			82.3±187	U|UJv	134

APPENDIX B
RADIONUCLIDES - GROUNDWATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-044			UCD4-044			UCD4-044			UCD4-047		
		Sample ID	GWGW1057			GWGW1107			GWGW1184			GWGW1096		
		Date	05/02/00			08/01/00			11/02/00			07/06/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
ACTINIUM-228	20	pCi/L	**23.3±13.2**	U|UJv	29.1	10.3±11.9	U|UJv	10.4	--			11.7±6.62	U|UJv	12.2
AMERICIUM-241	1	pCi/L	0.0283±0.03	|Jvd	0.0283	-0.0743±0.0	U|	0.338	--			0.00±2.00	U|UJv	0.107
BISMUTH-212	70	pCi/L	-12.4±25.9	U|	44.5	3.81±11.9	U|	18.6	--			2.62±12.3	U|UJv	21.6
BISMUTH-214	10	pCi/L	7.39±17.5	U|UJv	17.7	**10.2±6.56**	|Jv	4.47	--			0.00±9.64	U|	8.03
CARBON-14	20	pCi/L	-3.26±5.01	U|	8.88	-1.1±5.81	U|	10.0	4.02±4.38	U|UJv	7.34	8.87±6.11	U|UJv	10.0
CESIUM-137	10	pCi/L	5.38±3.19	U|UJv	6.45	-0.683±1.42	U|	2.43	--			0.00±2.66	U|	4.66
COBALT-60	10	pCi/L	2.52±3.80	U|	8.18	-0.0888±1.4	U|	2.63	--			-1.28±1.63	U|	2.73
GROSS ALPHA	2	pCi/L	1.32±1.20	U|UJv	2.19	0.568±0.845	U|	1.75	--			**2.11±0.704**		0.885
GROSS BETA	3	pCi/L	1.40±1.22	U|UJv	2.52	1.23±1.07	U|UJv	2.19	--			**4.12±0.734**		1.06
LEAD-210	450	pCi/L	**686±599**	U|UJv	1170	108±351	U|UJv	364	--			398±662	U|UJv	1020
LEAD-212	10	pCi/L	0.377±7.27	U|	11.2	0.00±2.86	U|	5.18	--			3.31±5.32	U|UJv	5.46
LEAD-214	10	pCi/L	1.20±14.8	U|	16.2	0.00±5.64	U|	6.43	--			**16.6±8.64**		5.51
PLUTONIUM-241	10	pCi/L	1.02±5.55	U|	8.47	**12.4±5.34**	|UJvp	8.62	--			5.74±4.08	U|UJv	6.75
POTASSIUM-40	100	pCi/L	63.5±48.7	U|UJv	106	0.00±18.3	U|	37.0	--			24.7±44.8	U|UJv	29.4
RADIUM-226	1	pCi/L	0.846±0.620	|Jv	0.786	0.991±0.529	|Jv	0.513	--			**1.07±0.614**	|Jv	0.720
SODIUM-22	10	pCi/L	0.123±3.29	U|	6.59	0.447±1.42	U|	2.65	--			-0.205±1.63	U|	2.91
STRONTIUM-90	1	pCi/L	-0.0027±0.1	U|	0.299	0.0019±0.29	U|	0.628	--			-0.146±0.19	U|	0.415
THALLIUM-208	5	pCi/L	**7.41±4.45**	U|UJv	8.55	2.24±3.20	U|UJv	3.09	--			0.442±5.63	U|	3.29
THORIUM-234	200	pCi/L	58.4±151	U|	278	0.00±84.4	U|	134	--			0.00±244	U|UJv	153
TRITIUM	300	pCi/L	-45.5±151	U|	262	-59.3±130	U|	239	-229±146	U|	286	287±138	|Jv	213
URANIUM-235	25	pCi/L	-9.61±20.6	U|	35.0	17.2±20.6	U|UJv	19.4	--			11.9±9.95	U|UJv	17.4
URANIUM-238	500	pCi/L	58.4±151	U|	278	0.00±84.4	U|	134	--			0.00±244	U|UJv	153

APPENDIX B
RADIONUCLIDES - GROUNDWATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	UCD4-047			UCD4-047		
		Sample ID	GWGW1122			GWGW1185		
		Date	08/03/00			11/07/00		
		QA						
Analyte	CRDL	Units			MDA			MDA
ACTINIUM-228	20	pCi/L	4.83±4.56	U|UJv	8.82	2.15±9.81	U|UJv	11.9
AMERICIUM-241	1	pCi/L	-0.187±0.17	U|	0.583	-0.0106±0.0	U|	0.234
BISMUTH-212	70	pCi/L	4.80±10.6	U|	19.4	10.5±12.3	U|	22.9
BISMUTH-214	10	pCi/L	8.06±6.86	|Jv	4.36	**11.4±6.32**	|Jv	5.11
CARBON-14	20	pCi/L	9.44±8.19	U|UJv	13.6	2.25±4.61	U|	7.85
CESIUM-137	10	pCi/L	1.59±1.89	U|UJv	2.50	2.23±1.61	U|UJv	3.10
COBALT-60	10	pCi/L	-0.0537±1.2	U|	2.26	1.21±1.15	U|UJv	2.92
GROSS ALPHA	2	pCi/L	**2.16±1.20**	|Jv	1.58	**2.04±1.05**	|Jv	1.45
GROSS BETA	3	pCi/L	**3.99±1.27**		2.20	**6.10±1.16**	|Jd	1.74
LEAD-210	450	pCi/L	164±201	U|UJv	317	196±571	U|UJv	699
LEAD-212	10	pCi/L	0.151±4.74	U|UJv	3.78	4.70±4.59	U|UJv	6.87
LEAD-214	10	pCi/L	9.67±5.84	|Jv	4.69	8.61±6.59	|Jv	5.60
PLUTONIUM-241	10	pCi/L	9.23±5.22	|UJvp	8.56	1.85±5.07	U|	8.60
POTASSIUM-40	100	pCi/L	29.4±16.1	U|UJv	33.3	5.71±32.9	U|UJv	29.0
RADIUM-226	1	pCi/L	0.871±0.591	|Jv	0.697	0.0424±0.27	U|	0.562
SODIUM-22	10	pCi/L	0.439±1.26	U|	2.43	0.621±2.31	U|	3.29
STRONTIUM-90	1	pCi/L	0.261±0.221	U|	0.433	-0.032±0.37	U|	0.901
THALLIUM-208	5	pCi/L	0.476±1.46	U|	2.66	0.353±2.68	U|	3.55
THORIUM-234	200	pCi/L	93.4±72.5	U|UJv	120	22.1±112	U|	145
TRITIUM	300	pCi/L	-83.9±134	U|	255	-92±145	U|	268
URANIUM-235	25	pCi/L	5.85±11.3	U|UJv	15.5	8.00±12.6	U|UJv	20.0
URANIUM-238	500	pCi/L	93.4±72.5	U|UJv	120	22.1±112	U|UJv	128

APPENDIX B
FIELD PARAMATERS - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Date	Analyte Units	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
LF-01	01/24/00		521.8	196	7.65	12.2	218
LF-01	10/10/00		108.7	--	7.93	17.4	972
LF-03	01/24/00		407.7	188	7.73	12.3	386
LF-03	10/10/00		128	--	7.18	17.2	63

APPENDIX B
METALS - STORM WATER
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LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LF-01		LF-01		LF-03		LF-03	
		Sample ID	STMW0115		STMW0117		STMW0116		STMW0118	
		Date	01/24/00		10/10/00		01/24/00		10/10/00	
		QA								
Analyte	CRDL	Units								
ANTIMONY	5	ug/L	<0.683		<2.1	BN|UJlmop	<0.683		<2.24	BN|UJlmop
ARSENIC	3	ug/L	<2.620	B|Up	**2.84**	B|	**4.970**		**3.76**	B|
BARIUM	20	ug/L	**12.1**	B|EJk	**320**		**38.2**	|EJk	**246**	
BERYLLIUM	1	ug/L	<0.010		**0.099**	BN|Jm	<0.010		<0.027	BN|UJmo
BORON		ug/L	--		**128**	|Jl	--		**76**	|Jl
CADMIUM	1	ug/L	<0.130		**0.251**	B|	<0.130		<0.130	
CHROMIUM	10	ug/L	**9.840**	B|	**19.2**		**9.420**	B|	**8.9**	B|
CHROMIUM, HEXAVALENT	10	ug/L	**19**		--		--		--	
COBALT	10	ug/L	**0.919**	B|	**5.66**	E|Jk	**4.130**		**1.06**	E|Jk
COPPER	10	ug/L	**3.440**	B|EJk	**15.9**		**12.1**	|EJk	**7.09**	B|
IRON	100	ug/L	**1250**		**5090**		**1630**	|Jl	**822**	
LEAD	3	ug/L	**1.000**	B|	**5.1**		**0.551**	B|	**0.261**	B|
MANGANESE	10	ug/L	**27.1**		**207**		**41.6**		**21.5**	
MERCURY	0.2	ug/L	<0.04		<0.043		<0.04		<0.043	
MOLYBDENUM	10	ug/L	<0.393		**0.767**	B|	**6.180**	B|	**2.03**	B|
NICKEL	20	ug/L	**9.600**	B|EJk	**37.8**		**27.3**	|EJk	**8.56**	B|
SELENIUM	3	ug/L	<0.302		<0.302		**0.689**	B|	**0.418**	B|
SILVER	10	ug/L	<0.014	|Uo	<0.145	B|Uop	<0.014		<0.126	B|Uop
THALLIUM	10	ug/L	**0.173**	B|	**0.132**	BN|Jlm	<0.115	B|Uo	**0.602**	BN|Jlm
VANADIUM	10	ug/L	<7.860	B|EUJpk	**14.8**		**10.9**	|EJk	**11.4**	
ZINC	20	ug/L	**12.3**	B|EJk	<232	E|UJpk	**46.8**	|EJk	<62.3	E|UJpk

< = Below Detection Limit
BOLD = Greater than the Detection Limit
-- = Not Analyzed

APPENDIX B
METALS - STORM WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LS-01		LS-01		
		Sample ID	RWSW0020		RWSW0021		
		Date	01/24/00		10/10/00		
		QA					
Analyte	CRDL	Units					
ALUMINUM	200	ug/L	**354**		**3160**	N|	1000
ANTIMONY	5	ug/L	**10.7**		**22.6**	B|	6
ARSENIC	3	ug/L	**4.3**	B|	**4.42**	B|	50
BARIUM	20	ug/L	**16.2**	B|	**213**		1000
BERYLLIUM	1	ug/L	<0.17		<0.456		4
CADMIUM	1	ug/L	<0.23		<0.686		5
CALCIUM	2000	ug/L	**1780**	B|	**3450**	B|	
CHROMIUM	10	ug/L	**3.3**	B|	**10.2**		50
CHROMIUM, HEXAVALENT	10	ug/L	**23**		<10		
COBALT	10	ug/L	**0.79**	B|	**2.16**	B|	
COPPER	10	ug/L	**1.0**	B|	**11.6**	B|	(1300)
IRON	100	ug/L	**582**		**3630**		
LEAD	3	ug/L	**2.0**	B|	**3.1**		(15)
MAGNESIUM	2000	ug/L	**1060**	B|	**3180**	B|	
MANGANESE	10	ug/L	**17**		**86.5**		
MERCURY	0.2	ug/L	--		<0.043		2
MOLYBDENUM	10	ug/L	--		<1.46		
NICKEL	20	ug/L	**4.8**	B|	**17.7**	B|	100
SELENIUM	3	ug/L	<2.1		<2.14		50
SILVER	10	ug/L	<1.1		<0.935		
SODIUM	2000	ug/L	**1100**	BE|	**7630**		
THALLIUM	10	ug/L	**5.5**	B|	<2.11		2
VANADIUM	10	ug/L	**2.4**	B|	**13.3**	B|	
ZINC	20	ug/L	**46.2**	E|	**93.1**		

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APPENDIX B
GENERAL CHEMISTRY - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LF-01		LF-01	LF-03		LF-03
		Sample ID	STMW0115		STMW0117	STMW0116		STMW0118
		Date	01/24/00		10/10/00	01/24/00		10/10/00
		QA						
Analyte	CRDL	Units						
ACUTE AQUATIC TOXICITY- SURVIVAL		%	100		100	100		95
NITROGEN, NITRATE	0.1	mg/L	**0.392**		**1.48**	**1.49**		**0.896**
OIL & GREASE	2	mg/L	--		<5.26	--		<5.21
TOTAL DISSOLVED SOLIDS	20	mg/L	**25**		**124**	**280**		**89.0**
TOTAL ORGANIC CARBON	1.00	mg/L	**4.41**		**51.0**	**27.1**		**26.4**
TOTAL SUSPENDED SOLIDS		mg/L	**4.2**	J|	**548**	**8.4**	J|	**41.0**

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APPENDIX B
GENERAL CHEMISTRY - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Analyte	CRDL	Units	LS-01 RWSW0020 01/24/00	LS-01 RWSW0021 10/10/00
		Location	LS-01	LS-01
		Sample ID	RWSW0020	RWSW0021
		Date	01/24/00	10/10/00
		QA		
ACUTE AQUATIC TOXICITY- SURVIVAL		%	100	95
ALKALINITY, TOTAL AS CACO3	10	mg/L	**11.1**	**14**
CHLORIDES	1	mg/L	**0.376**	--
HARDNESS	2	mg/L	**8.5**	**12**
NITROGEN, NITRATE	0.1	mg/L	**0.104**	**0.89**
TOTAL DISSOLVED SOLIDS	20	mg/L	**21**	**64**
TOTAL ORGANIC CARBON	1.00	mg/L	--	**18.5**
TOTAL SUSPENDED SOLIDS		mg/L	--	**52**

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APPENDIX B
VOLATILE ORGANIC COMPOUNDS - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LF-01	LF-01	LF-03	LF-03
		Sample ID	STMW0115	STMW0117	STMW0116	STMW0118
		Date	01/24/00	10/10/00	01/24/00	10/10/00
		QA				
Analyte	CRDL	Units				
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
1,1-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,1-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,2-DIBROMOETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
2-BUTANONE	1.0	ug/L	<1.0	<1.3 |Uy	<1.0	<0.58 J|Uy
2-HEXANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
ACETONE	5.0	ug/L	<5.0	<6.5 |Uy	<5.0	<1.8 J|Uy
BENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
BROMOCHLOROMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
BROMODICHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
BROMOFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
BROMOMETHANE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
CARBON DISULFIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
CARBON TETRACHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
CHLOROBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
CHLOROETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
CHLOROFORM	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
CHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50

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APPENDIX B
VOLATILE ORGANIC COMPOUNDS - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LF-01	LF-01	LF-03	LF-03
		Sample ID	STMW0115	STMW0117	STMW0116	STMW0118
		Date	01/24/00	10/10/00	01/24/00	10/10/00
		QA				
Analyte	CRDL	Units				
ETHYLBENZENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
METHYLENE CHLORIDE	1.0	ug/L	<1.0	<1.0	<1.0	<1.0
STYRENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
TETRACHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
TOLUENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
TRICHLOROETHENE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
VINYL CHLORIDE	0.50	ug/L	<0.50	<0.50	<0.50	<0.50
XYLENES (TOTAL)	1.0	ug/L	<1.0	<1.0	<1.0	<1.0

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APPENDIX B
VOLATILE ORGANIC COMPOUNDS - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LS-01		LS-01	
		Sample ID	RWSW0020		RWSW0021	
		Date	01/24/00		10/10/00	
		QA				
Analyte	CRDL	Units				
1,1,1-TRICHLOROETHANE	0.50	ug/L	<10		<1.0	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<10		<1.0	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<10		<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<10		<1.0	
1,1-DICHLOROETHENE	0.50	ug/L	<10		<1.0	
1,2-DICHLOROETHANE	0.50	ug/L	<10		<1.0	
1,2-DICHLOROETHENE	0.50	ug/L	<10		<2.0	
1,2-DICHLOROPROPANE	0.50	ug/L	<10		<1.0	
2-BUTANONE	1.0	ug/L	**2.16**	J|	**1.9**	J|
2-HEXANONE	1.0	ug/L	<10		<5.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<10		<5.0	
ACETONE	5.0	ug/L	**16.9**	B|	**8.3**	
AROCLOR-1016	0.2	ug/L	<0.98		<2.5	
AROCLOR-1221	0.4	ug/L	<2.0		<2.5	
AROCLOR-1232	0.2	ug/L	<0.98		<2.5	
AROCLOR-1242	0.2	ug/L	<0.98		<2.5	
AROCLOR-1248	0.2	ug/L	<0.98		<2.5	
AROCLOR-1254	0.2	ug/L	<0.98		<2.5	
AROCLOR-1260	0.2	ug/L	<0.98		<2.5	
BENZENE	0.50	ug/L	<10		<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<10		<1.0	
BROMOFORM	0.50	ug/L	<10		<1.0	
BROMOMETHANE	1.0	ug/L	<10		<1.0	
CARBON DISULFIDE	1.0	ug/L	<10		<5.0	
CARBON TETRACHLORIDE	0.50	ug/L	<10		<1.0	
CHLOROBENZENE	0.50	ug/L	<10		<1.0	
CHLOROETHANE	0.50	ug/L	<10		<1.0	
CHLOROFORM	0.50	ug/L	<10		<1.0	
CHLOROMETHANE	0.50	ug/L	<10		<1.0	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<10		<1.0	
DIBROMOCHLOROMETHANE	0.50	ug/L	<10		<1.0	

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APPENDIX B
VOLATILE ORGANIC COMPOUNDS - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LS-01		LS-01	
		Sample ID	RWSW0020		RWSW0021	
		Date	01/24/00		10/10/00	
		QA				
Analyte	CRDL	Units				
ETHYLBENZENE	0.50	ug/L	<10		<1.0	
METHYLENE CHLORIDE	1.0	ug/L	**0.795**	J|	**3.1**	J|
STYRENE	0.50	ug/L	<10		<1.0	
TETRACHLOROETHENE	0.50	ug/L	<10		<1.0	
TOLUENE	0.50	ug/L	<10		<1.0	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<10		<1.0	
TRICHLOROETHENE	0.50	ug/L	<10		<1.0	
VINYL CHLORIDE	0.50	ug/L	<10		<1.0	
XYLENES (TOTAL)	1.0	ug/L	<10		<3.0	

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APPENDIX B
PESTICIDES - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LF-01	LF-01		LF-03	LF-03
		Sample ID	STMW0115	STMW0117		STMW0116	STMW0118
		Date	01/24/00	10/10/00		01/24/00	10/10/00
		QA					
Analyte	CRDL	Units					
4,4'-DDD	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
4,4'-DDE	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
4,4'-DDT	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
ALDRIN	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
ALPHA-BHC	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
ALPHA-CHLORDANE	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
AROCLOR-1016	0.2	ug/L	<10.0	<0.096	UJs	<4.0	<0.10
AROCLOR-1221	0.4	ug/L	<20	<0.096	UJs	<8.0	<0.10
AROCLOR-1232	0.2	ug/L	<10.0	<0.096	UJs	<4.0	<0.10
AROCLOR-1242	0.2	ug/L	<10.0	<0.096	UJs	<4.0	<0.10
AROCLOR-1248	0.2	ug/L	<10.0	<0.096	UJs	<4.0	<0.10
AROCLOR-1254	0.2	ug/L	<10.0	<0.096	UJs	<4.0	<0.10
AROCLOR-1260	0.2	ug/L	<10.0	<0.096	UJs	<4.0	<0.10
BETA-BHC	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
DELTA-BHC	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
DIELDRIN	0.02	ug/L	<1.0	**0.014**	Js	<0.40	<0.0040
ENDOSULFAN I	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
ENDOSULFAN II	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
ENDOSULFAN SULFATE	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	**0.011**
ENDRIN	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
ENDRIN ALDEHYDE	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
ENDRIN KETONE	0.02	ug/L	<1.0	<0.0038	UJs	<0.40	<0.0040
GAMMA-BHC	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
GAMMA-CHLORDANE	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
HEPTACHLOR	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
HEPTACHLOR EPOXIDE	0.01	ug/L	<0.50	<0.0019	UJs	<0.20	<0.0020
METHOXYCHLOR	0.1	ug/L	<5.0	<0.019	UJs	<2.0	<0.020
TOXAPHENE	1.0	ug/L	<50.0	<0.19	UJs	<20	<0.20

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APPENDIX B
PESTICIDES - STORM WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LS-01		LS-01	
		Sample ID	RWSW0020		RWSW0021	
		Date	01/24/00		10/10/00	
		QA				
Analyte	CRDL	Units				
4,4'-DDD	0.02	ug/L	<0.098		<0.2	
4,4'-DDE	0.02	ug/L	<0.098		<0.2	
4,4'-DDT	0.02	ug/L	**0.044**	JP|	<0.2	
ALDRIN	0.01	ug/L	<0.049		<0.1	
ALPHA-BHC	0.01	ug/L	<0.049		<0.1	
ALPHA-CHLORDANE	0.01	ug/L	**0.016**	J|	<0.1	
BETA-BHC	0.01	ug/L	<0.049		**0.098**	J|
CHLORDANE (TECHNICAL)	10	ug/L	--		<1.2	
DELTA-BHC	0.01	ug/L	<0.049		<0.1	
DIELDRIN	0.02	ug/L	<0.098		<0.2	
ENDOSULFAN I	0.01	ug/L	<0.049		<0.1	
ENDOSULFAN II	0.02	ug/L	<0.098		<0.2	
ENDOSULFAN SULFATE	0.02	ug/L	<0.098		<0.2	
ENDRIN	0.02	ug/L	**0.027**	JP|	<0.2	
ENDRIN ALDEHYDE	0.02	ug/L	<0.098		<0.2	
ENDRIN KETONE	0.02	ug/L	<0.098		<0.2	
GAMMA-BHC	0.01	ug/L	<0.049		<0.1	
GAMMA-CHLORDANE	0.01	ug/L	**0.043**	J|	<0.1	
HEPTACHLOR	0.01	ug/L	**0.08**		<0.1	
HEPTACHLOR EPOXIDE	0.01	ug/L	<0.049		<0.1	
METHOXYCHLOR	0.1	ug/L	<0.49		<1.0	
TOXAPHENE	1.0	ug/L	<4.9		<5.0	

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APPENDIX B
RADIONUCLIDES - STORM WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LF-01			LF-01			LF-03			LF-03		
		Sample ID	STMW0115			STMW0117			STMW0116			STMW0118		
		Date	01/24/00			10/10/00			01/24/00			10/10/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
CARBON-14	20	pCi/L	26.5±9.3		14.5	-1.72±6.55	U|	11.5	0.679±8.47	U|	14.6	-2.29±6.72	U|	11.8
RADIUM-226	1	pCi/L	0.266±0.521	U|	0.955	0.122±0.447	U|	0.860	0.264±0.517	U|	0.948	0.134±0.324	U|	0.629
STRONTIUM-90	1	pCi/L	0.0283±0.47	U|	0.995	0.511±0.423	U|UJv	0.827	0.351±0.382	U|	0.759	0.149±0.190	U|UJv	0.318
TRITIUM	300	pCi/L	-128±154	U|	287	-182±142	U|	272	-320±140	U|	287	-152±144	U|	273

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APPENDIX B
RADIONUCLIDES - STORM WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	LS-01			LS-01		
		Sample ID	RWSW0020			RWSW0021		
		Date	01/24/00			10/10/00		
		QA						
Analyte	CRDL	Units			MDA			MDA
ACTINIUM-228	20	pCi/L	3.42±12.8	U|	11	6.81±7.57	U|	11.8
BISMUTH-212	70	pCi/L	6.78±12.4	U|	22.3	-2.08±11.9	U|	20.9
BISMUTH-214	10	pCi/L	5.17±3.2	U|	5.9	6.58±5.70		5.51
CARBON-14	20	pCi/L	-1.82±23.6	U|	41.1	10.6±6.19	U|	10.6
CESIUM-137	10	pCi/L	--			-1.38±1.53	U|	2.52
COBALT-60	10	pCi/L	0.0455±1.71	U|	2.95	0.11±1.64	U|	3.03
GAMMA SPECTRAL ANALYSIS		ug/L	728±	B|	41.5	5740±		21.5
GROSS ALPHA	2	pCi/L	0.0422±0.37	U|	0.677	1.05±0.659	U|	1.05
GROSS BETA	3	pCi/L	1.06±0.606	J|	0.99	6.11±1.37		2.06
LEAD-210	450	pCi/L	12.1±38.5	U|	30.7	34.3±408	U|	418
LEAD-212	10	pCi/L	2.45±4.76	U|	4.14	6.13±5.80	U|	6.13
LEAD-214	10	pCi/L	0.00±3.23	U|	5.73	7.29±6.18		7.1
POTASSIUM-40	100	pCi/L	0.00±21.7	U|	44.4	38.6±20.5	U|	42.6
RADIUM-223		pCi/L	-18.3±28.4	U|	45.9	--		
RADIUM-226	1	pCi/L	0.249±0.489	U|	0.896	0.266±0.450	U|	0.797
RADIUM-228	15	pCi/L	3.42±12.8	U|	11	--		
SODIUM-22	10	pCi/L	--			-0.556±1.67	U|	2.95
STRONTIUM-90	1	pCi/L	0.228±0.405	U|	0.763	0.447±0.257	U|	0.447
THALLIUM-208	5	pCi/L	0.22±3.66	U|	3.17	3.51±2.64	U|	3.51
THORIUM-234	200	pCi/L	0.00±33	U|	42.3	145±84.3	U|	151
TRITIUM	300	pCi/L	**568±319**	J|	511	--		
TRITIUM	300	pCi/mL	--			0.192±0.101	U|	0.192
URANIUM-235	25	pCi/L	--			5.86±15.4	U|	22.2
URANIUM-238	500	pCi/L	--			145±84.3	U|	151

< = Below Detection Limit
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-- = Not Analyzed

APPENDIX B
FIELD PARAMETERS - SURFACE WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Location	Date	Analyte Units	EC-F umhos/cm	EH-F mvolts	PH-F	TEMPERATURE degree C	TURBIDITY-F ntu
PCD	01/24/00		437.6	196	7.54	12.6	185
PCD	10/11/00		538.6	48	7.71	17.2	16.70
PCU	10/11/00		524.3	24	7.76	16.9	12.4
STPO	01/24/00		751.1	209	7.05	17.6	12.2
STPO	10/11/00		859.3	--	7.19	21.7	0.95

APPENDIX B
METALS - SURFACE WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	PCD		PCD		PCU		PCU		STPO		STPO	
		Sample ID	SWSW0242		SWSW0246		SWSW0245		SWSW0248		SWSW0243		SWSW0247	
		Date	01/24/00		10/11/00		10/11/00		10/11/00		01/24/00		10/11/00	
		QA							DUPLICATE					
Analyte	CRDL	Units												
ANTIMONY	5	ug/L	**0.904**	B|	<0.752	BN|UJImop	<0.722	BN|UJImop	<0.683		<0.683		<0.861	BN|UJImop
ARSENIC	3	ug/L	**4.880**		**2.87**	B|	**3.39**	B|	**2.91**	B|	**6.110**		**6.04**	
BARIUM	20	ug/L	**56.1**	|EJk	**114**		**116**		**112**		**42.7**	|EJk	**38.4**	
BERYLLIUM	1	ug/L	<0.010		<0.050		<0.050		<0.010		<0.010		<0.010	
BORON		ug/L	--		**747**	|JI	**697**	|JI	**713**	|JI	--		**878**	|JI
CADMIUM	1	ug/L	<0.130		<0.130		<0.130		<0.130		<0.130		<0.130	
CHROMIUM	10	ug/L	<5.960	B|Up	<4.18	B|Up	<4.69	B|Up	**4.45**	B|Up	<6.030	B|Up	<3.14	B|Up
CHROMIUM, HEXAVALENT	10	ug/L	<10		--		--		--		<5.0	J|Up	--	
COBALT	10	ug/L	**1.460**		**0.049**	BE|Jk	<0.010		<0.010		**0.531**	B|	**0.235**	BE|Jk
COPPER	10	ug/L	**6.610**	B|EJk	**2.46**	B|	**1.93**	B|	**1.66**	B|	**58.0**	|EJk	**11.6**	
IRON	100	ug/L	**227**	|JI	**124**	B|	<104	B|Up	<88.2	B|Up	**179**	|JI	<56.1	B|Up
LEAD	3	ug/L	**0.067**	B|	<0.010		**0.08**	B|	<0.010		**0.204**	B|	**0.305**	B|
MANGANESE	10	ug/L	**13.8**		**4.3**	B|	**4.65**	B|	**4.73**	B|	**4.940**	B|	**0.402**	B|
MERCURY	0.2	ug/L	<0.04		<0.043		<0.043		<0.043		<0.040		<0.043	
MOLYBDENUM	10	ug/L	**4.050**	B|	**1.39**	B|	**0.696**	B|	**0.643**	B|	**4.040**	B|	**8.79**	B|
NICKEL	20	ug/L	**9.820**	B|EJk	**2.64**	B|	**2.31**	B|	**2.35**	B|	**4.010**	B|EJk	**2.15**	B|
SELENIUM	3	ug/L	**0.763**	B|	**0.559**	B|	**0.442**	B|	**0.338**	B|	**1.110**	B|	**0.797**	B|
SILVER	10	ug/L	<0.014		<0.098	B|Uop	<0.093	B|Upo	<0.098	B|Uop	<0.115	B|Uop	<0.116	B|Uop
THALLIUM	10	ug/L	**0.66**	B|	<0.026	N|UJm	**0.113**	BN|JIm	<0.026	N|UJm	<0.259	B|Uo	<0.026	N|UJm
VANADIUM	10	ug/L	<7.760	B|EUJpk	**6.65**	B|	**5.89**	B|	**5.07**	B|	**12.4**	|EJk	**22.2**	
ZINC	20	ug/L	**19.9**	B|EJk	<10.5	BE|UJpk	<9.32	BE|UJpk	<8.77	BE|UJpk	**22.6**	|EJk	**44.5**	E|Jk

< = Below Detection Limit
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APPENDIX B
GENERAL CHEMISTRY - SURFACE WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	PC2		PCD		PCD	PCU	PCU	STPO		STPO
		Sample ID	SWSW0244		SWSW0242		SWSW0246	SWSW0245	SWSW0248	SWSW0243		SWSW0247
		Date	01/24/00		01/24/00		10/11/00	10/11/00	10/11/00	01/24/00		10/11/00
		QA										
Analyte	CRDL	Units										
CERIODAPHINA SPECIES - MORTALITY		%	<100	IRQ	<100	IRQ	--	--	--	<100	IRQ	--
CERIODAPHINA SPECIES - REPRODUCTION		%	<100	IRQ	<100	IRQ	--	--	--	<100	IRQ	--
NITROGEN, NITRATE	0.1	mg/L	--		**1.64**		**2.35**	**2.07**	**1.85**	**7.29**		**6.53**
PIMEPHALIS SPECIES - GROWTH		%	<100	IRQ	<100	IRQ	--	--	--	<100	IRQ	--
PIMEPHALIS SPECIES - MORTALITY		%	<50	IRQ	<100	IRQ	--	--	--	<100	IRQ	--
SELENASTRUM SPECIES - TOXICITY		%	<100	IRQ	<100	IRQ	--	--	--	<100	IRQ	--
TOTAL DISSOLVED SOLIDS	20	mg/L	--		**266**		**304**	**304**	**299**	**463**		**502**

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APPENDIX B
PESTICIDES - SURFACE WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	PCD	PCD	PCU	PCU	STPO	STPO
		Sample ID	SWSW0242	SWSW0246	SWSW0245	SWSW0248	SWSW0243	SWSW0247
		Date	01/24/00	10/11/00	10/11/00	10/11/00	01/24/00	10/11/00
		QA						
Analyte	CRDL	Units						
4,4'-DDD	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
4,4'-DDE	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
4,4'-DDT	0.02	ug/L	<0.40	<0.0039	<0.0038	**0.0017** JP|Jg	<1.0	<0.0039
ALDRIN	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
ALPHA-BHC	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
ALPHA-CHLORDANE	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
AROCLOR-1016	0.2	ug/L	<4.0	<0.098	<0.096	<0.096	<10.0	<0.098
AROCLOR-1221	0.4	ug/L	<8.0	<0.098	<0.096	<0.096	<20	<0.098
AROCLOR-1232	0.2	ug/L	<4.0	<0.098	<0.096	<0.096	<10.0	<0.098
AROCLOR-1242	0.2	ug/L	<4.0	<0.098	<0.096	<0.096	<10.0	<0.098
AROCLOR-1248	0.2	ug/L	<4.0	<0.098	<0.096	<0.096	<10.0	<0.098
AROCLOR-1254	0.2	ug/L	<4.0	<0.098	<0.096	<0.096	<10.0	<0.098
AROCLOR-1260	0.2	ug/L	<4.0	<0.098	<0.096	<0.096	<10.0	<0.098
BETA-BHC	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
DELTA-BHC	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
DIELDRIN	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
ENDOSULFAN I	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
ENDOSULFAN II	0.02	ug/L	<0.40	**0.0033** J|	<0.0038	<0.0038	<1.0	<0.0039
ENDOSULFAN SULFATE	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
ENDRIN	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
ENDRIN ALDEHYDE	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
ENDRIN KETONE	0.02	ug/L	<0.40	<0.0039	<0.0038	<0.0038	<1.0	<0.0039
GAMMA-BHC	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
GAMMA-CHLORDANE	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
HEPTACHLOR	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
HEPTACHLOR EPOXIDE	0.01	ug/L	<0.20	<0.0020	<0.0019	<0.0019	<0.50	<0.0020
METHOXYCHLOR	0.1	ug/L	<2.0	<0.020	<0.019	<0.019	<5.0	<0.020
TOXAPHENE	1.0	ug/L	<20	<0.20	<0.19	<0.19	<50.0	<0.20

< = Below Detection Limit
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APPENDIX B
VOLATILE ORGANIC COMPOUNDS - SURFACE WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Analyte	CRDL	Units	PCD SWSW0242 01/24/00		PCD SWSW0246 10/11/00	PCU SWSW0245 10/11/00	PCU SWSW0248 10/11/00	STPO SWSW0243 01/24/00	STPO SWSW0247 10/11/00	
		Location	PCD		PCD	PCU	PCU	STPO	STPO	
		Sample ID	SWSW0242		SWSW0246	SWSW0245	SWSW0248	SWSW0243	SWSW0247	
		Date	01/24/00		10/11/00	10/11/00	10/11/00	01/24/00	10/11/00	
		QA								
1,1,1-TRICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,1,2,2-TETRACHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,1,2-TRICHLOROETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
1,1-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,1-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,2-DIBROMO-3-CHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,2-DIBROMOETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,2-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	
1,2-DICHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,2-DICHLOROPROPANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
1,3-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	
1,4-DICHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	
2-BUTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
2-HEXANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
4-METHYL-2-PENTANONE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
ACETONE	5.0	ug/L	<5.0		<5.0	<5.0	<5.0	<5.0	<5.0	
BENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	
BROMOCHLOROMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
BROMODICHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	**1.7**	<0.50	
BROMOFORM	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
BROMOMETHANE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
CARBON DISULFIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0	<1.0	
CARBON TETRACHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
CHLOROBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50	<0.50	
CHLOROETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
CHLOROFORM	0.50	ug/L	**1.3**		<0.50	<0.50	<0.50	**9.4**	**0.23**	J|
CHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
CIS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
CIS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	
DIBROMOCHLOROMETHANE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50	<0.50	

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APPENDIX B
VOLATILE ORGANIC COMPOUNDS - SURFACE WATER
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	PCD		PCD	PCU	PCU	STPO		STPO	
		Sample ID	SWSW0242		SWSW0246	SWSW0245	SWSW0248	SWSW0243		SWSW0247	
		Date	01/24/00		10/11/00	10/11/00	10/11/00	01/24/00		10/11/00	
		QA									
Analyte	CRDL	Units									
ETHYL ETHER	1.0	ug/L	--		--	--	--	**1.3**	NJ|	--	
ETHYLBENZENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50		<0.50	
METHYLENE CHLORIDE	1.0	ug/L	<1.0		<1.0	<1.0	<1.0	<1.0		<0.72	JB|Uz
STYRENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50		<0.50	
TETRACHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50		<0.50	
TOLUENE	0.50	ug/L	<0.50	|UJh	<0.50	<0.50	<0.50	<0.50		<0.50	
TRANS-1,2-DICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50		<0.50	
TRANS-1,3-DICHLOROPROPENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50		<0.50	
TRICHLOROETHENE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50		<0.50	
VINYL CHLORIDE	0.50	ug/L	<0.50		<0.50	<0.50	<0.50	<0.50		<0.50	
XYLENES (TOTAL)	1.0	ug/L	<1.0	|UJh	<1.0	<1.0	<1.0	<1.0		<1.0	

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APPENDIX B
RADIONUCLIDES - SURFACE WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	PCD			PCD			PCU			PCU		
		Sample ID	SWSW0242			SWSW0246			SWSW0245			SWSW0248		
		Date	01/24/00			10/11/00			10/11/00			10/11/00		
		QA												
Analyte	CRDL	Units			MDA			MDA			MDA			MDA
CARBON-14	20	pCi/L	**60.9±10.2**		14.1	-5.96±6.49	U|	11.6	-5.16±6.32	U|	11.3	-1.7±6.46	U|	11.3
RADIUM-226	1	pCi/L	0.686±0.475	|Jv	0.232	0.562±0.561	U|UJv	0.883	0.578±0.417	|Jv	0.472	1.22±0.591		0.626
STRONTIUM-90	1	pCi/L	-0.144±0.16	U|	0.292	-0.0366±0.2	U|	0.522	0.0892±0.29	U|	0.610	0.282±0.316	U|	0.631
TRITIUM	300	pCi/L	-224±147	U|	286	-184±143	U|	275	-125±150	U|	279	-123±147	U|	275

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APPENDIX B
RADIONUCLIDES - SURFACE WATER
2000 ANNUALGROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

		Location	STPO			STPO		
		Sample ID	SWSW0243			SWSW0247		
		Date	01/24/00			10/11/00		
		QA						
Analyte	CRDL	Units			MDA			MDA
CARBON-14	20	pCi/L	-2.54±8.26	U|	14.5	0.118±6.67	U|	11.6
RADIUM-226	1	pCi/L	0.63±0.636	U|UJv	0.97	0.408±0.565	U|UJv	0.960
STRONTIUM-90	1	pCi/L	-0.0936±0.1	U|	0.269	0.278±0.351	U|	0.706
TRITIUM	300	pCi/L	-224±147	U|	287	-214±141	U|	274

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-- = Not Analyzed

Appendix C

Data Quality Evaluation

APPENDIX C
QUALITY ASSURANCE AND QUALITY CONTROL SUMMARY
2000 ANNUAL REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

The quality assurance and quality control (QA/QC) program for the 2000 Annual Groundwater Treatment System and Water Monitoring Programs (including treatment system influent and effluent, groundwater, surface water, and storm water) was implemented in accordance with the Final Revised Quality Assurance Project Plan (QAPjP; Dames & Moore, 1998b). Included in the QAPjP are sections identifying quality control sample collection requirements and data quality objectives (DQOs) for the measurement data. Data quality for water monitoring in 2000 was evaluated with respect to travel blanks, field duplicates, laboratory quality control samples, and data validation. Guidelines provided in the QAPjP were used to evaluate all data collected during the 2000 Groundwater Treatment System and Water Monitoring Programs.

C.1 Data Quality Objectives

Quality control samples collected in the field and submitted for analysis included 23 duplicate samples to assess overall precision and representativeness, and daily travel blank samples analyzed only for volatile organic compounds to identify contaminants which may have been introduced during sample transit or during sample storage at the laboratory. Additional sample volumes were collected from six locations and submitted to the analytical laboratory for matrix spike analyses to determine of any matrix interference was associated with the analytical results. A summary of the results for the field quality control samples collected and analyzed in 2000 is presented below.

- Field duplicates were collected at a frequency of 8.4 percent, below the minimum requirement of 10 percent specified in the QAPjP. Field duplicate collection for the Water Monitoring Program was 9.3%, while field duplicate collection for the Groundwater Treatment System was 5.8%. Most results of field duplicate samples were found to be within the QAPjP limits of precision, indicating representative sampling techniques and overall precision of the analytical methods employed. Where results were found to be dissimilar, the associated results are considered estimated. For Winter 2000, the total organic carbon results in UCD2-35 were rejected due to failed precision.

- Field travel blank samples collected and analyzed in 2000 were reported non-detect for most potential COCs. However, acetone, 2-butanone, carbon disulfide, chloromethane, 1,2-dichloroethane, 2-hexanone, methylene chloride, and toluene were reported in travel blanks. Methylene chloride is a common laboratory contaminant and low concentrations were reported for most travel blanks. Similar detections for the compounds detected in the Field travel blank samples and in the associated samples are considered anomalous and have been qualified appropriately.

- Six samples were designated for matrix spike analyses in 2000. In addition, the laboratory selected several other samples for matrix spike analysis in order to achieve the minimum QAPjP requirement of five percent of the primary samples for most chemical analyses. Matrix spike sample analyses show little or no matrix interference with the samples collected, as most results were found to be within the acceptance criteria for accuracy outlined in the QAPjP.

Accuracy and precision of the analytical results were further demonstrated by the laboratory's use of appropriate standards for calibrations and quality control measurements. The laboratory also employed method blank samples to assess contamination introduced by sample preparation and analytical procedures. Comparability was demonstrated by the use of standard analytical procedures and reporting units established by the USEPA for the evaluation of groundwater, surface water, and storm water. The results of the laboratory quality control samples that warranted disqualification of the sample data for 2000 are described below.

- Common laboratory contaminants including methylene chloride, acetone, and phthalates were reported in several laboratory method blanks resulting in the qualification of associated data. The laboratory operates in a manner to minimize these common laboratory contaminants and most reported detections are below the laboratory's typical reporting limit for the respective compound.

- Difficulties in meeting the validation acceptance criteria for instrument calibration resulted in the rejection of reported non-detect values of benzo(k)fluoranthene in some samples collected in 2000. For these compounds, evaluation criteria specified in the US EPA's National Functional Guidelines (US EPA, 1994a and 1994b) are more stringent than the acceptance criteria defined in the US EPA methods.

- Very low laboratory control sample recoveries for phenol and 4-nitrophenol resulted in the rejection of reported non-detect values for these compounds in some samples collected in 2000.

- Difficulties in the testing procedure and with the laboratory control population resulted in the rejection of the aquatic toxicity data for the samples from the Winter Quarter 2000. In addition, the validation of the aquatic toxicity data for the samples from the Fall Quarter 2000 has not been completed as the laboratory has not issued a final report.

More than 16,000 analytical results were validated according to procedures outlined in the QAPjP. Results of the validation are discussed below in Section C.2 and indicate that more than 99% of the results were acceptable. The completeness objective of greater than 90% was achieved for the 2000 Annual Groundwater Treatment System and water Monitoring Programs.

C.2 Data Validation Summary

Data validation was performed in compliance with the QAPjP, using protocols consistent with the US EPA National Functional Guidelines (US EPA, 1994a and 1994b). The purpose of data validation is to assess the ability of the analytical data to serve their intended use. Data from each of the analyses were evaluated in the following areas based on criteria presented in the standard operating procedures that are included in the QAPjP and consist of:

- Data completeness;
- Holding times;
- Initial and continuing calibrations;
- Blanks;
- System monitoring compounds (surrogates – organic analyses only);
- Internal standards (where applicable);
- Laboratory control standards;
- Matrix spike/matrix spike or sample duplicates;
- Field duplicates;
- Compound identification and quantitation; and
- Raw data and calculations.

As specified in the standard operating procedures for data validation presented in the QAPjP, irregularities with potential impacts on data quality and usability are identified through the application of data validation codes. Data qualified as estimated (J/UJ) exhibited some bias during analysis and should be considered an approximate measure of the respective analyte concentration. Data qualified as anomalous (U) should be considered a non-detect, given the adjusted reporting limit. Data qualified as rejected (R) are not useful in determining the presence or absence of the respective analyte. Tables C-1 through C-4 further explain the qualification codes applied to the data. Validation summaries for the monthly sampling events associated with the Groundwater Treatment System Monitoring Program for January 2000 through December 2000 were previously presented in the respective monthly monitoring reports. For the Winter, Spring, and Summer monitoring rounds in 2000, data validation results have been discussed in the respective quarterly monitoring reports. A detailed summary of the data quality for the Fall Quarter 2000 monitoring round is presented in the data validation memorandum included at the end of this appendix.

TABLE C-1
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
ASSIGNED BY URS'S DATA REVIEW TEAM
2000 ANNUAL REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

URS DATA QUALIFIER DEFINITIONS

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.

URS DATA QUALIFIER DEFINITIONS — REASON CODE DEFINITIONS

a Analytical sequence deficiency or omission.
b Gross compound breakdown (4,4'-DDT/Endrin).
c Calibration failure; poor or unstable response.
d Laboratory duplicate imprecision.
e Laboratory duplicate control sample imprecision.
f Field duplicate imprecision.
g Poor chromatography.
h Holding time violation.
i Internal standard failure.
j Poor mass spectrographic performance.
k Serial dilution imprecision.
l Laboratory control sample recovery failure.
m Matrix spike/matrix spike duplicate recovery failure.
n Interference check sample recovery failure.
o Calibration blank contamination (metals/inorganics only).
p Preparation blank contamination (metals/inorganics only).
q No valid quantitation column present.
r Linearity failure in initial calibration.
s Surrogate spike recovery failure (GC organics and GC/MS organics only).
t Instrument tuning failure.
u No valid confirmation present (GC Organics only).
v Value is estimated below the MDA (Rads only).
w Retention time (RT) outside of RT window.
x Field blank contamination.
y Trip blank contamination
Z Method blank contamination.
Q Other.

INTERPRETATION KEY

The following example shows how an analytical result which includes qualifiers assigned by both the URS data review team and the analytical laboratory could be displayed in the data tables:

<5.20 JB | Uz

The qualifier assigned by the data review team follows the "|"; the laboratory qualifier precedes it. In this example, the result is qualified as a non-detection due to the bias introduced by contamination of the associated method blank. Presence of the analyte in the method blank is indicated by the laboratory qualifier (B). The qualifier assigned by the URS data review team (Uz) indicates that the analyte concentration is considered to be below the adjusted detection limit (quantitation limit) based on the level of contamination in the method blank.

TABLE C-2
GENERAL ENGINEERING LABORATORIES, INC.
DATA QUALIFIERS FOR ORGANIC ANALYSES
2000 ANNUAL REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Data Qualifiers used on Form 1s or Certificates of Analysis (C of A) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
A	The TIC is suspected aldol-condensation product.	C of A, Form 1, and EDD
B	Analyte was detected in the associated method blank as well as in the sample	C of A, Form 1, and EDD
C	Pesticide analyte has been confirmed by GC/MS.	C of A, Form 1, and EDD
D	Analyte(s) quantified in an analysis performed at a secondary dilution factor.	C of A, Form 1, and EDD
E	Identifies compounds whose concentrations exceed the upper level of the calibration range of the instrument for that specific analysis.	C of A, Form 1, and EDD
J	This flag indicates an estimated value concerning either, (1) estimating a concentration for tentatively identified compounds (TICs), or (2) analyte detected at a level less than the RDL or PQL and greater than or equal to the MDL.	C of A, Form 1, and EDD
N	Presumptive evidence based upon a mass spectral library search to make a tentative identification of the analyte	C of A, Form 1, and EDD
NJ	Analyte has been tentatively identified and the associated numerical value is estimated based on 1:1 response factor to the nearest eluting internal standard.	C of A, Form 1, and EDD
P	Pesticide/PCB target analyte that is greater than 25% difference for the detected concentrations between the two GC columns.	C of A, EDD, Form 1.
U	Compound analyzed for but not detected (sample quantitation limit has been adjusted to reflect dilutions and percent moisture).	C of A, Form 1, and EDD
X	Other reporting flag as defined in report narrative.	C of A, Form 1, and EDD
**	Laboratory Control Sample recovery outside of acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or C of A.
Any recoveries falling outside the acceptance range will be flagged with a **.

TABLE C-3
GENERAL ENGINEERING LABORATORIES, INC.
DATA QUALIFIERS FOR INORGANIC ANALYSES
2000 ANNUAL REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Data Qualifiers used on Form 1s or Certificates of Analysis (C of A) follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Section	Explanation	Location
E	The reported value is estimated because of the presence of interference.	C of A, Form 1, and EDD
*	Duplicate analysis not within control limit.	C of A, Form 1, and EDD
)	Correlation Coefficient for the MSA is less than 0.995.	C of A, Form 2, and EDD
B	Analyte(s) quantified in an analysis performed at a secondary dilution factor.	C of A, Form 1, and EDD
M	Duplicate Injection precision not met.	C of A, Form 1, and EDD
N	Spiked sample recover not within control limits.	C of A, Form 1, and EDD
S	Reported Method was determined by MSA.	C of A, Form 1, and EDD
U	Analyte was analyzed for but not detected.	C of A, Form 1, and EDD
W	Post-digestion spike for GFAA is out of control limit (85-115%), while sample absorbance is less than 50% of spike absorbance.	C of A, EDD, Form 5, part 2
X	Other reporting flag as defined in report narrative.	C of A, Form 1, and EDD
**	Laboratory Control Sample recovery outside of acceptance limit.	QC Summary Report

All surrogate recoveries and acceptance ranges are reported at the bottom of Form 2 or C of A.
Any recoveries falling outside the acceptance range will be flagged with a **.

TABLE C-4
QUANTERRA ENVIRONMENTAL SERVICES
LABORATORY DATA QUALIFIERS FOR ANALYSES
2000 ANNUAL REPORT
LEHR/SCDS ENVIRONMENTAL RESTORATION
DAVIS, CALIFORNIA

Data qualifiers used on Form 1s or Certificate of Analysis follow the specifications set forth in the technical specifications of the most current CLP Statement of Work and are defined as follows:

Qualifier	Definition
J	(Organics only) Estimated value greater than MDL but less than CRDL.
D	Diluted.
U	Not detected.
B	(Metals only) Estimated value greater than IDL but less than CRDL.
B	(Organics only) Analyte found in the blank.
E	Exceeds calibration

URS

DATA VALIDATION MEMO
2870 Gateway Oaks Drive, Suite 300
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Project: UC Davis/LEHR Fall Quarter 2000 Groundwater Sampling

Introduction

This report summarizes the findings of the validation of 34 groundwater samples (including 3 field duplicate pairs), 2 treatment plant samples, 4 surface water samples (including 1 field duplicate pair), 2 storm water samples, and 6 trip blanks. These samples were collected as part of the Fall Quarter 2000 Groundwater Sampling for the LEHR/SCDS at the University of California in Davis, October 11 through November 7, 2000. The samples were sent to General Engineering Laboratories, Inc. in Charleston, South Carolina for analysis. The samples are listed in Table 1 included at the end of this document. The data were reviewed in accordance with the Dames & Moore standard operating procedures presented in the final QAPP (Dames & Moore, 1998), *USEPA National Functional Guidelines for Organic Data Review* (EPA, 1994), and *USEPA National Functional Guidelines for Inorganic Data Review* (EPA, 1994).

1.0 Volatiles

Forty-two samples and six trip blanks were analyzed for volatile organic compounds (EPA 8260). The laboratory data were reviewed to evaluate compliance with this method and the quality of the data reported. The following summarizes the results of this review.

The areas reviewed are listed below. A check mark (✓) indicates an area of review in which all data were acceptable without qualification; a crossed circle (⊗) signifies an area where issue(s) raised during the validation impacted data quality and/or usability.

- ✓ Data Completeness
- ✓ Holding Times and Preservation
- ✓ Calibrations
- ✓ Internal Standards
- ✓ Performance Check Sample
- ⊗ Blanks
- ✓ System Monitoring Compounds
- ✓ Laboratory Control Samples
- ✓ Matrix Spike/Matrix Spike Duplicates
- ✓ Field Duplicates
- ✓ Compound Identification and Quantitation
- ✓ Raw Data Audit

1.1 Data Completeness

All analyses were performed as requested on the chain-of-custody records.

1.2 Holding Time and Preservation

All samples were analyzed within the 14-day holding time from the date of collection.

1.3 Calibrations

1.3.1 Initial Calibrations (IC)

Appropriate multi-point initial calibration curves were performed for each compound. Based on the method of calibration, the laboratory calculated either a percent relative standard deviation (%RSD) or a relative response factor (RRF) for each target compound. The acceptance criteria were met for all target compounds.

1.3.2 Continuing Calibration Verification (CCV)

For all target compounds, the relative response factors (RRFs) were greater than 0.05. For all target compounds except those listed below, the percent differences (%D) between the RRFs from the initial calibration and the RRFs from the continuing calibration were within acceptance criteria (25%).

Continuing Calibration	Compound	%D	Qualified Samples	Qualifier
11/15/00 08:57	2-Butanone	26.0%	None	NA
11/16/00 11:34	2-Butanone	30.4%	None	NA
11/17/00 09:27	Bromomethane	29.3%	None	NA
11/20/00 09:44	Acetone	36.1%	None	NA
	2-Butanone	31.6%	None	NA

1.4 Internal Standards

All sample internal standard area counts met acceptance criteria, ≥50% and ≤200% of the associated continuing calibrations internal standard area counts; and all sample internal standard retention times are within ±30 seconds of the associated continuing calibration internal standard retention time.

1.5 Performance Check Sample

An instrument performance check sample was analyzed at the beginning of each 12-hour period during sample analysis. All ion abundance criteria for bromofluorobenzene (BFB) met the method-specified acceptance criteria. The samples were analyzed within the associated 12-hour periods.

1.6 Blanks

Target compounds detected in the associated blanks are summarized in the table below. Sample results were qualified as anomalous (U) if on-column sample concentrations were within five times the blank concentration for uncommon laboratory contaminants or ten times the blank concentration for common laboratory contaminants (e.g., acetone, methylene chloride).

Blanks	Compound	Conc.	Qualified Samples	Qualifier
VBLK02 11/15/00	Acetone	3.0 µg/L	**GWGW1157**	U
			GWGW1162	U
			GWGW1164	U
			GWGW1165	U
			TBGW0352	U
			GWGW1169	U
			GWGW1159	U
			TPEF0149	U
			TBGW0351	U
	Methylene Chloride	0.54 µg/L	**GWGW1184**	U
			TBGW0352	U
			GWGW1158	U
			GWGW1159	U
			GWGW1168	U
			GWGW1169	U
			GWGW1178	U
			TPEF0149	U
			TPIN0149	U
			TBGW0351	U
VBLK01 10/17/00	Methylene Chloride	0.52 µg/L	**SWSW0247**	U
TBGW0352	Acetone	0.92 µg/L	**GWGW1157**	U
			GWGW1162	U
			GWGW1164	U
			GWGW1165	U
	Methylene Choride	0.56 µg/L	**GWGW1184**	U
TBGW0349	Acetone	0.60 µg/L	**STMW0117**	U
			STMW0118	U
	2-Butanone	0.82 µg/L	**STMW0117**	U
			STMW0118	U
TBGW0350	Acetone	2.4 µg/L	None	NA
	2-Butanone	0.82 µg/L	None	NA
	Chloromethane	0.23 µg/L	None	NA
TBGW0353	Acetone	0.71 µg/L	**GWGW1179**	U
			GWGW1183	U
	2-Butanone	1.5 µg/L	None	NA
TBGW0351	Acetone	1.8 µg/L	**GWGW1168**	U
			GWGW1169	U
			TPEF0149	U
	Methylene Chloride	0.45 µg/L	**GWGW1158**	U
			GWGW1159	U
			GWGW1168	U
			GWGW1169	U

Blanks	Compound	Conc.	Qualified Samples	Qualifier
TBGW0351 (cont.)	Methylene Chloride (cont.)	0.45 µg/L	**GWGW1178**	U
			TPEF0149	U
			TPIN0149	U

1.7 System Monitoring Compounds
The surrogates (bromofluorobenzene, dibromofluoromethane, and toluene-d8) are appropriate to the method. All surrogate recoveries were within laboratory acceptance limits.

1.8 Laboratory Control Samples (LCS)
The LCS recoveries for all spiked compounds were within the QAPP-specified acceptance criteria.

1.9 Matrix Spike/Matrix Spike Duplicate (MS/MSD)
Samples **STMW0117**, **GWGW1174**, and **GWGW1178** were utilized for the MS/MSD analyses. All percent recoveries and relative percent differences were within the QAPP-specified acceptance criteria.

1.10 Field Duplicates
The blind field duplicate pairs, **SWSW0245/SWSW0248**, **GWGW1171/ GWGW1172**, **GWGW1162/GWGW1163** and **GWGW1164/GWGW1165**, demonstrated acceptable field and analytical precision.

1.11 Compound Identification and Quantitation
Sample **GWGW1168** was diluted five-fold due to the concentration of chloroform in the sample. Siloxanes, hexanes and unknown compounds were reported as a tentatively identified compounds in the associated method blanks as well as the associated project samples. Consequently, the reported detections of siloxanes, hexanes, and unknown compounds in the project samples have been qualified as anomalous "U" due to blank contamination. Siloxanes are indicative of column bleeding and are not native to the samples.

1.12 Raw Data Audit
A complete review of raw data and a calculation audit were performed for samples **GWGW1156**, **GWGW1158**, **GWGW1160**, **GWGW1161**, **GWGW1167**, **GWGW1169**, **GWGW1171**, and **GWGW1177**. No anomalies were noted with the data for these samples. Quantitation reports were consistent with calibrations and reported results. For these samples, the reported results were confirmed through recalculations.

2.0 Semivolatile Organic Compounds

Three aqueous samples were analyzed for semivolatile organic compounds (EPA 8270). The laboratory data were reviewed to evaluate compliance with this method and the quality of the data reported. The following summarizes the results of this review.

The areas reviewed are listed below. A check mark (✓) indicates an area of review in which all data were acceptable without qualification; a crossed circle (⊗) signifies an area where issue(s) raised during the validation impacted data quality and/or usability.

- ✓ Data Completeness
- ✓ Holding Times and Preservation
- ✓ Calibrations
- ✓ Blanks
- ✓ Internal Standards
- ✓ Instrument Performance Check
- ✓ Surrogates
- ✓ Laboratory Control Samples
- ✓ Matrix Spike/Matrix Spike Duplicates
- ✓ Compound Identification and Quantitation
- ✓ Raw Data Audit

2.1 Data Completeness

The analyses were performed as requested on the chain-of-custody records.

2.2 Holding Time and Preservation

The samples were extracted by the laboratory within the 7-day holding time from date of collection and analyzed within the 40-day holding time from extraction to analysis for semivolatiles.

2.3 Calibrations

2.3.1 Initial Calibrations (IC)

An appropriate multi-point initial calibration was performed for each compound. The laboratory calculated a %RSD or a correlation coefficient for each target compound. For all target compounds, the %RSD was within acceptance criteria (30%), and the RRFs were greater than 0.050.

2.3.2 Continuing Calibration (CCC)

The RRFs were greater than 0.05 for all target compounds. The %D between the RRFs in the initial calibration and the response factor of the midrange calibration standard of all target compounds were within acceptance criteria (±25%) except for those listed below.

Cont. Cal.	Compound	%D	Qualified Samples	Qualifier
CCAL 11/15/00 13:38	N-Nitrophenol	39.6%	None	NA
CCAL 11/15/11 14:07	3,3-Dichlorobenzidine	25.3%	None	NA

2.4 Blanks

No target compounds were detected in the associated method blanks.

2.5 Internal Standards

All sample internal standard area counts were within the acceptance criteria (≥50% and ≤200%) of the associated continuing calibrations internal standard area counts and all sample internal standard retention times are within ±30 seconds of the associated continuing calibration internal standard retention time.

2.6 Instrument Performance Check

An instrument performance check sample was analyzed at the beginning of each 12-hour period during sample analysis. The samples were analyzed within the 12-hour periods. Decafluorotriphenylphosphine (DFTPP) met the method-specified ion abundance criteria.

2.7 Surrogates

The surrogates (2-fluorobiphenyl, terphenyl-d14, 2-chlorophenol-d4, 2-fluorophenol, 2,4,6-tribromophenol, nitrobenzene-d5, 1,2-dichlorobenzene-d4, and phenol-d5) are appropriate to the method. All surrogate recoveries were within the laboratory QC limits, except for surrogate acid recoveries listed in the following table, which are outside the laboratory acceptance criteria.

Sample	Surrogate	% Recovery	Compounds	Qualifier
GWGW1185MS	2-Fluorophenol	71%	None	NA
GWGW1185 MSD	2-Fluorophenol Phenol-d5	74% 54%	None	NA

2.8 Laboratory Control Sample (LCS)

The LCS recoveries for all spiked compounds were within acceptable limits.

2.9 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Sample **GWGW1185** was utilized for MS/MSD analysis. The percent recoveries and relative percent differences were within laboratory acceptance criteria except those listed in the following table.

Spiked Sample	Outlier(s)	MS/MSD		Sample Conc. (µg/L)	Sample Qualifier
		Ave. % Rec.	RPD		
GWGW1185	1,4-dichlorobenzene	83.5%*	5	ND	NA

2.10 Compound Identification and Quantitation

No dilutions were performed.

2.11 Raw Data Audit

A complete review of raw data and a calculation audit were performed for sample **GWGW1185**. No anomalies were noted for this data. Quantitation reports were consistent with calibrations and reported results. For this sample, the reported results were confirmed.

3.0 Pesticides/PCBs

Nine aqueous samples were analyzed for pesticides/PCB (EPA 8081/8082). The laboratory data were reviewed to evaluate compliance with the method and the quality of the data reported. The following summarizes the results of this review.

The areas reviewed are listed below. A check mark (✓) indicates an area of review in which all data were acceptable without qualification; a crossed circle (⊗) signifies an area where issue(s) raised during the validation impacted data quality and/or usability.

✓ Data Completeness
✓ Holding Times and Preservation
✓ Calibrations
✓ Blanks
⊗ Surrogates
✓ Laboratory Control Samples
✓ Matrix Spike/Matrix Spike Duplicates
⊗ Column Agreement
✓ Compound Identification and Quantitation
✓ Raw Data Audit

3.1 Data Completeness

All analyses were performed as requested on the chain-of-custody records.

3.2 Holding Time and Preservation

The samples were extracted by the laboratory within the 7-day technical holding time from the date of collection and analyzed within the 40-day holding time from extraction to analysis for pesticides/PCBs.

3.3 Calibrations

3.3.1 Initial Calibrations (IC)

All % RSDs were less than 20%. In accordance with the method, full multi-point calibrations were performed for Aroclors 1016 and 1260, and only single-point calibrations are required for the other Aroclors.

3.3.2 Continuing Calibration Verification (CCV)

Percent differences (%Ds) between the true concentration and that calculated for all target analytes met the EPA Method 8081 required 15% difference for each column, except for the compounds listed below. For this dual-column analysis, detections are reported from either column, depending on which result is highest.

Continuing Calibration	Compound %D	%D		Qualified Samples	Qualifier
		Column 1	Column 2		
Cont. Cal. 10/18/00 (23:33)	Heptachlor	20.0%	16.0%	None	NA

Continuing Calibration	Compound %D	%D Column 1	%D Column 2	Qualified Samples	Qualifier
Cont. Cal. 11/15/00 (15:55)	Endosulfan I	37.0%	17.0%	None	NA
	Endosulfan Sulfate	31.0%	19.0%	None	NA
	4,4'-DDT	28.0%	17.0%	None	NA
Cont. Cal. 11/15/00 (16:48)	Aroclor 1016	69.6%	33.8%	None	NA
	Aroclor 1260	36.0%	17.4%	None	NA
Cont. Cal. 11/15/00 (16:21)	Toxaphene	44.5%	16.5%	None	NA
Cont. Cal. 11/15/00 (22:33)	Heptachlor	42.0%	19.0%	None	NA
	Endosulfan I	38.0%	19.0%	None	NA
	Endosulfan II	25.5%	15.5%	None	NA
	Endosulfan Sulfate	32.0%	24.0%	None	NA
	4,4'-DDT	32.5%	22.5%	None	NA
	Methoxychlor	29.0%	17.0%	None	NA
	Endrin Ketone	23.5%	17.0%	None	NA

3.4 Blanks

No target compounds were detected in the associated method blanks.

3.5 Surrogates

The surrogates (tetrachloro-m-xylene and decachlorobiphenyl) are appropriate to the method. All surrogates were within the laboratory acceptance criteria except those listed in the following table.

Sample	Surrogate	Average % Recovery	Qualifier
SWSW0247	Decachlorobiphenyl	305%	NA
STMW0117	Decachlorobiphenyl	27%	J/UJ

3.6 Laboratory Control Samples (LCS)

All reported LCS recoveries were within QAPP-specified acceptance criteria.

3.7 Matrix Spike/Matrix Spike Duplicate (MS/MSD)

Samples **GWGW1179** and **STMW0117** were utilized for MS/MSD analysis. All recoveries were within QAPP-specified acceptance criteria..

3.8 Column Agreement

The 4,4'-DDT results for sample **SWSW0284** have been qualified as estimated (J) due to poor column agreement (55%). All other detections displayed acceptable column agreement.

3.9 Compound Identification and Quantitation

No dilutions were performed.

3.10 Raw Data Audit

A complete review of raw data and a calculation audit were performed for sample **STMW0117** and **GWGW1179**. No anomalies were noted for this data. Quantitation reports were consistent with calibrations and reported results. For these samples, the reported results were confirmed.

4.0 Metals

Thirty-seven aqueous samples were analyzed for total metals (EPA 6010A/6020/7470A). The laboratory data were reviewed to evaluate compliance with these methods and the quality of the reported data. The following summarizes the results of this review.

The areas reviewed are listed below. A check mark (✓) indicates an area of review in which all data were acceptable without qualification; a crossed circle (⊗) signifies an area where issue(s) raised during the validation impacted data quality and/or usability.

✓ Data Completeness
✓ Holding Times and Preservation
✓ Calibrations
⊗ Blanks
✓ CRDL Standard
✓ Interference Check Sample
⊗ Laboratory Control Samples
⊗ Matrix Spike/Matrix Spike Duplicates
⊗ Serial Dilutions
⊗ Field Duplicates
⊗ Laboratory Duplicates
✓ Analyte Identification and Quantification
✓ Raw Data Audit

4.1 Data Completeness

All analyses were performed as requested on the chain-of-custody records.

4.2 Holding Time and Preservation

All samples were properly preserved and all analyses were performed within acceptable holding times.

4.3 Calibrations

4.3.1 Initial Calibrations (IC)

- A blank and three standards were analyzed for the inductively coupled plasma (ICP) analysis.
- A blank and four standards were analyzed for the ICP/MS analysis.
- A blank and five standards were used for the cold vapor atomic absorption (CVAA) initial calibration for mercury. The correlation coefficient met the QC limit of ≥0.995.

4.3.2 Initial Calibration Verification (ICV)
The ICV percent recoveries associated with sample analyses were within the method-specified QC limits.

4.3.3 Continuing Calibration Verification (CCV)
The CCV percent recoveries associated with sample analyses were within the method-specified QC limits.

4.4 Blanks

4.4.1 Preparation (Method) Blanks
Target analytes were detected in the associated preparation blanks listed below. Samples were qualified as anomalous (U) if sample concentrations were within five-times the blank concentration.

Preparation Blank	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
1000128135	Chromium	1.20	None	NA
	Antimony	0.745	**GWGW1179** **GWGW1180**	U U
	Arsenic	0.477	None	NA
	Barium	0.131	None	NA
	Boron	0.963	None	NA
	Cobalt	0.052	**GWGW1185**	U
	Copper	0.060	None	NA
1000128135 cont'd	Manganese	0.211	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Silver	0.873	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Vanadium	0.263	None	NA
1000116237	Antimony	1.14	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247**	U U U U U
	Arsenic	0.341	None	NA
	Chromium	1.36	**SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	U U U U
	Iron	23.9	**SWSW0245** **SWSW0247** **SWSW0248**	U U U

Preparation Blank	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
1000116237	Silver	0.201	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	U U U U U U
	Vanadium	0.341	None	NA
	Zinc	0.512	None	NA
1000127043	Arsenic	0.226	None	NA
	Chromium	0.645	None	NA
	Iron	7.01	None	NA
	Molybdenum	0.185	None	NA
	Selenium	0.206	None	NA
1000125612	Potassium	3.99	None	NA
	Antimony	0.591	**GWGW1157** **GWGW1167** **GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158**	U U U U U U
	Arsenic	0.094	None	NA
	Chromium	0.211	None	NA
	Iron	7.29	None	NA
	Thallium	0.028	**TPEF0149**	U
	Zinc	0.156	None	NA

4.4.2 Initial Calibration Blank (ICB)

The target analytes listed below were detected in the initial calibration blanks at concentrations below the CRDL. Similar detections reported in the associated samples, that warranted further qualification due to ICB contamination, are listed in the following table.

ICB Date (Time)	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
11/27/00 (17:08)	Vanadium	0.256	None	NA
	Chromium	0.151	None	NA
	Manganese	0.120	**GWGW1185**	U
	Cobalt	0.0590	**GWGW1185**	U
	Copper	0.0260	None	NA
	Molybdenum	0.0890	None	NA
	Silver	0.740	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Antimony	1.10	**GWGW1179** **GWGW1180**	U U
	Barium	0.133	None	NA
	Thallium	0.0410	**GWGW1180**	U

ICB Date (Time)	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
11/27/00 (17:08)	Beryllium	0.0270	None	NA
	Potassium	2.31	None	NA
11/28/00 (07:55)	Antimony	1.36	**GWGW1158** **GWGW1168** **GWGW1178**	U U U
	Molybdenum	0.135	**GWGW1158**	U
11/30/00 (16:27)	Boron	1.62	None	NA
12/03/00 (13:49)	Antimony	0.437	**GWGW1159**	U
	Molybdenum	0.0950	None	NA
10/28/00 (04:08)	Beryllium	0.0130	**STMW0118**	U
	Iron	4.93	None	NA
	Silver	0.250	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	U U U U U U
	Antimony	1.38	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247**	U U U U U
	Barium	0.0500	None	NA
11/29/00 (07:57)	Potassium	2.31	None	NA
12/01/00 (00:13)	Beryllium	0.0110	None	NA
	Antimony	0.470	**GWGW1156**	U
	Boron	0.720	None	NA
11/28/00 (07:55)	Antimony	1.36	**GWGW1157** **GWGW1167**	U U
	Molybdenum	0.135	None	NA
11/30/00 (16:27)	Boron	1.62	None	NA

4.4.3 Continuing Calibration Blanks (CCB)

No analytes were detected above the CRDL in associated CCBs. The following analytes were detected in the CCB below the CRDL, but above the IDL. The associated data were qualified as indicated in the following table.

CCB Date (Time)	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
11/27/00 (21:00)	Vanadium	0.306	None	NA
	Chromium	0.129	None	NA
	Manganese	0.165	**GWGW1180** **GWGW1185**	U U
	Iron	4.31	None	NA

CCB Date (Time)	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
11/27/00 (21:00)	Cobalt	0.0890	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Copper	0.0830	None	NA
	Arsenic	0.0880	None	NA
	Molybdenum	0.132	None	NA
	Silver	0.779	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Cadmium	0.138	**GWGW1179**	U
	Antimony	1.08	**GWGW1179** **GWGW1180**	U U
	Barium	0.152	None	NA
	Thallium	0.236	**GWGW1180**	U
11/29/00 (12:25)	Calcium	15.9	None	NA
	Potassium	2.98	None	NA
	Sodium	37.6	None	NA
11/27/00 (22:05)	Vanadium	0.262	None	NA
	Chromium	0.127	None	NA
	Manganese	0.129	**GWGW1185**	U
	Cobalt	0.0730	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Copper	0.0570	None	NA
	Arsenic	0.157	None	NA
	Molybdenum	0.114	None	NA
	Silver	0.762	**GWGW1179** **GWGW1180** **GWGW1185**	U U U
	Cadmium	0.0630	**GWGW1179**	U
	Antimony	1.02	**GWGW1179** **GWGW1180**	U U
	Barium	0.136	None	NA
	Thallium	0.141	**GWGW1180**	U
11/29/00 (13:41)	Potassium	5.56	None	NA
12/03/00 (17:25)	Beryllium	0.0210	None	NA
	Antimony	0.377	**GWGW1159**	U
12/03/00 (17:25)	Thallium	0.191	None	NA
12/03/00 (18:45)	Beryllium	0.0230	None	NA
	Vanadium	0.187	None	NA
	Antimony	0.289	**GWGW1159**	U
11/28/00 (10:45)	Molybdenum	0.175	**GWGW1158**	U
	Antimony	1.03	**GWGW1168** **GWGW1178** **GWGW1158**	U U U

CCB Date (Time)	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
11/28/00 (10:45)	Thallium	0.169	**GWGW1168** **GWGW1178** **GWGW1158** **TPEF0149**	U U U U
11/28/00 (12:15)	Iron	2.72	None	NA
	Zinc	0.116	None	NA
	Molybdenum	0.163	**GWGW1158**	U
	Antimony	0.966	**GWGW1168** **GWGW1178** **GWGW1158**	U U U
	Thallium	0.0830	**GWGW1178** **GWGW1158** **TPEF0149**	U U U
11/30/00 (21:55)	Boron	0.833	None	NA
11/30/00 (23:30)	Boron	0.907	None	NA
11/14/00 (01:05)	Potassium	5.38	None	NA
11/14/00 (02:01)	Potassium	8.83	None	NA
	Magnesium	6.66	None	NA
11/14/00 (02:56)	Potassium	10.8	None	NA
10/29/00 (04:48)	Iron	9.75	None	NA
	Molybdenum	0.565	None	NA
	Silver	0.197	**STMW0117**	U
	Antimony	1.16	**STMW0117**	U
10/29/00 (06:17)	Iron	4.28	None	NA
	Silver	0.154	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	U U U U U U
10/29/00 (06:17)	Antimony	1.09	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247**	U U U U U
10/29/00 (07:45)	Iron	1.87	None	NA
	Silver	0.158	**STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	U U U U U
	Antimony	1.11	**STMW0118** **SWSW0245** **SWSW0246** **SWSW0247**	U U U U
11/01/00 (07:01)	Boron	1.49	None	NA
11/01/00 (07:33)	Boron	1.51	None	NA
12/01/00 (00:59)	Iron	7.93	None	NA

CCB Date (Time)	Element	Concentration (µg/L)	Associated Samples Qualified	Qualifier
12/01/00 (00:59)	Molybdenum	0.403	**GWGW1156** **GWGW1177**	U U
	Antimony	0.433	**GWGW1156**	U
1201/00 (02:11)	Iron	3.86	None	NA
	Antimony	0.431	**GWGW1156**	U
	Boron	5.21	None	NA
11/29/00 (13:41)	Potassium	5.56	None	NA
11/29/00 (14:56)	Potassium	10.8	None	NA
	Magnesium	5.74	None	NA
11/29/00 (16:08)	Potassium	16.7	None	NA
	Magnesium	5.23	None	NA
11/28/00 (12:15)	Iron	2.72	None	NA
	Zinc	0.116	None	NA
	Molybdenum	0.163	None	NA
	Antimony	0.966	**GWGW1157** **GWGW1167**	U U
	Thallium	0.0830	None	NA
	Boron	0.580	None	NA
11/28/00 (12:56)	Iron	3.13	None	NA
	Zinc	0.113	None	NA
	Molybdenum	0.164	None	NA
	Antimony	0.993	**GWGW1157** **GWGW1167**	U U
	Thallium	0.0330	None	NA
11/28/00 (12:56)	Boron	0.833	None	NA
11/14/00 (02:01)	Potassium	8.83	None	NA
	Magnesium	6.66	None	NA
11/14/00 (02:56)	Potassium	10.8	None	NA
11/14/00 (03:35)	Potassium	8.70	None	NA
	Magnesium	4.62	None	NA

4.5 CRDL Standard

Although not required by SW-846, the laboratory analyzed a CRDL standard at the beginning of each analytical sequence. Percent recoveries were within acceptable limits for all analytes except mercury. No qualifications were necessary.

4.6 ICP Interference Check Samples (ICS)

ICSA and ICSAB samples were analyzed according to method requirements. Percent recoveries for all detected target analytes except boron were within ±20% of the true value as prescribed in the method. No qualifications were warranted.

4.7 Laboratory Control Samples (LCS)

In the associated LCS, all percent recoveries were within the QAPP-specified acceptance criteria except for those listed in the following table.

LCS	Analyte	Percent Recovery	Qualified Sample(s)	Qualifier
1000128137	Antimony	125.0%	**GWGW1179** **GWGW1180**	J J
	Boron	126.8%	**GWGW1179** **GWGW1180** **GWGW1185**	J J J
	Thallium	52.8%	**GWGW1179** **GWGW1180** **GWGW1185**	UJ J UJ
1000125613	Antimony	122.4%	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158**	J J J J
	Thallium	57.6%	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158** **TPEF0149**	UJ J J J J
1000116240	Antimony	120.2%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247**	J J J J J
	Boron	121.0%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	J J J J J J
	Thallium	67.4%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	J J J UJ UJ UJ
1000127045	Antimony	124.8%	**GWGW1156**	J
	Thallium	52.2%	**GWGW1156** **GWGW1177**	J J
1000125613	Antimony	122.4%	**GWGW1157** **GWGW1167**	J J
	Thallium	57.6%	**GWGW1157** **GWGW1167**	UJ UJ

4.8 Matrix Spike and Matrix Spike Duplicate (MS/MSD)

Samples **GWGW1179**, **GWGW1178**, **STMW0117**, **GWGW1174**, and **GWGW1156** were utilized for the MS/MSD analyses. All percent recoveries and relative percent differences were within the QAPP-specified acceptance criteria except for those listed in the following table.

MS/MSD Sample	Analyte	Avg Percent Recovery	Qualified Sample(s)	Qualifier
GWGW1179	Antimony	130%	**GWGW1179** **GWGW1180**	J J

MS/MSD Sample	Analyte	Avg Percent Recovery	Qualified Sample(s)	Qualifier
GWGW1179 (cont.)	Thallium	69%	**GWGW1179** **GWGW1180** **GWGW1185**	UJ J UJ
GWGW1178	Antimony	135%	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158** **GWGW1157** **GWGW1167**	J J J J J J
	Thallium	59%	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158** **TPEF0149** **GWGW1157** **GWGW1167**	UJ J J J J UJ UJ
	Copper	79% (RPD 71%)	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158** **TPEF0149** **GWGW1157** **GWGW1167**	J J J J J J J
STMW0117	Antimony	149%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247**	J J J J J
	Beryllium	127%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	J J J J J J
	Thallium	74%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	J J J UJ UJ UJ
GWGW1174	Antimony	138%	**GWGW1156**	J
	Thallium	55%	**GWGW1156** **GWGW1177**	J J

4.9 Serial Dilutions

Samples **STMW0117**, **GWGW1156**, **GWGW1174**, and **GWGW1178** were utilized for serial dilution analysis. All percent differences were within QAPP-specified acceptance criteria except those listed in the following table. Sample data associated with these serial dilutions are qualified as estimated (J).

Sample	Element	Percent Difference	Qualified Sample(s)	Qualifier
STMW0117	Cobalt Zinc	11.8% 10.8%	**STMW0117** **STMW0118** **SWSW0245** **SWSW0246** **SWSW0247** **SWSW0248**	J J J J J J
GWGW1156	Vanadium Zinc	16.2% 16.1%	**GWGW1156** **GWGW1177**	J J
GWGW1178	Barium Copper Calcium Sodium	12.6% 11.1% 21.7% 11.1%	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158** **TPEF0149** **GWGW1157** **GWGW1167**	J J J J J J J

4.10 Laboratory Duplicates

Samples **GWGW1179**, **GWGW1156**, **GWGW1178**, **STMW0117**, and **GWGW1174** were utilized for duplicate analysis. The relative percent difference were within the laboratory-specified QC limits except those listed in the following table.

Sample	Element	RPD	Qualified Sample(s)	Qualifier
GWGW1178	Copper	39.7%	**GWGW1159** **GWGW1168** **GWGW1178** **GWGW1158** **TPEF0149** **GWGW1157** **GWGW1167**	J J J J J J J

4.11 Field Duplicates

The blind field duplicate pairs, **GWGW1171/GWGW1172**, **SWSW0245/ SWSW0248**, **GWGW1162/GWGW1163**, and **GWGW1164/GWGW1165**, demonstrated acceptable field and analytical precision.

4.12 Analyte Identification and Quantification

All sample dilutions were performed appropriately to quantitate the reported concentrations of analyte.

Sample	SDG	Dilution Factor	Analyte
GWGW1179	33804	5x 5x 5x	Beryllium Lead Thallium
GWGW1180	33804	5x 5x 5x	Beryllium Lead Thallium
GWGW1185	33804	5x 5x 5x	Beryllium Lead Thallium

Sample	SDG	Dilution Factor	Analyte
SWSW0245	32567	5x	Boron
SWSW0246	32567	5x	Boron
SWSW0247	32567	5x	Boron
SWSW0248	32567	5x	Boron
GWGW1157	33582	10x 10x 10x 10x 10x	Lead Silver Boron Beryllium Barium
GWGW1167	33582	10x 10x 10x 10x 10x	Lead Silver Boron Beryllium Barium
GWGW1159	33487	10x 10x 10x 10x	Beryllium Boron Silver Barium
GWGW1168	33487	10x 10x 10x 10x	Beryllium Boron Silver Barium
GWGW1178	33487	10x 10x 10x 10x	Beryllium Boron Silver Barium
GWGW1158	33487	10x 10x 10x 10x	Beryllium Boron Silver Barium
TPEF0149 **TPEF0149**	33487 33487	10x 10x 10x 10x	Beryllium Boron Silver Barium

4.13 Raw Data Audit

A complete review of raw data and a calculation audit were performed for samples **GWGW1167**, **GWGW1156**, **STMW0117**, **GWGW1179**, and **GWGW1168**. No anomalies were noted for this data. Quantitation reports were consistent with calibrations and reported results. For these samples, the reported results were confirmed.

5.0 Inorganic Parameters

Thirty-eight aqueous samples (including four field duplicate pairs) were collectively analyzed for Alkalinity (EPA 310.1); Chloride, Nitrate, and Sulfate (EPA 300.0); Total Organic Carbon (TOC) (EPA 415.1); Total Dissolved Solids (EPA 160.1), Total Suspended Solids (EPA 160.2), and Oil and Grease (SW846 9070). The laboratory data were reviewed to evaluate compliance with these methods and the quality of the reported data.

The areas reviewed are listed below. A check mark (✓) indicates an area of review in which all data were acceptable without qualification; a crossed circle (⊗) signifies an area where issue(s) raised during the validation impacted data quality and/or usability.

✓ Data Completeness
✓ Holding Times and Preservation
✓ Initial Calibrations
✓ Initial Calibration Verifications
✓ Continuing Calibration Verifications
✓ Preparation (Method) Blanks
✓ Initial Calibration Blanks
✓ Continuing Calibration Blanks
✓ Laboratory Control Samples
✓ Matrix Spikes
✓ Laboratory Duplicates
✓ Field Duplicates
✓ Analyte Identification and Quantification

5.1 Data Completeness
All analyses were performed as requested on the chain-of-custody records.

5.2 Holding Time and Preservation
The QAPP-specified holding times were met for all samples.

5.3 Calibrations

5.3.1 Initial Calibrations (IC)
- Nitrate – Acceptable calibrations were performed. The correlation coefficient met acceptance criteria, $r \geq 0.995$, for all calibrations.
- Chloride – Acceptable calibrations were performed. The correlation coefficient met acceptance criteria, $r \geq 0.995$, for all calibrations.
- Sulfate – Acceptable calibrations were performed. The correlation coefficient met acceptance criteria, $r \geq 0.995$, for all calibrations.
- TDS – An acceptable calibration was performed.
- TSS – An acceptable calibration was performed.
- TOC – Acceptable calibrations were performed. The correlation coefficient met acceptance criteria, $r \geq 0.995$, for all calibrations.
- Oil and Grease – An acceptable calibration was performed.

5.3.2 Initial Calibration Verification (ICV)
The percent recoveries of all analytes in all ICVs were within the method-specified acceptance criteria.

5.3.3 Continuing Calibration Verification (CCV)
The percent recoveries of all analytes in all CCVs were within method-specified acceptance criteria.

5.4 Blanks

5.4.1 Preparation (Method) Blank
The associated method blanks were free of target analytes.

5.4.2 Initial Calibration Blank (ICB)
The associated initial calibration blanks were free of target analytes.

5.4.3 Continuing Calibration Blanks (CCB)
The associated continuing calibration blanks were free of target anlytes.

5.5 Laboratory Control Samples (LCS)
The percent recoveries for all analytes in each of the LCS analyses were within the QAPP-specified acceptance criteria.

5.6 Matrix Spikes (MS)
The following table lists the samples utilized for MS/MSD analysis. All percent recoveries were within the QAPP-specified acceptance criteria.

Parameter	Sample(s) Utilized
Nitrate	**GWGW1185, STMW0117, GWGW1181, GWGW1157**
Total Organic Carbon	**GWGW1161, STMW0117, GWGW1174**
Chloride, Sulfate	**GWGW1185**
Alkalinity	**GWGW1179, GWGW1156**

5.7 Laboratory Duplicates
The following table lists the samples utilized for duplicate analysis. All relative percent differences were within the QAPP-specified acceptance criteria.

Parameter	Sample(s) Utilized
Nitrate	**GWGW1185, STMW0117, GWGW1181, GWGW1157**
Total Organic Carbon	**GWGW1161, STMW0117, GWGW1174**
TDS	**GWGW1185, STMW0117, GWGW1174**
TSS	**STMW0117**
Alkalinity	**GWGW1156**
Chloride, Sulfate	**GWGW1185**

5.8 Field Duplicates
The blind field duplicate pairs, **GWGW1171/GWGW1172**, **GWGW1162 /GWGW1163**, **GWGW1164/GWGW1165**, and **SWSW0845/SWSW0845**, demonstrated acceptable field and analytical precision.

5.9 Analyte Identification and Quantification

All sample dilutions were performed appropriately to quantitate the reported concentrations of their respective analytes.

Sample	Parameter	Dilution Factor
GWGW1179	Chloride	2x
GWGW1180	Chloride Nitrate Sulfate	5x 5x 5x
STMW0117	TOC	10x
STMW0118	TOC	5x
GWGW0056	Nitrate	5x
GWGW1160	Nitrate	5x
GWGW1162	Nitrate	2x
GWGW1163	Nitrate	2x

5.10 Raw Data Audit

A complete review of raw data and a calculation audit were performed for samples **GWGW1156**, **GWGW1179**, **GWGW1185**, **GWGW1178**, and **STMW0117**. No anomalies were noted for this data. Quantitation reports were consistent with calibrations and reported results for the TDS, TSS, Nitrate, Sulfate, Chloride, Alkalinity, Oil and Grease, and TOC analyses.

6.0 Radiochemistry

Thirty-seven aqueous samples (including four field duplicate pairs) were collectively analyzed for Gamma Emitting Radionuclides (EPA 901.1), Gross Alpha and Gross Beta Radioactivity (EPA 900.0), Americium-241 (EPA 907.0M), Plutonium-241 (EPA 907.0M), Radioactive Strontium (EPA 905.0), Carbon-14 (Krieger & Gold), Tritium (EPA 906.0), and Radium-226 (EPA 903.1M). The laboratory data were reviewed to evaluate compliance with these methods and the quality of the reported data. The following summarizes the results of this review.

The areas reviewed are listed below. A check mark (✓) indicates an area of review in which all data were acceptable without qualification; a crossed circle (⊗) signifies an area where issue(s) raised during the validation impacted data quality and/or usability.

✓ Data Completeness
✓ Holding Times
✓ Calibrations
✓ Blanks
✓ Laboratory Control Samples
✓ Matrix Spike Samples
⊗ Laboratory Duplicates
✓ Field Duplicates
⊗ Analyte Identification and Quantification

6.1 Data Completeness
All analyses were performed as requested on the chain-of-custody records.

6.2 Holding Times
All analyses were performed within the method-specified holding times.

6.3 Calibrations

6.3.1 Initial Calibrations
All calibrations were performed according to the laboratory standard operating procedures.

6.3.2 Continuing Calibrations
The control charts and summary forms for the continuing calibrations were verified to be within laboratory acceptance limits for all analyses.

6.4 Blanks
Thorium-234 and Uranium-238 were detected in the 11/23/00 method blank. Since the sample results associated with this method blank were non-detects. Consequently, no qualification is warranted. No other target contaminants were detected in the associated blanks.

6.5 Laboratory Control Samples (LCS)
The percent recoveries for all analytes were within the QAPP-specified acceptance criteria.

6.6 Matrix Spike/Matrix Spike Duplicate Samples (MS/MSD)
The following samples were utilized for MS/MSD analysis. All percent recoveries and RPDs were within the QAPP-specified acceptance criteria.

Analysis	Sample(s)
Carbon-14, Tritium	**GWGW1171, SWSW0248, GWGW1174, GWGW1178**
Gamma-Spectroscopy, Gross Alpha, Gross Beta, Radium-226	**GWGW1179**
Strontium-90	**GWGW1179, STMW0117**
Plutonium-241, Americium-241	**GWGW1185**

6.7 Laboratory Duplicates
The laboratory utilized the samples listed below for duplicate analysis. Acceptable precision was demonstrated for all analytes except Gross Beta (84%; **GWGW1179**). The result for Gross Beta was qualified as estimated (J) in samples **GWGW1179**, **GWGW1180**, and **GWGW1185**.

Analysis	Sample(s)
Carbon-14, Tritium	**GWGW1171, SWSW0248, GWGW1174, GWGW1178**
Gamma-Spectroscopy, Gross Alpha, Gross Beta, Radium-226	**GWGW1179**
Strontium-90,	**STMW0117**
Plutonium-241, Americium-241	**GWGW1185**

6.8 Field Duplicates

The blind field duplicate pairs, **GWGW1171/GWGW1172**, **GWGW1162/ GWGW1163**, **GWGW1164/GWGW1165**, and **SWSW0245/SWSW0248**, demonstrated acceptable field and analytical precision.

6.9 Analyte Identification and Quantification

Sample results were qualified as estimated (UJ) if the sample result was less than the MDA and the sample result plus the uncertainty exceeded the MDA. Sample results were qualified as estimated (J) if the sample result was greater than the MDA and the sample result minus the uncertainty was less than the MDA.

The following isotopes in the samples listed in the following table did not meet the required QAPP-specified MDA.

Sample	Isotope(s)	Sample MDA	QAPP-Specified MDA
GWGW1185	Lead-210	699	450
GWGW1160	Tritium	302	300
GWGW1162	Tritium	301	300
GWGW1170	Tritium	304	300
TPIN0149	Tritium	304	300

6.10 Raw Data Audit

A complete review of raw data and a calculation audit were performed for samples **GWGW1185**, **GWGW1178**, and **SWSW0248**. No anomalies were noted for this data. Quantitation reports were consistent with calibrations and reported results for the radiochemistry analyses.

Table 1
Fall 2000 Groundwater Monitoring Samples

Sample	SDG	Sample Number	Date Sampled	Analyses Performed
Groundwater Samples				
GWGW1156	33726	33726-001	11/06/00	V, M, GC, R
GWGW1157	33582	33582-001	11/02/00	V, M, GC, R
GWGW1158	33487	33487-004	11/01/00	V, M, GC, R
GWGW1159	33487	33487-001	11/01/00	V, M, GC, R
GWGW1160	33582	33582-003	11/02/00	V, M, GC, R
GWGW1161	33804	33804-003	11/07/00	V, M, GC, R
GWGW1162	33582	33582-004	11/02/00	V, M, GC, R
GWGW1163 (Field Duplicate of GWGW1162)	33582	33582-005	11/02/00	V, M, GC, R
GWGW1164	33582	33582-006	11/02/00	V, M, GC, R
GWGW1165 (Field Duplicate of GWGW1164)	33582	33582-007	11/02/00	V, M, GC, R
GWGW1166	33582	33582-008	11/02/00	V, M, GC, R
GWGW1167	33582	33582-002	11/02/00	V, M, GC, R
GWGW1168	33487	33487-002	11/01/00	V, M, GC, R
GWGW1169	33487	33487-005	11/01/00	V, M, GC, R
GWGW1170	33487	33487-006	11/01/00	V, M, GC, R
GWGW1171	33804	33804-004	11/07/00	V, M, GC, R
GWGW1172 (Field Duplicate of GWGW1171)	33804	33804-005	11/07/00	V, M, GC, R
GWGW1173	33726	33726-003	11/06/00	V, M, GC, R
GWGW1174	33726	33726-004	11/06/00	V, M, GC, R
GWGW1175	33726	33726-005	11/06/00	V, M, GC, R
GWGW1176	33726	33726-006	11/06/00	V, M, GC, R
GWGW1177	33726	33726-002	11/06/00	V, M, GC, R
GWGW1178	33487	33487-003	11/01/00	V, M, GC, R
GWGW1179	33804	33804-006	11/07/00	V, SV, P, M, GC, R
GWGW1180	33804	33804-007	11/07/00	V, SV, P, M, GC, R
GWGW1181	33726	33726-007	11/06/00	V, M, GC, R
GWGW1182	33804	33804-001	11/06/00	V, M, GC, R
GWGW1183	33804	33804-002	11/07/00	V, M, GC, R
GWGW1184	33582	33582-009	11/02/00	V, M, GC, R
GWGW1185	33804	33804-008	11/07/00	V, SV, P, M, GC, R

Sample	SDG	Sample Number	Date Sampled	Analyses Performed
Stormwater Samples				
STMW0117	32567	32567-001	10/11/00	V, P, M, GC, R
STMW0118	32567	32567–002	10/11/00	V, P, M, GC, R
Surfacewater Samples				
SWSW0245	32567	32567-003	10/11/00	V, P, M, GC, R
SWSW0246	32567	32567-004	10/11/00	V, P, M, GC, R
SWSW0247	32567	32567-005	10/11/00	V, P, M, GC, R
SWSW0248 (Field Duplicate of SWSW0245)	32567	32567-006	10/11/00	V, P, M, GC, R
Treatment Plant Samples				
TPIN0149	33487	33487-008	11/01/00	V, GC, R
TPEF0149	33487	33487-007	11/01/00	V, M, GC, R
Trip Blanks				
TBGW0349	32567	32567-007	10/11/00	V
TBGW0350	32567	32567-008	10/11/00	V
TBGW0351	33487	33487-009	11/01/00	V
TBGW0352	33582	33582-010	11/02/00	V
TBGW0353	33726	33726-008	11/06/00	V
TBGW0354	33804	33804-009	11/07/00	V

Notes:
V - Volatile Organic Compounds
SV - Semivolatile Organic Compounds
P - Pesticide/PCB Compounds
M - Metals
GC - General Chemistry Analytes
R - Radiochemistry Analytes

ATTACHMENT A
DATA VALIDATION QUALIFIER DEFINITIONS AND INTERPRETATION KEY
Assigned by URS's Data Review Team

DATA QUALIFIER DEFINITIONS

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.

URS DATA QUALIFIER DEFINITIONS — REASON CODE DEFINITIONS

a Analytical sequence deficiency or omission.
b Gross compound breakdown (4,4'-DDT/Endrin).
c Calibration failure; poor or unstable response.
d Laboratory duplicate imprecision.
e Laboratory duplicate control sample imprecision.
f Field duplicate imprecision.
g Poor chromatography.
h Holding time violation.
i Internal standard failure.
j Poor mass spectrographic performance.
k Serial dilution imprecision.
l Laboratory control sample recovery failure.
m Matrix spike/matrix spike duplicate recovery failure.
n Interference check sample recovery failure.
o Calibration blank contamination (metals/inorganics only).
p Preparation blank contamination (metals/inorganics only).
q Quantitation outside linear range.
r Linearity failure in initial calibration.
s Surrogate spike recovery failure (GC organics and GC/MS organics only).
t Instrument tuning failure.
u No valid confirmation present (GC Organics only).
v Value is estimated below the MDA (Rads only).
w Retention time (RT) outside of RT window.
x Field blank contamination.
y Trip blank contamination
z Method blank contamination.
Q No valid confirmation column (GC Organics only)
D Value exceeds quantitation limit.

INTERPRETATION KEY

The following example shows how an analytical result which includes qualifiers assigned by both the URS data review team and the analytical laboratory could be displayed in the data tables:

<5.20 JB|Uz

The qualifier assigned by the laboratory precedes the "|"; the qualifier assigned by the URS data review team follows it. In this example, the result is qualified as a non-detection data to the bias introduced by contamination of the associated method blank. Presence of the analyte in the method blank is indicated by the laboratory qualifier (B). The qualifier assigned by the URS data review team (Uz) indicates that the analyte concentration is considered to be below the adjusted detection limit (quantitation limit) based on the level of contamination in the method blank.

Appendix D
Treatment System Operation Log

APPENDIX D
GROUNDWATER REMEDIATION SYSTEM OPERATION LOG
2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS Environmental Restoration
Davis, California

		Turn		EXTRACTION WELL		INTO AIRSTRIPPER		INJECTION WELL		
DATE	TIME	System ON	System OFF	Flow Rate (gpm)	Totalizer (gallons x 10)	Flow Rate (gpm)	Totalizer (gallons x 10)	Flow Rate (gpm)	Totalizer (gallons x 10)	BLOWER HOURS
01/04/00	9:25			120	52,054,429	150	58,078,597	165	53,408,676	13460.5
01/10/00	12:16			120	53,107,859	150	59,273,038	165	54,471,929	13607.4
01/18/00	13:22			120	54,496,761	150	60,849,925	165	55,878,766	13800.5
01/24/00	12:42			120	55,530,767	150	62,031,983	170	56,921,579	13943.8
01/26/00	13:55			120	55,886,899	150	62,440,348	165	57,282,534	13993.0
01/26/00	14:45			100	55,891,897	130	62,445,018	145	57,285,889	13993.8
02/01/00	7:43			100	56,725,664	130	63,404,621	145	58,097,556	14130.8
02/07/00	9:55			100	57,619,054	130	64,437,701	145	58,972,816	14277.0
02/14/00	15:23			100	58,685,071	130	65,671,933	140	60,019,852	14450.0
02/22/00	1:16			100	59,843,233	130	67,034,911	145	61,167,938	14637.3
03/02/00	08:57			100	61,180,747	140	68,583,508	145	62,502,991	14852.0
03/06/00	09:10			100	61,782,897	130	69,282,150	145	63,106,313	14948.6
03/07/00	10:40		A		61,943,349		69,462,468		63,266,465	14973.6
03/07/00	13:13	X		100	61,943,349	130	69,462,468	145	63,266,465	14973.6
03/07/00	10:57		A		61,997,376		69,523,537		63,321,699	14982.5
03/08/00	10:00	X		100	61,997,376	130	69,523,537	145	63,321,699	14982.5
03/08/00	12:50		A		62,015,165		69,543,274		63,338,411	14985.2
03/22/00	08:20	X		100	62,022,985	130	69,552,616	145	63,344,699	14986.7
03/22/00	13:36			100	62,055,304	130	69,588,437	145	63,378,621	14991.9
03/28/00	13:24			100	62,975,741	130	70,608,883	140	64,298,913	15135.7
04/03/00	8:35			100	63,862,097	130	71,581,923	140	65,177,033	15273.6
04/10/00	13:30		P		64,970,137		72,855,401		66,274,126	15447.2
04/10/00	14:20	X		100	64,970,137	130	72,855,401	140	66,274,126	15447.2
04/11/00	13:40			100	65,110,831	130	73,019,046	140	66,414,213	15470.6
04/17/00	13:47			100	65,987,324	130	74,029,885	140	67,281,176	15615.1
04/24/00	10:10			100	66,990,849	130	75,176,502	140	68,272,989	15779.2
05/01/00	7:35			100	67,997,749	130	76,331,294	140	69,266,385	15944.6
05/08/00	13:45			100	69,056,551	130	77,550,804	140	70,318,922	16118.8
05/15/00	7:48			100	70,045,846	130	78,719,231	140	71,307,492	16280.7
05/15/00	9:04		M		70,054,111		78,728,630		71,315,477	16282.1
05/16/00	13:00	X		120	70,054,111	150	78,728,630	160	71,315,477	16282.1
05/22/00	8:55			120	71,091,674	150	79,877,377	160	72,358,551	16422.4
05/30/00	15:04			121	72,542,860	152	81,473,382	171	73,810,700	16620.4
06/06/00	9:36			120	73,712,779	150	82,763,964	164	74,798,952	16782.7
06/12/00	9:40			120	74,751,391	150	83,909,457	160	76,013,573	16926.8
06/12/00	9:45		M		74,751,391		83,909,457		76,013,573	16926.8
06/12/00	10:05	X		170	74,751,391	195	83,909,457	205	76,013,573	16926.8
06/20/00	10:22			170	76,678,613	190	86,027,840	200	77,999,298	17119.1
06/26/00	8:50			170	78,091,811	190	87,571,092	200	79,452,343	17261.7
07/05/00	9:15			165	80,221,525	190	89,909,047	200	81,626,133	17478.0
07/10/00	14:10			170	81,449,424	190	91,255,854	200	82,876,219	17603.1
07/10/00	15:43	A			81,466,575		91,274,093		82,894,818	17604.6
07/11/00	8:50		X	170	81,466,575	195	91,274,093	210	82,894,818	17604.6
07/17/00	15:55			160	82,929,024	195	92,893,570	180	84,383,507	17754.8
07/24/00	9:05			160	84,496,906	190	94,631,757	210	85,983,420	17915.7
09/01/00	9:25	X		170	93,194,767	200	4,283,416	205	94,891,446	18810.9
09/02/00	3:23		A		93,379,389		4,489,232		95,083,653	18829.2
09/02/00	15:10	X		170		200		205		
09/05/00	9:20			170	94,036,172	200	5,218,128	205	95,755,078	18895.4
09/13/00	15:38			170	96,014,693	200	7,415,773	205	97,779,824	19093.6
09/18/00	9:05			170	97,147,291	200	8,676,038	205	98,939,708	19207.1

APPENDIX D
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2000 ANNUAL GROUNDWATER TREATMENT SYSTEM AND WATER MONITORING REPORT
LEHR/SCDS Environmental Restoration
Davis, California

		Turn		EXTRACTION WELL		INTO AIRSTRIPPER		INJECTION WELL		
DATE	TIME	System ON	System OFF	Flow Rate (gpm)	Totalizer (gallons x 10)	Flow Rate (gpm)	Totalizer (gallons x 10)	Flow Rate (gpm)	Totalizer (gallons x 10)	BLOWER HOURS
09/18/00	9:42		M		97,154,327		8,683,618		98,946,946	19207.7
09/22/00	14:40	X		170	97,154,327	200	8,683,618	205	98,946,946	19207.7
09/26/00	14:58			170	98,130,024	195	9,765,242	189	99,933,602	19304.2
09/27/00	17:04		A		98,395,076		10,059,813		202,498	19330.3
09/30/00	15:30	X		170	98,395,076	200	10,059,813	205	202,498	19330.3
10/02/00	14:30	X		170	98,769,293	200	10,477,818	205	576,277	19368.9
10/02/00	21:27		A		98,839,514		10,555,812		646,344	19376.0
10/03/00	13:40	X		170	98,839,514	200	10,555,812	205	646,344	19376.0
10/04/00	09:00			170	99,040,382	200	10,779,970	205	846,770	19396.3
10/11/00	14:30			170	773,854*	200	12,720,555	205	2,602,751	19569.8
10/13/00	10:13		A		1,302,264		13,313,034		3,140,313	19622.5
10/16/00	10:45	X		170	1,302,264	200	13,313,034	205	3,140,313	19622.5
10/16/00	11:15			170	1,307,960	200	13,318,243	205	3,142,726	19623.3
10/24/00	08:45			170	3,176,488	200	15,414,274	205	5,040,934	19812.8
10/29/00	13:48		A		4,420,152		16,810,928		6,307,196	19939.0
10/30/00	10:10	X		150	4,420,152	180	16,810,928	200	6,307,196	19939.0
10/30/00	10:44		A		4,426,540		16,817,002		6,311,281	19939.6
11/01/00			A		4,426,540		16,817,002		6,311,281	19939.6
11/01/00	08:45	X		150	4,425,640	180	16,817,002	200	6,311,281	19939.6
11/01/00	09:30			150	4,432,750	180	16,823,951	200	6,317,246	19940.5
11/01/00	09:35		A		4,433,066		16,824,296		6,318,116	19940.5
11/02/00	08:45	X		150	4,433,066	180	16,824,296	200	6,318,113	19940.5
11/02/00	09:22		A		4,439,484		16,831,470		6,323,939	19941.4
11/09/00	10:30	X		100	4,439,484	120	16,831,470	130	6,383,939	19941.4
11/09/00	18:30		A		4,458,396		16,853,267		6,340,686	19944.6
11/13/00	15:35	X		90	4,458,396	120	16,853,267	130	6,340,686	19944.6
11/13/00	17:30		A		4,505,940		16,909,982		6,389,396	19953.4
11/14/00	13:30	X		90	4,505,940	120	16,909,982	130	6,389,396	19953.4
11/16/00	07:15			90	4,726,747	120	17,169,052	130	6,617,481	19995.2
11/20/00	14:15			90	5,279,884	100	17,766,537	130	7,187,869	20098.1
11/27/00	09:40			90	6,163,328	130	18,771,052	150	8,099,949	20261.6
12/05/00	08:50			90	7,200,415	120	19,959,711	130	9,177,404	20452.8
12/11/00	13:40			90	7,848,321	125	20,662,147	130	9,851,751	20601.5
12/13/00	08:50		M		8,088,512		20,926,476		10,103,390	20644.7

Notes:

M = Manual Shut-off.
A = Automatic Shut-off.
P = Power Outage.
X = System Start-up.
* = Extraction well totalizer rolled over.

Appendix E

Treatment System Operation Log
Appendix E - Revised Groundwater Monitoring Well Network, letter to Ms. Susan Timm (Regional Water Quality Control Board), Mr. Duncan Austin (Department of Toxic Substances Control), Mr. Pete Patel (Department of Health Services), and Kathy Setian (U.S. Environmental Protection Agency). November 22, 1999

UNIVERSITY OF CALIFORNIA. DAVIS

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November 22, 1999

Ms. Susan Timm
Regional Water Quality Control Board
3443 Routier Road, Suite A
Sacramento, CA 95827-3093

Mr. Duncan Austin
Department of Toxic Substances Control
10151 Croydon, Suite 3
Sacramento, CA 95827

Mr. Pete Patel
Department of Health Services
714/744 P Street
Sacramento, CA 95814

Ms. Kathy Setian
U.S. Environmental Protection Agency
Federal Facilities Cleanup Office, Section I
75 Hawthorne Street
Mail Code SFD-72
San Francisco, CA 94105

Re: Revised Groundwater Monitoring Well Network

Dear Ms. Timm, Mr. Austin, Mr. Patel, and Ms. Setian:

This letter outlines the revised groundwater monitoring well network developed during the groundwater working session held with the RPMs on September 8, 1999. Tables are provided for easy reference to the modified monitoring program confirmed during the meeting. These tables will serve to supercede the monitoring well network outlined in the Final Revised Field Sampling Plan, UC Davis Additional Field Investigations – LEHR/SCDS Environmental Restoration (FSP; Dames & Moore, August 1998). It is our intention to provide a modified field sampling plan once the proposed monitoring programs for both surface water and storm water have been addressed.

Based on previously collected monitoring well data and the Conceptual Site Model, the current monitoring program has been revised to include 27 existing groundwater monitoring wells. Of the seven monitoring wells located within HSU-1, six wells (excluding location UCD1-28) will be sampled on an

ad/fu/ue

annual basis. Two HSU-2 monitoring wells (UCD2-37 and UCD2-38), will be sampled monthly to monitor the groundwater Interim Removal Action (IRA) treatment system. Location UCD1-28, the remaining fourteen HSU-2 monitoring wells, and the four HSU-4 monitoring wells will be sampled on a quarterly basis. The analytical parameters have been modified to include: volatile organic compounds (VOCs), nitrate as nitrogen, total dissolved chromium, total dissolved solids (TDS), carbon-14, and tritium. With the exception of wells UCD-10 and UCD1-25, samples collected from each monitoring well will be analyzed for each of these parameters. Based on the groundwater working session, samples from UCD1-10 will be analyzed for VOCs, nitrate as nitrogen, and TDS. Samples from UCD1-25 will be analyzed for VOCs only.

The FSP includes general and specific information regarding groundwater monitoring parameters and sampling schedule. Section 5.4 in the FSP defines the protocol followed for modifying the existing groundwater monitoring program. The attached tables serve to supercede the specific monitoring well network defined in the current FSP. Table 1 summarizes the modified parameters and sampling schedule for each of the wells requiring continued monitoring at this time. Table 1 will serve as the basis for modifying Table 4 in the revised FSP. Table 2 provides current well construction data for each of the monitoring wells at the Site. Table 2 will serve as the basis for modifying Table 3 in the revised FSP.

Implementation of the revised monitoring well program will begin with the Fall Quarter 1999, scheduled for November 1 – 15, 1999, with one exception. The ten wells that monitor the IRA treatment system will continue to be monitored monthly until further notice, as required by the Regional Water Quality Control Board on September 22, 1999 due to increasing concentrations of nitrate as nitrogen, TDS, and chromium in some wells near injection well IW2-1. The analytical results for the Fall Quarter 1999 will be compiled and presented ~~with previous 1999~~ monitoring data in the 1999 Annual Water Monitoring Report.

If you have any questions, please call me at (530) 752-6041, or write me at the following address:

Environmental Health & Safety
University of California
One Shields Avenue
Davis, California 95616-8646

Jeffrey B. Gold FOR

Brian Oatman
LEHR/SCDS Project Manager

Attachments: Table 1 – Revised Groundwater Monitoring Well Program
Table 2 – Revised Monitoring Well Construction Data

cc: Susan Fields, DOE
Bob Devany, Weiss Associates
Julie Roth, DSCSOC
Mary Rust, DSCSOC
G. Fred Lee, G. Fred Lee & Associates
Don Walker, Dames & Moore

Table 1
Groundwater Monitoring Parameters and Schedule
Beginning Fall 1999[a]
Revised Field Sampling Plan
LEHR/SCDS Environmental Restoration

HSU	NEW	LDS	SCDS	IRA	IRA7	Well	Analyte/Analysis: Radiological Analytes: Tritium[c]	Radiological Analytes: Carbon-14[c]	VOCs[b][c]	Total Dissolved Chromium[c]	Nitrate as Nitrogen[c]	Total Dissolved Solids
		●	●			UCD1-18	A	A	A	A	A	A
						UCD1-10	*	*	A	*	A	A
		●				UCD1-11	A	A	A	A	A	A
						UCD1-12	A	A	A	A	A	A
						UCD1-13	A	A	A	A	A	A
		●	●			UCD1-25	*	*	A	*	*	*
		●	●	●		UCD1-28	Q	Q	Q	Q	Q	Q
					●	UCD2-17	Q	Q	Q	Q	Q	Q
					●	UCD2-7	Q	Q	Q	Q	Q	Q
					●	UCD2-14	Q	Q	Q	Q	Q	Q
					●	UCD2-15	Q	Q	Q	Q	Q	Q
					●	UCD2-16	Q	Q	Q	Q	Q	Q
		●	●		●	UCD2-26	Q	Q	Q	Q	Q	Q
		●	●	●		UCD2-29	Q	Q	Q	Q	Q	Q
				●		UCD2-30	Q	Q	Q	Q	Q	Q
				●		UCD2-31	Q	Q	Q	Q	Q	Q
					●	UCD2-32	Q	Q	Q	Q	Q	Q
				●		UCD2-35	Q	Q	Q	Q	Q	Q
				●		UCD2-36	Q	Q	Q	Q	Q	Q
				●		UCD2-37[d]	Q	Q	Q	Q	Q	Q
				●		UCD2-38[d]	Q	Q	Q	Q	Q	Q
		●		●		UCD2-39	Q	Q	Q	Q	Q	Q
		●		●		UCD2-40	Q	Q	Q	Q	Q	Q
●						UCD4-41	Q	Q	Q	Q	Q	Q
●						UCD4-42	Q	Q	Q	Q	Q	Q
●						UCD4-43	Q	Q	Q	Q	Q	Q
●	●					UCD4-44	Q	Q	Q	Q	Q	Q

A = annual sampling (May); Q = quarterly sampling (Feb., May, Aug., and Nov); * = sample not analyzed for constituent

(a) At each sampling event, samples are analyzed for pH, Eh, electrical conductivity, temperature, and turbidity in the field; water levels are measured before each sampling event.

(b) Volatile organic compounds.

(c) As applicable, equipment blanks will be collected at a minimum frequency of ten percent for the same parameters as the associated samples.

(d) Well will also be sampled monthly as part of the IRA monitoring; see IRA Waste Discharge Requirements.

2-45
2-46
4-47

Table 2
Summary of Well Construction Details
Revised Field Sampling Plan
LEHR/SCDS Environmental Restoration

Well Number	Date Installed	Total Boring Depth (ft bgs)	PVC Well Diameter (inches)	Screen Interval (ft bgs)	Filter Pack (ft bgs)	Bentonite (ft bgs)	Cement (ft bgs)	Elevation Top of Well Cover (ft msl)	Elevation Ground Surface (ft msl)
UCD1-1	10/09/87	56.5	2	46.5-56.5	41-56.5	38-41	0-38	50.05	47.9
UCD1-2	Abandoned								
UCD1-3	10/23/87	51.5	2	39-49	34-51.5	(a)	0-34	50.05	48.2
UCD1-4	10/14/87	56.5	2	45-55	40-56.5	(a) 37-40	0-37	51.69	49.4
UCD1-5	10/22/87	48.5	2	38-48	33-48	(a)	0-33	48.44	48.4
UCD1-6	10/21/87	52.5	2	40-50	35-50	(a)	0-35	50.94	49.0
UCD2-7	11/05/87	90	2	80-90	75-90	(a)	0-75	51.65	49.3
UCD1-8	11/03/87	56	2	43.5-53.5	39-53.5	(a)	0-39	51.51	49.2
UCD1-9	11/04/87	51.5	2	40-50	35-50	(a)	0-35	51.38	49.0
UCD1-10	10/11/89	70	4	54-69	52-70	49-52	0-49	49.87	47.4
UCD1-11	10/17/89	66.5	4	50-65	47-66.5	44-47	0-44	50.67	47.6
UCD1-12	10/19/89	65	4	49.5-64.5	47-65	44-47	0-44	51.76	48.8
UCD1-13	10/26/89	65	4	50-65	47-65	44.5-47	0-44.5	52.19	49.2
UCD2-14	11/15/89	86	4	75-85	69-86	64-69	0-64	51.72	49.0
UCD2-15	03/28/90	120.5	4*	91-116	86-120.5	65-86	0-65	51.49	49
UCD2-16	04/04/90	122	4*	92-117	86-122	71-86	0-71	49.95	48.2
UCD2-17	04/10/90	143	4*	88-113	81-113	78-81	0-78	51.83	49.6
UCD1-18	10/04/90	70	4*	54-69	51-70	48-51	0-48	48.56	46.7
UCD1-19	10/01/90	74.5	4*	56.5-71.5	53.5-72.5	50.5- 53.5	0-50.5	51.33	49.3
UCD1-20	10/09/90	73.5	4*	57-72	54-73.5	51-54	0-51	49.78	48.0
UCD1-21	10/11/90	73.5	4*	57-72	54-73.5	51-54	0-51	48.77	48.7
UCD1-22	10/25/90	73	4*	57-72	54-73	51-54	0-51	49.07	49.0
UCD1-23	10/17/90	76.5	4*	56.5-71.5	53.5-73	50.5- 53.5	0-50.5	49.39	49.2
UCD1-24	10/22/90	73	4*	57-72	54-73	51-54	0-51	48.91	48.8
UCD1-25	10/06/95	75	4**	60-75	56.9-75	52-56.9	0.52	48.80	-
UCD2-26	10/06/95	102	4**	87-102	84-102	79-84	0-79	48.79	-
UCD1-27Z1	10/06/95	136	5**	53-55	51.5-57.5	49-51.5	0-49	47.79	-
UCD1-27Z2	10/06/95	136	5**	63-65	61.5-66.5	57.5-61.5	0-49	47.79	-
UCD1-27Z3	10/06/95	136	5**	73-75	71.5-76.5	66.5-71.5	0-49	47.79	-
UCD2-27Z4	10/06/95	136	5**	86-88	84.9-90	76.5-84.9	0-49	47.79	-
UCD2-27Z5	10/06/95	136	5**	96-98	94.5-100	90-94.5	0-49	47.79	-
UCD2-27Z6	10/06/95	136	5**	106-108	104.5-109.5	100-104.5	0-49	47.79	-

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UCD2-27Z7	10/06/95	136	5**	116-118	114.5-119	109.5-114.5	0-49	47.79	-
UCD1-28	09/05/96	70	2*	53-68	51-70	47-51	0-47	50.34	48.1
UCD2-29	09/04/96	97	2*	80-95	76.7-97	72-76.7	0-72	50.32	48.1
UCD2-30	09/10/96	110	2*	95-110	91-110	89.5-91	0-89.5	49.83	47.6
UCD2-31	09/11/96	110	2*	94-109	91-110	87-91	0-87	49.86	47.5
UCD2-32	04/03/97	105	2*	83-103	81 -105	77-81	0-77	45.41	45.08
UCD4-33	Abandoned in May 1997 and replaced by UCD4-42								
UCD1-34	10/06/95	80	4**	61-76	57-76	50-57	0-50	55.70	-
UCD2-35	10/06/95	130	4**	107-122	103-122	98-103	0-98	55.71	-
UCD2-36	11/06/97	105	2*	82-102	79-105	73-79	0-73	48.31	-
UCD2-37	10/20/97	118.5	2*	94-114	91-118.5	85-91	0.85	49.63	-
UCD2-38	10/23/97	119	2*	95-115	89-95	83-89	0-83	57.20	-
UCD2-39	10/30/97	112	2*	87-107	84-112	80.5-84	0-81.5	49.63	47.4
UCD2-40	11/07/97	108.5	2*	86-106	83-108.5	78-83	0-78	48.98	46.5
UCD4-41	10/10/97	295	4*	257-277	253-280	248.5-253	0-248.5	49.37	47.0
UCD4-42	11/03/97	272	4*	248.5-268.5	245-269	240-245	0-246	47.22	47.0
UCD4-43	10/02/97	295	4*	248-268	242.5-274	233-242.5	0-237	45.06	44.52
UCD4-44	04/07/99	295	4*	246.5-266.5	242-273	237-242	0-237	50.58	-
EW2-1	09/20/96	125.65	8*	79.4- 119.4	74.4-125.65	68.4- 74.4	0-68.4	49.17	47.3
IW2-1	10/17/97	126.5	10*	84.5-119.5	80-126.5	75-80	0-75	49.39	-

Note: ft bgs – feet below ground surface.
ft msl – feet mean sea level datum.
* – stainless steel, wire wrap screen.
** – stainless steel, blank casing and wire wrap screen.
(a) Well constructed with #60 sand seal and no bentonite.

MEETING MINUTES
September 8, 1999 - Groundwater Working Session
SCDS/LEHR Environmental Restoration
Davis, California

Attendees:	Kathy Setian, US EPA	Brian Oatman, UC Davis
	Mark Filippini, US EPA	Christine Judal, UC Davis
	Susan Timm, RWQCB	Joe Niland, D&M
	Duncan Austin, DTSC	Don Walker, D&M
	Pete Patel, DHS	Jeff Bold, D&M
	G. Fred Lee, GFL & Associates	Kim Sellards, D&M

Introduction

RPM comments to the 1998 Annual Water Monitoring Report (AWMR) state that the proposed modifications to the Groundwater Monitoring Program are not adequate. To address the RPMs' comments, UC Davis finds it most efficient to revisit the Conceptual Site Model (CSM) to clarify source terms, and hydrogeologic characteristics as they relate to the current soil and groundwater Interim Remedial Action (IRA) activities. The minimum objective of this meeting is to reach a consensus on a revised groundwater monitoring program. Due to time limitations today, we will put storm water and surface water discussions on hold and continue the current monitoring program based on the Revised Field Sampling Program (Dames & Moore, 1999). If time allows, we will discuss total dissolved solids (TDS) and nitrate as nitrogen issues pertaining to the groundwater IRA treatment system.

Conceptual Site Model (CSM)

The CSM provides the basis for our understanding of site groundwater and a discussion of the CSM will address comments to the AWMR. The main factors of the CSM include: unlined contiguous waste disposal areas; hydrogeologic characteristics of the site; pathway analysis; constituent mobility; and the distribution of constituents in groundwater.

Unlined waste disposal areas were used to dispose of municipal waste, low-level radioactive waste, and laboratory chemical waste. A waste disposal units map with the years of operation for each unit was presented. In general, laboratory waste was disposed of at the site in the 1960's with some waste being disposed of in the Waste Burial Holes (WBH) in the 1970's. The unlined waste disposal areas are essentially one contiguous unit, except for LFU #3, which is approximately 500 feet to the east.

Hydrogeology of the site has been investigated during previous well installations. A schematic drawing of the site hydrogeology was presented showing the hydrostratigraphic units at the site (the vadose zone, HSU-1, HSU-2, HSU-3, and HSU-4). The vadose zone consists of two units. The upper five feet consists of fine sands and silts. At depths greater than five feet below ground surface (bgs), the vadose zone consists primarily of silty clay and clayey silt to a depth of 20 or 55 feet bgs (depending on the groundwater level). The vadose zone soils have low permeability. Based on data from other sites, infiltration of rain water through the vadose zone takes 2 to 5 years to reach 30 feet bgs. HSU-1 is composed of stratified silty clays and clayey silts with sandy lenses, similar to the vadose zone, but is saturated and produces groundwater seasonally depending on groundwater level. HSU-1

extends from the base of the vadose zone to about 85 feet bgs. HSU-2 consists of clean gravels with some sand in the upper portion and extends from about 85 to 115 feet bgs. Based on pumping tests, the lateral hydraulic conductivity of HSU-2 is about 1,000 ft/year. HSU-3 consists of relatively fine-grained sediments including clays and silts with sand and extends from about 115 to 250 feet bgs. HSU-3 is of low permeability and does not appear to be a classic aquifer. HSU-4 extends from 250 to 282 feet bgs. HSU-4 sediments are similar to those of HSU-2 (coarse sand and gravel), but contain additional silt, which results in a hydraulic conductivity approximately 1/3 of the hydraulic conductivity of HSU-2.

A groundwater elevation hydrograph for well pair UCD1-13 (HSU-1 well) and UCD2-14 (HSU-2 well) was presented. The graph shows that water levels in HSU-1 and HSU-2 mimic each other. Additionally, the graph shows the vertical gradient flow direction. During the agricultural pumping season (summer time), the vertical gradient flow direction is downward. When agricultural pumping is not occurring, vertical gradients between HSU-1 and HSU-2 are upward. This seasonal change in vertical gradient flow direction causes a smear zone.

The primary complete pathway for chemicals to groundwater is leaching of wastes, with the only exception being Landfill Unit #3 (LFU #3) where some waste material has been present at the surface, allowing direct contact and surface erosion. Transport through the vadose zone is almost entirely due to leaching or gravity flow.

Duncan Austin says he remembers a lack of HSU-2 at UCD2-35 and thinning of HSU-2 at UCD2-38. He asks if HSU-2 is laterally continuous. Jeff Bold reports that HSU-2 is laterally continuous at the site and is reported in boring logs of wells at the UC Davis Landfill site, over a mile to the northwest.

Dr. Lee says that we are in trouble off-site because we haven't defined contamination off-site. He asks if the high chloroform concentrations that are seen in samples from UCD2-29 are due to smearing. Christine Judal says that concentrations increased when the treatment system came on line.

Dr. Lee asks what causes the large recharge and change in gradients, because it can't all be due to rainwater. Mark Filippini and Jeff Bold respond that it is due to regional recharge of the groundwater system (Fairfield Mountains?), influence from Putah Creek, and pressure in HSU-2 from cessation of agricultural pumping.

Duncan Austin says that future pathways for constituent migration would be digging or unearthing waste. Jeff Bold agrees and says that we have considered the current pathways for the revised CSM.

Mobile constituents at the site include: salts, VOCs, and some radionuclides. Less mobile constituents at the site include: pesticides, metals, and some radionuclides. A schematic drawing of sources for salts (nitrate and TDS) was presented. TDS and nitrate are natural constituents of groundwater. TDS and nitrates are present in surface soils in the vadose zone, and TDS may leach from aquifer materials. TDS and nitrate have also been added to groundwater through regional application of fertilizers, animal manure, and leaching from site waste management units. Chromium is also noted on the drawing, but the locations are sporadic and not necessarily downgradient of waste management units.

A schematic drawing of on-site metals, pesticides, and radionuclides transport was presented. Tritium is localized and is only reported in one HSU-1 well (UCD1-13) and one HSU-2 well (UCD2-14). Metals and pesticides are of low mobility and are only reported sporadically in well samples.

A schematic drawing of sources for chloroform transport was presented. Chloroform concentrations are reportedly highest in HSU-1. Chloroform moves primarily in the vertical direction from HSU-1 to HSU-2, driven by fluctuating groundwater levels and vertical gradients discussed previously. Minimal lateral transport occurs in HSU-1 because of the low permeability of the fine-grained sediments and the discontinuity of sand lenses. Transport from HSU-2 to HSU-4 is through man-made conduits (irrigation wells screened across HSU-2 and HSU-4). Irrigation well 22N, which acted as a conduit for migration from HSU-2 to HSU-4, was abandoned in January 1999.

A schematic diagram of chloroform migration over time was presented. Assumptions of this diagram are that there is no loss due to volatilization and no chloroform outside of the monitoring network. The x-axis shows a time line, starting with the late 1950's (when the waste was disposed) and ending with 1998 (essentially now). The y-axis shows the hydrostratigraphic units present at the site (the vadose zone, HSU-1, HSU-2, and HSU-4). Shaded areas on the diagram show a projected linear movement of chloroform migration. Numbers adjacent to the shaded areas represent the estimated amount of chloroform in pounds present in that hydrostratigraphic unit.

The diagram was started by using all available 1998 site data. Mass estimates were completed for HSU-1, HSU-2, and HSU-4 using groundwater chemistry data collected in 1998. A mass estimate for the vadose zone was calculated using flux data collected in 1998 as part of Groundwater Source Investigation activities. These masses were added to estimate the total mass disposed in the 1960's (approximately 400 pounds). From the time of disposal in the 1960's, the mass was estimated to reach HSU-1 in fifteen years (approximately 1975). This time estimate is based on a transport time of 3 years for rainwater to reach a depth of 30 feet (based on data from other sites) and a retardation factor of 5 for chloroform (or 3 x 5 = 15 years). From 1975, it was estimated that for chloroform in HSU-2 to reach HSU-4, it would take another 15 years to move from HSU-1 to HSU-2, and from HSU-2 to HSU-4 via the conduit (well 22N), and finally to well 22A.

Duncan Austin stated that another assumption of this diagram is that sources aren't containerized. Jeff Bold agreed. Duncan Austin also stated that lateral conductivity can be an order of magnitude higher than vertical conductivity. Duncan Austin doesn't believe that the primary transport between HSU-1 and HSU-2 is vertical, as presented in the CSM. He has seen lateral conductivity in [San Francisco] bay mud be an order of magnitude higher that vertical conductivity, even though bay mud is fine-grained. Jeff Bold responded that ten years of site groundwater data show that transport between HSU-1 and HSU-2 is primarily vertical (i.e., the distribution of tritium).

Current Monitoring Data

Groundwater monitoring data has been collected at the site for the past ten years. This data was used as the foundation for revising the CSM and supports the information presented in the CSM. Isoconcentration contours for chloroform, tritium, and nitrate for HSU-1 were

presented for 1995 through 1998. All three constituents (chloroform, tritium, and nitrate) are considered mobile constituents. Though the constituents are considered to be mobile, four years of data shows almost no change in the location of the mass, shape of the mass, and concentration of the mass in HSU-1 has occurred. This lack of lateral mobility in HSU-1 is due to the fine-grained sediments and low permeability of HSU-1 discussed earlier in the CSM. The primary movement of constituents from HSU-1 to HSU-2 is vertically, due to gradients caused by agricultural pumping.

Duncan Austin says we only have one data point for tritium, that's a concern. Kim Sellards says we are not seeing mobility of constituents in HSU-1.

Time versus concentration plots for metals in HSU-2 well UCD2-14 were presented. UCD2-14 is downgradient of the Waste Burial Holes. The x's on the plots show detections, triangles show samples reported below the laboratory detection limit, circles show statistically anomalous detections, and dashed lines show control lines generated by the software program.

Since constituents migrate from HSU-1 to HSU-2 vertically, the concern for HSU-2 is if new constituents are being detected in HSU-2. Based on eight years of data for chromium and hexavalent chromium, concentrations have not changed. Based on eight years of data for arsenic, mercury, and selenium and four years of data for manganese, the constituents have not been detected regularly, and still aren't being detected regularly. A few detections are present, however, they are sporadic and probably indicate laboratory variability in determining detection limits.

Groundwater Monitoring Program

The AWMR proposed changes to the groundwater monitoring program. The program in place today is still in the characterization phase. The site is moving to the remediation phase and the monitoring program needs to be updated accordingly. Tables detailing the current and proposed groundwater monitoring program were presented for HSU-1, HSU-2, and HSU-4. However, we will wipe the slate clean and start with a well location map for HSU-1, HSU-2, and HSU-4.

Groundwater Monitoring Program Development Session

HSU-1:

UC Davis proposes that to monitor the contiguous waste management unit, the following wells are needed: UCD1-18, UCD1-20, UCD1-12, and UCD1-11. And UCD1-28 is required as part of the Waste Discharge Requirements for the Groundwater IRA.

Joe Niland questioned if we should monitor background well UCD1-18, since its water doesn't flow under the site. It is good for monitoring local conditions, only.

Duncan Austin stated that HSU-1 has some importance. But HSU-2 is more important. If he is comfortable with the monitoring program for HSU-2, then we can eliminate some of the wells in HSU-1. But he may want UCD1-34 back. He'd like to start with the HSU-2 monitoring program development session first. Duncan Austin also states that he is not comfortable about walking away from monitoring HSU-1. He states that to monitor individual waste disposal units, wouldn't several other wells be appropriate (UCD1-24 and

UCD1-8). Additionally, Duncan Austin says UCD1-13 is the tritium well and he is interested in the status and change of tritium in HSU-1.

Brian Oatman says that UCD1-13 is part of the removal action. It's a special case and they would propose monitoring it in the removal action documents.

Joe Niland says that we don't see radioactive constituents in the downgradient wells, with the exception of UCD1-13. There isn't much to monitor downgradient, that's why we went to a contiguous disposal area.

Kathy Setian says we have to sample to see more results.

Joe Niland responds that we've been monitoring for 10 years. It hasn't moved in HSU-1.

Susan Timm asks what are the tritium levels in UCD1-13.

Joe Niland says the tritium levels in UCD1-13 are consistently decreasing. They were around 28,000 pCi/L in 1990 and have decreased to about 15,000 pCi/L in 1998.

Kathy Setian reports that the tritium levels in UCD1-13 were around 18,000 in 1995 and 1997 and around 16,000 in 1996 and 1998 (based on Figure 10 in the AWMR). Kathy Setian proposes monitoring it annually.

Joe Niland states that we have a number that doesn't change over 10 years.

Mark Filippini proposes wells UCD1-13, UCD1-19, and UCD1-25.

Brian Oatman says that the wells will not be abandoned and may be added at a later time, if deemed necessary.

Susan Timm says monitoring frequency should be annually.

Mark Filippini says long term trends are important to track.

Joe Niland says that constituents in HSU-1 haven't moved more than 20 feet in 10 years. We think we may have to use UCD1-13 later, once we've removed the waste, to see what the next step is. But, we don't think we need to monitor it now.

Duncan Austin says that UCD1-13 should be monitored for carbon-14, nitrate, and TDS. TDS for UCD1-13 is around 1,000 µg/L.

Joe Niland says that we don't think we need UCD1-13 data to get to the RI/FS. Why not monitor it every two years to see if anything changes, and then re-assess.

Kathy Setian asks what happens if we do that [monitor UCD1-13 every two years] and you have a dramatic increase in concentrations without being able to monitor it regularly?

Joe Niland says that HSU-1 data doesn't change, and we don't think it is going to change.

Duncan Austin says the capture zone shows the IRA is capturing the water from that area. If concentrations in that well change, we can change the capture zone. If tritium concentrations increase, we have to modify our program. The earlier it is observed, the sooner we can do something about it. He says we need the data. It plays a role in what we do. He's not going to change his mind right now, maybe in two years. UCD1-13 doesn't have to be in the monitoring program forever, just a couple more years.

Jeff Bold agrees that there is no treatment for tritium right now. But eventually, after enough years of treatment, these sites are cleaned up. What are the criteria for changing frequencies?

Duncan Austin replies that we used to monitor every well quarterly for everything. Then, we took a big reduction. It's an incremental thing. In a few years, certainly, revisit the situation and review the data.

Jeff Bold says the IRA monitoring program will continue to generate useful groundwater quality data while remediation is being accomplished.

Kathy Setian says you have all three regulatory agencies wanting UCD1-13 monitored.

Mark Filippini says that there is a large gap in the north and east direction [based on the program outlined on the well board thus far].

Joe Niland says we've seen stuff move 50 feet in 10 years. It will take another 20 years before it even gets to UCD1-28.

Susan Timm says UCD1-25 is at the very tip of the plume. Don't replace UCD1-28, leave it in the monitoring program.

Joe Niland asks about replacing UCD1-25 with UCD1-28.

Mark Filippini says if you aren't monitoring UCD1-25, then you have nothing bracketing your chloroform plume.

Joe Niland asks maybe remove UCD1-20 from the monitoring program.

Brian Oatman says let's combine a couple into one purpose.

Kathy Setian says there is no chloroform in UCD1-20. Monitoring UCD1-25 is more important than monitoring UCD1-20.

Duncan Austin says maybe ease off UCD1-20.

Joe Niland reviews developed program thus far: UCD1-10, UCD1-11, UCD1-12, UCD1-13, UCD1-18, UCD1-25, and UCD1-28. *Can everyone live with these alone?*

Mark Filippini says UCD1-20 is less critical that UCD1-28. UCD1-28 reports higher chromium.

Joe Niland says the proposed parameters for UCD1-10 are VOCs, nitrate, and TDS, sampled annually.

Susan Timm says o.k.

Kathy Setian says that's it?

Joe Niland says the proposed parameters for UCD1-11, which is near Landfill Unit #1, are VOCs, nitrate, TDS, chromium, tritium, and carbon-14 sampled annually.

Christine Judal says tritium detections in UCD1-11 are rare.

Joe Niland says the proposed parameters for UCD1-12, UCD1-13, and UCD1-18 are all six of the primary constituents [VOCs, nitrate, TDS, chromium, tritium, and carbon-14] sampled annually.

Joe Niland asks if they want to monitor TDS at UCD1-25 or UCD1-28.

Susan Timm says she doesn't care about TDS in UCD1-25. Monitor UCD1-28.

Joe Niland says the proposed parameters for UCD1-25 are VOCs monitored annually. The proposed parameters for UCD1-28 are all six primary constituents because the WDRs apply.

HSU-2:
Don Walker says that the HSU-2 monitoring network was developed to respond to the WDRs. Issues include a proposed new HSU-2 monitoring well downgradient of Landfill Unit #3.

Brian Oatman reports that the timing is important because we need to get in and install the well before the field is developed. UC Davis is developing the field as pastures.

Duncan Austin says that he is concerned about constituents moving at an angle, and may pass by a well that sits right at the source boundary, based on his experience in the Bay area.

Joe Niland says that our data indicates differently. The Hydropunch™ data refutes that.

Duncan Austin says that he doesn't have much confidence in the Hydropunch™ data. Constituents move more laterally than vertically, by an order of magnitude.

Joe Niland responds that hasn't happened at our site.

Kathy Setian asks about more monitoring in HSU-1.

Mark Filippini agrees it makes sense.

Joe Niland says we already have an HSU-1 well downgradient of LFU #3 and that we don't see anything there. How about if we move the well location further east, which is further downgradient of LFU #3. That would take care of Duncan Austin's concern.

Brian Oatman says logistics support the locations of these wells.

Dr. Lee says that he knows there were solvents dumped along the southern edge of LFU #3.

Joe Niland says we haven't seen any indication of that.

Duncan Austin selects a location on the well map for the new well, which is further east and further downgradient of LFU #3.

Brian Oatman reports that the location selected is between two pastures.

Don Walker discusses the proposed frequency of monitoring. Monitoring of some wells is increasing, while monitoring of other wells is decreasing.

Joe Niland says that nothing seems to be escaping from LFU #3.

Duncan Austin reports that seeing tritium in the capture zone scares him. He is concerned about data gaps and TDS in the future.

Kathy Setian asks about an in-situ barrier around the tritium, like a slurry wall keyed into HSU-3.

Joe Niland says that isn't possible because HSU-3 extends from 115 to 250 feet bgs.

Kathy Setian asks about isolation.

Joe Niland responds that hydraulic control makes more sense.

Don Walker responds that pumping is needed to create hydraulic control. Even when slurry walls are installed, the water will eventually go around the wall unless pumping is used to control the water.

Duncan Austin says that we need more wells in HSU-2 to the north and south. We need to fine-tune the IRA capture zone.

Joe Niland reports that the WDRs require many of our wells, as well as the quarterly monitoring program.

Susan Timm says that we're seeing TDS and nitrate in the treatment system samples. We can switch from monthly sampling to quarterly sampling for all wells except for wells close to the injection well. Wells that should continue to be sampled monthly include UCD2-37 and UCD2-38.

Brian Oatman reports that the wells previously required to be sampled monthly by the WDRs include: UCD1-28, UCD2-29, UCD2-30, UCD2-31, UCD2-35, UCD2-36, UCD2-37, UCD2-38, UCD2-39, and UCD2-40.

Susan Timm says that she wants UCD2-37 and UCD2-38 to continue to be sampled monthly. The rest can be sampled quarterly.

Brian Oatman asks about elimination of the Westbay Well (UCD1/2-27) from the sampling program. The well has served its purpose.

Don Walker says that chloroform is the focus of the neighbors' wells sampling.

Duncan Austin says that the neighbors are entitled to have their wells monitored if they want. The neighbors who don't care, can be dropped from the sampling program.

Duncan Austin agreed on the proposed location of the new HSU-2 monitoring well, further east and downgradient of LFU #3.

Don Walker passes out a figure which shows the Chloroform Results for the Neighbor's Wells sampling program.

Dr. Lee reports that PNL showed chloroform going out a mile. He'd like the off-site extent of the chloroform plume to be determined.

Don Walker says we think the distribution of chloroform in HSU-4 is localized and happened seasonally for 20 years as a result of irrigation wells acting as a conduit. A well installed along the road where 22P2 is located would confirm that impacts to HSU-4 were localized.

Joe Niland proposes the installation of another HSU-2 monitoring well and an HSU-4 monitoring well off-site.

Kathy Setian says that the mercury detections are more likely evidence of a release than of background.

HSU-4:

Joe Niland reports that PCBs and SVOCs are reported in groundwater and should be dropped from the sampling program.

Duncan Austin responds that one reason for continued sampling of all analytes is to make sure you don't have a bad well (meaning a well that yields non-representative sample results).

Kim Sellards reports that 10 years of monitoring reveals only 22 out of 6,834 detections (or 0.3%) for PCBs and pesticides in 12 HSU-1 wells and no trends are evident. That number (22) includes all detections, even those below the laboratory reporting limit.

Dr. Lee says about nitrate in neighbor's wells, something is going on at LEHR that isn't going on around LEHR. Dr. Lee distributes handouts of nitrate results. This handout will be provided at a future RPM meeting.

Conclusions

Joe Niland says that work plans for the upcoming well installation (UCD2-45, UCD2-46, and UCD4-47) are in order. Additionally, an addendum to the AWMR will be completed.

Duncan says that we still need to discuss the Annual IRA System Report – specifically, nitrate and TDS.